EXTENSION SERVICE
REVIEW

NYLE BRADY
DIRECTOR OF
RESEARCH AND
EDUCATION

SECRETARY OF AGRICULTURE Orville L. Freeman recently appointed Dr. Nyle C. Brady, head of Cornell University's Department of Agronomy, as Director of Science and Education for the U.S. Department of Agriculture.

Dr. Brady, who is president of the Soil Science Society of America, will have responsibility for coordinating the Department's scientific research and education activities, and its relationships with institutions in similar work outside USDA. The Department's Agricultural Research Service, Federal Extension Service, the National Agricultural Library, and Cooperative State Research Service will report to him.

"Research and education, conducted by the Department and in cooperation with the Land Grant colleges and universities, have for years made major contributions to agriculture and to all Americans," Secretary Freeman said. "In these times of rapid changes, the need is even greater for scientific advancement in all phases of agriculture and for full use

(*Continued on back cover*)

SELF-DIRECTED STUDY ISSUE

Announcements of fellowships, scholarships and regional summer schools.

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The Extension Service Review is for Extension educators—in County, State, and Federal Extension agencies—who work directly or indirectly to help people learn how to use the newest findings in agriculture and home economics research to bring about a more abundant life for themselves and their communities.

The Review offers the Extension worker, in his role of educational leader, professional guideposts, new routes, and tools for speedier, more successful endeavor. Through this exchange of methods, tried and found successful by Extension agents, the Review serves as a source of ideas and useful information on how to reach people and thus help them utilize more fully their own resources, to farm more efficiently, and to make the home and community a better place to live.

ORVILLE L. FREEMAN
Secretary of Agriculture

LLOYD H. DAVIS, *Administrator*
Federal Extension Service

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EXTENSION SERVICE
REVIEW

Official monthly publication of Cooperative Extension Service: U. S. Department of Agriculture and State Land-Grant Colleges and Universities cooperating.

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EDITORIAL

During the last century there lived in a Connecticut town a blacksmith by the name of Elihu Burritt.

He was a good worker. And a good citizen.

Besides that he had a title. He didn't up and decide to give it to himself. And he didn't inherit it. The people gave it to him. They named him "the learned blacksmith." Here's why as told in the *Yearbook of Agriculture,* 1940:

"Burritt as a young man became an accomplished linguist and student of letters while working as a blacksmith in a Connecticut town. With a book propped beside the anvil and studying long hours by candlelight after the working day was ended, he learned all of the western European languages, delved into their literature, and in the end even wrote a Sanskrit grammar—the first to be written in this country. He exalted manual labor and gave impressive lectures on the subject of its dignity. He insisted that he practiced such intellectual cultivation not as a means of rising above his station but rather to ennoble it, and that such intellectual activity was no more than befitting a working man's status. On these grounds he refused an offer of formal education at Harvard. He engaged in correspondence on a high intellectual plane with many leaders in American thought. In the 1840's his interests began to expand into social and humanitarian affairs."—WAL

An Open Letter to County Agents

UNITED STATES DEPARTMENT OF AGRICULTURE
FEDERAL EXTENSION SERVICE
WASHINGTON 25, D.C.

Cooperating with Land Grant Colleges and Universities

Dear Sir:

In the words of the Smith-Lever Act, the purpose of the Cooperative Extension Service is "To aid in the dissemination of information...and to encourage the application of same."

To do this the county agent must keep informed of all current information and developments in agriculture. How should this best be done? Is it enough to attend district meetings and an occasional 3-week Extension summer school? What opportunities are available for county workers to learn to more adequately fulfill the roles expected of them?

A world famous political scientist and business management consultant has suggested that one take "a conscious attitude toward experience." To do this the agent should help people of the county relate the experience of the consumers to the experience of the producers to see what they mean all together. He would learn his place in the county--his relation to all the parts. Required would be a sharpening of his skills of observation and listening. The worker would observe more closely the community problems and the stresses of social adjustment among farm, rural-nonfarm and urban population.

Perhaps, too, the agent needs to listen a good deal more to new voices in the county. With the help of an enlarged agricultural planning committee and the State staff, he might work out a survey questionnaire. A planned series of interviews with business leaders, key people who feel their citizenship responsibility and are sensitive to county-wide problems, might be an opening wedge to communications with other segments of the county's population. Invaluable to the education of State and Federal co-workers is the contribution of a county agent who knows local conditions and people intimately.

Another important method is to tap the experiences of others. Included must be reading--other than the local paper, and periodicals, valuable as they are. Entering into a reading program for self-education is a slow and lonely process. But if several staff members would join in such a program, they could talk over the things they read and thus heighten interest in them.

The agent would first learn to scan, pick out the major thoughts rather than laboriously cover every line and bog down in details. He would have to learn to read actively--for ideas--and then talk over these ideas with someone and to evaluate their implications for Extension. The National Adult Education Association (1201 16th Street, N. W. Washington 6, D. C.) has published a practical handbook for adult students, How Adults Can Learn More Faster. This booklet can be quite helpful to agents who are interested in improving themselves professionally.

A newsletter from a State leader of training had this quotation from Galileo: "You cannot teach a man anything; you can only help him to find it within himself."

A worthwhile pursuit for the county agent would be a dedication to that endeavor--"to live to the point" of finding within himself direction for the new era in Extension work.

Sincerely yours,

Mary L. Collings

Mary Louise Collings
Extension Research and Training
Federal Extension Service

Educational Opportunities on Television

by HELEN G. EASTER, *Home Demonstration Agent, Suffolk County, New York*

WHILE nothing can take the place of college classroom discussion and exchange between student and professor, I have found that there are wonderful educational opportunities at the flick of a TV button.

I discovered "Sunrise Semester," a 6 a.m. to 7 a.m. double half hour program of New York University in 1957, almost at its inception, and I have been getting up at 6 a.m. ever since. Eyes light with interest when I describe the courses, but eyebrows go up and there is an eloquent shrug of shoulders when the hour is mentioned.

I was a late riser too, before "Sunrise Semester," but my change of habit came about quite naturally, proof of the verity of an old saying "You do the thing you want to do." A young teacher, my partner in the Home Economics department of a Junior High, taught me this when we were just out of college. Whenever she made a regretful negative choice she would invariably quote the above and add "I must want to do something else more or I would make the effort to do this."

These TV programs tied to a University are an answer to home economists or agriculturists who wish that the balance between the required courses in their chosen field and the broad liberal arts courses might have been more equal. They are equally well suited to those in Extension who find it impossible to get good liberal arts courses nearby.

My "Sunrise Semester" courses are regular 3-hour courses from New York University, designated in the official University catalog by such listings as: English Wr, 0924; History W57,0036; or Economics W3,0551. You may register for degree credit, pay the tuition, write the term papers, and take the examinations. (This year there were several "Sunrise Semester" graduates.) You may register for informal participation and self-evaluation, pay a $5 fee, receive a study guide, and take a final examination at home which will be graded and returned. Or, you can just read and listen and hold imaginary discussions with the finest University professors in the country as I do. I never quite get over the wonder of having these remarkable men and women facing me in my own living room, gesturing, writing on the board, assigning reading, and glancing at me to see my reaction to some of their quips and theories. New York University offers only its best to the television audience.

In the 6 years my courses have been varied, interesting and informative: *The Tragic Dramas of Greece and Rome, Our Literary Heritage, Legacy of Greece and Rome, Literature of Modern Ireland, Modern Literature (British and American), History of Western Civilization, History of Modern Russia, History of Science, Changing Institutions in Contemporary Africa, Ethics, History of Art, Labor Problems, Mediterranean Archaeology, Landmarks in the Evolution of the Novel,* and *Shakespeare's Major Tragedies.* Add to this three courses on the Bible, one on Modern Mathematics (as it is taught in grade school today), and several other courses that have been used by the TV station to fill in between semesters.

Occasionally I switch to the "College of the Air." One of the more remarkable nationwide courses I viewed last year was the 32-week course called *The American Economy.* It could also be taken for University credit with certain arrangements.

This course was the result of the study by the National Task Force of Economics Education appointed in 1960 by the American Economics Association and the Joint Council on Economic Education. It had two direct aims, to help today's citizens understand the economic world in which they are participants, and to help tomorrow's citizens by furthering the economics education of their teachers. This was done not only in dramatic presentations by skilled economics professors and by superb teaching devices that anyone in Extension would envy, but by calling on important men in University economics, industry, labor relations, labor unions, government, and educational foundations, for interviews and discussions.

All of my courses have been excursions out of my professional home economics reading world. "Sunrise Semester" has done for me what the Chautauqua Reading Circles of the early 1900's did for my mother and grandmother. It has given new dimensions to my everyday individual reading and choice of reading, it has sharpened my thinking and understanding, and it has satisfied to a great extent a longing for a liberal arts degree.

While "Sunrise Semester" is a metropolitan New York program available only in its suburbs and nearby counties, there are many similar programs out of big cities for those in other areas.

As for the time, what other hour in the day is so truly your own to do with exactly as you choose. And, you do the thing you want to do! ■

KEEP UP TO DATE

Agents learn how to transplant tomatoes through plastic soil mulches. Doing the job themselves speeds up learning.

by **NORMAN J. SMITH**
Associate Agricultural Agent
Nassau County, New York

■ Keeping up to date in today's fast-moving, tense, open-ended society is a problem for every educator. The county agent, identified as a leader and technically qualified educator, knows that keeping ahead is an asset to himself and his county. To do an effective teaching job it is not enough to keep up to date with the clientele. Today's progressive agents keep *ahead of date* of their clientele and *up to date* with their subject-matter specialists whoever and wherever they may be.

This article is a brief description of how I attempt to keep running in the technological race. There certainly are other agents who live in these pressurized fast-changing situations where values and methods are neither historical nor definite. Each agent has to decide upon a keeping up-to-date system that will meet his own particular program needs and goals. In order to relate my program with the county situation, I take liberty in presenting a brief background of Nassau County.

Nassau never was completely rural since Extension work started in 1914. Several hundred large estates were built on the North Shore of Nassau in the early 1900's by the elite rich. Lawns and flowers were enjoyed 50 years before we had what modern sociologists called a middle-class society. Problems of chinch bugs on lawns were studied by a graduate student fellow in 1932, supported by the estate owners.

Before World War II, Nassau farmers produced vegetables on 25,000 acres of the county's best land. Since this time the acreage has dropped to 2,500 as 160,000 new homes were built on this well drained, adjacent to New York City, soil. Today, 11 percent of the county is pavement and 65,000 acres of it is turfgrass, which has a replacement value of ½ billion dollars. Homeowners spend about $5 million a year for various agricultural chemicals and supplies to protect their investment in turf and shrubs. In the suburban row housing development, the front lawn is a naked chunk of the owner's character which is on display every day of the year. Aside from the lawn pest threat to this lawn, an even worse threat is the neighbor who may come up with a better lawn.

This is what drives the new middle-class homeowner to seek information wherever he can get it and the county agent is a real find. It is commonplace for many residents to spend $1,000 a year to hire the proper people to keep their lawn manicured.

Nasasu's varied commercial and noncommercial agricultural enterprizes include nursery, flowers, vegetables, fruit, and turf. To meet the agricultural training needs of the residents, the Extension Service employs 6 agents who each specialize in a subject-matter area which may be both commercial and noncommercial, depending on who has the problem. With this background information, the remainder of this article will describe how I keep up to date in one area of responsibility—turf work.

Seeking out new or old information which will arm me with truth is one of my primary objectives. These truths, based on science and experience, are used to help the various turf interests meet their personal goals. To meet these objectives, I constantly strive to keep in tune with the problems and practices in use. I try to find out who has the facts and what research is being done.

To be aware of current turf problems I have had the opportunity to meet and talk to office callers for the past 9 years. This is the most effective sounding board since all conceivable turf problems are brought in or described over the telephone. At the beginning I would try to listen intelligently, but I am sure I was of very little help because my training was in vegetables and dairy. The grass I was familiar with was used for livestock feed and not for visual consumption by suburbanites.

My first resource persons were James McFaul and Robert O'Knefski, fellow agents who had some turf experience. With their help I learned the fundamentals and acquired an interest in turf problems. Before Jim and Bob were hired by industry they established the turf research and demonstration plots in cooperation with Dr. John Cornman of Cornell University at the Nassau County Park. Today, these 4 acres are our outside turf classroom. Both Bob and former Assistant Agent George Runge, now employed by O. M. Scott and Sons, are used as resource persons.

Dr. John Cornman, our Cornell turf specialist, visits our local plots frequently and each visit is a valuable

experience as the current research is reviewed and evaluated.

To keep in tune with private industry research, I have developed a working list of over 50 people who represent industry as owners, managers, research and development, sales, technical service, and promotion. Many of these people are former college specialists, entomologists, pathologists, agronomists, and agents who travel extensively and hold a wealth of knowledge about turf. To keep up with University research, I keep in touch with specialists and their work personally or through their literature.

Turf field days and meetings have been attended at New York, New Jersey, Pennsylvania, Ohio, and the USDA. At each one of these sessions something is presented that will answer some turf problem present in Nassau County. This relationship enables me to become familiar with problems and current research results. It also gives me an opportunity to present problems which are peculiar to Nassau County.

Dr. Houston Couch, Pennsylvania State University, the Nation's leader on turf disease research, has been of invaluable assistance to our turfgrass program. Grass diseases were introduced to our Southeast New York agents 4 years ago when our State Leader, John Swan, arranged for Dr. Couch to meet with us. As a result of this training experience our disease problems became real as we were awakened to their presence and importance. Until very recently, most of the lawn bulletins and mass media printings completely overlooked turf diseases as a part of turf culture. In our own area now sod growers and related industry turf interests are in the process of raising funds to support a turf disease fellowship which will be directed by Dr. Martin Harrison, a Cornell Nematologist and Pathologist stationed on Long Island.

Lawn weed control, another area of turf maintenance, is changing rapidly. To keep updated in this area, I regularly attend the Northeastern Weed Control Conference in New York City and the summer field meetings at Cornell. As a member of the Weed Society of America, I receive literature that is a helpful source of current research findings.

This keeping up-to-date article would not be complete without some mention of the formal type of in-service training. In 1958 and 1959 I took the opportunity to obtain the MS degree from Michigan State University as part of our New York State sabbatic leave program for agent professional improvement. Enrolled in the Department of Extension Personnel Development, under Dr. John Stone, I was able to select numerous courses which broadened my educational experiences. Among these were public administration, weed control, insecticides, ornamental identification, farm policy, audio-visual aids, commercial vegetable production, and group discussion. As a minor thesis problem I had the opportunity to survey Extension activities with nonfarm people in over 100 counties in the United States. (Copies of this report are available for the asking.)

My immediate supervisor, Howard H. Campbell, encourages all of our agents to keep updated to be of most service to Nassau residents. His accomplishments and knowledge of the county situation have been invaluable in enabling me to broaden my experiences. At the same time the county program has moved ahead where the abundant new supply of knowledge is used to help our residents avoid waste and duplication of effort.

Keeping up to date is not easy, but the county agent's work is easier if he is up to date. ■

SPEAK UP!

by WILLIAM F. JOHNSTONE

Extension Marketing Specialist
Pennsylvania

- Have you ever had to sit through the torture chamber of a dull and tedious talk?
- Have you ever observed an associate hack a good idea over the anvil of poor presentation?
- Have you been through the pangs of giving a speech that you could actually see missing the target?

All of this happened 10 years ago at The Pennsylvania State Univerity. Several Extension specialists lamented that meager speaking ability limited their teaching effec-

tiveness. A frank evaluation of performances, by even the casual observer, showed the usual faults in speech construction and delivery. There were all the common faults: humdrum delivery, ceiling-gazing, uh-breaks, and podium-hanging. Many of these were constantly repeated—practicing mistakes to become habits that detract from getting important points across to an audience.

Informal, self-directed study seemed a natural here. At least that's what was decided by a few specialists: Tom King, animal husbandry; Joe Cardenuto, recreation; and Kermit Birth, poultry marketing. It didn't take much conversation to realize others were in the same boat—a feeling for real need to improve speaking skills. Joined by staff members from the College of Engineering, they formed a local club of Toastmasters International.

Toastmasters Club 1219 has just completed its 10th Anniversary celebration. Among the alumni and oldtimers present was a liberal scattering of Extension specialists. And Extension workers are still prominent in Club 1219. They all agree that Toastmasters offers a good avenue for do-it-yourself speech practice and proficiency. And it still offers all the fun, fellowship, and opportunity for community service as the typical, vigorous community clubs.

Toastmasters is an international organization of men dedicated to improving communications through speech. There are 3,100 clubs in the United States. This nonprofit, noncommercial group has developed a standard procedure which involves systematic practice and evaluation by training. Meeting weekly (or every 2 weeks in some clubs) the group provides a realistic laboratory for developing your own personal techniques to appear effectively before any audience. Members are supplied with a variety of instructional materials to help them to progress toward the goal of better speech.

A meeting of State College Toastmasters is quite a show in its own right. It is limited to 30 members, so that each can have frequent opportunity to speak, preside, and evaluate.

And, of course, in the example of Club 1219, State College, members hear their share of farm and home topics that coincide with professional Extension activities. Several Extension staff members have represented their Club in regional and district speech contests, a part of an active Toastmasters program.

In the day-to-day Extension efforts Toastmasters has made its influence felt too. Members and past members eagerly participate in mutual constructive criticism where their paths cross in Extension affairs.

The art of friendly, valuable criticism is more difficult to cultivate than that of speaking itself. But to master it sharpens the speaker to be aware of his own performance as it is viewed and heard by his audience. Toastmasters Club says "Neither praise nor blame is the object of true criticism but justly to discriminate, firmly to establish, wisely to prescribe and honestly to care—these are the true aims and duties of criticism."

Just as "beauty lies in the eyes of the beholder" the good speech often lies in the ears of the hearer. For this reason members of Toastmasters do not depend on a professional speech teacher for continuous evaluation of speakers. From time to time, however, guest critics are invited to participate in evaluation. Sometimes they demonstrate techniques. There is no effort to provide a "formula" for a good speech. Toastmasters do not claim to be the ultimate in speaking ability but follow the concept that every man speaks his own mind and every man who speaks learns from every other speaker. The newest member may give helpful suggestions to an experienced speaker, and vice versa.

Most Extension workers live largely by their ability to communicate effectively. The experience of Toastmasters keeps each member from "practicing his mistakes," and directs him towards their correction.

During the past 10 years, local businessmen and other University staff members have joined the group so that it no longer has the distinct "Ag Hill" flavor of its founders. Extension specialists are still there, some in key positions. "The variety of vocations adds to interest and enthusiasm" says Howard Bonser, rural sociologist, who is currently an active Toastmaster.

The effects of Club 1219 started by Extension specialists at Penn State 10 years ago have moved far beyond the University community. For example, Bedford County Agent John Holbert, liked the idea during a visit which occurred at a professional conference several years ago. He and Rod Keniston, associate agent initiated a Toastmasters Club in Bedford.

The idea also appealed to Bedford County's Home Economist Laura Leitzel to the extent that a Toastmistress Club was started. Toastmasters is exclusively a men's club but there is nothing to prevent the distaff side from using the same techniques for speech development in the basics of speech communications. Then Guy Temple, rural area development agent, initiated a program for training farm leaders as well as himself in its basic speech skills.

A couple hours every week or so is not too much time to spend in self-directed speech study. A local Toastmasters Club can often be the basis for a systematic approach to this study. This is evidenced by testimony from the specialists who have been members of Club 1219, State College, Pennsylvania. Mike Lynch, now assistant to the director in charge of training says: "Toastmasters Clubs provide a unique and effective medium of speech training. It is a learn-by-doing situation in which the busy Extension worker can proceed at his own pace to become more effective in public presentations. The development of self-confidence naturally follows."

Toastmasters will not make you a Winston Churchill or a modern Dan Webster. But by diligent attention and careful study you will notice improvement in your technique. The Toastmaster doesn't anticipate that every speech will be smooth, suave, and sophisticated. Starting at your own level of attainment in public speaking, Toastmasters will bring you up a notch or two in speech skills. ■

Plan That Sabbatical

by HELEN L. CHURCH, *Extension Clothing Specialist, Arizona*

All-cotton stretch socks made by slack mercerization before and after treatment. The white sock is knitted loosely so the individual fibers will be able to twist and contort to impart stretch. The dark sock was treated and dyed.

Dr. C. H. Fisher of the Southern Regional Laboratory and Maid of Cotton Shelby Smith are shown here with a piece of the all-cotton stretch fabric.

EARLY in 1961 I was granted a 6-month sabbatical leave by the University of Arizona. This leave was granted on the basis of professional improvement for the specialist without working on an advanced degree.

For the first time in my life I felt free to do my own planning, to take some work I had always wanted, and to plan for some things that could be put to use when I returned to my job as Clothing Specialist for Arizona.

My time had to be planned and submitted to a University Committee. This made me outline and plan ahead. With two objectives in mind, I set out to plan activities that would help me to attain them.

1. I wanted to learn more concerning modern methods of clothing construction.

2. In order that I might better serve the Arizona consumers, I wanted to learn more about the cotton textile industry—from raw materials through manufacturing and retailing to the consumer.

New York University would give me this opportunity. I enrolled in the School of Retailing, taking courses that would help me to better understand the retailers' problems, the clothing markets, and yes, to even meet these "said consumers" behind a counter; to hear their wants; to learn their habits of buying; and to know their responsibilities in the market.

The influence that the consumer has had in changing the pattern of marketing was made most vivid. I am sure that I attained much more than my able professor ever planned for in the course.

Also included in this schooling was a course in buying of men's wear. Most of the students were young men who were learning about textiles for the first time, since they would become buyers in the men's wear departments. I became aware that men have been sadly neglected in the knowledge of textiles that they buy and wear.

I enrolled in another subject in the school of home economics which was a visual education course. Here again, I received practical benefits.

Another course that may seem far removed from home economics was a tours course—planned and executed to give students an understanding and appreciation of New York industries and organizations affecting home economics. If left on your own in New York City, many of the places would never have been visited and certainly not with the attention we received. Sirovich Day Center, Eastman Chemical Products, Good Housekeeping, J. C. Penney Laboratory, Fairchild Publications, and the Borden Company are a few I visited.

To gain information in clothing construction, I enrolled in a night class at the Fashion Institute of Technology, taking a course in tailoring. This, too, was a different experience. Students here were employed in the fashion industry. There were also many foreign students with various backgrounds. This gave me experience and techniques used by industry in designing and tailoring garments.

The highlight of my work in New York was the opportunity to attend the 1-week meeting of the National Retailers Association. The class in Retailing of NYU were guests of the Association. Outstanding people in retailing were on this program.

After finishing my semester in New York, I journeyed through the South where I attained my last objective—to visit textile mills and laboratories where I could learn firsthand some of the things that are being done to improve cotton fiber.

A representative of the National Cotton Council gave me a list of mills I might write to for information. Contacts were made and dates were set for my visits before I left Arizona. This I found to be extremely important as most of these industries have many visitors daily. Directors and managers are busy people and need to know that you are coming. Otherwise you are only one of the many

curious visitors that will be met at the Visitor's Door and taken through an impressive building by a capable guide, who has learned her story well but can answer few of the specific questions you want to ask. If you have a definite purpose and have made a contact, you will get much more from your visit.

I picked Dan River Mill as my first stop and spent a full half-day there. They were looking for me, knew what I wanted to see, and why I had come. I saw in this mill—one of our important cotton mills—some revolutionary things. I saw the shuttleless looms making fabric. The decrease in time was tremendous but the fabric produced does not have a selvage. This decreases cost of fabric but is not acceptable to garment industries.

Leaving off a selvage would create a revolution in the whole garment manufacturing industry. Even though it could be produced less expensively, ready-to-wear would not purchase it because it would mean *change* in their procedures of cutting and manufacturing. This is the reason that many good things are lost due to the fact that too many changes have to be affected.

Dan River has been manufacturing sheets and pillowcases. All of this material is made on their shuttleless looms and goes into pillowcases that require seams which do not need the selvage edge.

Also here was seen a new color-matching machine more accurate than the human eye—all done electronically and quickly. Buyers who learn of new fashion colors come to manufacturers with a fabric color that will be high fashion. It must be made quickly and put on the market when the fashionable color is wanted by the consumer. Fashion in color changes rapidly: this machine will save hours of laboratory testing and experimentation that has previously been done by people. If done by man, it is often a week or even a 2-week job to produce the needed color. This machine, however, will not eliminate man. It still calls for trained men to operate it and interpret it.

Here I saw Arizona bales of cotton as they went through the processes of spinning, weaving, and finishing to the finished yardage. As I purchased some cottons for myself, I listened to a woman who had picked up a fine piece of Supima cotton say, "What is this stuff doing here, it isn't cotton? It must be part silk—look at the sheen!"

The next stop was at Deering Milliken Research Corporation Laboratory in Spartanburg, South Carolina. It was a beautiful building and a most complete laboratory. Here we find industrial research being done to promote Deering Mills products. Patented processes of finishes and weaves for fabrics are developed in these laboratories for their high standard brand-name fabrics.

Here I learned that research must be practical. It must not only improve the product but also contribute to increased sales and profit. Here they take advantage of much of the pure research done by educational institutions or independent research societies and adapt that research to their needs.

The next stop where I received valuable information was the week spent at New Orleans at the USDA Agricultural Research Service Southern Utilization Research and Development Division. Here they have done pure research to further better utilization of cotton fiber as well as other agricultural products.

Wilson A. Reeves, Chief of the Cotton Finishes Laboratory, had planned my time so that I had an opportunity to visit all of the divisions of the laboratory. Here again, they knew my reason for coming and with the assistance of E. L. Patton, Assistant Director, and many others, I had a most worthwhile week. This was very different than the experience with industrial firms where I saw only the *results* of research.

The highly competitive marketing of fiber, as well as consumer demand for qualities necessary for easy-care fiber, has made the cotton industry aware of their need for good cotton finishes in order that they might survive. I had the opportunity to talk with chemists and physicists who are doing much for industry through their efforts to improve upon cotton's weak points. They have made many discoveries that mills have taken and used. Others are rejected. The public image of cotton is that it is an economical fiber. Industry knows that the public will not stand for too high a price for cotton fabric.

The present fashion in fiber, or change in fiber characteristic, is the stretch fiber. The synthetics have mastered it and likewise the cotton finishers have patented processes. The slack mercerization method has been accepted by industries because it can help to utilize cotton woven of medium quality and weave.

At this time, the Maid of Cotton was visiting the laboratory and a fashion show of garments made from stretch cotton were shown. Since this time, we find them on our market.

The laboratory has been called upon to go into mills to help them set up to produce this fabric. Some of it is now on the market in different forms, such as backing for fabrics in auto industry and upholstering. It has an extensive use as woven fabric for sportswear, children's clothing, and clothing for the handicapped.

Then there was the APO treatment for cottons for permanent crease and fire resistance that were most impressive . . . a treatment given that does not change the hand of the fabric, and is permanent. These we have seen used by some mills under their trade names. The slight increase in cost of this finish deters its acceptance by the consumer, although it is an effective finish. Secretaries working at the laboratory were wearing dresses made from cottons with this finish. They had been worn, washed, and never pressed for 3 months. They were good looking, lightweight winter cottons with unpressed pleats. The girls appeared well-groomed in the dresses: they certainly gave the proof of the finish.

The 6 months were all too short, and if I had it to do over again, it would have been on a year's basis.

To anyone planning for professional leave or study, a well-developed plan is essential. Well-defined practical objectives are important. Some of the activities planned may not always be what you expected, but if you know what you are looking for and are able to make interpretations in relation to yourself and your own job, you can surely benefit from the experiences. ■

Have A Study Target

by MARY RUTH HUNT
Home Demonstration Agent
Washington County, Virginia

STUDY DOES NOT STOP with formal schooling. Extension workers know they must continue learning in order to adequately answer daily questions of farmers and homemakers. Much of this type of information comes from reading professional magazines and Extension publications.

Study planned for a definite purpose or in the direction of a special interest has been most rewarding for me. An intensive study of Washington County, Virginia, its history, economic and social conditions, trends, and Extension program emphasis, has helped me to work more effectively with groups on program planning. These data were gathered from the census, questionnaires, surveys, and research conducted in the county. Presentation of such data about the county has helped identify problems, and to plan programs based on local needs. Data on the county situation were used in planning the County Longtime Extension Program.

General Reading Plan

While not an avid reader, I average reading a little better than a book per week. My general reading for many years has been about as follows: I like to read three books at a time, mostly nonfiction—something light for fun and relaxation, one that is inspirational, and the third that requires concentration. History, international affairs, biographies, autobiographies, and home economics subject-matter books come in the third category. Writing brief notes on books read has proven good practice for me.

Reading is a means of improving vocabulary. Rarely do I read a book without learning a few new words. The meaning of the word is often obvious, though the diction-

Local Needs Determine Extension Emphasis

by WILLIAM Q. WICK
Agricultural Agent (Wildlife)
Tillamook County, Oregon

MOLES, OYSTERS, AND WILD MUSHROOMS are elements of an exciting special-needs Extension program in Tillamook County, Oregon. It started with moles and found the Extension agent following his own course of study in an effort to come up with the right answers to a lot of specialized questions.

Moles are merely an occasional bother or biological rarity in most of the Nation, but agricultural uses and the climate of the Oregon coast make this burrowing "mobile weed" an unacceptable pest. Throughout the years, all types of control were intermittently applied, but nothing seemed to help.

Increased scientific pasture management in this dairy county made the situation worse. Earthworms (primary mole food) multiplied in the fertilized fields: so did the moles. Damage to flail-type harvesters and the resulting muddy silage provided the final impetus for a control program.

A request for help, made through the Tillamook County Agricultural Planning Council, started the Extension mole control program in May 1960, and I was appointed a wildlife specialist Extension agent. An eight-man advisory group from agriculture, business, and sporting groups planned a steady, long-range approach.

First-year results from applied research showed moles could be subdued with patient, persistent control techniques and neighborhood cooperation. However, basic life history data, a must for a successful program, were unavailable.

I began the initial life history work and the committee petitioned the Oregon State University Agricultural Experiment Station for research aid which was granted. A field study on breeding dynamics, food habits, movement, longevity, and other vital materials was begun with the farm community assisting in searching for mole nests and helping in population studies. Research is still underway, providing useful results each year.

We found also that the mole menace was a sociological problem first and a technical matter second. Moles were of concern not only to farmers, but also to homeowners and gardeners. A community approach to control was the practical answer, but the question was how this could be turned into long-range action.

A partial answer was provided by 4-H. A mole fighter project was designed with 50 youngsters participating the first year. The project included the life history of moles and the community aspects of control.

Population dynamics (applied wildlife management) offered another solution. A mole harvest of 50 percent a year only serves to keep the population healthy. We taught that "the last mole on your farm is the only one that counts." This was a new pill to swallow—the source of numerous fireside arguments—until demonstrations proved the point.

ary is used for pronunciation. The Norman Lewis books on vocabulary have been helpful, too. Book reviews in a good weekly magazine are included in my reading.

This general reading activity enables me to work with the county librarian on selection of books and with the county home demonstration reading committee on a supplementary book list which is used between publications of *Good Reading for Virginia Federation of Home Demonstration Clubs,* a suggested list of books to be read by members to earn a reading certificate.

Special Interest

Interior design is a field of special interest to which I have devoted a great deal of time. Perusing all books and good periodicals on interior decorating and house furnishings was a part of this study. I also clipped and filed articles and pictures from the better magazines.

The European Study Tour on Housing and House Furnishings, offered by The Florida State University, Tallahassee, in 1959, gave me the opportunity for further study in this field. It was a graduate credit course which included travel in Sweden, Denmark, Norway, England, and Scotland. Visits were made to stately old homes in England; furniture and housing museums; design centers; and the better furniture, house furnishings, and craft shops in each of the five countries visited.

A graduate paper was required in the course. My paper was, "Good Design Promotion in Sweden, Denmark, Norway, England, and Scotland." To get information for the paper, it was my privilege to interview managers of design centers, a staff member at each of two information centers, and designers. I bought a number of books and magazines to use as resource material for the paper.

There is an organized effort in these nations, I learned, to inform people of good design as one means of helping raise their standard of living.

On the return trip, I stayed in New York for 2 days to visit the Design Center.

The study tour and all the time I have spent on study of interior design have given me invaluable experience in helping with the many requests for assistance on planning interior decoration of homes in the county. ■

County Fair exhibits, viewed by 10,000 people in 3 years, featured live moles, slide talks, and "Mole Hunting Licenses" emphasizing mole control is everyone's responsibility. Television programs, newspaper and magazine articles, bulletins, demonstration area signs, and blue ribbon awards to outstanding cooperators all helped develop a "mole conscience."

The $100,000 annual damage figure of 3 years ago is now cut in half. Our people know how to control moles and why—because they are doing the work themselves.

While the mole work was progressing, an oysterman stopped me with the comment "Mud shrimp damage to oyster beds is ten times worse than the mole problem. Why don't you help us?"

A few days later I found what he meant. Mud shrimp, acting like "marine moles," soften the oyster beds allowing the shellfish in the infested ground to sink into the substrate where, unable to feed, they died. Shrimp populations had erupted since 1957, nearly crippling the Tillamook Bay industry which produces about 90 percent of Oregon's oysters.

The biology of the oyster is well known, but the affect of mud shrimp on these shellfish has received very little attention. Help in determining an answer to the shrimp situation from outside sources was hard to find.

Of necessity, I became an oyster biologist through the means of midnight oil, an international compilation of publications, colleagues at the University and elsewhere, and observations during many tides on the oyster flats. Through this study, several ideas evolved and were activated.

After shrimp control trials by an Extension-directed group showed promise, a shrimp-oyster technical task force was formed. This included oystermen, Extension, the OSU Agricultural Experiment Station, and fisheries and water resource agencies. Some answers have been found, but others require the best efforts of the technical group. We anticipate the oyster industry will soon be back on its feet with gross production double the present one-half million dollars a year in Tillamook Bay. ■

Shrimp-oyster technical task force seeks to find the answer to production problems. Shown here is the collection of shrimp using a shrimp pump. Extension, oystermen, and fish and water agencies join in the program.

Summer Schools Scholarships Fellowships

National 4-H Service Committee and Massey-Ferguson, Inc. Cooperating With The Federal Extension Service

Six National 4-H Fellowships of $3,000 each are available to young Extension workers who are former 4-H members. These are for 12 months of study in the USDA under the guidance of FES.

Two of these fellowship are provided by the National 4-H Service Committee, and four by Massey-Ferguson, Inc.

Fellows may study at a Washington, D. C. area institution of higher learning or may organize an out-of-school study program.

Fellowships are awarded to young men and women selected from nominations made by State Extension Directors or State 4-H Club leaders, to the Div. of Extension Research and Training, FES, USDA, Washington, D. C. 20250. Applications may be obtained from the State Director of Extension.

The applicant shall not have passed his 32nd birthday on June 1, 1964. Deadline for applications is March 1.

Prairie View A&M College
Prairie View, Texas
June 1-19

Agricultural Communications
(Dr. Joseph Bradford, FES)
4-H Club Organization and Procedures
(Instructor to be announced)
Health Problems: Safety and Civil Defense
(Dr. C. A. Wood, Texas)
Extension Teaching Methods
(Dr. Mary L. Collings, FES)

University of Wisconsin
Madison, Wisconsin
June 1-20

4-H Club Organization and Procedures
(Instructor to be announced)
Extension Methods in Public Affairs
(Instructor to be announced)
Psychology for Extension Workers
(Instructor to be announced)
Visual Aids for Extension Workers
(Instructor to be announced)
Development of Extension Programs
(Instructor to be announced)
Evaluation of Extension Work
(Instructor to be announced)
Rural Sociology for Extension Workers
(Instructor to be announced)
Supervision of Extension Programs
(Instructor to be announced)
Cooperative Extension Work in Urban Areas
(Instructor to be announced)

Colorado State University
Fort Collins, Colorado
June 15-July 3

Principles in the Development of Youth Programs
(Instructor to be announced)
Impact of Change on Home and Family Living
(Beatrice A. Judkins, FES)
Impact of Change on Agriculture
(E. W. Eldridge, Iowa)
Principles in the Development of Agricultural Policy
(T. R. Timm, Texas)
Public Relations in Extension Education
(W. L. Nunn, Minnesota)
Human Behavior in Extension Work
(Reagan V. Brown, Texas)
Organization and Development of Extension Programs
(Instructor to be announced)
Urban Extension Seminar
(William J. Kimball, Michigan)
Extension Communications
(M. E. White, Wisconsin)
Additional courses to be announced.

University of Chicago Extension Fellowships

Five fellowships for graduate study in university Extension work will be available for 1964-65 from the Dept. of Education of The University of Chicago.

The $5,000 fellowships were established by a grant from the Carnegie Corp. of New York to the Dept. of Education of the University. They are available to persons in the U. S. who are now employed and wish to develop their careers in general university Extension, the Cooperative Extension Service, or evening college activities.

The purpose of the fellowships is to help university Extension administrators meet the challenge of their work and improve their professional competence through graduate study.

Information and applications are available from Prof. Cyril O. Houle, Chm. Committee on University Extension Fellowships, Dept. of Education, The University of Chicago, 5835 S. Kimbark Ave., Chicago, Ill. 60637.

National Agricultural Extension Center For Advanced Study

Fellowships are awarded annually on a competitive basis to degree candidates or special students.

They are limited to Extension workers in administrative, supervisory, or training positions within the 50 States and Puerto Rico. Others may be considered if their administration strongly recommends them to be employed in the near future for administrative, supervisory, or Statewide training responsibilities. Extension administrators in developing countries may also be considered.

For students without other financial support, fellowships are $3,000 for the calendar year for one without dependents and $4,800 if there are three or more dependents. The individual and his institution are expected to contribute financially to the maximum of their resources. The amount of the fellowship will be prorated.

Applications for admission to the graduate training program in the Center, including applications for admission to the University of Wisconsin Graduate School for either the summer or fall semester of 1964 must be received by March 1.

The Center for Advanced Study is sponsored cooperatively by the Association of State Universities and Land-Grant Colleges, FES, the W. K. Kellogg Foundation, and the University of Wisconsin.

For information write to Dr. R. C. Clark, Dir., National Agricultural Extension Center for Advanced Study, University of Wis., Madison, Wis. 53706.

Fellowships, Scholarships, and Assistantships In Extension Education

Cornell University: The Dept. of Rural Sociology has available extension, research, and teaching assistantships paying from $2,678 to $3,090 annually plus full waiver of tuition (but not waiver of fees). Available only to graduate students majoring in Rural Sociology who are full candidates for a degree.

Contact Dr. Olaf F. Larson, Head, Dept. of Rural Sociology, N. Y. State College of Agriculture, Cornell University, Ithaca, N. Y. 14850.

Cornell University: Teaching and research assistantships — $3,200 each with tuition waived. A limited number of tuitions and fees scholarships on a competitive basis—about $800 each. Other fellowships and scholarships may be obtained on a competitive basis through the Graduate School. Contact Dr. J. Paul Leagans, Prof. of Extension Education, School of Education, Cornell University, Ithaca, N. Y. 14850.

University of Florida: One fellowship of $1,650 and one teaching and research assistantship of $2,000. Contact Dr. E. G. Rodgers or Dr. S. E. Grigsby, College of Agriculture, University of Florida, Gainesville, Fla. 32603. Application deadline is February 1.

The Ohio State University: One research assistantship of $2,400. A limited number of out-of-State tuition scholarships on a competitive basis—about $600 each. Application deadline is February 1. Contact Dr. R. W. McCormick, Asst. Dir., Ohio Extension Service, 2120 Fyffe Rd., The Ohio State University, Columbus, O. 43210.

Washington State University: Edward E. Graff educational grant of $900 for study in 4-H Club work. Applications due April 1. Contact E. J. Kreizinger, State Leader, Extension Research and Training, Washington State University, Pullman, Wash. 99163.

University of Wisconsin: A limited number of research assistantships — $240 per month plus a waiver of out-of-State tuition. Contact W. T. Bjoraker, Chm., Dept. of Agricultural and Extension Education, University of Wis., Madison, Wis. 53706.

Pfizer Award

The Agricultural Div. of Chas. A. Pfizer & Co., Inc., of New York, will sponsor a fellowship to be awarded in the fall of 1964 for graduate study leading to a degree.

The $3,000 fellowship is available to county agricultural agents (including associates and assistants) having 5 years' experience and doing adult or 4-H work in animal husbandry, dairy or poultry management.

Applications may be obtained from the State Extension Director.

One application from each State should be approved by the State selection committee and forwarded with a letter of approval by March 1 to the Div. of Extension Research and Training, FES, USDA, Washington, D. C. 20250.

Rockford Map Publishers Graduate Scholarship

Extension youth agents working in Illinois, Wisconsin, Michigan, Indiana, or Minnesota are eligible for the $100 graduate scholarship offered by the Rockford Map Publishing Co.

For further information and applications, contact Joseph C. Brownell, Professional Improvement Committee, 249 Highland Ave., Rochester, N. Y. 14620.

Farm Foundation Extension Fellowships

This foundation offers fellowships to agricultural Extension workers, giving priority to administrators, including directors, assistant directors, and supervisors of county agents, home demonstration agents, and 4-H Club workers. Individuals being trained to assume administrative responsibility will be considered if the quota is not filled from supervisory staff. Fellowships will apply to staff members of the State Extension Services and USDA.

Courses of study may be pursued for 1 quarter, 1 semester, or 9 months. The amount will be determined individually on the basis of period of study and need for financial assistance. Maximum grant will be $4,000 for 9 months' training.

It is suggested that study center in the social sciences and in courses dealing with educational administration and methodology. Emphasis should be on agricultural economics, rural sociology, psychology, political science, and agricultural geography.

The fellowships apply in the following universities and colleges: California, Chicago, Cornell, Harvard, Illinois, Iowa State, Michigan State, Minnesota, North Carolina State, Purdue, and Wisconsin.

Applications are made through State Directors of Extension to Dr. Joseph Ackerman, Man. Dir., Farm Foundation, 600 S. Michigan Ave., Chicago, Ill. 60605.

Forms are available from State Extension Directors. Applications must reach the Farm Foundation by March 1.

Farm Foundation Scholarships for Supervisors

The Farm Foundation offers 20 scholarships to Extension supervisors. They will pay $100 toward the expenses of one supervisor per State up to 20 States enrolled in the supervisory course during the 1964 summer sessions at the National Agricultural Extension Center for Advanced Study.

Applications should be made by March 1 through the State Director of Extension to Dr. R. C. Clark., Dir., National Agricultural Extension Center, University of Wisconsin, Madison, Wis. 53706.

Dow Study Tour

The Agricultural Chemicals Div. of the Dow Chemical Co., Midland, Mich., is offering 50 Study Tour Scholarships to County Agricultural Agents. Recipients will be selected on the basis of one per State with minor adjustments being made for NACAA membership in various States.

Scholarships consist of $300 to each agent, to help cover expenses of a planned 3-week travel tour. Separate tours are planned in June for agents in each Extension region.

This program is a unique professional training opportunity especially designed to help county agents keep abreast of changes in our dynamic agriculture and find new ideas for use in their own county program. Recipients wil take part in a group study tour of marketing enterprises, farm operations, agri-business, successful Extension Service programs, and rural development and research projects.

It is an activity of the Professional Training Committee of the NACAA. Applications should be made through the State member of the NACAA Professional Training Committee by March 1. N. John Hansen, County Extension Agent, Box 348, Dallas, Ore. 97338 is National Chairman. Brochures covering details of the 1964 program will be available this month.

Sarah Bradley Tyson Memorial Fellowships

The Woman's National Farm and Garden Association offers two $500 Sarah Bradley Tyson Memorial Fellowships. These fellowships for women are for advanced study in agriculture, horticulture, and "related professions." The term "related professions" is interpreted to include home economics.

Applications should be made by April 15 to Mrs. Robert A. Lehman, 235 E. 22nd St., New York, N. Y. 10010

Grace Frysinger Fellowships

Two Grace Frysinger Fellowships have been established by the National Home Demonstration Agents' Association to give home agents an opportunity to study and observe home demonstration work in other States.

The fellowships are $500 each to cover expenses of 1 month's study. Each State may nominate one candidate. Selections will be made by the Association.

Applications are handled by the State Association Professional Improvement and Fellowship Chairman in cooperation with State home demonstration leaders. Forms can be secured from the State chairman or the National chairman, Mrs. Mary H. Bennett, Home Demonstration Agent, P. O. Box 649, Marianna, Fla. 32446.

Nominations are due May 1.

Michigan State University Graduate Assistantships in Resource Development

The Dept. of Resource Development, Michigan State University, offers four graduate assistantships to students working on master's degrees. Three research assistantships of $1,800 and one teaching assistantship of $2,000 are available. Students devote half their time to departmental teaching or research assignments for 9 months. A maximum of 12 credits (teaching) or 16 credits (research) may be taken each term.

Applications should be submitted, before March 1, to the Dept. of Resource Development, Unit "E" Wells Hall, Michigan State University, East Lansing, Mich. 48823.

National Science Foundation

The National Science Foundation Act of 1950 authorizes and directs the Foundation to award scholarships and graduate fellowships in the mathematical, physical, medical, biological, engineering, and other sciences. The fellowship programs provide support to scientists in programs of study or scientific work designed to meet their individual needs.

For information write to the Fellowships Section, Div. of Scientific Personnel and Education, National Science Foundation, Washington, D. C. 20550.

Horace A. Moses Foundation

The Horace A. Moses Foundation, Inc., West Springfield, Mass., is providing 102 scholarships of $100 each, 2 in each State and Puerto Rico, to qualified professional staff members of the Cooperative Extension Service.

Applicants are nominated by their respective State Extension Directors to the scholarship committee appointed by the Extension Committee on Organization and Policy.

Preference will be given to a man and a woman county Extension worker from each State if all other considerations are equal. The applicant shall not have previously received this scholarship and must be devoting a third or more time to work with rural youth.

The scholarships are for attendance at one of the approved short-term (3 weeks or longer) schools for Extension workers. The applicant is to enroll in the 4-H course plus others of his choice.

Applications must be made by January 1 for winter school and by March 1 for summer school. They should be sent through the State Director of Extension to the Div. of Extension Research and Training, FES, USDA, Washington, D. C. 20250.

Farm Foundation Scholarships in Public Agricultural Policy

The Farm Foundation is offering 100 scholarships (25 to each Extension region) for county agricultural and home agents attending the Regional Extension School courses in public agricultural policy.

The Foundation will pay $100 of the expenses of the agents selected by directors.

Applications should be made by January 1 for winter school and by March 1 for summer school. They should be sent through the State Director of Extension to Dr. Joseph Ackerman, Man. Dir., Farm Foundation, 600 S. Michigan Ave., Chicago, Ill. 60605.

Scholarships for Communications Training

International Mineral and Chemical Co. will award scholarships (minimum $200) to 15 agents taking communications courses at regional summer or winter schools.

Scholarships will be awarded to agents selected on a rotation basis by the Professional Training Committee, NACAA. Complete information may be obtained from the chairman: N. John Hansen, County Extension Agent, Box 348, Dallas, Ore. 97338.

Sears-Roebuck Foundation and National 4-H Club Foundation

Fifty scholarships are available to Extension workers for training in the National Workshop in Human Development and Human Relations. These scholarships are provided through the National 4-H Club Foundation by a grant from the Sears-Roebuck Foundation.

The 1964 Workshop will be held at Colorado State University, Fort Collins, June 15-July 24. Six hours graduate credit will be given.

Scholarships from $180 to $220 will be available to men and women from each State and Puerto Rico. States are encouraged to nominate teams of two or more staff members who have not received this scholarship before.

Special consideration will be given to Extension supervisors, State leaders of training, State 4-H Club personnel, family life specialists, and others having responsibility for this training.

Applications may be obtained from the State Director of Extension. Approved applications are to be sent by him before March 1, to Mary L. Collings, Div. of Extension Research and Training, FES, USDA, Washington, D. C. 20250.

UNITED STATES
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OFFICIAL BUSINESS

Dr. Brady

(Continued)

of the education processes to carry the new knowledge quickly to farmers and others who can use it.

"For this reason, the Department's research and education work will be coordinated under the Director of Science and Education."

The new post Dr. Brady fills is patterned after general recommendations for such a position made by the President's Science Advisory Committee, Life Sciences Panel, in January 1962.

A 43-year-old native of Manassa, Colorado, where he attended elementary and secondary public schools, Dr. Brady holds a B.S. degree from Brigham Young University, Provo, Utah, and a Ph.D. in agronomy from North Carolina State College, Raleigh. After receiving his Ph.D. in 1947 he became assistant professor of soil science at Cornell University, Ithaca, New York. He subsequently was promoted to associate professor (1950) and professor (1951), and from 1955-59 served as head of the Department of Agronomy.

In 1959 Dr. Brady spent about 7 months as assistant to the director of agricultural relations, Tennessee Valley Authority, and then returned to Cornell as agronomy head.

During 1945 and 1946 he served with the U. S. Army in the Philippines and Japan, and since that time he has had several assignments in the Far East related to his work at Cornell.

Dr. Brady has been on five missions to the Philippines, the most recent involving a cooperative education project between Cornell and the University of the Philippines, jointly financed by the Ford and Rockefeller Foundations. He also has had assignment in Taiwan and Viet Nam.

Dr. Brady was editor-in-chief of the Soil Science Society of America Proceedings for about 4 years before becoming vice president of the society in August 1962. He moved up to president of the society this past November.

He is the author of a textbook titled "The Nature and Properties of Soils." ■

U. S. DEPARTMENT OF AGRICULTURE / FEBRUARY 1964

EXTENSION SERVICE REVIEW

in this issue

VOL. 35 • NO. 2 • FEBRUARY 1964

The Extension Service Review is for Extension educators—in County, State, and Federal Extension agencies—who work directly or indirectly to help people learn how to use the newest findings in agriculture and home economics research to bring about a more abundant life for themselves and their communities.

The Review offers the Extension worker, in his role of educational leader, professional guideposts, new routes, and tools for speedier, more successful endeavor. Through this exchange of methods, tried and found successful by Extension agents, the Review serves as a source of ideas and useful information on how to reach people and thus help them utilize more fully their own resources, to farm more efficiently, and to make the home and community a better place to live.

Prepared in
Division of Information
Federal Extension Service, USDA
Washington, D. C. 20250

Division Director: *Elmer B. Winner*
Editor: *Walter A. Lloyd*
Assistant Editor: *Carolyn Yates*

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EXTENSION SERVICE
REVIEW

Official monthly publication of Cooperative Extension Service: U. S. Department of Agriculture and State Land-Grant Colleges and Universities cooperating.

CONTENTS

EDITORIAL

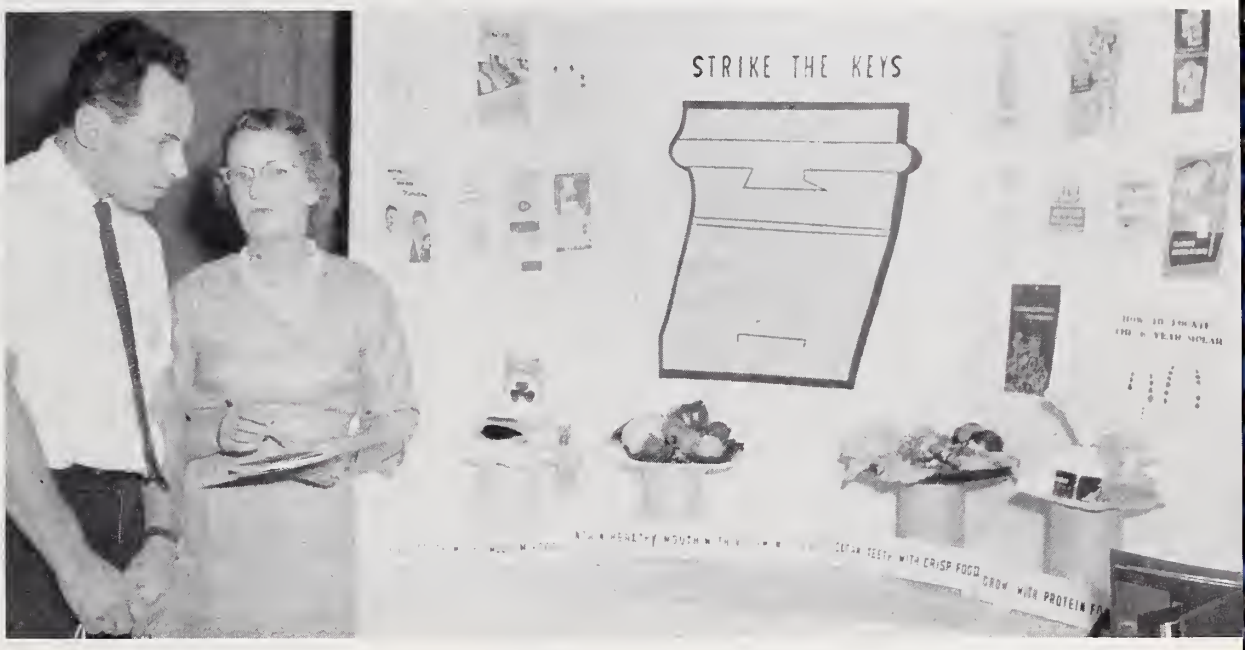
Farming is the "third most hazardous" occupation in the United States. While farm safety is a constant challenge an added drive seems to be in order to help make youngsters be alert to hazards. Here are the facts.

Over a million young people under 18 do paid work each year on America's farms, performing jobs as varied as farming itself. One State alone reports over 400 youths injured each year in such jobs. Youngsters are not noted for caution. But if they are informed of hazards they're more apt to avoid accidents.

Extension is cooperating with other National and local agencies in an all-out safety effort for these farm-employed youngsters this year. Several good new materials are available for county Extension workers for use in this effort. Your State by now should have received, from the U. S. Department of Labor, quantity copies of the shirt-pocket-size leaflet *Going To Do Farmwork?—Take Safety Along!* It is designed for young farm workers, gives lifesaving safety tips on using farm machinery and hand tools, working with animals, lifting weights, proper clothing, and health precautions. Youth leaders are using it as a handout at on-the-job briefings, during job registration, or at farmwork sites.

Chemicals in Agriculture—Be Safe, Use Them Properly is another good teaching aid which you probably have in your office by now.—WAL

Nutrition Council Dental Exhibit Attracts Arizona Teachers



Nutrition and Dental Health

by LEE McGOOGAN, Pima County Home Agent, Tucson, Arizona

TEACHERS viewed the exhibit, asked questions and hurried to meetings loaded with information about the relationship of nutrition with dental health.

The occasion was the annual Arizona Teacher's Association Meeting on The University of Arizona campus, November 1 and 2. Members of the Pima County Nutrition Council teamed with personnel of the Dental Department, Tucson Public Schools in arranging an eye-catching display.

The exhibit is part of the educational program of the Pima County Nutrition Council. For 2 years, members have promoted nutrition workshops that have made lectures by many of the Nation's foremost authorities available to professional and lay persons.

For more than a year, a writing team from the council has contributed articles for a weekly column in a daily paper that carries a circulation figure of about 40,094 during the week.

Extension bulletins furnished nutrition information. From the Dental Department of Tucson Public Schools came "A Bright Smile Is To Keep" and "Good Teeth for Young Americans." For teachers limiting their giveaway load, the committee had handy quantities of a bibliography of materials for teaching nutrition and dental health. This listed county Extension offices, motion pictures on nutrition available from The University of Arizona Audio-Visual Dept., and bulletins on nutrition and dental care.

Visiting the exhibit were 450 members of the teaching profession. This gave council members an opportunity to get acquainted and sell the idea of interdependence of dental health and nutrition.

In terms of bulletin distribution, home economics teachers and school nurses have requested largest quantities. Many teachers learned the location of their county Extension offices and the type of assistance available to them. Individuals working with special groups were especially appreciative of the information.

The home agent in Pima County contacted more teachers in the field of home economics in 1 day than has been possible in 2 years.

In the midst of hundreds of exhibits that covered the floor of the Bear Down Gym, the presentation of the Pima County Nutrition Council and Tucson Public Schools Dental Department was educational and non-commercial.

Eye-appealing food and simple messages caught attention and, hopefully, action. The exhibit will be used again at the Pima County Fair in March. This time it will be aimed at a different audience—equally important—parents. ■

Two Michigan farm families, Mr. and Mrs. John Van Timmeren (left), and Mr. and Mrs. Marvin Patmos (right), greeted Dutch visitors to the U. S. Food and Agriculture Exhibition. They told about their life as typical American farmers. Here they are shown talking to two Dutch girls who had spent some time in America.

From Holland-Zeeland, Michigan To Amsterdam, Holland

by JEANNE S. PARK, Information Specialist, Office of Information, USDA

IN THE Netherlands, almost everyone speaks English. But the Dutch don't often hear Americans speaking their language.

That's why they were surprised—and pleased—to be greeted at the U. S. Food and Agriculture Exhibition (held last November in Amsterdam) by two American farm couples speaking Dutch.

The couples—Mr. and Mrs. John Van Timmeren and Mr. and Mrs. Marvin Patmos—were from the Holland-Zeeland area of Michigan. Both were of Dutch ancestry. Both were typical farmers. One ran a profitable egg business; the other a celery farm.

With them in Amsterdam, and at the next display area of the exhibition, was their Extension county agent, Dick Machiele of Ottawa County, Michigan. Dick also spoke Dutch. Though he admitted, "I try to switch to English whenever possible."

The county fair booth where Dick presided transplanted a piece of Michigan to Amsterdam. On display was a giant ferris wheel of grains, several of which the Dutch —even Dutch farmers—had never seen before. At each side were 4-H Club displays—blue ribbon awards for top beef cattle, lambs, hogs, carpentry, canning, dressmaking. Some of the items were shown. There was a handsome checkerboard, a 4-H dress, knit bedroom slippers, and jars of canned fruits and vegetables.

It's hard to say whether it was the 4-H displays, the American grains, or the magnetic personality of Dick Machiele that drew the crowds. But this area of the exposition was always filled. When Dick wasn't talking over farm production problems with Dutch farmers, he was busy explaining the various grains to Amsterdam housewives or Dutch 4-H youngsters.

The Dutch don't have a 4-H program but they are thinking of forming one. So the minute people saw Dick's display, they besieged him with questions about the program—how to organize a club, what sort of meetings to have, how to hold interest, where to find leaders.

Dick answered their questions, drawing upon his own experience in Ottawa County.

Actually, this was Dick Machiele's story to the Dutch people—the story of one typical U. S. farming community, what it was like, and how it functioned.

The fact that this area was settled by Dutch farmers brought it closer to the people of the Netherlands. Indeed the similarities between a Michigan farm and a farm near Amsterdam are striking.

Ottawa County, Michigan has many small farms. There are some 2,600 with an average of 84 acres. (Dutch farms are also small.)

Ottawa County's primary enterprises are: first, poultry from which the farmers sell the eggs; second, milk production, and third, fruit and vegetable production. (These also are of prime interest to Dutch farmers.)

Ottawa County farmers face a lowering income due to the price-cost squeeze—that is, prices increase but not

The county fair booth was one of the most popular areas of the Exhibition. Machiele said one thing that interested the Dutch people the most was the size of American corn.

as fast as the cost of production. Dick pointed to this as the chief concern of Michigan farmers. (Many Dutch farmers said this was one of their greatest problems.

As they talked, Dick Machiele and the farmers of the Netherlands found their problems were pretty much the same. Both have to cope with weather, disease, and insects. Both find production cost high and net income hard to come by. The main difference in American and Dutch agriculture, as Dick Machiele sees it, is labor. More hand labor is used in farming in the Netherlands.

Theme of the U. S. Food and Agriculture Exhibition, the largest ever sponsored overseas by the U. S. Department of Agriculture, was two-way trade. This theme was stressed throughout the exposition—from the multivision film that featured as many as six movies on the screen at one time, to the foreign import area which displayed many of the European agricultural and industrial products that are imported to the United States.

The Symposium, held in conjunction with the exhibition, also had trade as its theme. Some 600 top agricultural leaders from all over Western Europe and the U. S. attended. Among the main speakers were U. S. Secretary of Agriculture Orville L. Freeman; Professor Guiseppe Medici, President of the National Academy of Agriculture, Italy; the Honorable Christopher Soames, Minister of Agriculture, Fisheries, and Food, Great Britain; B. W. Biesheuvel, Minister of Agriculture, the Netherlands; and Dr. S. L. Mansholt of the Common Market. ■

Your Local Library Can Help You

by EDITH E. ESTABROOKS
Public Library Consultant
State Education Department
New York

THE Cooperative Extension Service has a long history of cooperation with other agencies involved in informal and continuing education. Public librarians and library extension staffs frequently testify to the help and experienced advice they have received from agriculture, home demonstration, and 4-H Club agents in such matters as promoting library use, knowing a community and its environs, and organizing public interest in expansion of a service. Extension workers in many areas have been among the strongest supporters of improved public library service.

Ironically, however, few of the agents and leaders who have been most helpful, use library services as much as they might. Not many bring them to bear with maximum advantage upon their own planning and consultative or teaching problems, nor do they get out of library service as much as they could for their own programs and the benefit of the individuals and groups with whom they work. Their valuable support has seemed, in too many cases, to stem simply from granting that "libraries are nice for children and people with time on their hands."

One county agent who worked hard on his own time for establishment and adequate support of a regional library was asked why and replied that he liked the idea. This good friend of library development had a serious library lore deficiency—was out of library-date by at least a half-century.

The time is long past for advocating libraries as humane societies or peripheral social welfare agencies. A public library is still many things for many different people and there are still varying degrees of excellence and mediocrity in large and small ones across this country, but the picture of public library service—what it can do or is willing to try to do—has changed. This has been particularly true since 1956 in areas of most concern to county Extension workers. It was in 1956 that Congress passed the Library Services Act "to promote

the further development of public library service in rural areas."

Recent library lore includes some striking results of that Act. Thirty-six million rural people now have new or improved public library services available to them. In the past 7 years, State and local funds to finance such a service have increased 75 and 60 percent, respectively. With increased Federal, State, and local support, more than 8 million new books, pamphlets, periodicals, recordings, and films have been added to the informational resources of rural communities. They have been made more conveniently accessible to rural residents with the addition of more than 300 new bookmobiles and the opening of many new libraries.

At least as important as that, the staffs of many small local libraries have had opportunties to retrain, to expand their concept of library service and their ability to provide it. County and regional library system development projects, federations of libraries, and contractual arrangements between small and large libraries have been spectacularly successful in many States and State library extension agencies have been stimulated, improved, and strengthened. These larger units now backstop the library personnel and reinforce the library collections available to residents of many small communities. Library standards and goals (quality as well as quantity) have been emphasized under the Act with the result that better service has brought more reliable materials to more people more effectively.

Recent library lore also testifies to the impact of improved library service upon programs and projects undertaken by county Extension agents. In one State a regional library loaned framed reproductions of art masterpieces for 3-month periods. These and the library's unusually strong collection of books on homemaking were vital to one agent's highly successful long-term house-decoration program.

In another State an agricultural agent felt, initially, that the people with whom he worked were interested in and required only short, quick answers to be found primarily in government pamphlets—not books. Cooperating with a library system consultant, he discovered that many busy farmers are ready and willing to read at length to solve their problems and improve their methods. Equally important, he discovered quite dramatically that the local library was ready and willing to supply short, quick answers by phone or with photocopies of parts of books and periodicals.

In New Jersey, a 4-H Club agent alerted a regional library staff to his long-cherished and long-deferred project of interesting 4-H members in bee-keeping. The library purchased and borrowed on inter-library loan, a fine collection of books on the subject and made it available to club members and leaders for the duration of the project. Within a year the "Honey Bee Club" was organized and recognized by the State bee-keepers association. Its members had won most of the entomology awards in State 4-H competition and several members were realizing an income from marketing honey under their own labels or through arrangements with farmers by which their bees provided needed pollination for agricultural crops.

County Extension agents have long been a reliable and quick reference source—and sometimes the only emergency information service—on specialized problems of farmers and homemakers. Agents accept this as part of their jobs, but express concern that many inquiries come in when they are in the field and cannot, therefore, be reached as quickly as they should be. Also, there is concern that the agency's quick reference library is increasingly expensive to keep up to date and adequate. This suggests that some imaginative and able agents and librarians, working at the local, county, or regional level could initiate a coordinated quick reference and information service that could give service more effectively and economically.

Public libraries in rural areas and county Extension agents—if ever two services had much to offer each other and the public they serve through cooperative effort, these two have it. Of course, the results of a partnership approach by county Extension agents and leaders and public library personnel are not always as tangible or readily identifiable as the examples given above, and the kinds of help the Cooperative Extension Service can expect from public library resources will vary with local situations. But one thing is fairly certain: if the local library is a member of a system and inter-library loan network, it will be able to do more, because it can draw upon the specialized materials and staff skills of larger library units. It is important for Extension agents and leaders to know that the public library is an important potential resource which can be drawn upon for their own programs and projects—virtually all of them, not just those that relate to culture.

The businessman, the doctor, the housewife, the ambitious teenager, the politician, and the plumber: all are finding the modern public library to be a worthy partner in all their enterprises, it can be for the county agent too. ■

4-H Dress Revue

Noontime diners indicated their appreciation as 4-H'ers presented a style show simultaneously in three restaurants

by DONALD V. BYNUM
Area Information Specialist
Denton, Texas

A FLASH OF fire-engine red signaled her approach, and the young model moved easily among the many tables in the fashionable restaurant where sat scores of luncheon patrons. The suit she wore was her own creation, and its color was fire-engine red.

Simultaneously in two other restaurants within the gigantic shopping complex, other girls showed their clothing creations to dozens of busy noon diners.

Occasion for the parades of styles was the annual 4-H dress revue for District 4 in the Agricultural Extension Service of Texas A&M University. It was held last August in the huge Fort Worth suburban shopping center known as Seminary South.

Choice of the center for the program was a departure from the traditional nighttime, routine revue in perhaps some ill-lighted school auditorium—or in some courtroom.

To hold the event at the shopping center also indicated the determination of the district agent to "take 4-H to the public." She is Mrs. Tom Joyce Cunningham of Denton, a college town 40 miles northeast of Fort Worth. There are 19 counties in the district, and the bustling twin cities of Fort Worth and Dallas are the center of activity.

The number of persons who saw the revue would include the several hundred in the restaurants (where 4-H boys escorted senior girls), the scores who attended the formal revue in Seminary South Town Hall (admission free), and the many shoppers who thronged the member stores (most of these firms are known throughout Texas and the Southwest).

Success of the August revue must be attributed in large measure to the cooperation and enthusiasm of the Seminary South management and to the center's merchants association, who had announced the event to the public by means of a huge sign at the motor entrance to the area, on signs in the immense mall, and in the bulletin published daily at the center. One restaurant offered patrons a "4-H Special" for the day.

Mrs. Cunningham says, "The public's reception to our dress revue was amazing and wholly satisfying to those who worked diligently to meet that public: Parents, adult leaders, 4-H members, Extension staffs in the counties, and the civic-minded officials of the shopping center. In evaluating our take-it-to-the-public dress revue, we have determined that we can never do anything less in the future." ■

The winners! These misses earned the right in the district revue to take part in the State Dress Revue, an opening-day feature of the Texas State Fair.

Imperial Agriculture Briefs, Prime Information Source

by GEORGE D. PETERSON, JR., Imperial County Extension Director, El Centro, California

IN CALIFORNIA'S Imperial County the Agricultural Extension staff each month sends IMPERIAL AGRICULTURE BRIEFS to a mailing list of more than 1,500.

This is an unusual publication in several respects. It is not just a commodity report nor an ordinary newsletter. It is a monthly, semi-technical periodical covering production, economics, marketing, research, and other phases of agricultural progress. The publication has proved its worth over a period of 7 years.

Here's a little of the inside story on how the BRIEFS is written, edited, and published. We think the process is rather unique. Let's start with . . .

Writing and editing . . .

. . . one of the most complex tasks we face. Our more than 1,500 "subscribers" are a diversified group of growers, dairymen, livestockmen, farm managers, and agribusinessmen. We try to cover subjects that will be of interest and value to all.

In planning one issue we often find we have enough material to fill two or three. The final job of editing the most timely or valuable articles is a careful exercise in editorial judgment, based on what we feel is uppermost in farmers' minds at the time.

Basically, two types of articles . . .

. . . appear in IMPERIAL AGRICULTURE BRIEFS. The first are those which discuss something that has just happened, is happening, or will happen. They are not news articles, because they go much deeper than a news story. Instead, they are designed to dig into the trends, issues, and problems important to Imperial County agriculture. Articles on production, marketing, economics, or research are in this category, and their purpose is to aid our farmers in their planning. We try to help them to solve or avoid problems and find new agricultural opportunities.

The second kind of article covers the art of management. Here farmers find tried and proven ways to manage their enterprise. The emphasis is personal, for these articles are specifically designed to help each farmer improve his *own* production, marketing potential, and earning power.

Sources for articles . . .

. . . are many and varied, and it's our job to continually develop news ones. Being on the spot in the county helps. Over many years, the farm advisers have developed valuable personal contacts in governmental agencies, industry, and among farmers themselves. As a result the advisers are constantly "clued in" on information that is helpful to their clientele.

Along with their in-county coverage, the farm advisers are also on the move to all parts of California and neighboring Arizona, attending seminars, training conferences, commodity and equipment field days, workshops, and other agricultural events to acquire the latest information and learn of new and better methods. In his normal program of work, including his out-of-county travel, each of our farm advisers logs 18,000 to 20,000 miles a year.

A word about research . . .

. . . for the Agricultural Extension Service cannot adequately serve its customers without it.

With the University of California Division of Agricultural Sciences and the U. S. Department of Agriculture as our parent organizations, we have at our fingertips the largest and most effective agricultural research facilities in the world. There is a department in each organization for every major field of agriculture. From these departments we receive a continuous flow of basic information that builds accuracy and authenticity into our articles—and, we have something more.

Imperial was the first county . . .

. . . in the Nation to have farm advisers assigned to broad subject-matter areas: Entomology, plant pathology, soils and irrigation, weed control, and others. Farm advisers given these assignments are specialists in their respective fields.

The first specialist farm adviser, an entomologist, was placed in Imperial County in 1945. This first "test pilot" proved immensely successful. Through the years as our county agricultural industry grew in size and dollar value, other specialists were added at the request of farmers until nine now are assigned to the county. There is a pronounced trend toward this type of specialization in county Extension staffing throughout California.

At its inception . . .

. . . the farm advisers conceived the IMPERIAL AGRICULTURE BRIEFS as an educational team effort. They considered separate commodity reports or newsletters written by individual staff members to be impractical. Their thinking was influenced strongly by the unique assignment of staff responsibilities at that time.

The farm advisers had been quick to recognize the need for joint efforts in all problem areas and the benefits to be obtained from this teamwork. A hard-driving, highly-coordinated successful program of work evolved. It was natural, therefore, for them to utilize this same approach when they saw the need for a periodic agricultural publication for countywide distribution.

Editing was rotated . . .

. . . at first to each farm adviser in turn, thus responsibility was shared and originality enhanced. It later became standard practice to give prominence to the editor's article, which had the effect of shifting emphasis to a different phase of agriculture each issue.

In time it became routine for the staff to edit each other's copy. This is done at one joint editorial conference participated in by the entire staff. Freedom to criticize both content and style constructively is granted each member of the staff. Criticism is made, however, with strict respect for the individual farm adviser and his special knowledge of the subject matter of the article. This has greatly improved individual writing ability, sharply reduced the margin for error, and polished the BRIEFS to a high degree. One farm adviser now serves as "managing editor."

Each issue is put together in one month—not worked up in advance. Closing dates go right down to the time we go to press, so a fresh, timely issue arrives in our subscriber's hands only a few days later.

All copy, including stencils and art work, is prepared by our staff of highly trained, efficient clerk-typists. The BRIEFS is mimeographed on high-speed electric machines. After being collated, the BRIEFS is stapled, folded, and addressed by machines, most of which are automatic.

One of the many nice things . . .

. . . about readers of the IMPERIAL AGRICULTURE BRIEFS is their readiness to let us know when they read something they like or which proved helpful.

We certainly appreciate such comments. They not only give us a feeling of accomplishment, but they let us know how well we're doing in giving our readers the kind of information they want.

An agricultural periodical has a dual responsibility at this particular time. In this day of rapid innovation, of swift changes in methods, of sudden obsolescence in agriculture, we have a responsibility to inform our readers and widen discussion on the vital agricultural issues.

It is our hope that the BRIEFS is serving the many needs of its readers. But more than this, it is hoped that it may provide deeper examination and genuine challenge to all who share its pages. ■

TEENAGE EMPLOYMENT AGENCY

by PATSY L. GLASS
Extension Home Economics Agent
Gallia County, Ohio

NINETY teenagers in the Gallipolis area had opportunities for part-time employment last summer. This came as a result of work begun by the Family Life Committee in cooperation with the Gallia County Home Demonstration Council and the Cooperative Extension Service on the basis of obvious need.

In late May, the Family Life Committee met with all interested boys and girls in the area. In advance, the school system had distributed leaflets explaining the activity to the students in grades 9 through 12. At two meetings, boys and girls were given an opportunity to fill out application forms and ask questions. Three boys and three girls were picked to meet with the Family Life Committee to make the final decisions and serve as a steering committee for the agency. From these six, one was chosen to be manager of the agency for the summer.

Although there is a great need for part-time teenage employment throughout the county, the committee decided to limit contacts this first season to the Gallipolis area only. Transportation is a big problem when larger areas are involved. It is hoped that the same type of activity can be sponsored another year in other areas more centrally located throughout the county.

Beginning the first week of June, an employment agency was started by the teens themselves. The object: to supply boys and girls for part-time work to those adults in the community who needed help. A telephone was installed in a local church and publicity was distributed by the teens themselves to radio, newspaper, and personal contacts. Girls who submitted applications for work served as volunteers on the telephone each day.

By calling the agency number, any adult could receive part-time help at the time help was needed—whether within an hour or within a day. Help was available in the following areas: Babysitting, farm work, flower and vegetable gardening, mowing lawns and general yard work, general housework, office work, laundering and ironing, painting, running errands, washing cars, washing windows, and simple sewing tasks.

The agency closed for the summer at the end of August. During the 3 months of operation the agency supplied 54 jobs to teenagers of the community. Many of the employers asked the boy or girl to work regularly each week as a result of the initial contact.

Plans are to continue the agency this year—beginning as soon as school is out. The Family Life Committee hopes to sponsor an educational program next spring for those teenagers who will be working on such things as work safety and work skills, so they will be better prepared for the summer's work.

The teenage employment agency served several purposes. First, it gave teenagers an opportunity for part-time summer employment. Secondly, it gave adults in the community an opportunity to get help on short notice for small tasks around the home. Adults had an opportunity to learn that most teenagers are responsible people who are willing to work. Teenagers also got much helpful experience in their work contacts with employers. ■

Meat-cutting demonstrations were a highlight of the Iowa pork merchandising clinics. Here Bob Rust, Extension Meats Specialist, prepares some new cuts of pork.

Meat Merchandising Clinics

by BILL MURRAY
Information Service Assistant
Iowa

ONE OF THE traditional roles of Extension has been to furnish livestock producers with information about production technology. However, Extension assumed a new role in an Iowa program. It aided the producer, but did so indirectly by working with meat retailers.

In the late summer of 1963, representatives from the Iowa Swine Producer's Association came to Robert Rust, Extension meat specialist, Iowa State University, and said: "Here's our problem. For years we have had October Pork Month promotion. We feel this promotion has not been as successful as it could have been. While we talk about many cuts of pork, consumers do not always find them in meat markets. What can we do to improve pork merchandising at the retail level so pork promotion will have a more pronounced effect?"

A planning committee resulted. It was composed of Rust, representing Extension; the field secretary of the Iowa Swine Producer's Association; and an Iowa meat retailer.

The committee planned a series of five retail meat merchandising clinics to be held during late September or early October of 1963. The next step was to contact meat packers in the major Iowa metropolitan areas to enlist their support of the program.

"Iowa packers were quite enthusiastic," Rust notes. In fact, they offered to provide meeting places, personal contacts with meat retailers in their areas, and furnish pork products for demonstrations.

In addition, most of the packers supplied liberal refreshments—coffee, cold cuts, and rolls—after the meetings had finished. "The gatherings after the formal presentations were interesting for all who attended."

The meetings consisted of an introduction by the host packer, who usually stressed the importance of the pork industry to Iowa. (Iowa produces enough pork to provide 1,240 pounds of meat for every person in the State, and one out of every four hams eaten in the United States is produced in Iowa. Next, a member of the Iowa Swine Producer's Association presented promotion plans for October Pork Month.

Rust devoted one hour to meat merchandising. During this time he talked about pork in relation to display, handling, and new cutting and merchandising techniques. Through the use of actual cutting demonstrations, a set of slides on meat color, and studies of successful pork merchandising programs, he presented many new approaches to the use of pork.

The final segment of each program was used by host packers to display and discuss any of their new products. One packer introduced a new type of ham and also a different sliced bacon package.

The packers were happy with the programs. It gave them a chance to become better acquainted with their customers—the meat retailers—in a noncommercial atmosphere.

One interesting after-effect of the clinics was seen in a local chain of markets whose meat merchandising director attended one of the merchandising meetings. His firm featured some of the pork cuts demonstrated by Rust. The result: a sizable increase in pork sales.

A representative of the retail trade organization was impressed with the content of the meetings. She said: "More of this type of educational programming should be carried out; especially for independent Iowa meat retailers."

This indicates that Extension has a role beyond direct producer work. Working with marketing organizations may have an important advantage to livestock producers, since this example shows how pork sales can be increased through good merchandising.

If this approach is repeated in enough places, livestock producers will have a more active demand for their products. ■

Main Street Merchants Listen to Homemakers

by LOUIS G. TRUE
Assistant Director of Extension Information
Montana

THE MODERN lady of the house is taking a far greater interest in public relations than her ancestors did and she is becoming an expert.

An example of this is a campaign of the home demonstration clubs in Custer County, Montana. This campaign, which was carried out successfully, started with a series of so-called "gripes" about services and merchandising on Main Street.

These criticisms came up frequently in club meetings so the ladies decided to do something about them. The clubs' governing body, the Custer County Home Demonstration Council, appointed a committee of three and told the members to work up a program that would bring the women and merchants together to discuss some of these gripes.

This committee discussed ways and means with the local county Extension agent and the secretary of the Chamber of Commerce. This group decided that they should give the merchants complete and advance information about what the ladies had in mind—better relations between customers and merchants.

The committee then asked each home demonstration club to submit a list of their problems to the committee. Within 3 months all club reports were in, summarized, and grouped into logical categories.

The ladies took these summaries to the businessmen and asked them to study them and to select a panel of 10 to meet with the home demonstration clubs for informal discussion. The secretary of the Chamber of Commerce was asked to serve as moderator.

At first some of the businessmen were somewhat on the defensive. They feared that such a meeting might turn into a gripe session that would foster ill feelings. However they studied the summaries, saw that such a panel could have favorable results and agreed to take part. The radio station manager, who sat in on the meeting, publicized the coming meeting and decided to broadcast the proceedings.

When the panel of businessmen assembled at the meeting they faced 84 home demonstration club members. However the panel members had divided up the summaries and were prepared for anything.

Every problem in the summaries was aired completely. The ladies found that the merchants were anxious to help. They also learned that the merchants had problems in buying, labor, and seasonal merchandise. The merchants in turn learned that they could solve many of the ladies' problems completely and some partially.

In clothing, the ladies explained that some of them "carried some weight" and they would be happier if the merchants would make more play on saddle pants for the pleasingly plump rather than so much concentration on junior sizes.

The ladies also were concerned because three stores carried the same line; that three pairs of socks of the same brand purchased at different times varied in color; that western shirts lacked interfacings in front and had snaps that pull out.

In the field of appliances, the women were concerned about servicing of appliances bought for cash, and the shortage of harvesting machinery parts.

They questioned the care taken of locally-produced products and requested proper refrigeration of items such as eggs, while still fresh.

The ladies raised objections to over-zealous clerks for saying, "This is just made for you" or "This just came in" when the customer knew better.

They asked that one drug store stay open until 10 p.m.; that one barber shop stay open on Mondays, and explained their troubles in finding downtown parking.

These are a few of the problems presented to the merchants. But now when the ladies speak, the merchants listen and the consensus of the merchants is that this get-together was extremely valuable.

"The panel discussion was the greatest boon to consumer-merchant relations that I've witnessed in my 26 years in the retail field," was one opinion.

Other merchants were convinced that they can please customers by better explanations of materials and services. Merchants admitted that they had become "sort of indifferent" to the needs of the customers and realize now that a little more time and effort on their part will improve relations.

Merchants also came to a better understanding with each other. Now when a lady asks for an item the merchant does not have, he sends her to a competitor who does. And merchants try to know what others carry so they can do this.

Another conviction was that both merchants and customers now realize that gripes are not gripes when aired.

Now a half year after the meeting, home demonstration club members are more than pleased with what the merchants have done to improve relations with their customers. The ladies and merchants now believe that similar meetings should be held annually.

And, they believe that every customer and every merchant who did not attend also have benefited from the meeting because of the fine publicity coverage. ■

Speak Up In Public

How well a farmer speaks can affect the outcome of sound programs and changes sought to improve his farm business. The public rostrum is an ideal place to increase nonfarm understanding of agriculture's contribution to the U. S. economy.

by JOHN H. ELLIOTT, Tolland County Agricultural Agent, Connecticut

■ Changes must come about in agriculture as in any other industry. They can only be made in a practical way by leaders—and agriculture has the men to provide this leadership. But, as in any business, these leaders must learn how to express their thoughts clearly and concisely to maintain, and even more important, to improve the economic condition of our largest and most basic industry.

Last fall, the Tolland County Extension Service held a successful weekly series of eight, 2-hour evening sessions in public speaking. Fourteen of the sixteen men enrolled completed the course and received completion certificates. Two were from adjoining Hartford County.

Impetus for this venture came from county farm leaders. They felt a need for developing a public-speaking program for themselves. At a number of meetings, they recognized that some of their top leaders, who had good ideas, were unable to express them well enough for acceptance within their own groups. Even a few of the key men were most hesitant to speak before local civic groups on the successes and problems of agriculture.

As with any activity, planning was necessary to insure the success of our new project. I conferred with County Agent Leader George Whitham and Dr. E. A. Perregaux of Connecticut Milk for Health. This dairy-farmer, promotional marketing organization has been an ardent Extension supporter down through the years and offered to provide financial assistance.

The proposed project was presented before the County Agricultural and Dairy Committees. It was intended to help farmers prepare and present factual information in a clear, concise, more interesting way.

Response to our proposal was most gratifying. In fact, interest was so great that enrollment had to be limited to dairy leaders.

The chairman of the County Dairy Committee and I choose 20 key dairy leaders. Then I contacted each one at home to learn of his interest in taking part in such a program. Two weeks later, the dairymen were mailed a letter announcing program details, and a return signup card.

Each participant had to agree to attend meetings regularly and, later, give talks to community organizations. At the Dairy Committee's suggestion, a fee of $10 per person was charged to help defray cost of materials and insure attendance.

John Vlandis, assistant professor in the speech department at the University of Connecticut served as the instructor and did an outstanding job. His course outline covered these topics:

I. The place of communication today.

II. Presentation of speeches, including evaluation, by class members.

III. Techniques of effective communication and the proper use of the tools of communication.

IV. Speech to prove a point.

V. Presentation of a speech employing the techniques and principles of public speaking.

VI. Effective listening and its place in the communication process.

VII. Presentation of a speech seeking a specific response.

VIII. Interpersonal communication.

At four meetings each participant had to give a short talk on a topic of his own choosing. The class and instructor verbally evaluated the presentation.

The course was well received, interest ran high, and most important, some very satisfactory results were attained. The basic information gave the men additional ability to prepare and present their material in a more effective way than previously. Since then, many of the men who took the course have told me they feel more confident and have greater poise whenever giving talks.

An unexpected result was the comment from several who said: "We have learned how to evaluate speeches and can more easily pick out the important points which interest us the most." ■

Program Planning Made Easy

by NORMAN E. TOOKER
Douglas County Agricultural Agent
Omaha, Nebraska

HAVE YOU EVER HAD that lost, empty feeling when you set about to do Extension program planning? If you feel this way at times, perhaps a brief look at what the Extension staff at Douglas County, Nebraska, did on program planning will be of help.

In the latter part of 1961, the Douglas County Extension Agents, with the help of their Extension Board, set out to learn as much as possible about their county. Several sources of information were tapped. These included surveys of farm families, small town residents, and Extension Club members. There were also meetings of the 4-H Council, the Home Extension Council, a meeting of a cross-section of community leaders, and the regular monthly meetings of the Extension Board. Commodity group discussions, statistical reports, and census reports were also valuable in showing trends.

Surveys were an important source of information: one survey was mailed to 800 farm families. The main objective of this survey was to find the answers to these two questions.

1. What problems do farm families need help with?

2. How do farm people prefer to receive educational information from the Extension Service?

The four sections in the questionnaire were: The Farm; Family Living; 4-H; and Information.

The questionnaire and a letter of explanation were mailed in early March 1962. News stories in the county paper and portions of two county agents' radio programs were used to publicize the survey and to urge farm people to complete and return the questionnaire. Within four weeks 197 questionnaires were returned.

A similar survey was conducted among residents of five rural Douglas County towns. These people were asked to rate their community. The Family Living and 4-H sections were the same as for the farm families.

Another survey was done with Home Extension Club members during the summer of 1962.

The 4-H Council, The Home Extension Council, and The Extension Board all held program planning discussions during their regularly scheduled meetings.

Information and statistics gleaned from the surveys and from discussions of the various Extension Councils were combined with statistics from census reports for an overall picture of rural Douglas County.

On January 7, 1963, a planning meeting was held with 65 people attending. Included in the meeting were farmers, homemakers, businessmen from Omaha, and representatives of chain stores, the Omaha stockyards, the railroads, the Chamber of Commerce, and civic clubs. There were also businessmen and clergymen from the small towns in rural Douglas County, representatives of farm organizations, farm management companies, the PTA, the Health Department, and the Safety Council. The program for the day was as follows:

10:00 a.m.
Registration and Coffee
10:30 a.m.
Objectives of the Meeting
How Extension is Organized
Future Plans of the Omaha Area
Future Plans of the Omaha Area Schools
Facts and Figures about Douglas County
Report of Farm Family Survey
Report of Survey of Towns in Rural Douglas County
12:00 p.m.
Luncheon—Courtesy of Douglas County Extension Service
1:00 p.m.
Announcements—Divided into 5 groups for discussions
2:25 p.m.
Completed discussions and moved to center room for summary and group reports
3:00 p.m.
Meeting adjourned.

Five groups were used at this meeting to discuss the various areas of program emphasis. Two groups discussed questions on *Agricultural Production, Marketing and Utilization,* and *Community Problems.* One group discussed *Home Economics,* one discussed *Problems Facing Youth,* and another group discussed *Horticulture* problems.

Typical questions which were presented to the groups for discussion concerned: The farm of the future; the greatest problem facing youth today; and the greatest problem facing families today.

The volume of information obtained from the many sources, including the discusion groups at the January 7 meeting, was reviewed and condensed by the Extension Board and the Extension staff. Long-range goals were selected and written into a 5-year plan of work by the Extension staff.

From this 5-year plan of work, certain areas have been selected to receive program emphasis during the 1963-64 fiscal year. Copies of the plan of work and the facts and figures were distributed to the leadership of various organizations and to many individuals for use in their work. Various areas of the 5-year plan of work will be reviewed annually by the 4-H Council, Home Extension Council, Extension Board, and other groups who will add more detail to the plan each year.

The Extension Staff in Douglas County feels that program planning is a continuous process. The job is never quite completed. An Extension program needs to be revised periodically in order to keep pace with today's changing world. ■

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Economic Development Education —*California Style*

Stimulating economic growth isn't California's major development problem—although it's recognized as desirable in many communities. Planning and directing the great and rapid growth already underway is seen by many Californians as their No. 1 development need.

The University of California Agricultural Extension Service has taken an active part in the State's effort to coordinate growth planning. Extension has served as a catalyst for social and economic action—helping to expose and clarify these problems and encouraging action to meet them.

Continuing work carried on over many years, California Extension called a statewide conference for all major groups involved in economic development. That was in September 1961. Those attending agreed that there was a great need for wise growth planning to start at the local level—with full approval and participation of local residents. They felt that perhaps the biggest obstacle was lack of coordination in the planning already going on—not to mention ignorance of what others were doing in similar fields. The best way to solve these problems, they agreed, would be to work through—and with—existing agencies.

Planning sessions in 1962 led to a statewide "Conference on Urban Growth in Agricultural Areas" on the Berkeley campus in November. Nearly 200 community leaders attended. They listened to speakers and panels, challenged the "experts," and traded ideas.

They dug into subjects like "Stimulating Urban Growth" and "Developing an Overall Community Plan." Of particular interest in this fast-growing State was the discussion on protecting prime farmland from industrial and suburban sprawl. This matching of ideas among the State's leaders resulted in a genuinely stimulating conference.

A number of counties began to plan their own county-wide conferences. In each case, county and State Extension workers were called on for help. The University resources could be drawn upon for factual information on such questions as the cost of urban sprawl, taxation, agricultural zoning, and community development.

The first such conference was held last spring, in Sutter and Yuba Counties. It was sponsored by the League of Women Voters, Extension, Farm Bureau, and Chambers of Commerce. Following the broad pattern of the Berkeley meeting, the program dealt with urban growth and coordinated county-city planning. The audience of 150 represented almost all occupations and interest groups in the two counties. There was heavy emphasis on human—as well as economic—values.

Since the conference, enthusiasm for follow-up action has been high. The Sutter County planning commission recommended a general plan be developed to coordinate with plans for local communities. The Yuba City planning advisory committee has held a series of seminars addressed by authorities from the University of California. "Where do we go from here?" was the general theme.

Other counties have followed with conferences and action designed to meet their own needs. An especially valuable Economic Inventory Conference was held in Napa County with 250 attending.

The conference approach isn't the only way California Extension is helping to stimulate economic growth and direct it into the channels best suited to local needs. Extension staff members serve on interagency development committees in many counties, and help in a less formal manner in others.

Under the pressure of its tremendous expansion, California has developed a strong economic planning program in fields ranging from heavy industry to recreation. Californians admit there hasn't been uniform development throughout the State. Nor has there been as much coordination of action among the various agencies as many would like to see.

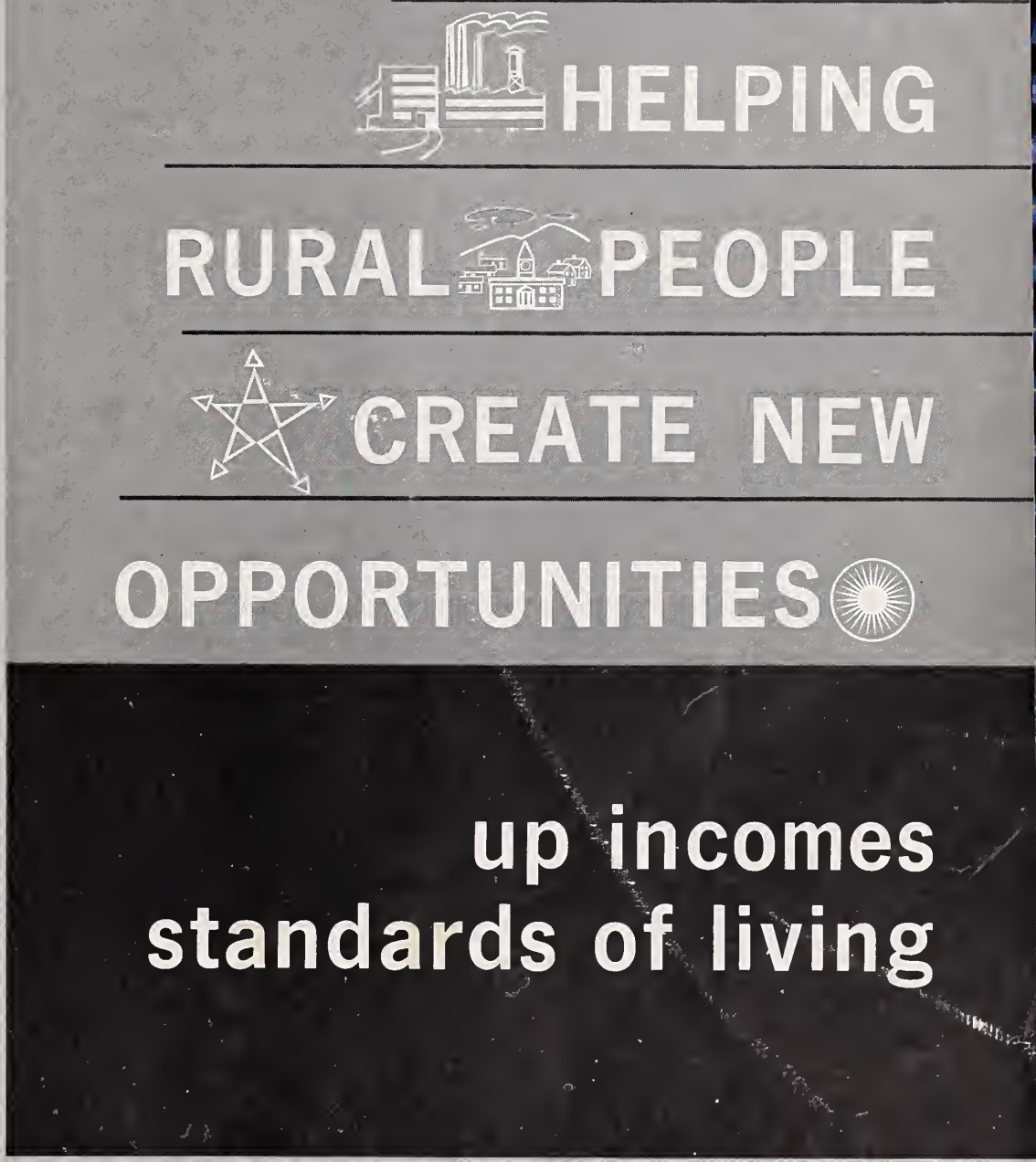
California's Agricultural Extension Service is taking a leadership role in meeting these problems—whether the area concerned needs additional economic growth or is one struggling to absorb what it already has. ■

By Henry Schacht, Director of Agricultural Information and John Mamer, Extension Economist, University of California.

U. S. DEPARTMENT OF AGRICULTURE / MARCH 1964

EXTENSION SERVICE

REVIEW



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The Extension Service Review is for Extension educators—in County, State, and Federal Extension agencies—who work directly or indirectly to help people learn how to use the newest findings in agriculture and home economics research to bring about a more abundant life for themselves and their communities.

The Review offers the Extension worker, in his role of educational leader, professional guideposts, new routes and tools for speedier, more successful endeavor. Through this exchange of methods, tried and found successful by Extension agents, the Review serves as a source of ideas and useful information on how to reach people and thus help them utilize more fully their own resources, to farm more efficiently, and to make the home and community a better place to live.

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EXTENSION SERVICE
REVIEW

Official monthly publication of Cooperative Extension Service, U. S. Department of Agriculture and State Land-Grant Colleges and Universities cooperating.

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EDITORIAL

U. S. Food for Peace is a powerful force in the world.

Hungry people in many lands are being fed. And economic growth is being promoted.

Some countries that were once getting food aid are now cash customers for American farm products. Among these are Japan, Italy, and Spain.

Japan, for instance, is now buying U. S. agricultural commodities to the tune of $500 million a year. It is the world's Number 1 buyer of American cotton, soybeans, hides and skins, tallow, nonfat dry milk, raisins, and currents.

In the past nine and one-half years, the United States has shared with needy people, mostly in the developing countries, nearly $13 billion worth of agricultural products at export value.

America's farm people can well be proud of the role they play in world affairs. Their skill and initiative teamed with research, education, and technology have made the United States the world's leader in agriculture.—WAL

Problem Solving Approach Makes For Better Farming And Better Living

by A. S. BACON, *Assistant to the Administrator Federal Extension Service*

FIFTY-EIGHT years ago a Tuskegee-trained agriculturist, Thomas M. Campbell, climbed aboard a mule-drawn movable school designed by Dr. George Washington Carver and drove off to help the Negro farmers of Macon County, Alabama meet the boll weevil threat.

A month later, John B. Pierce, recently out of Hampton, seated himself in a buggy, picked up the reins of a bay-colored mare, and set out to show hard-pressed colored farmers of Virginia how to grow something besides cotton and tobacco.

Through the farm demonstration work of these two extension pioneers, along with that of such women as Annie P. Hunter of Boley, Oklahoma, and N. Juanita Coleman of Tuskegee, Negro farm families of Alabama and Virginia began to reduce their dependence on one-crop farming. They learned how to grow gardens and raise chickens, hogs, and a few cattle mostly for home use.

Employing result and method demonstrations and other developing Extension techniques, these early workers proved that Cooperative Extension work can help people solve their problems. And the problem-solving approach is still the core of effective Extension work.

For example, the method is still in use that was initiated in Georgia back in 1917 for helping farmers to increase their production of meat, poultry, and eggs for home consumption. But now it is applied as a way of supplementing the family's cash income.

In 1916, Otis S. O'Neal, a graduate of Tuskegee who had gone to work as a county agent in Georgia, spent weeks in the late spring and summer traveling over the county looking into smokehouses. They were mostly bare, and chickens and eggs were in short supply. Here and there small flocks could be found, but most farm families had only a rooster and a hen or two foraging for themselves with a string tied around one foot to keep them out of the garden and the cotton patch.

It occurred to O'Neal that a contest in hog and chicken raising might stimulate more of the farmers to produce these high-protein foods. He approached the contest through a "Ham and Egg Show," and set out to teach farmers how to raise more chickens and hogs, and show them how to cure quality hams.

In the late 1940's the Extension workers of Brunswick County, Virginia, recognized that the farmers needed another cash crop to help supplement their income from cotton and tobacco. There was a nearby market for cucumbers, and the agents suggested that some of the families try their hand at raising this crop.

Six families joined in the effort and later one family built a grading center. This cucumber crop has increased the income of one community to $40,000 a year.

Eight years ago a Wayne County, North Carolina, family went to the county agent for advice on an alternative enterprise they might enter in the face of declining acreage allotments of their cash crops.

In view of their experience with a few milk cows and the excellent market for grade "A" milk in the area the county agent suggested dairying. With a loan from the Production Credit Association for 10 cows and a grade "A" barn, the family began selling milk from 14 cows in 1957. Since then, the herd has been increased to 37 head.

A Texas family of six was having a hard time making ends meet on 50 acres a few years ago. The county farm and home agents sat down with them and helped them analyze their situation. Result: they needed more land for the production of beef cattle and hogs.

For a number of years the family had kept careful records, made an annual budget, and practiced other good management techniques. They took their records to the local bank and requested a loan for more land and cattle. The loan was approved. The family is now buying an additional 161 acres and owns a growing herd of beef cattle.

One of the best examples of Extension problem solving is to be found in South Carolina's Home Demonstration House.

Solving housing problems in South Carolina, as in the rest of the Nation, involves not only helping people develop a genuine desire for a better home, but also to establish guidelines which direct that desire toward improved standards.

Since 1952, when the Demonstration House was opened in a rural community near Kingstree, South Carolina, about 1,500 homemakers from 31 counties in the State have stayed there for periods ranging from 2 days to a week. Those who come from homes without running water and modern facilities return highly dissatisfied with their old places. Having lived in a dream, they are determined to make that dream real in their own homes. As a result, there has been a sharp increase in running water, bathrooms, and generally improved housing in South Carolina.

Over the years, Cooperative Extension agents working with rural colored families in the South have helped these families recognize and solve many farming and homemaking problems. ■

Norma Webster and Celestine Davis practice techniques they learned in the clothing class they attended at Vaughn Housing Project, Missouri.

"HARD TO REACH" —fact or fiction

by IRENE BEAVERS, *Program Leader, Division of Home Economics, Federal Extension Service*

THE Cooperative Extension Service is finding new and successful ways of serving audiences who have a special need for educational assistance from the standpoint of relative economic income. Extension agents are finding effective procedures for involving the "hard-to-reach" among their audiences. This often requires extra effort but it does lead to satisfactions when it is found that people will accept change.

Among the audiences identified with special needs are migrant workers, senior citizens, subsistence farm families, and families in low-rental housing units. The rule "know your audience and their needs" is basic to Extension education.

The role of Extension in bringing about changes in the practices of people requires that a linkage must be established between the professional worker and the audience. The means for establishing this linkage is communication.

Values and goals are important

Coming out of the educational world, the Extension worker has a way of talking, acting, and thinking which he finds different from that of some of the people he is trying to reach. As an educator he knows that he must be concerned with the values, goals, attitudes, and beliefs of the people. As Elizabeth W. Gassette, former Home Demonstration Agent in Hartford County, Connecticut says, "I've learned to accept people in low socioeconomic levels as people with *feelings* just like my own but with vitally different experiences." Mary Johnson, Missouri Home Management Specialist says, "Low-income families have had many experiences and they have learned something from these experiences that would help us." Because of these differences in experiences, individuals have developed certain value concepts which provide a basis for their decisions and actions.

Principles are the same

Many States are discovering that subject matter must be tailored to fit the needs and abilities of different audiences. The principles are the same, only the approach in working with these families is different. For example, in teaching the farm labor families in the San Joaquin Valley, California, Extension workers found that the same principles of kitchen arrangement could be applied. The principles of working heights were the same for these minimum-cost dwellings as they were in homes of families with ample financial resources. Only application differed.

Dorothy Threlkeld, Extension Clothing Specialist in Kentucky, adapted materials to reach the audiences in that State who had less educational and income opportunities. She, too, found in adapting materials that the same principles of clothing selection and construction apply to these families; that one of the needs is to adapt materials so they are easily read and understood by the audience.

Miss Threlkeld has several comments to make as a result of experience in working with the low socioeconomic families in Kentucky.

1. They are approachable.
2. Extension must take the initiative in approaching this group rather than hoping they will make contact.
3. They are interested in their families but have many problems, such as lack of money, physical resources, and low educational level.
4. There are "leaders and legitimizers" in this group.
5. The first approach needs to be a face-to-face one—a folksy visit. If this can be with the legitimizer, the agent is over the first hurdle.
6. In teaching, Extension must adapt methods, subject matter, and teaching aids to the interests of the people—whether it seems logical to us or not.

Missouri Extension home economics specialists have found that information must be presented in a simpler form and in smaller quantities than usual. Contacts with housing project personnel and pilot meetings

with people living in housing projects have been helpful in preparing suitable materials for Extension home economists to use with these families.

Adults learn effectively when they have strong motivation to develop a new skill or acquire a particular type of knowledge. That this desire to learn may be awakened was discovered in the United South End Housing Project in Boston. The U. S. Department of Agriculture's *Food For Fitness* slides provided an opening wedge to the subject of feeding the family, presenting an excellent explanation of the daily food guide.

The slides served a dual purpose as they created an aesthetic reaction for food tastefully served on an attractively set table. The slides were used in the first of a series of three programs concerned with "Feeding the Family."

Adapting methods

In working with these audiences, as with other audiences, methods must be related to the content and objectives to be taught. No one method can be depended upon, and Extension workers must be familiar with many methods so that the right one or right combination may be chosen for each specific audience. Helen Holstein has described work with Seminole Indian families in Florida. "We used the same methods as with other audiences; however, they were carefully and thoughtfully adapted—tours, method demonstrations, illustrated talks, films, workshops, clinics, farm and home visits, posters, exhibits, and result demonstrations. Bulletins and leaflets were used with 4-H Club members and young men and women who had been to public school. Few written materials were used because of the language barrier. Pictures and objects (with meaning) were used.

In St. Louis at the Plymouth House, Carr Square Village, Helen R. Davies, Extension Home Economist in Food and Nutrition, visited most of the members in their homes. By talking with them indivdually, she was able to tell more about their buying and eating habits. Most homes were in excellent condition as far as neatness and cleanliness were concerned and the furnishings were quite adequate. The home visits have proved helpful to the Extension workers as well as to the people involved.

Judy Pinnell, a Texas Junior 4-H leader gives a foods and nutrition program to Latin homemakers through Miss Nieto, a local Spanish interpreter.

Teaching adults

In summary, eight basic facts about teaching adults seem to apply to the low socioeconomic families as well as other families.

1. **Adults must want to learn.** The desire to learn may be stimulated by outside influences, but it can never be forced upon adults. The interests of adults need to be determined in order to know where to start with a group. However, the direction taken after that starting point is the important role of the educator and determines whether the program is worthwhile and effective.

2. **Adults will learn only what they feel a need to learn.** When the learner realizes what he needs to learn in order to accomplish what he wants, he is well on the way in the learning process.

3. **Adults learn by doing.** People develop skills, habits, and the ability to solve problems through practice—a step-by-step process. What is practiced is learned.

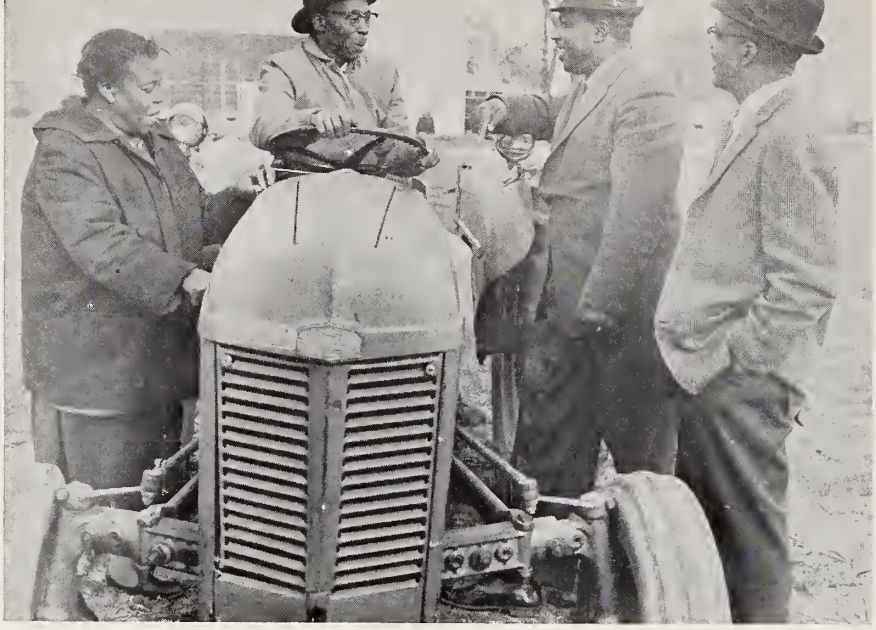
4. **Adult learning centers on problems, and the problems must be realistic.** In working with low socioeconomic families one must begin with specific problems drawn from their own experience which might be quite different from our experience.

5. **Experience affects adult learning.** Through a free give-and-take exchange of ideas, you can find out what their experience has been, and what set views they have acquired.

6. **Adults learn best in an informal environment.** Meetings held right in their homes provide an atmosphere conducive to learning and does not remind them of school. Many adults have unpleasant memories of their school days.

7. **A variety of methods should be used in teaching adults.** The method should be adapted to what you are trying to acomplish. To bring about a change in attitudes or ideas, you must involve the learner actively in the process. This implies the use of a discussion method.

8. **Adults want guidance.** Adults need as much praise as the teacher can honestly give them. They are impatient with their own errors, and easily become discouraged about their ability to learn. ■



County Agent James A. Perkins and the author visit the Kelleys at their home in Caroline County.

OPPORTUNITY THROUGH INITIATIVE

by MARTIN G. BAILEY, *District Agent, Maryland*

MR. AND MRS. ANDREW KELLEY were migrant farm laborers in 1943. While they were harvesting vegetable crops on the Eastern Shore of Maryland, they decided that they wanted to own their own farm in Caroline County, become responsible citizens, and provide a comfortable living and a good education for their children.

Prior to joining the migrant labor stream from Florida up the eastern seaboard to Maryland, the Kelleys were sharecroppers near Augusta, Georgia where they grew mostly cotton, corn, and peanuts. Finding themselves in debt at the end of the crop season, the family went to Belglade, Florida in 1940 and found employment harvesting vegetables as migrant farm laborers.

While the Kelley family was helping with the crop harvesting in Caroline County near Preston, Maryland, they noticed a 61-acre tract of land with an old, delapidated dwelling being offered for sale. From the $760 they had saved while working in the fields they purchased the property in 1943. They made a down payment of $600, leaving $160 for living expenses and to start their four small children in school.

During the following 11 years, the Kelleys remodeled their house into a very comfortable seven-room dwelling with bath, purchased additional cropland to enlarge their farm to 109 acres, erected buildings, and purchased modern farm machinery necessary for vegetable farming.

Kelley attributes much of his success to close cooperation with the county Extension agent and other agricultural agencies cooperating with the Cooperative Extension Service; including Soil Conservation Service, Farmers Home Administration, and the Agricultural Stabilization and Conservation Service. He also serves on the County Extension Advisory Committee on Agriculture and 4-H Club Work.

Important factors which Kelley feels have helped him toward success have been farm management, the application of recommended production practices, and keeping abreast of market conditions.

The Kelleys made some costly mistakes in the beginning by using poor production and marketing practices. Now through improved practices in marketing they place most of their fresh produce on the Baltimore wholesale market and the rest of their vegetables are sold right from the field to wholesalers who come from Washington, Wilmington, Philadelphia, and parts of West Virginia. The growing season was unusually dry in 1963, nevertheless the Kelleys were able to market profitably 8,000 bushels of fresh vegetables, 5,000 watermelons and 1,200 dozen ears of sweet corn.

Mr. and Mrs. Kelley told their county Extension agent that their future on the farm looks bright and they are busy planning for a good year in 1964. Their experience in marketing has indicated that more profit can be realized by growing vegetables to maturity at the very

Mr. Kelly discusses his barley crop with Agent Perkins.

The county agent is helpful in solving farm problems.

earliest possible date for the spring and early summer market. Having produce to market in late summer and early fall has been quite profitable for the Kelleys also.

Realizing the benefits of early and late marketing, the Kelleys contacted their county Extension agent for advice on early and late varieties of vegetables. They also secured from the county Extension office a set of plans recommended by the Agricultural Engineering Department at the University of Maryland for constructing an economical greenhouse on their farm to enable them to grow their own plants early.

Mr. Kelley reported that marketing good quality produce is a very important factor in being a successful commercial vegetable producer. He has kept the quality of his produce at a high level by being extraordinarily selective in purchasing seeds for planting, gathering produce during the morning when the product is firm, and hiring sufficient labor to enable him to pick the crop while it is at its most desirable stage of ripeness to satisfy the demands of the market. Mr. Kelley employs as many as 25 or 30 laborers at one time at the peak of his harvesting season in order to market his produce while it is in top quality.

There are now eight children in the Kelley family and all of them thoroughly enjoy sharing responsibility on the family farm when they are not in school or away working in the profession for which they were trained. The eldest son, Andrew, Jr., graduated from Maryland State College where he majored in Agriculture. He is responsible for transporting and marketing the produce on the Baltimore wholesale market. When marketing is at its peak, two of his sisters drive loads of produce to market along with him.

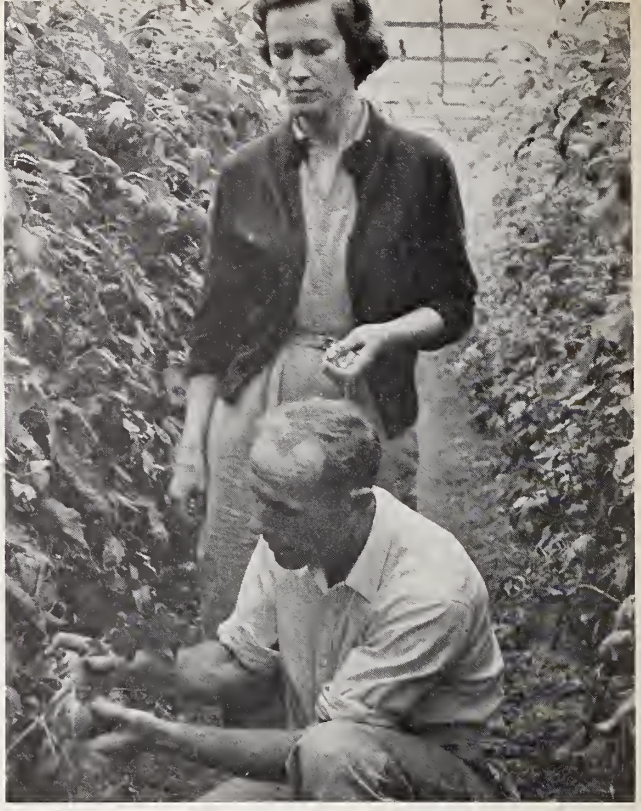
Three daughters have graduated from Morgan State College in Baltimore. One is employed as a dietician in a Baltimore Hospital, one is an accountant in New York City and the third is a recreational supervisor for the City of Baltimore. Two other daughters are now attending Morgan State College, while a younger son, Purcell attends high school. The youngest, 6-year-old Blanche, attends public grade school.

The Kelley children have been outstanding 4-H Club members. Andrew Jr., and his sister Tessie each served at different times on a delegation of eight club members to represent Maryland at a Regional 4-H Club Conference. These club members were selected for their outstanding project work and junior leadership in their community.

Mr. and Mrs. Kelley and their children have many good personal traits which contribute immeasurably to the success of the family. They have a wealth of ambition, patience, initiative and creative imagination. These traits, coupled with the cooperative spirit of the family, have made it possible for them to succeed in their farm enterprise and become responsible and respected citizens in the community. ■

Extension in a Depressed Region

by R. K. KELLEY, *Chairman,*
Eastern Kentucky Resource Development Project,
University of Kentucky



Greenhouse tomato production is ideally suited to the region because of small land requirements. Eighty family-operated greenhouses have been established recently.

EASTERN KENTUCKY, with its multitude of complex social and economic problems, has long presented impelling challenges to all agencies and institutions serving the region. The Cooperative Extension Service of the University of Kentucky has been no exception. However, recent efforts to develop special approaches, add new resources, and change program emphasis are beginning to show encouraging indications that the challenge can be met.

Eastern Kentucky includes approximately 30 counties in the easternmost part of the State. It represents about one-third of the geographic area and has about 20 percent of the population. It is a part of the Southern Appalachian Region and presents one of the hard-core problem areas of the entire region, which is well known as one of the focal points of low-income and inadequate resource development in the Nation.

A charcoal plant was established locally with financial help from ARA and technical assistance from Extension.

Through the years, the economy of the region has been based on two extractive industries—coal and timber—and upon subsistence agriculture. Technological and scientific changes in American agriculture and in the extractive industries, together with lagging industrial development, have resulted in a set of interdependent forces which tend to establish a vicious cycle of poverty breeding more poverty. It is at once a problem of education, a problem of political structure and organization, a problem of culture and interaction of people, a problem of motivation or lack of motivation, and a problem of the application of science and technology to local conditions.

The population of this eastern Kentucky area in 1960 was approximately 600,000, having declined over 25 percent as a result of out-migration since 1950. Per capita income was $800, or about one-half that of the rest of the State as a whole, and one-third of the National average.

Employment in coal mining has dropped from a high of over 50,000 to 15,000 and is still declining as automation continues to take over. Farming in the area has always been subsistence in nature. Over 60 percent of the 35,000 farms in the area are classified as residential or part-time farms selling less than $250 worth of farm products annually. The average farm has approximately 70 acres, with less than 20 acres in open cropland. Three-fourths of the total land area is in forest.

Median school years completed by persons 25 and over

was 7.8 in 1960. Of the persons 25 years old and over, 24 percent have completed 4 years of school or less. The school dropout rate is about 50 percent. Health standards are low; malnutrition is evident among many school age children. The number of people per medical doctor is three times the National average.

Finally, these counties have until recent years been extremely isolated. They have had an individualistic, familistic type of society and have been dependent upon the remainder of the State and Nation for much of their support. In many of the counties, almost half of the families are receiving one or more forms of welfare aid.

The Cooperative Extension Service of the University of Kentucky has been serving this section of the State since the early days of the Extension Service; though in many counties, staffs have been very limited because of inadequate local financing and staffing problems. Also, until recent years, the approaches, techniques, and program emphases have been quite similar to those used in the remainder of the State, with major attention being given to agriculture, home economics, and 4-H.

The new approach to Extension work in this region could probably best be characterized as an extremely intensive application of the principles, objectives, and techniques employed by Extension Services across the Nation as they become involved in broader programs of economic development and social improvement. It involves a recognition of Extension's basic role in organization and planning, and in providing, wherever possible and appropriate, the needed technical and educational subject matter, regardless of the field.

This approach involves a recognition of the fact that in such an area, rural and urban problems cannot be separated; consequently, the emphasis is on county and area development in its broadest sense rather than on either rural or urban development. It involves a realistic appraisal of the agricultural, physical, and human resources of the region, and attempts to tailor the program to these resources. Finally it includes an appreciation of the need for many new technical and educational resources and the role and responsibility of the total Land-Grant institution in supplying these new resources.

First efforts to reshape and reorient Extension work in east Kentucky began in 1959 with special committees of State personnel and agents making very probing and realistic appraisals of the situation and problems in the region, our past and present approaches to helping solve these problems, and changes which would enable us to serve the region more effectively.

In early 1960 the effort received a major boost through a sizable grant from the W. K. Kellogg Foundation to establish a team of resource development specialists in the region. This project, the Eastern Kentucky Resource Development Project, functions as a part of the Cooperative Extension Service and provides technical, educational, and organizational resources heretofore unavailable. Subject-matter fields in which specialists are working are as follows: Community development, small business management, resource development, horticulture, basics of living, youth, adult guidance, poultry, animal husbandry, public information, and tourism and recreation. Tentative plans have been made for the addition of a public affairs education specialist. Two area Extension agents in development are also working in the region.

Operation Youth—Members of East Kentucky Youth Development Team prepare a stay-in-school campaign.

Major efforts to date can be grouped into three broad categories of organization, human development, and economic development.

Organization

One of the major deterrents to progress and development in the region has been the lack of organized effort at the county and area level. In cooperation with other State and Federal agencies, a massive effort has been made to assist the leadership in perfecting needed organizations. Presently, every county in the 30-county region has some type of county development council or association and these 30 county groups are organized into eight area development councils. Overall plans for economic and social improvement have been developed by each of these groups and are modified from time to time as needed.

County Extension agents, with assistance from resource specialists and area agents, have provided the professional leadership for these organizations at the county level. Resource specialists and area Extension agents provide much of this leadership at the area level. The progress in organization and cooperative efforts at the county and area level is especially encouraging

since the region has historically been characterized by its individualistic, familistic patterns with strong allegiance to the local neighborhood and community.

Human resource development

It is recognized that the central objective in this total development effort is that of human resource development. Much educational effort is devoted to seminars, workshops, meetings, and informal contacts designed to help the people better understand their situation, problems, and opportunities. Leadership development receives major attention and some encouraging results are beginning to appear through awakened and enlivened leaders willing to commit their time, financial resources, and influence to the job to be done. County seminars for key leaders, both lay and professional, have been held in eight counties. These seminars are conducted over a period of 6 to 8 weeks and are designed to help the leadership develop a better understanding of the situation, problems, potentials, and limitations of the county. Resource specialists and other university personnel serve as speakers and discussion leaders for these sessions.

In the field of youth development, special emphasis is placed on career exploration and on the school dropout problem. Work on the dropout problem strives to create an awareness and concern on the part of both lay people and educators of the severity of the problem. Two regionwide seminars and three area meetings have been held to present and further interpret the problem and develop needed solutions.

The organized approach to working with homemakers has, with a few exceptions been relatively unsuccessful in the region. Consequently, work on family living and other homemaking problems is usually conducted on an individual basis or in the form of special projects and activities with the overall county development groups. For example, pilot projects in home improvement have been established in four counties. Special educational programs have been conducted for counties participating in the Federal Food Stamp Program.

Economic development

The limited agricultural resources of the region call for specialized approaches to generating new agricultural income. To date efforts have been concentrated on feeder pigs, greenhouses, and poultry—because of the low requirements of land for these enterprises. Feeder pig production in the region has increased from 4,000 to 9,000 in the past 2 years Eighty plastic greenhouses with an annual income of over $200,000 are now operating and one three-county area is making an encouraging start in commercial egg production.

In the field of industrial and business development, major attention is given to the development of small local industries with emphasis on wood. Four new wood industries have been established and three were expanded during the past 2 years. The University Forestry Department has established, with financial assistance from the Area Redevelopment Administration, a $642,000 Wood Utilization Demonstration Center to facilitate this effort.

Management assistance is provided to small businesses and industries through management institutes and individual consultation. The management institutes are designed to assist small businesses with common problems.

Assistance is rendered to families and communities in the development of home industries programs. For example, over 150 persons in one community have been trained in the art of hooking rugs for market through the Arts and Crafts Division of the State Department of Commerce.

In the field of tourism and recreation, major attention is given to (1) assisting tourist facility operators in upgrading their facilities, service, and operational procedures and management; (2) advising and assisting in the development of new tourist facilities and attractions; and (3) educating the people on the requirements for development of a major tourist industry.

We think our experiences during the past 3 years have certainly demonstrated that the Cooperative Extension Service can and should be one of the key agencies in an overall development program, athough many other agencies, both public and private, must be involved and contributing.

Although approaches, techniques, and needs will vary across the Nation, we think the following guidelines are extremely important as Extension further broadens its program of service:

1. To function in this role, we must provide new kinds of training for present workers and employ new workers, both specialists and agents, with different skills and experiences.

2. The new and demanding responsibilities cannot be assumed unless we first find ways of reducing time spent on chores and responsibilities carried in the past.

3. Providing and developing leadership for organizing and planning for overall development means that many workers will be spending more time with organizations and groups and less on individual problems.

4. Public affairs education has an extremely important role in overall development and Extension must assume major responsibility for this.

5. The total educational resources of the university must be utilized if Extension is to function most effectively in this broadened role.

6. Programs can no longer be built largely around county units. Multi-county program projects and activities grouped around economic centers are essential and we must gear our resources and approaches more in this direction.

7. To work effectively on new problems with new clientele, we must change our image from that of strictly an agricultural or rural educational organization to that of an organization representing the entire university with resources that can help families and communities meet their total needs.

Our concept of the approach we are taking in east Kentucky is one of education for action. Education is viewed as a part of action and sometimes the most important part of the action process. Whether, in given situations, it is the most important part of action, it is the part which is the primary concern and responsibilty of the Extension Service. ■

by MARY ANN OWEN, *San Miguel County Home Agent, Las Vegas, New Mexico*

THE FOOD STAMP PROGRAM has been helpful in improving diets and raising the nutritional level for many families in San Miguel County, New Mexico. My county was one of eight chosen by the USDA in 1961 to be a pilot study area to test the program. By the end of 1963, the Food Stamp Program included 40 counties and 3 cities in 22 States.

San Miguel County is typical of the counties of northern New Mexico. Here the rural people of Spanish descent live on small, irrigated farms averaging 5 to 10 acres. Often they are hidden in the folds of the hills, where the people, forming tiny villages, live much as their ancestors lived for many generations.

Individual holdings, divided as families increased in size, have become so small that now often half of the adult male population of the rural farming communities are obligated to leave home to seek work and wages in industrial areas. Even then, money is not adequate to take care of family needs and many are forced to accept public assistance. Hence, the Food Stamp Program has been a real boon to the people.

In the beginning, participants in San Miguel County had difficulty in adjusting their buying habits. They found themselves with increased buying power and little knowledge of how to use it to benefit their family. Many tended to buy choice or fancy foods such as pastries. It was at this stage where the need for an educational program became evident.

Twenty-five agencies of the county were called together at Las Vegas by the Agricultural Marketing Service representative to discuss the Food Stamp Program and decide what could be done to help the people in food buying and nutrition. A county nutrition committee was set up to guide the educational program and the county home agent was named chairman and coordinator.

The committee's action program included nutrition classes for welfare case workers, community meetings on food buying, marketing tours to local stores, and home visits.

The county home agent worked closely with the Agricutural Marketing Service to prepare nutrition "spots" for the local radio station and "Food News"—a newsletter distributed in grocery stores. These releases featured plentiful foods and the grocers paid for the printing of the leaflets. Educational limitations and backgrounds of the audience had to be kept in mind. Information was kept simple and was written in both Spanish and English.

In 1961, when the Food Stamp Program went into effect in my county, there were 560 families (1,677 persons) participating. A year later there were 783 families (3,679 persons) taking part.

In purchases of fresh produce, there was a 4 percent decrease due to a plentiful supply of homegrown vegetables. This is understandable.

Grocery sales increased 12.5 percent after the Food Stamp Program went into effect.

After one of the spot checks, Tom Kline, AMS representative on the Food Stamp Program, told a group in Las Vegas that nearly half of grocery store receipts for that period were coupons.

Studies were conducted periodically to determine if families were changing their eating habits. It was learned that the recipients of food stamps have better diets than low-income families not participating in the program. Studies show that recipients of food stamps consumed more milk, more meat, and more fruits and vegetables. In addition they learned how to plan meals around the four essential food groups. They were taught about food nutrients and what foods to buy to get them.

In general those associated with the program consider it successful. An attitude study showed that more than 90 percent of participating families expressed approval of the program, primarily because it offered a greater variety of food. All polled retailers indicated they liked the program. Local welfare workers felt that the program was generally more successful than the commodity donation program in increasing food consumption among low-income families.

Much still needs to be done to help recipients with meal planning and budgeting. Future plans are to make greater use of mass media in disseminating information and to work through the public schools to extend and expand nutrition education. ■

4-H girls can save money by preserving their own foods.

4-H Projects Profitable For Low-Income Families In Mercer County

by CLIFTON DOTSON,
Mercer County 4-H Agent, Princeton, West Virginia

HOW MUCH money can I make if I carry the Pig-feeding Project? What will it cost me to do a project? These are questions asked often by many 4-H Club members. Boys and girls know that money is scarce in the low-income family budget. Parents also want to know what to expect. So, the county Extension agents work with parents and club members to help them see the value of taking projects that will benefit the home.

Through the Potato, Small Fruits, and Pig-feeding Projects in Mercer County, 4-H members and their families can definitely point to increases in their family incomes. Many families are not now in the extreme low-income bracket only because their youth participated in 4-H projects that helped to increase family income.

The knowledge obtained in production and marketing has helped the parents as well as the 4-H members. Economic facts that members receive help parents do a better job in keeping records.

In Mercer County the 4-H agent and the agricultural agent work together to help 4-H members and their families receive and use information relative to production, marketing, and record keeping of 4-H projects.

Pig-feeding projects most profitable

Pig-feeding Projects have been most profitable for 90 Mercer County families during the last 12 years. Six families which had the greatest returns included 17 4-H members. Besides providing meat for family consumption, the six families earned a total of $6,411.26. The smallest amount earned by one of the six families with one 4-H member was $618.80, while the top earnings of $2,060.23 went to another family with six 4-H members.

The club members and their parents learn from County Agent Richard E. Harbert how to feed, care for, butcher, trim, cure, smoke, and get the meat ready for sale.

The Bluefield Kiwanis Club sponsors a 4-H Ham and Bacon Show and Sale annually.

The 90 families in the county who have participated in the Pig-feeding Project during the past 12 years have realized total earnings of about $22,000 from the county shows and sales. This has served to greatly supplement the family income.

Potatoes and small fruits

The Potato Project has brought a total of $2,601.55 from 12 annual shows and sales sponsored by the Princeton Bank and Trust Company. A total of 188 club members from 110 families have participated. Many families through cooperation with the county Extension office, which suggested sales outlets, sold their surplus potatoes at market prices. In this project, members and their parents learned the value and importance of soil preparation and treatment, use of certified seed, cultivation and care, grading, packaging, marketing, and record keeping.

Small fruits have played an important part in the economy of 4-H families. Over a period of 3 years, 20 families earned a total of $4,495.59 in the production and sale of strawberries and black raspberries.

Three families have continued to produce and sell strawberries commercially. The greater part of their incomes is realized from small fruit production that started as 4-H Club projects.

Other projects

The planting and sales of Christmas trees by one family in cooperation with their three sons' 4-H Conservation Projects helped to pay for the boys' college educations. Two of the boys sold trees valued at $800 one year. This family now has a thriving Christmas tree business. In addition to their own trees, they purchase large numbers of trees from other sources to sell at the holiday season.

This same family now has a flourishing business owning and managing a kennel. Interest grew out of the 4-H

Dog Project completed by their son who obtained two registered pups and later began production and sale. Over a 2-year period, he sold puppies valued at $1,150.

A 4-H member from another family sold three puppies for $150. This project has a definite place in the family income.

These projects have had an important place in the economy of 4-H families in Mercer County. The total incomes listed are from specific projects shown by shows and sales which amount to $31,212.31. We have no way of knowing exactly how much income has been realized by families over the years by enlarging upon a 4-H project which began on a simple basis. One mother stated that her daughter's education was realized because of her 4-H Strawberry and Potato Projects. She also stated that the family has earned at least $2,736.90 through the production and sale of strawberries commercially. "This has proved to me," the 4-H mother said, "that we can learn to stand on our own feet and earn a decent living. 4-H Club work helped us to learn this fact."

What about "money-saving" projects? During the past 10 years literally hundreds of girls have owned more clothes and have been better dressed because they learned to sew by carrying the 4-H Clothing Projects. They saved money because materials and patterns cost less than readymade garments.

One 4-H girl from Mercer County is now the head of the alteration department in a large clothing store.

These two 4-H members are preparing meat for smoking.

4-H electricity projects are another way to save money.

She stated last summer, "I attribute my knowedge and interest in sewing to my 4-H Clothing Projects."

Members help their families with their food budgets by production, preparation, and preservation of foods.

Money is also saved by club members learning to care for the family car in their study of the 4-H Automotive Project.

The same is true with the Electric Project. Many expenses are saved because members learn how to repair electrical equipment in the home.

The girl who completes the Child Care Project learns how to bathe, dress, feed, play with, and care for a child. She also learns how to make needed garments for the child. She often uses this knowledge to earn income by babysitting outside the home.

Many 4-H members now have more attractive, comfortable rooms in their homes and have saved money by learning how to use simple ideas taught in the Room Improvement Project.

4-H Club Projects have definitely increased the income of families in Mercer County.

What has been done with this money?

It is obvious that much of the money goes toward subsistence of families. Others bank part of it to assure higher education for their members. Part of the money has been spent for farm equipment.

What do club members learn from all this planning, production, marketing? Through regular monthy meetings 4-H members learn the art of cooperation and working together toward a common goal. They learn to speak before groups, give demonstrations and to judge quality products. They learn the value of community service. They learn to take a good look at themselves and their own fourfold development to help them become better citizens for tomorrow. This proves that 4-H principles and down-to-earth family and other group activities are very important in the lives of families in any community. ■

F. R. Spencer has shown "limited resources" families . . .

How To Grow into the Livestock Business

by VIRGIL E. ADAMS, *Extension Editor—News, Georgia*

■ It would not be inaccurate to say that F. R. Spencer has made a specialty of working with farm families with limited resources.

Except for 9 months in another county, 3 years in the Army, and 1 year of graduate study, Spencer has been Associate County Agent in Meriwether County, Georgia, since October 1, 1932.

Located in the northwest section of the Peach State, Meriwether's 19,000 residents include some 9,000 Negro citizens. There are approximately 800 colored farmers in the county, and it is with this group primarily that Spencer has worked.

Because of his program of "Better Farm Practices and Better Family Living" many of these families have moved up from the "limited resources" category. They are enjoying increased income and a higher standard of living because they accepted Extension's teachings regarding swine, poultry, and beef cattle production. Not only has the livestock industry enabled these people to stay on the farm, but in many instances it has helped them to become landowners instead of tenants.

Meriwether County had long depended upon cotton as the major cash crop. Pimiento peppers were introduced in the county more than a decade ago, and in recent years they have been the number two cash crop. Lately, however, the soil bank and other conservation programs have resulted in less acreage being devoted to row crops. This meant, in turn, that less farm labor was needed. Consequently, Spencer turned his efforts toward the promotion of swine, poultry, and beef cattle in order to take up the slack.

He has been successful in the program for a number of reasons. One of the most important was the realization that these farmers did not have the capital to buy into the livestock industry: *they would have to grow into it.*

While the results of his work only recently have become significantly evident, the groundwork was laid back in the early 30's. As early as 1916 the first ham and egg show in Georgia was held at Fort Valley,the brainchild of retired County Agent, O. S. O'Neal. The events spread throughout the State and are now conducted in about 25 counties

Spencer recalls that the first show was held in Meriwether in 1934. He said: "The hams were too long, the shoulders too wide, and the bacon too salty."

Today it is different.

Farmers have learned to produce 10- to 16-pound hams, hickory smoked to a chestnut brown. They easily sell for $1 a pound. With better breeding and feeding, farmers can get a No. 1 hog in 6 months. With better swine have come improved pastures and corn crops, up-to-date disease and parasite control—just better management all around.

"Our farmers realize that a good ham comes from a good hog," Spencer said.

At first the ham and egg show was only educational. It has now become an important source of income for Negro farmers of the county.

In 1937, eggs were dispayed for the first time. Since then Meriwether County's poultry has improved tremendously. Mongrel-type chickens have disappeared. Improved housing has come with better brooding and feeding practices. Farm families are doing a good job of cleaning and grading eggs.

It all adds up to better meat and poultry products for the market and more and better food on the farm.

Interest in beef production came a little later . Spencer recalls that it was in 1937 that six 4-H Club boys got feeder calves through a program sponsored by the Citizens and Southern National Bank. The beef cattle industry was at such a low ebb in the State at that time that the calves had to be shipped in. At that time, no Negro farmer in the county owned even a crossbred beef calf or cow—much less a purebred.

As often happens, an adult farmer became interested in beef production after watching his two sons achieve success through the 4-H program. In 1940 George Martin purchased a registered Hereford bull calf and this was the beginning of the first crossbred beef herd owned by a Negro farmer in Meriwether County.

Along about this time the 4-H emphasis was changed from feeder steers to crossbred heifers. Five boys were picked each year to receive calves through the chain, and later the first offsprings were passed on to other 4-H boys.

The program got a boost in 1952 when Miss Georgia Wilkins of Columbus, Georgia began donating $100 a year to be used for 4-H Club work with Negro youth in Meriwether County. She gave $100 a year (a total of $600) until her death. In her will she left $3,500 to be

Spencer (right) tells livestock farmer Allen Blunt "When you spend a lifetime killing grass, you have to spend another lifetime growing it." But he has been able to show farmers in his county that Coastal Bermuda will grow 400 pounds of beef per acre, and that grass is necessary if they are going to be successful and grow into the livestock business.

used for promotion of 4-H in the county. This money, along with the original $600, has been used and paid back by 4-H members year after year.

As a result of all this, approximately 80 "limited resources" families now own beef cattle herds. Spencer works closely with 17 herd owners, keeping accurate records on their operations and using them as demonstrations to get across additional information about livestock farming The beef cattle program, along with swine and poultry, has helped nearly 100 families to become landowners, and continue to live on the farms where they were born.

Agent Spencer would be the first to admit that the transition has not been easy.

"When you spend a lifetime killing grass," he says, "you have to spend another lifetime growing it. Most of our farmers grew up fighting grass, because grassy cotton and peppers don't do very well. Naturally, there was resistance to the idea of planting grass. But we have been able to convince our farmers that Coastal Bermuda will grow 400 pounds of beef per acre, and that grass is necessary if we are to get into the livestock industry."

Spencer has used many methods to teach livestock to his farmers. But of all the techniques, he believes personal contact during on-farm visits has been his best tool.

"I believe sales are sometimes made on the 20th call," he said, "because some people are slow to change. Over and over I tell them, then tell them what I told them, and then tell them over again."

Through the years, farmers of Meriwether County have learned pretty well when to expect the Extension worker on their places. He follows a weekly schedule of community and farm visits, bringing with him information on markets, weather, fertilization, and other timely practices.

In recent years, tours have played an important part in Spencer's educational program. Begun in 1948, the annual tour is held each summer and includes stops at 10 to 12 farms throughout the county. The tour group visits farmers who agree in January to carry out specific practices recommended by the Extension Service. These demonstration plots may be as small as one acre, but they have been used effectively through the years to show the results of using modern farming techniques.

Outlook and planning meetings have also become an important part of Spencer's work. The outlook meeting is held in December each year, with the county agent bringing information regarding crops as well as livestock. The County Program Planning Committee then meets to set up goals for the year. This committee includes 15 leading farmers and an equal number of homemakers and represents as many communities.

In addition to the Extension outlook information, the Planning Committee has the benefit of information from the County ASCS Office.

Spencer says the farmers with whom he works are enthusiastic about their future in Meriwether County. They have proved to themselves that a large amount of capital is not needed to expand their enterprises, but that they can use their limited resources to *grow* into the livestock business.

This expanded program has taken up the slack brought about by reduced acreage in row crops, and has resulted in improved quality of meat and poultry for home use, plus a surplus to be sold for supplemental income. ■

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RAD—No Quick, Easy Solutions

HELPING RAD committees take a long, hard look at what's causing troubles isn't easy. But there's no effective shortcut. Local people need to come to grips with their problems, and pick the most important ones. They need to agree on what directions they want development to take, and make sure projects are practical. And they've got to work together.

Here are some brief examples of ways Extension has aided development groups. Maybe you'll find some ideas to help you.

What's hurting most?

There are lots of ways to help people study their situations, identify opportunities and problems, and set some priorities for tackling them.

Missouri, North Carolina, and New York are the latest to do this with self-administered discussion groups. Through informal, small group meetings, people are helped to analyze local problems.

West Virginia successfully used a panel of "experts" to help local people probe their problems.

Utah, Pennsylvania, Delaware, and California have used State resource development conferences. These are followed up with regional, area, and county study sessions where both major problems and prime resources are explored.

Kansas employs a pattern of regional research on local problems, individual and community goals, resources, and leadership. In Lane County, Kansas, the agent followed up with a series of well-attended dinner meetings, where featured speakers summarized the research findings. Buzz sessions helped pinpoint key problems, for their development group to work on.

An Arizona RAD committee asked Extension to help them to develop a questionnaire and train interviewers, so they could conduct their own problem census.

An old-fashioned New England town-meeting approach has been successfully used in Vermont.

What to do and will it work?

First efforts need to be "do-able" as well as significant. There's nothing more discouraging to development groups than starting with a project that's too big or that will take years to achieve.

Deciding what to do is, of course, partly dependent on the probability of success. That's why Oklahoma RAD groups place a high value on the assistance of economists who've helped them rate economic feasibility of some proposed projects. One county committee figured this saved them from frittering away a lot of effort on projects that wouldn't pan out and helped them concentrate on ones that would.

Folks in Colquitt County, Georgia, focused on improving farming practices. Concentrating their efforts, they upped agricultural income steadily, from $15.6 million in 1957 to $21.2 million in 1962.

Helping groups to learn what industry looks for in locating plants can make development efforts more effective. Louisiana agents use State research results that show the importance of markets and raw materials in plant location decisions. (This same research revealed that "inducements" were vital to only one of 43 firms.) North Dakota published a checklist, with a guide to help communities trying to locate an industry.

In a multi-county area in North Central Arkansas, agents have built an area program around projects where people recognize the problem is bigger than any one county can handle alone. It began with just one project, and now has blossomed out into a half-dozen interrelated efforts. Each success builds a basis for better cooperation.

Working together

The President's cabinet-level Rural Development Committee has pointed out that the major ingredient for success in development work is "local initiative and local leadership."

Here's how Iowa agents made sure a 10-county area found effective leaders. Agents asked four or five leaders in each county for the names of five leaders who'd be good at planning social and economic development—plus another five who'd be good at putting plans into action. Then agents went to the people named and asked them the same kind of questions. Those named most often became the core of the planning and action groups for area development. They're good hard workers. But more important—they're recognized leaders.

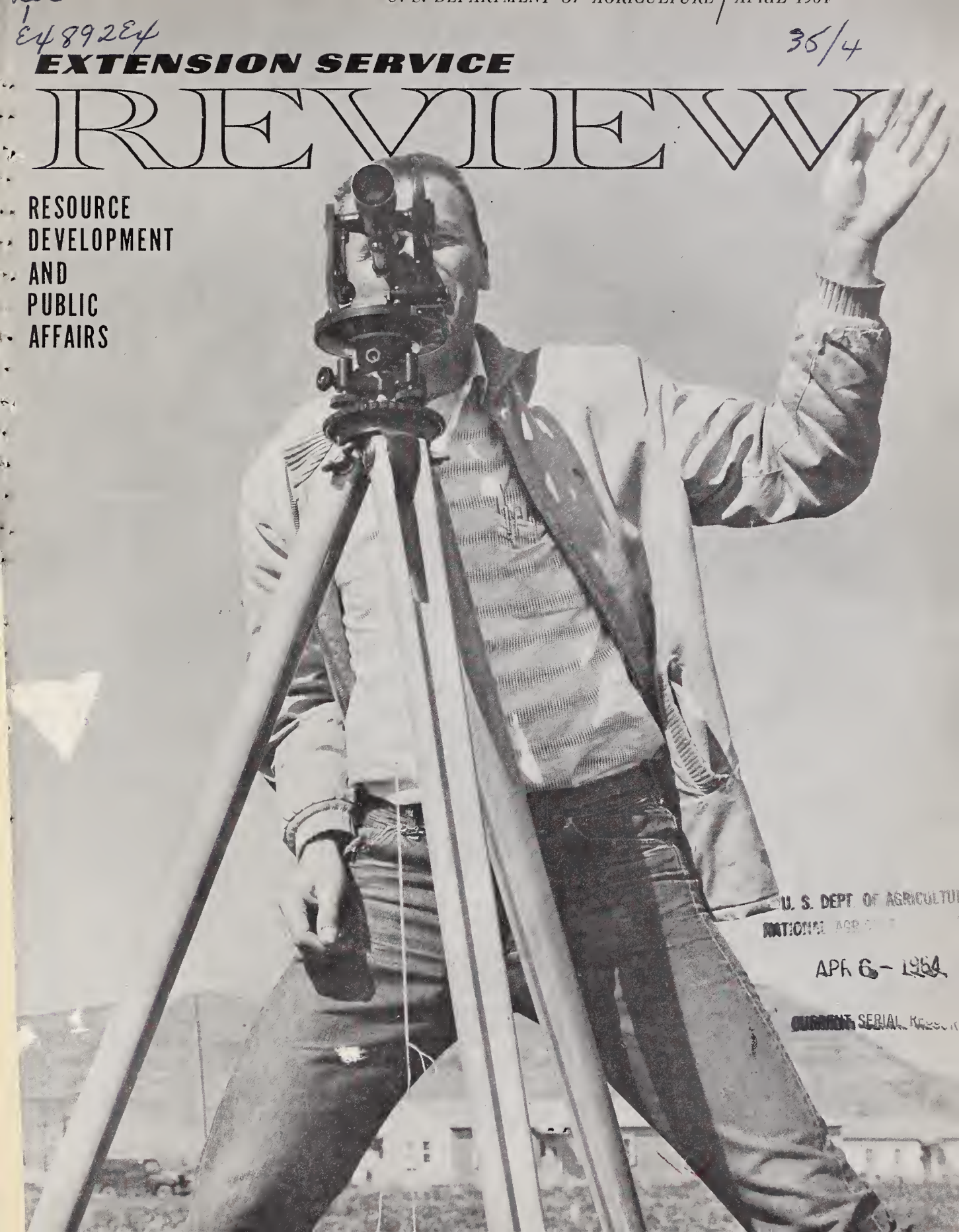
Federal, State, and local agencies and organizations can be effective partners in progress. Extension workers in Ohio, West Virginia, Georgia, and Minnesota have compiled lists of State agencies and organizations and the kinds of help they can give resource development. (Similar to USDA's "Pegs for Progress" or the Department of Commerce's "Handbook of Federal Aids to Communities".)

Resource development isn't just working with things. It's working with people. They are the most important resource. That's why real involvement of local people—right from the start—is so important. *Don Dickson, Federal Extension Service.*

EXTENSION SERVICE

REVIEW

RESOURCE DEVELOPMENT AND PUBLIC AFFAIRS



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The Extension Service Review is for Extension educators—in County, State, and Federal Extension agencies—who work directly or indirectly to help people learn how to use the newest findings in agriculture and home economics research to bring about a more abundant life for themselves and their communities.

The Review offers the Extension worker, in his role of educational leader, professional guideposts, new routes and tools for speedier, more successful endeavor. Through this exchange of methods, tried and found successful by Extension agents, the Review serves as a source of ideas and useful information on how to reach people and thus help them utilize more fully their own resources, to farm more efficiently, and to make the home and community a better place to live.

ORVILLE L. FREEMAN
Secretary of Agriculture

LLOYD H. DAVIS, *Administrator*
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EXTENSION SERVICE
REVIEW

Official monthly publication of Cooperative Extension Service: U. S. Department of Agriculture and State Land-Grant Colleges and Universities cooperating.

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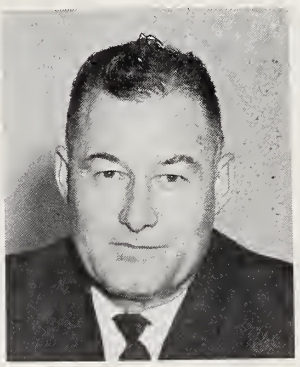


John A. Cox of Louisiana was recently named Deputy Administrator of the Federal Extension Service.

The new deputy administrator has been director of the Louisiana Cooperative Extension Service since August 1961. Prior to that, Mr. Cox served 12 years as horticulturist and 3 years as State Agent on the Louisiana Extension staff.

Mr. Cox was born near Winnsboro, Texas and raised on a farm in the vicinity of Mira, La. He holds B.S. and M.S. degrees in horticulture from Louisiana State University and has taken additional graduate work at LSU, the University of Arkansas, and Colorado State University.

More than 20 agricultural bulletins have been authored or co-authored by Mr. Cox. He is a member of the American Society for Horticultural Science, American Institute of Biological Science, the Louisiana Academy of Science, Association of Southern Agricultural Workers, The Army and Navy Legion of Valor, and many other associations.

Mr. Cox served in the U.S. Army during World War II. He was awarded the Distinguished Service Cross for extraordinary heroism, the Silver Star for gallantry in action, two Bronze Star Medals for meritorious achievement and action in ground combat, and two Purple Heart awards.

Public Affairs Education in Extension

by E. C. WEITZELL, *Director, Division of Resource Development and Public Affairs, Federal Extension Service*

PUBLIC affairs education is not new to Cooperative Extension. For more than 40 years, county agents and State specialists have administered various types of economic outlook information.

The concept of *public affairs* education derives from the *interests of many people* in certain questions or issues. Public interest attends the need for group decisions or the interaction of the thinking of many individuals to produce a result consistent with the common good. Intelligent and sound decisions on many new problems and issues which face rural people is one of Extension's greatest challenges.

The extremely rapid growth of technology in every facet of rural life, even to the types of soaps that we use to wash the dishes, and the tremendous increase in population, will bring even more perplexing problems during the years ahead. Problems of urbanization, rural zoning, school district consolidation, vocational training and retraining, taxation, sanitation, water supplies, chemical pesticides, and unemployment are only a few of the local issues causing deep concern in many communities today. Who is to provide the educational guidance needed as a basis for understanding and sound decision making regarding these matters? Cooperative Extension is the only educational institution available *now* to meet these needs.

Farmers need to understand those problems generated by agriculture, in terms of their relationship to the economy as a whole. They need to understand the problems of the nonfarm economy as well. Business leaders and nonfarm people generally need to have a more accurate image and understanding of farm policies and programs. This is especially true as farmers slip to less than 5 percent of a total population having many needs to share in a tight National budget. As the *educational arm* of Agriculture, it is Cooperative Extension that will do this job.

The 1958 Statement of Scope and Responsibility of Cooperative Extension recognized this increasingly important part of Extension's job. It pointed out: "The increasingly complex interdependence of agriculture and other segments of our economy is causing rural people to have a greater and more definitive concern with public affairs issues that bear directly upon their welfare. They are turning to the Extension Service, as a readily available informal educational Service, for help in acquiring facts and for methods of analyzing and appraising such facts. . . . Extension has an important obligation in this area and a responsibility to help farm people understand issues affecting them. . . ."

Meeting this obligation immediately suggests the need for utilizing many talents and disciplines. As new problems appear and other become more complex, additional competencies are needed. The task of Extension public affairs specialists is one of organizing and programing the several competencies and disciplines into an effective and objective communication team.

For example, educational programs concerning wheat policy may involve economists, agronomists, and farm management specialists. For matters concerning local government, political scientists, tax economists, educators, and zoning experts may be essential to an adequate presentation.

An effective public affairs program must reach a large majority of the intended audience. In order to do so with the limited resources available to Extension, many successful public affairs programs are focused first to opinion leaders who will in turn bring facts and objective analyses to others through all types of organizations and contacts. The 1964 "Operation Advance" program conducted by the New York Extension Service will have more than 50,000 participating opinion leaders. With this participation at the county level, substantial influence can be brought to the understanding and thinking of more rural people.

In public affairs education, Extention often deals with issues in which pressure group interests may be in conflict. In fact, most public affairs may be controversial. This means that program materials must be carefully and objectively prepared, and program leaders must subordinate their personal prejudices and commitments. The aim is not to tell people what is "right and wrong," but to impart facts and analytical guidance that will enable them to make their own judgments and decisions. In this respect, it was gratifying to review the materials produced by the States in connection with the 1964 wheat referendum.

As Cooperative Extension prepares to fulfill the need for an increasingly large public affairs role, most Extension specialists and other University staff members will be involved. Entomologists, chemists, agronomists, and home economists will participate in efforts to aid the public understand the use of agricultural chemicals. Farm policy and programs will involve most competencies in the Colleges of Agriculture, while resource development may draw on disciplines throughout the University.

The ideas expressed here are not particularly new, but they need to be reviewed periodically. It is suggested that Extension administrators, program leaders, and public affairs specialists may find substantial guidance in the reexamination of "A Guide to Extension Programs for the Future." This Guide is based on the "Scope" report and the Public Affairs section justifies frequent reference, especially as new staff members are trained and oriented as public affairs specialists. The committee that prepared the report concluded its introductory statement by observing: "This is a form of help which responsible citizens need and appreciate. It offers a challenge to which Extension can and should respond vigorously." ■

Getting At Social Factors and Human Development In Program Planning

by E. J. NIEDERFRANK
Rural Sociologist, Federal Extension Service
and DARYL K. HEASLEY
Rural Sociologist, Pennsylvania Extension Service

EXTENSION workers and volunteer leaders in planning committees are accustomed to assembling and studying agricultural statistics—percent of farms with electricity and water systems, trends in the farm population, and other data on the farm and home.

But economic problems, community conditions, and human development situations are much more difficult to get at; and therefore, are frequently neglected or slighted in program planning. However, the basic concern must be for the welfare of the people and to help them improve their lot. This is the difference between a *people-centered* program geared to human development and one that is only *subject-centered.*

Our role is changing from informing people about predetermined practices to one of teaching problem solving. But how do we go about such program planning? What should a county planning committee or resource development committee consider, and how?

Rationale comes first. Actually we have no standard criteria or list of items about community living and human development to be used in all situations. Such an approach would be unsound. There are, however, certain basic areas affecting both human development and employability which may serve as guidelines.

Years ago E. L. Kirkpatrick wrote a book and several bulletins on standards of living, based on his research about family activities and expenditures for different items such as *food, clothing, housing, education, health, religion, recreation, and social life.* Out of such studies came a comprehensive bulletin published in 1930, which was prepared by a committee of rural sociologists and other contributors including the USDA. The bulletin was entitled "Standards of Living—Let's Live While We Work."

Since then other researches and writings through the years verify Kirkpatrick's headings as still the important areas of family and community living to plan about today. Youth development, leadership development, and adult education to increase employability are some of the practical sides of these currently receiving attention.

We also know from research and extension experience that a rise in standards of living, based on one or more motivations, must come before we can expect much rise in levels of living. Thus, we direct educational leadership to helping people lift their standards as well as level of living, and this is part of the function of program planning.

Social change concept

Program planning in Extension through the years has emphasized the problem-solving process, beginning with identification of real problems or felt needs. However, problems cannot be adequately identified without first studying the situations out of which they arise and the direction in which they are going. This is especially true in resource development and community affairs, where socioeconomic changes characterize most situations.

Therefore, social scientists suggest that in many cases program planning should start with the concept of social *change* in mind, rather than starting with the concept of *problem.* Social change framework provides important apriori analysis. With it you ask these basic questions:

(1) Where have we been? What has been the socioeconomic history of our area? What changes have occurred?

(2) Where are we now? What are recent experiences or occurrences and results? Where does it look like we are heading? What are probable consequences?

(3) Where do we want to go? What do we want to see happen? Why? Toward what goals or objectives do we want to aim for family and community living, or for whatever subject is considered?

(4) What do we need to do to get there? What potentials do we have? What specific problems stand in the way? What are alternative courses of action and resources? Do we have a plan of action?

The accompanying sketch shows this model in simplified form using youth development as the subject. It may be used at various places in program development, perhaps looking first at the total county or area situation in overall perspective. Then use the same questions in analyzing specific situations or subjects,

leading up to identification of real problems, potentials, and specific plans of action that will be effective. Such a line of analysis will provide greater awareness, understanding, and motivation than by starting with only needs or problems.

Other suggestions

Delimit or concentrate. You don't have to cover the whole spectrum of living or organize a raft of committees at the same time. Pinpoint for immediacy. Remember that good program planning with the people is in itself a basic educational process where not only plans are made, but greater understanding, motivation, and leadership are gained as well.

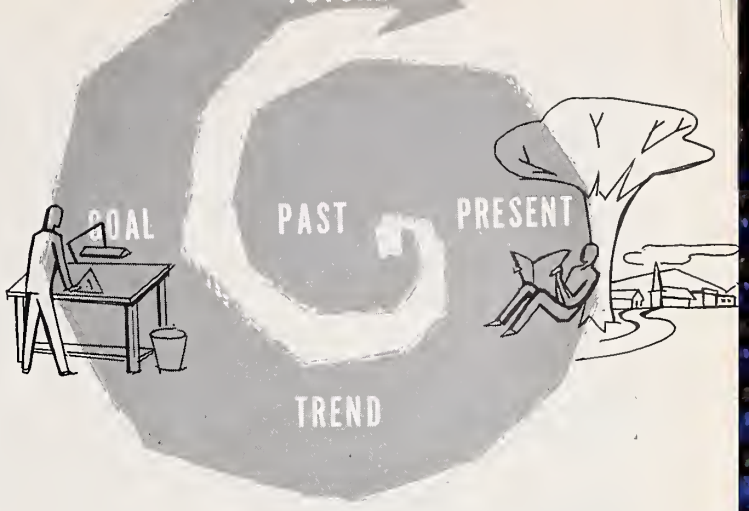
Study the selected subject areas in depth. For example, take the education and youth development situation which is especially prominent today. Assemble and study data on such questions as the trends in percentage of young people attending high school; percentage of "dropouts;" percentage going to college or advanced training; percentage with no apparent future plans; or percentage leaving the community, where they went and what they are doing.

These are only some of the significant questions which must not only be raised, but must be answered for continued community understanding of this problem. Answers to these questions either create or answer other questions. For example, are our educational facilities and instruction adequate for providing young people with what they will need tomorrow? What about social opportunities? Do we need adult education? Perhaps, even more important, should local communities attempt to train and hold all their young people? Similar questions could be raised about health, recreation, land-use planning and zoning, and rural-urban cooperation.

The important steps are: (1) To think hard on what are the most significant concerns of people and factors in "our" situation, (2) to assemble facts that bear on these subjects, and (3) to have these facts and ideas well presented and thoroughly discussed in organizations and program planning groups. Emphasize potentials and possibilities, not just needs or problems.

Organize some of your program development to study the overall situation of different important groups of people in the county, involving leadership from them, rather than studying only subjects or problem areas as such. For examples, older youth, low-income families, commercial farmers, young families, or the elderly.

Another approach is to study by communities. Several years ago Oklahoma began using this method. Extension staff and county program committee members sit down for a day with local leaders community by community. They start with a map of the county and work out the general boundary line of their community; then they discuss the changes that have taken place, progress and problems or concerns, and potentials and goals of the local people. This method produces much useful information for developing an overall, long-range county program, as well as local involvement and leadership. The community development program which has now spread all across the South, affecting nearly 5,000 small local communities, is a similar approach.



Situation Analysis Model

Consider the quality of facilities, services, and other community living as well as the quantities and numbers of people participating.

The survey method is being used more and more in Extension program planning and resource development, as a means of determining information about the concerns and conditions of people and of motivating them through involvement.

Local surveys are of two types. One is the general survey which is designed to look at the total county in telescope fashion. The other is the specific subject type, such as that which a special interest committee might make about its particular area of responsibility.

Any of the several suggestions mentioned are effective depending on the situation, and others could be listed. The individual can decide which (or what combination) to use for his particular case. Whatever procedures are used, there are two "musts" in order to make resource development planning most meaningful. You must:

(1) Involve men, women and youth, appropriate to given situations; also especially consider involvement of the young families. In too many cases program development groups are not representative enough to produce the most meaningful and needed types of programs.

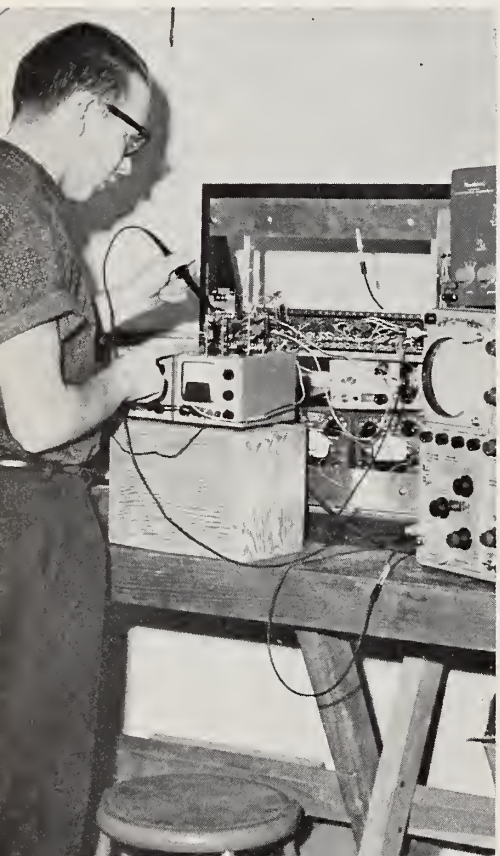
(2) Think hard about sources of information for planning and helping carry out programs. Resource development work is teaching Extension workers about better involvement of many resources beyond Extension to get more depth and soundness into analysis and plans. Here is where we ought to be able to provide unique leadership—serving as leaders in planning without having to possess all the facts or do all the teaching.

The future condition for Extension and for Rural America is full of both challenge and opportunity. We must, however, to paraphrase Secretary Freemen, "be concerned with *communities* as well as *commodities* if these challenges and opportunities are to be met in meaningful ways." ■

Developing More Power For the Job in Montana

by JOHN C. BOWER
Extension Economist
Montana

County RAD committees encourage more vocational training emphasis in our present educational system.



OUR FIRST efforts in Montana in undertaking a program in human resource development were related to the Rural Development Program of 1955. Other Montana Extension specialists, including those in human resources, farm management, youth, and RAD have been cooperating on this program in recent years.

In 1959 our Extension economists sponsored a series of 3-day Agricultural Adjustment and Policy meetings for county staff members. Out of these training meetings emerged a vivid picture of the need for a program to increase awareness of the rapidly changing scene in agriculture. It was evident that rural people needed to increase their understanding of non-agricultural changes as well as those in agriculture because many of them, particularly maturing youth, would soon join the nonfarm group.

In 1961 we developed a comprehensive program outline of activities for the State with major emphasis on "Careers For Montana Youth." This was the main theme of the Annual 4-H Congress at which over 500 4-H members from all counties spent a week on the Montana State College campus. It was also a major program topic at the Annual Conference of our Division of Agriculture staff.

At the State level we prepared: 1. a program outline; 2. a 15-page bulletin, "There Is a Job in Your Future;" 3. a 6-page leaflet, "Montana Can Grow;" 4. a 15-minute color film "More Power for the Job;" 5. data pointing up the number of new jobs needed by 1965 and 1970 to accommodate the increasing numbers of maturing youth, by counties; 6. a teaching guide for county and community leaders; 7. magazine and newspaper articles; 8. radio tapes.

Two State-level committees are active in this program. The first is an on-campus committee with representation from the Divisions of Agriculture, Home Economics, and Education, with the purpose of preparing material for an educational program and developing a program of activities for county agents and interested local groups.

The second is a State RAD subcommittee to study the manpower situation in Montana, and encourage the formation of county RAD committees to do the same. Both committees will encourage actions to increase the awareness of rural people, particularly youth, of the changing opportunities for careers in agriculture and non-agriculture. They will also encourage increased emphasis on vocational and technical training in our educational system.

As county RAD committees are organized they quickly become aware of the lack of employment opportunities for the increasing numbers of maturing youth. For example, in Carbon County they found that 185 youth would reach age 18 in 1965 and that 65 *new* jobs would be needed if those wanting jobs were to be accommodated in the county. These facts motivate the committees to explore the opportunity to increase employment and to consider ways and means to provide education, training, and retraining opportunities for the present and potential job seekers.

Statewide, Montana needs a 3 percent annual increase in jobs to accommodate the growing number of youth entering the labor force. Since 1956 average non-agricultural employment in Montana has grown about one-tenth of one percent per year. Farm employment has dropped significantly.

County agents and specialists have developed the program in cooperation with RAD committees, home demonstration clubs, school guidance counselors, teachers, service clubs, State Employment Service, and 4-H Club leaders.

Program content includes encouragement of RAD subcommittees on manpower to study the local manpower situation, education and training needs, and resources available, including special programs such as those of the Area Redevelopment Administration and the Manpower Development and Training Act.

Eleven thousand copies of "There Is A Job in Your Future" have been distributed to high school students, parents, and leaders. Teachers are using them as resource material for classes in career outlook. The film is being used in college classes of students training to be teachers, by high school teachers, and by county agents with 4-H and other youth clubs. Civic groups, RAD committees, and HDA clubs have used the film which has also been sold to other States.

Five thousand copies of the leaflet have been distributed primarily to people playing leadership roles in counties and communities. ■

The Decisions Program

by ROBERT W. WILCOX
Extension Economist
and VIRGIL D. KENNEDY
Farm Management Specialist
Idaho

THE GREAT DECISIONS discussion program or Decisions Program as it was later known was first made available in Idaho during the mid-fifties. The discussion materials and assistance in organization of discussion groups was provided by the Foreign Policy Association. This was supplemented by organizational efforts of the Executive Secretary of the Borah Foundation, an endowed foundation administered by a University of Idaho staff committee. The Agricultural Extension Service became involved as part of the total University effort to make the program available to people in the State.

Extension's effort was confined to organizational and promotional work by two specialists who devote part of their time to public affairs education. The promotional effort took the form of direct work with county personnel to inform them of the program and encourage their assistance in bringing it to the attention of local people. County offices also served as distribution points for the discussion materials.

We were interested in this type program since it seemed to give us an opportunity to broaden our coverage of topics in the foreign policy field. Idaho agricultural producers have a stake in our foreign trade policy, particularly in wheat exports and competition from imports of wool and meats. In addition, they have an interest in our relationships as citizens with other countries.

We believed it worthwhile to spend some effort on this program to gain access to resources of the Borah Foundation and the Foreign Policy Association. In cooperation with the Political Science staff of the University, we examined discussion material prepared by the Foreign Policy Association to satisfy ourselves that they were of high quality and purely educational in nature.

The Decisions discussion program was set up to operate through self-administered discussion groups. These were organized on a community basis and were led by people within the groups. Our activity was in bringing it to the attention of local people, assisting them in organization, making the discussion material available, and providing leadership training for the people who led the discussions if they felt the need for such training.

Our involvement in the program has continued since 1955. We put in as much effort as possible within the time available. The Foreign Policy Association gave us direct assistance through personnel from the San Francisco regional office in promotion and organization. The Borah Foundation executive secretary helped with organization and promotion.

Our experience with this program indicates several things are required if a self-administered discussion program is to work successfully. First and most important, is that the discussion must deal with a topic having broad appeal. This will give the participation needed to justify the effort involved in organizational and service work. Secondly, there must be willingness on the part of interested people to organize groups and lead the discussion. If the participants have only a passive interest, the necessary leadership will not be available for this type program.

Discussion materials high in quality, brief, and accurate are another necessity. We found that people will not read a great deal and may not read the materials between discussion sessions. This means there is a need for some review or actual study of materials at the time of the session.

Another important factor is that someone in the community must take the lead in organizing the activity and providing the focal point for interested people. This may mean a minimum of work where interested people organize themselves into groups but may require substantial effort where there is no natural grouping of those interested in the discussion topics. Our Extension agents could give some direction and attention to the organizational effort but were not able to provide all the leadership for this kind of effort.

Some groups felt the need for training in discussion leading, others did not. Some groups had one discussion leader throughout the series, others rotated the leadership. We provided leader training on request.

The discussion series was set up on the basis of eight topics. We always emphasized that the number of topics discussed in any group was a matter of their choice. A question-answer sheet was included with each set of discussion materials. These were to be filled out and returned to the Borah Foundation for summary. This was also voluntary.

The topics dealt primarily with foreign policy. As such, they tended to be somewhat distant from the experience of most people and were topics or situations over which they felt they had little influence. As a result, participants tended to be those with a greater-than-average knowledge of foreign policy and with an interest in becoming still better informed. The average person in knowledge and experience is more difficult to bring into the program and harder to hold. These people seem to have more trouble understanding the value of the program as primarily a broadening of their knowledge and understanding of the problems involved, giving them better basis on which to operate as citizens. This objective seemed to be too nebulous for most people.

In conclusion, we think we could tell you that this type of educational approach offers distinct possibilities where the topic or topics to be discussed are of widespread interest, where organizational and service support are adequate, and where the number of topics would be limited in any one season. ■

Making Flood Waters Behave

—the story of Cameron, West Virginia

by GEORGE SHARPE, *Extension Soil Conservation Specialist, West Virginia*

A PROJECT worthy of note and stemming from the Watershed Protection and Flood Prevention Act concerns a small city in the southeastern corner of Marshall County, West Virginia, which started and grew up on the flood plains of the Upper Grave Creek. It is called Cameron. For many years floods plagued this town. Some persons moved to higher ground, but others moved in to rebuild or build new homes and businesses in the low area. So life continued and more floods came. The people moved out, cleaned up, and moved back.

Other problems dealing with water were also developing. Droughts were creating an even worse problem than floods. The town's system of wells was no longer adequate to take care of the demand for water. Droughts and the lack of water also brought pollution problems and warnings from the State Water Commission.

These problems, together with the general economic depression, caused some people to leave, but others stayed and began giving serious thought to their dilemma.

Then came the great flood of 1948. Caused by a cloudburst on the hills of the north fork of Upper Grave Creek, it came so fast at night that little could be done except get people out of the way. The force of the water was so great that it exploded concrete walks, rolled up the blacktop covering the old brick section of U.S. 250. When all was over and a count taken, this little city had been damaged to the extent of over $90,000.

First dam built under Public Law 566 in West Virginia serves for flood control as well as city water supply.

A little later another flood almost ruined one of the town's prize industries, a greenhouse and plant garden, and caused over $35,000 damage to a pottery plant.

To cope with these problems a Cameron Planning Commission was established. Frank Walker, Executive Vice-President of the local bank, was elected President. Under his guidance, the 15-member commission began to look for answers to their problem. At a *Farming for Better Living* dinner, Mr. Walker sat beside his friend, Ben Blackburn, Work Unit Conservationist for the Soil Conservation Service, and talked about floods and water. About this time the Salem Pilot Watershed at Salem, West Virginia, was getting started. Blackburn and the District farmer-supervisors of the Northern Panhandle Soil Conservation District made arrangements for a member of the Cameron Planning Commission to visit that watershed.

After the visit, the Planning Commission and Mr. Walker felt sure they had the answer. So they had a number of meetings with Blackburn, the Soil Conservation District Supervisors, and officials from the State and Federal SCS offices. The first job was to make a survey of all the flood damages. Using the information gathered by many volunteers, the report was prepared and ready when Congress passed the Watershed Protection and Flood Prevention Act, Public Law 566.

With the passage of PL 566, the Governor of West Virginia appointed the State Soil Conservation Committee to act for the State and approve or reject applications for assistance on a watershed project. After a number of meetings of the townspeople of Cameron, assisted by SCS, Extension Service, Agricultural Conservation Committeemen, and Northern Panhandle SCD Supervisors, the application was presented and approved by the State Soil Conservation Committee.

Work was started on the Watershed Work Plan. It soon became apparent that money would be needed—money for easements and rights-of-way for dam sites. One very important item in the plan was a city reservoir such as Salem had developed in its pilot watershed program.

The City of Cameron and the Planning Commission decided to completely replace the old water system—wells, pumphouse, and all. This water system had been commissioned in 1857. Thus it had been in operation over 100 years by the time the new plant was ready.

The final work plan, which was estimated to reduce annual losses of over $93,000 from floods and sediment damage by $62,000, was signed on September 29, 1955. The Northern Panhandle Soil Conservation District ap-

proved on October 6, 1955. Then the plan went to the Cameron City Council where it was approved and signed. This final draft was sent to the SCS administrator for signature, approval, and processing.

Now they were really on their way. The commission started out to raise $15,000. They actually came up with pledges for about $26,000 and have collected over $20,000 to date. The Volunteer Fire Department took an active part in raising these funds.

Easements and rights-of-way had to be obtained. The city sold bonds for $185,000 for the city reservoir and bought the site for the new plant, dam, reservoir pool, and flood water area. The city received a break in 1956 when Congress amended PL 566 so that the Federal Government could pay for all flood water storage or flood features in the multipurpose dam. This saved the city about $21,000.

The City of Cameron had in operation the first plan under PL 566 in West Virginia, and the first multipurpose dam, for city water supply and flood control features, under this Act in the Nation.

Things were beginning to move fast: the first contracts were let on August 8, 1957.

The site for No. 3 dam had to be purchased so a group of citizens put up the money to buy it. All other sites with one exception were donated for some small compensations. On three sites the landowners gave the land in exchange for water rights for their cattle, which required only water lines and concrete watering troughs. As it turned out this was better than money in the bank because in 1962 and again in 1963 this was the only water these farmers had for their livestock. On another dam site, a road had to be built over the dam so the farmer could get to the upper end of his farm.

Still another problem which had to be worked out by the Commission was getting pipelines, both oil and gas, moved out of an area where the dams were to be built. On dam No. 7 they ran into some difficulty. The company who owned the pipelines wanted $11,000 to move their lines. It was here that the State Legislature came to the rescue of West Virginia's Watershed programs. It appropriated $50,000 to the State Soil Conservation Committee to be used by Soil Conservation Districts for helping small watershed associations purchase easements and rights-of-way. The State Committee made available the $11,000 needed for Dam No. 7. But still the Pipeline Company refused, so an alternate site was purchased for $2,600 with the rest of the money being returned to the State Soil Conservation Committee's watershed fund to be used on some other project.

The dams are built and little has been said about the 3.6 miles of stream channel that had to be straightened, deepened, banks sloped, and seeded. Former Mayor Richard Burley, who owns and operates a tire retreading garage in the former flood zone area of Cameron said, "Now that we have all seven dams built and the creek straightened you will have to go to the next hollow or at least over the hill to see a flood." He pointed out that last spring Wheeling Creek, which is just over the hill from Upper Grave Creek, flooded and caused well over a million dollars damage. Dam No. 7 was not quite complete, but Upper Grave Creek stayed in her banks.

Another part of the project which deals with the 4,920 acres (320 acres are in Pennsylvania) in the project is to assist the landowner and farmer to complete conservation practices established on the land above the dams. Thirty-one of the 41 farmers are cooperators with the Northern Panhandle Soil Conservation District. Most of the land is in pasture, hay, and forest. Twenty percent is Class VII land and 50 percent has lost 50 to 75 percent of its topsoil. Very little grain is grown now, and most of it is in small areas that are nearly level or in contour strips. About 60 to 70 percent of the open land has been limed, but only 10 to 15 percent treated with fertilizer. Ten of these farmers have revised their conservation farm plans since 1961.

The agriculture in this area is now in its third phase. The area started as a grain-producing section with farmers selling their grain to "drovers" as they drove herds of cattle to eastern markets. The next phase was fine wool sheep, and here some of the finest wool in the world was produced. Now, in the third period, they have changed to dairying. A large milk company operates a bulk station at Cameron.

Now you would think that these people would be satisfied. But they are not. They have found that by working together they can do things.

New businesses are coming to town. The leather goods factory is adding a small tannery: this plant employs 80 women as stitchers. A small metal works plans to expand. The glass cutting business has increased. The greenhouses are now well protected and are back in business bigger than ever.

One program which was missed in the early planning and wasn't started until it was too late to get it included in the project, was a recreation area. But plans are in progress to take care of this beginning this spring. At present they are thinking of the area above the city reservoir.

This spring, Cameron is also planning to start a much needed sewage disposal system at an estimated cost of $200,000. In view of what the 1,700 public spirited citizens of this little city and community have already accomplished, this project too should become a reality. ■

Cleaning debris from US Highway 250 after 1948 flood.

People Learn Leadership In Local RAD Committee

by JEAN CASTLE, *Extension Home Agent, Beltrami County, Minnesota*

AS WITH any effective program in Rural Areas Development, the secret of success with Health, Education, and Welfare committees is to utilize local leaders.

Once the process is started, it can create a chain reaction. You start with local community leaders who call upon other reliable, energetic, and sincere persons. These persons in turn inform others, and you have —in a very real sense—a people's program.

Beltrami County's RAD program is carried out by nearly 500 volunteers. They face many of the problems shared by other small communities in the United States. Three valuable assets at their command are: An understanding of the county situation; an awareness of the goals they wish to achieve; and an eagerness to find the direction in which they must begin.

Beltrami County is located on the edge of the northeastern complex in Northern Minnesota, with a population of 23,425 and a median income (including all workers) of $3,949. Out-migration is most evident among people from ages 18 to 25 who find more favorable employment elsewhere. Agriculture, forestry, and tourism are important in the county.

Among the seven committees of the Beltrami County Area Development Association, is the Health-Education-Welfare committee. Under the enthusiastic direction of Mrs. Jim Grier, the first chairman of the group, the committee took a long look at the county situation. Since the committee was free to develop a program to suit the needs of the county, it began with the main area of health.

In order to begin any organized effort, a group must have information about the local situation. To collect information, women from all over the county cooperated in completing a health survey. Since no county public nurse was employed, the women investigated this situation. They found funds were available for this position and a qualified public health nurse was found and hired.

When Extension agents have organizational responsibilities, they often select workers who have been active leaders in previous Extension activities.

The RAD program was expanded to involve many new clientele in Beltrami County, including community leaders who felt the challenge of the program. People who had not been considered to be local leaders often became effective members of the county RAD team.

All the HEW committee members cooperated in writing the Overall Economic Development Plan (OEDP) for Beltrami County. New leaders showed real promise as they related the county plan to their own communities.

Problems of the aging

The HEW committee is primarily interested in raising the level of family living in the area. Mrs. Grier pointed out that 10 percent of the population was 65 years of age and above, and the only organized programs centered around three "golden age" church groups.

With these facts in mind, a county-wide meeting was held dealing with the problems of aging. A dynamic guest speaker, group discussion, and informal chatting over refreshments all contributed to the group enthusiasm. Of the 100 persons attending, over 30 volunteered that day to assist in a county program. When these 30 met a week later, the Beltrami County Senior Citizens Council was formed.

After that meeting the "oldsters" launched into action. A huge picnic for senior citizens was the first project. County merchants cooperated to supply refreshments. Prizes were awarded, the Governor of the State was the guest speaker, and over 500 persons from all over Northern Minnesota attended.

A special cooking school, initiated by the council, was presented for senior citizens by home economists from a local electric power company. *The Basic Four in the Diet, Cooking Nutritious Food for Two,* and *The Use of Appliances* gave valuable information to stimulate improvement in the diets of older persons.

Housing and craft projects

Inadequate housing is a problem of the area, since half of the dwellings are not in sound condition and have no plumbing facilities. The council's housing subcommittee is promoting cooperative or civic-owned apartment building facilities for senior citizens.

Older persons have free time to devote to hobby and craft work, and fill many leisure hours in this manner. However, with meager pensions, some find it difficult to buy materials to pursue their hobbies.

Working on the theory that if the articles could be sold, older men and women would be able to afford their hobbies and also realize some extra income. A hobby group was organized and training workshops were developed to teach art principles and methods of making attractive articles for sale.

The Bemidji Chamber of Commerce provided space in the information building, located in a prime spot near the statues of Paul Bunyan and Babe the Blue Ox, a famous tourist attraction in the area.

Although any hobby craft was accepted to be sold, special emphasis was placed on articles made from native materials. At the end of the first 2-month season the manager of the Senior Citizens Craft Shop, reported $3,000 worth of locally-made articles sold. The committee could not keep up with the demand for articles and the shop was sold out part of the time. Although the HEW committee objectives are to improve family living conditions, the mem-

bers take new courage when the by-product of an activity shows such financial promise.

Plans for this summer are to operate on a 3-month season with coordinated work schedules of volunteer help. The group has been working all winter to encourage local residents to stockpile crafts for summer sale. The net earnings were earmarked for a badly-needed community center where groups of all ages could meet.

Until the Senior Citizens Council can muster enough support for a community center, recreation and social get-togethers are held in the demonstration kitchen of the local electric cooperative, in the warmup area of the curling club, whenever group activity is possible. For many older people, this is the only outside stimulation in their otherwise lonely lives.

Work items on the agenda for the council include an area hobby show, development of recreation groups in all areas of the county, a visitation service for persons confined to their homes, and regular educational programs for senior citizens.

Mrs. Charles Sattgast shows pine cone tree to two craft shop volunteers.

Education study

When Mrs. Grier moved to another State, chairmanship of the HEW committee went to Paul Olstad, Beltrami County treasurer. The committee then embarked on a study of education.

Adequate school systems are provided for kindergarten through grade 12 and Bemidji State College offers Bachelor and Master's degrees in a variety of areas. The committee took a close look at the youth who leave the area upon graduation, the youth who find local employment, and the youth who end up in the unemployment lines. The committee noted a definite need for vocational training in the skilled and semiskilled trades that was not being met in the county.

A vocational training study group consists of local businessmen, civic leaders, PTA leaders, school representatives, employment service personnel, farmers, and homemakers. This group sponsored a survey which was carried out by the area vocational training coordinator. Survey forms were completed by all high school juniors and seniors in a 50-mile radius of Bemidji, indicating their plans and preference for further education.

This survey gave the group concrete facts from which to work. The project is still in the developmental stage, but the committee is hopeful that something can be done for this segment of the educational system.

The project would not only mean an improvement of the education level of the people, but could result in greater economic growth for the area if a ready supply of skilled workers would attract an industry to the area.

Extension's role

All the organizational meetings of the RAD groups were initiated by the County Extension Service. When the particular committee or project was ready, it was placed in the hands of an interested and reliable local leader. Extension workers continue to act as resource persons for the groups and assist with some of the clerical work. Agents also handle much of the publicity.

The HEW committee is quite helpful in program planning for the regular Extension program by suggesting needs and problem areas throughout the county.

"To do the most with what we already have" is pretty much the philosophy of the HEW committee. All their special projects and activities have been carried by volunteer donations with no special public funds from local, State, or Federal sources.

The strength gained by working through a group has been recognized by committee members. This was pointed out by a rural man who said, "I have been aware of these problems for years and could not do anything alone; now I feel anything we do as a group will be of real help."

In any successful project there are countless unrecognized workers. This is true of some 200 different volunteers who have assisted with HEW programs. In Beltrami County these persons are rewarded with the knowledge that they have contributed in their own capacity to make the various projects successful and their communities better for their neighbors and themselves. ■

Arkansas Develops Rural Recreation Program

by T. R. BETTON, *Arkansas Extension Service*

■ In 1963 Arkansas began four rural area recreational programs for Negro youth. Three of these programs will be continued in 1964 and the fourth is being expanded into a countywide program. Records show that about 25,000 attended the supervised programs.

The need for the program was seen by T. R. Betton and Marguerite P. Williams, agents for Negro work in Arkansas, W. M. Pierce, fieldman, Arkansas Farm Bureau, joined the group for initial planning.

In developing the program, leaders were primarily concerned with creating situations in the rural areas that would offer wholesome and supervised recreation for Negro youths during the summer months. The program, designed to include both educational training and recreation included athletics, conservation, outdoor living, handicraft, career exploration, and community service-type projects.

Director C. A. Vines indicated that the need for community recreational programs was acute and suggested that the committee continue with plans. The assistant director, district supervisors and 4-H Club agents gave their sanction to the program. They helped to prepare a statement of objectives and a list of activities that encompassed the scope of the proposed pilot programs. Dr. Kenneth L. Johnson, director, Department of Physical Education A.M.&N. College, Pine Bluff, helped to develop the complete community recreational program which will serve as a longtime guide to leaders.

Programs are fine, but it takes money to operate them. The committee was faced with "where does it come from." I approached the presidents of A.M.&N. College and Philander Smith College of Little Rock about making scholarships available to junior students majoring in physical education or the social sciences.

Dr. Lawrence A. Davis, President, A.M.&N. College agreed to grant as many as four $400 scholarships. Dr. Roosevelt D. Crockett of Philander Smith College agreed to set up two $200 scholarships. To offer further financial help 22 County Farm Bureau units donated $10 each to be used in the four programs. Other private contributions amounted to another $200. The program was sponsored in each of the areas by a local committee who worked in the community in raising funds for the summer activities.

The Lakeview community in Phillips County raised almost $1,200, and during the summer attendance reached some 15,000. This project was sponsored by the Lakeview Cooperative and the Lakeview School. Community leaders agreed on the value of organized recreation to the community.

The Wynne community in Cross County was sponsored by local citizens. With the help of other members in the area the community raised $5,926.

In the Blackville community in Jackson County the committee raised $570.

The Barnes Memorial Physical Fitness Program in Jefferson County, raised some $425. With this kind of financial cooperation from the local communities the programs were assured in the four areas for 1963.

The proposals made to the local people in organizing their committees suggested that the program be broad enough to include activities for both boys and girls with provisions for some activity for adults. Sponsoring groups were to determine the activities which were best suited for the youth of the particular community. Outside resource persons were available to assist either group in developing ideas and program activities.

The Lakeview project offers a good example of the planning. In meeting several times and calling on resource persons, the committee developed a recreational program consisting of: Swimming, volleyball, tennis, baseball, softball, basketball, horseshoes, and archery. To do this type program they had to develop a beach, court, field, and picnic areas in the overall recreational area. Almost everyone worked on the project. The program was so successful that the committee called together resource persons, agricultural agency persons, and others to discuss continuing and expanding the program for 1964. Out of the meeting, held near the close of the season, came suggestions for a permanent recreational area to include 10 cabins, a community building, baseball park, swimming pool, skating rink, and bowling lanes. The group was talking in terms of $200,000 to $300,000.

The college boys who supervised the program did an adequate job. The scholarships by A.M.&N. College and Philander Smith College will be continued in 1964 and with the pilot projects a year old, the leadership in the communities look forward to an improved program in the four rural areas.

In addition to the scholarships the communities contributed from local funds from $40 to $60 per week to the boys for salary, room, and board. Plans are being made to fully utilize all six scholarships this year. Both Dr. Davis of A.M.&N. and Dr. Crockett of Philander Smith are putting the support of their institutions behind this program. They are working with other persons at the State level in Extension in the further planning of an overall program which would include many other areas in eastern and southern Arkansas. In the future they will present a proposal to a foundation for assistance in the development of a rural recreational program for youth and adults.

An evaluation made at the close of the summer activity indicated clearly that the program was well received by the local citizens. Comments from them have given the impetus for Extension to continue to work with interested persons at the State and local levels in expanding this type of educational and recreational assistance in the future. ■

Oregon 4-H'ers Learn Public Affairs Firsthand

by BURTON S. HUTTON
State 4-H Club Leader
Oregon

A group meets with the Oregon Forestry Department.

■ Each February a representative group of Oregon 4-H'ers travels to Salem to study their State government. The study is made in cooperation with elected and appointed officials. Both groups—the youth and the State officials—report the experience to be one of the highlights of the year.

The first conference was held in 1958 at the State Capitol and has been held annually since that time. It is dedicated to the principle of aiding a select group of 4-H Club members to better understand "the responsibilities of citizens to their government, and the responsibilities of government to the citizens." The initial program was developed in cooperation with the Office of the Governor. This procedure has been continued.

To participate in the conference the 4-H member must be 16 years old. Each of Oregon's 36 counties may send two delegates, one girl and one boy. The conference is the setting for the selection of the Oregon delgation to attend National 4-H Club Conference in Washington, D. C., the following April. Every delegate in the conference is interviewed. Three teams composed of businessmen and women, local 4-H Club leaders, and Extension personnel do the interviewing. Through this process an additional learning experience is provided for each 4-H delegate. At the same time the nine interviewers learn about the Oregon 4-H education program. Visiting with 74 young people between the ages of 16 and 19 gives a liberal indoctrination into what is taking place throughout the State—4-H-wise and otherwise.

The teaching program in this public affairs adventure on the part of the 4-H delegates is tooled to fit the biennial legislative situations. On the year when the Oregon legislature is in session the program naturally is more heavily oriented to the legislative phase of government. At no time, however, is the total program without suitable association with the executive and judicial side of governmental life as well as legislative.

The program is built on the basis of a discussion experience. The 1964 program illustrates this. Following an orientation session, the next day found the delegates in the House of Representatives chambers where the Secretary of State visited with them as did a representative from the Senate and House of Representatives. The delegates had an opportunity to question these men on the subjects discussed. At the supreme court building the chief justice was on hand to talk to the delegates in the court room. Questions again were the order with each delegate stepping to the front in the manner of an attorney addressing the court in a regular session.

The Governor answered questions at an informal meeting and similar experiences followed with the State treasurer and the legislative counsel.

But there is another part of government, the many vital departments that execute the functions of government and likewise affect the lives of all citizens. In the off-legislative year, such as 1964, representative departments work with the conference program. This year they were employment, Elections, Forestry, and Police.

The government officials have praised the nature of questions asked by the 4-H'ers. This reflects credit to the delegates as well as to the volunteer leaders, parents, school teachers, and county Extension staffs.

At the close of the conference there is evaluation by the delegates and on-the-spot reporting. Ideas are gained for the refinement of future meetings. The interviews have been completed and the delegation to National 4-H Club Conference announced. The delegates leave for home, a portion of their adventure completed. The remainder will be through the telling of their experience when they get back to school, their club meetings, and many other occasions where they may talk about "their" government and how they plan to "live with the framework" established by it.

Part of the dream about this conference was that it would set the pattern for the holding of similar "county 4-H conferences" tailored to the theme of "knowing your local government." This is being realized. Approximately a third of the Oregon counties now hold these conferences to study the local government. The youth visit the county courts, school officials, law enforcement officials, juvenile courts, detention facilities, and many other offices and services.

Usually the county conferences accept delegates from the ninth grade up.

Through this process of public affairs teaching, the Oregon 4-H Education program looks forward to the time when every Oregon county will be participating in this public affairs adventure. Through the combined process of the State and county conferences an ever-increasing number of 4-H Club members will have the opportunity to see how important elected officials are to the lives of the people of the State. In doing this, they will have reflected for them, partly through their own discussions, their part in this process. ■

RURAL RECREATION:

a commodity with no surplus problems

by E. L. STEWART
Chambers County Agricultural Agent
LaFayette, Alabama

and ROBERT R. CLARK
Rural Resource Development Specialist
Auburn, Alabama

A NEW TYPE of farming—cultivation of recreation—may spread over Alabama within the next decade. At least this is true if farmers and landowners foresee and take advantage of the opportunities as John C. Sharpe of LaFayette did.

Mr. and Mrs. Sharpe live on a 200-acre farm in the White Plains community of Chambers County. They are the fourth generation of Sharpes to own and operate this particular farm.

The Sharpes' operation of this farm has an interesting background. Until the early forties it was operated as a general row-crop farm with cotton being the major source of farm income. In 1943, the Sharpes added dairying to their farm program. Their decision to produce milk resulted from the establishment of a nearby manufactured milk plant. Sharpe continued to expand his dairy enterprise and after 3 years of operation, converted to grade A milk production. Dairying became and remained the major source of farm income until the mid-1950's—at which time they were milking 32 cows. This farm program provided the Sharpes and their two children with a comfortable farm income.

During the last 3 years of their dairying program, they began converting the farm into a commercial recreational enterprise. There are several reasons for making this change. A lack of family labor and Sharpe's own health were important factors in making the decision. Perhaps the main reason, however, was his vision of the future need for outdoor recreation facilities in the area. He realized the farm was easily accessible to the population of several small towns. He also realized that this population had the income, time, and desire for this type of recreation.

One of the main interests noted by Sharpe in the early stages of development was the demand for a suitable place to hold family reunions. He says, "This interest strengthened my own feelings toward developing a good wholesome outdoor recreation program for the entire family." Based on his past operation and future development plans, Sharpe has kept the entire family idea foremost in his mind.

At the time the Sharpes stopped dairying, about 100 people per week were visiting the farm for family reunions. During the past season, more than 600 people per week visited the Sharpe playground. He says, "I stay completely booked up in season on weekends and maintain a steady business during the week, most of which comes from within 50 miles of the playground."

It's easy to see why this enterprise is successful when you look out over the beautiful rolling countryside which was once row crop and pasture land. The numerous lakes and scenic woodlands give a picturesque setting for outdoor recreation. The entire playground is centered around an old log house built in 1875 by Sharpe's father. Five lakes—involving 50 acres—are stocked with bream, bass crappie, and channel catfish, offering a variety of fishing for the entire family. An 18-hole golf course, with sand putting surfaces, is developed on 75 to 100 acres where cotton and pasture grasses once grew. Two well-laid-out softball fields are conveniently located and are enjoyed by both children and adults.

Adjacent to the log house is a picnic and playground area. It includes picnic tables and barbeque pits, swings, merry-go-rounds, and six other types of rides. Facilities for other games include: Dirt basketball court, volleyball court, badminton, horseshoes, and concrete shuffleboard lanes.

Other facilities available consist of two family-size cabins, a small concession stand, a lookout tower, and an open-air chapel for devotions and church-sponsored programs.

Perhaps the most unique feature of Sharpe's operation is his ability to utilize available resources in the playground development. Much of the no longer needed farm machinery and equipment was used in building playground equipment. Parts of the old syrup mills, horse-drawn wagon, hayrake, and stalkcutter were used in constructing the merry-go-rounds. Disk harrow disks were turned upside down and painted to serve as softball bases. Timbers and lumber used came from woodland on the farm.

According to Sharpe, "It is impossible for me to determine my investment due to the unique way in which I developed the facilities; however, the investment is extremely low, a large part of which is my own labor."

The Sharpe playground is considered a commercial enterprise and is a major source of the family's income. But when you consider the prices charged, it becomes evident that factors other than income are also important to the Sharpes. An individual can spend the day and enjoy the picnic, playground area, and rides for 10 cents. To play golf, an extra 50 cents is charged. Sharpe says, "I have seen as many as 50 people on the golf course at one time." To fish in any or all of the five lakes, a charge of 50 cents per day is collected. Tables for family reunions may be reserved a year in advance for $1. An average of three to four family reunions are held per weekend during the summer season. However, as many as 11 reunions have been held at one time. The $2 per day charge for the cabins keeps them in demand by families and scout groups.

Sharpe says that these prices are below average for this area. The authors fully agree. Most pond owners charge a minimum of $1 per person per day for fishing in the area. The usual fee for playing golf ranges from $1.50 to $3.00 per day. Other similar recreational facilities charge at least 2½ times the entrance fee charged by Sharpe. Other charges could also be compared.

Below, Sharpe points out the chapel area and right, he indicates a good fishing spot in one of the five lakes.

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A wide variety of groups and individuals visit the "Sharpe Playground." These include family reunions, church groups, scout groups, civic clubs, 4-H and FFA clubs, farm organizations, community clubs, and families and individuals.

Sharpe says that he has received requests from large groups to reserve the entire playground. Of these organized groups, Sharpe rates family reunions and church groups as the most frequent visitors. He also rates picnicking as the most popular activity—fishing and golf follow.

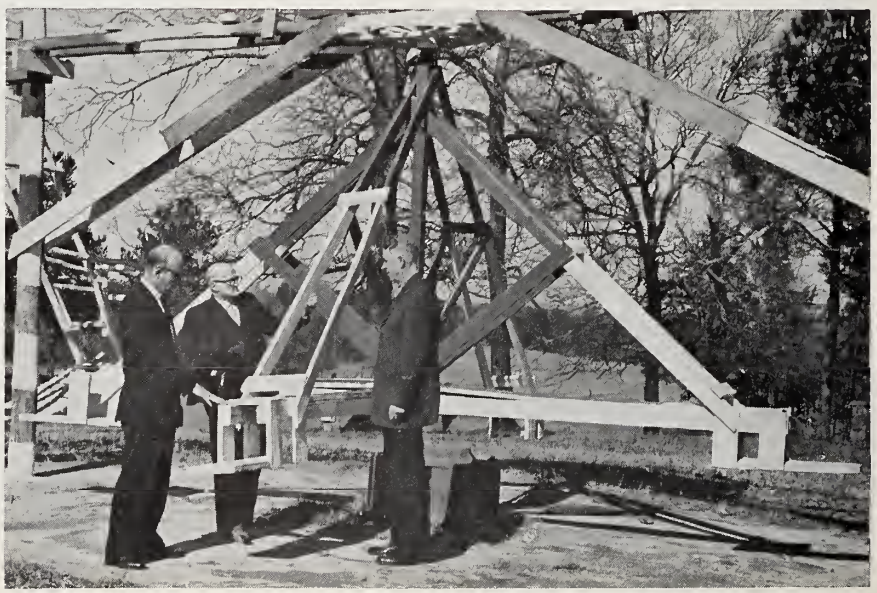
Although the activities are varied and the facilities are kept busy, Sharpe—70 years old—and one additional hand run the operation.

Sharpe believes that a project of this type calls for continuous improvement and development; that new facilities should be added to meet new demands and to reach other interest groups. With these ideas in mind, he has plans to develop facilities to serve campers, identify all trees in the area, develop nature and hiking trails, and provide riding horses. An additional lake is to be built and stocked.

As already indicated, Sharpe believes that there is an ever-increasing demand for more and better outdoor recreation facilities. At the same time, he points out that not everyone can be successful in recreational adventures. He feels that the operator must enjoy working with people. "I get great satisfaction in providing clean, wholesome recreation," says Sharpe. "It is much more enjoyable than plowing a mule or milking a cow." Sharpe places great emphasis on clean recreation. He says that this was one reason a golf course was added. He calls it a *game of honor*. "Golf," he continues, "is like life—you have your obstacles to overcome." This expresses the philosophy that governs the development of Sharpe's playground.

Although Sharpe has been primarily responsible for the development and management decisions, he is quick to recognize assistance in planning and development provided by several organizations, agencies, and individuals. Special assistance has been given by the Cooperative Extension Service, Soil Conservation Service, and the Agricultural Stabilization and Conservation Service.

Since the Rural Areas Development Committee was organized in Chambers County, Sharpe has been a member of the subcommittee on tourism and recreation. He believes that the RAD approach will do much to promote future recreational developments. Through committee meetings, discussions, and contacts with local leaders, Sharpe has broadened his views and gained a better understanding of the needs and potentials for further developing his recreational enterprise. ■



The authors and Sharpe look over the children's playground area.

U. S. DEPARTMENT OF AGRICULTURE / MAY 1964

EXTENSION SERVICE REVIEW

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The Extension Service Review is for Extension educators—in County, State, and Federal Extension agencies—who work directly or indirectly to help people learn how to use the newest findings in agriculture and home economics research to bring about a more abundant life for themselves and their communities.

The Review offers the Extension worker, in his role of educational leader, professional guideposts, new routes and tools for speedier, more successful endeavor. Through this exchange of methods, tried and found successful by Extension agents, the Review serves as a source of ideas and useful information on how to reach people and thus help them utilize more fully their own resources, to farm more efficiently, and to make the home and community a better place to live.

ORVILLE L. FREEMAN
Secretary of Agriculture

LLOYD H. DAVIS, *Administrator*
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EXTENSION SERVICE
REVIEW

Official monthly publication of Cooperative Extension Service: U. S. Department of Agriculture and State Land-Grant Colleges and Universities cooperating.

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EDITORIAL

Speaking in 1939 on "Twenty-five Years of Extension Work Under the Act of May 8, 1914," the late Dr. C. W. Warburton said:

"Twenty-five years is a pinpoint on the horizon of time, and yet the Extension Service, to which you men and women are bound by duty and high purpose to aid the rural life of America, may rightfully assert that in a quarter of a century it has accomplished far more for the public welfare than was ever dreamed by its sponsors."

Substitute 50 years for 25. I think his statement still holds true. These quotes from Dr. Warburton's 1939 remarks also have a timely ring:

"The Extension Service has met the changing trends and emergencies . . ."

"We must never lose sight of the fundamental that the Cooperative Extension Service must continue to be truly cooperative—a welding of the Federal, State, and county governments and of the rural people."

(Dr. Warburton for many years headed Extension work in the U.S. Department of Agriculture.)—WAL

Right, a 1914 home agent starts out for a meeting, visual aids tied to the car. Below, club members demonstrating the proper kinds of shoes.

by JEAN BRAND, GEORGE ENFIELD, *and* RALPH GROENING
Federal Extension Service

50 Years—and More—of Extension

IN A lamplighted country schoolhouse set on a midwestern prairie, a gathering of farmers and their wives listened attentively, a young professor from the State agricultural college was lecturing on the newest seed grain varieties.

This audience had raised money, petitioned the college, hauled wood for the potbellied stove. Now they were winding up their 3-day "farmers' institute." Most had traveled many miles each day to hear the latest scientific information from experts on farming and homemaking. The women had brought a basket dinner to add sociability to learning. Ahead was a long ride home in buckboard or sleigh, with sleepy children bundled in quilts. But these farm families were well satisfied that their "institute" was worth all the effort.

The scene was repeated in thousands of meeting places across the Nation, from the 1870's into the 20th century. In 1899, 47 States held such institutes, and half a million farmers attended them. The basic extension idea had been born of need. Only the format has changed.

Officially, it's the signing of the Smith-Lever Act on May 8, 1914, that we're celebrating with this golden anniversary. But by the time Senator Hoke Smith and Congressman Asbury F. Lever gave their names to the law that founded Cooperative Extension, rural Americans already had had some 40 years of learning through extension teaching.

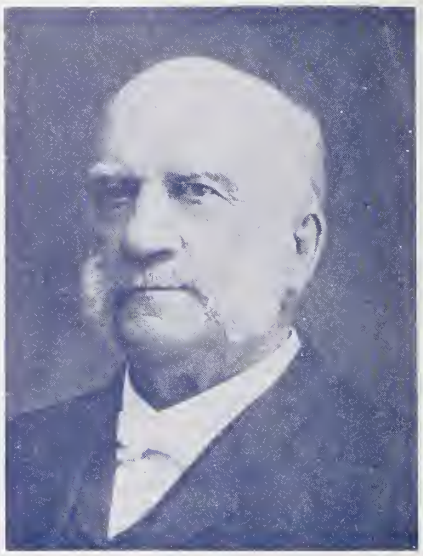
1903-1914—An Idea Grows

This three-way Federal-State-local partnership of ours got going in different ways in different parts of the country. The agricultural colleges were independently undertaking field demonstrations, lectures, traveling libraries, boys' and girls' clubs, in addition to the institutes. In the early 1900's the colleges were appointing some of their outstanding professors of agriculture as the first superintendents of extension work: Fred Rankin of Kansas, in 1902; A. B. Graham, the great force behind 4-H, appointed in Ohio in 1905; P. G. Holden at Iowa in 1906; George Christie at Purdue in 1907; and others.

About the same time, USDA was responding to the need for extension. Dr. Seaman A. Knapp, representing the Bureau of Plant Industry in the South, began his greatest work at the age of 70. Today, the old Porter farm near Terrell, Texas, is marked as the place where "the first farm demonstration was established" in 1903. There, Knapp persuaded practical-minded Walter Porter to devote part of his land to an experiment. It convinced the neighbors of the advantages of scientific agronomy in the face of a boll weevil invasion.

Hoke Smith

A. F. Lever



Seaman A. Knapp

The same year, in Iowa, Professor Perry Holden was helping Sioux County farmers plan demonstration plots supported by county tax money. In 1904, some 20 USDA agents toured Texas, Louisiana, and Arkansas, enrolling 7,000 farms for demonstrations.

Soon, occasional meetings weren't enough. Farmers wanted their own "live-in" county agent. Smith County, Texas, got the first one—W. C. Stallings—on November 12, 1906. The same day in Alabama, T. M. Campbell of Tuskeegee Institute was appointed farm agent.

As the pattern worked out, in the South the agents were usually Federal employees appointed on the advice of local businessmen and farmers. In the North and West, "farm bureaus" grew up, sponsored by local chambers of commerce and businesses. They hired county agents with the help of the colleges and USDA.

The Smith-Lever Act gave a new name to Seaman Knapp's "Farmers' Cooperative Demonstration Work," assured it support, and made it National in scope. When Cooperative Extension took shape, Knapp's office was merged with W. J. Spillman's Office of Farm Management that had been doing demonstration work in the North.

Still there were some farmers skeptical of this new breed of agricultural missionaries who brought knowledge from laboratories and college test plots. One avenue to parents was through their children. Boys' corn clubs and girls' canning clubs, which brought lessons home to the whole family, expanded into the 4-H program. The years 1913-14 saw the beginning of extension work with homemakers, broadening the vision of farm women while they learned practical lessons in cooking, sewing, and sanitation.

World War I

Wartime county agents worked with farmers and home gardeners to raise more food; 4-H'ers shifted their energy into growing food; and home demonstration agents taught housewives to preserve more. Volunteer local leaders proved their worth at this time.

Through the 1920's, agents stressed better seed, irrigation, disease control. They helped farmers organize co-ops. Dedicated generalists, they navigated dirt roads in Model-T's, rode mules, walked, to reach farmers who needed them. They could be seen carrying chickenhouse models, blueprints, and feed formulas from meeting to meeting, urging farmers to greater production.

The Depression

But with recovery from the war, foreign markets all but vanished, and our geared-up agricultural machine felt surpluses and lower prices. Depression swept the country.

To aid in this economic crisis, Congress passed laws to control production, for crop insurance, soil conservation, food stamp plans, school lunches, farm credit, crop storage, rural electrification. It was the county Extension agent who usually set up the machinery to help elected committees organize these programs locally.

As one old Extension hand said, "We've nurtured a lot of babies . . ." Many of these programs grew into full-fledged government agencies. Extension workers now serve on many of these agency committees, help interpret their policies to Extension's audiences.

There were also down-to-earth self-help programs like the one where families, taught by home agents, gathered in community workshops to make their own mattresses from government surplus cotton.

World War II—1941-1945

Extension workers served a second time with distinction, helping farmers and city "victory gardeners"

The 1918 club at Malden, Massachusetts, marches to the club garden. Left, an Indiana 4-H girl of the 1920's.

increase the food supply. County agents conducted a farm-by-farm campaign to get farmers to sign up for production goals, urging them to plant idle land. Congress set up a farm labor program, put Extension in charge. Home agents aided the work of the Women's Land Army as town and city women joined up as "farmerettes" to harvest fruits and vegetables. Young people served as Victory Farm Volunteers during vacations, and Extension helped train them. We campaigned to get farmers to repair farm machinery themselves, and to collect scrap iron for salvage.

The 1950's On—Expansion

The fifties were a period of adjustment for Cooperative Extension. Wider audiences had to be reached, farm-city relationships strengthened. Programs were expanded to include more attention to the changing rural community, broader training for youth, more thought for farm policy issues and marketing. At the same time, agents increased the use of the farm and home development approach to help individual families meet change. Rural Development, designed in the mid-fifties to attack rural poverty, called for Extension leadership.

New fields for Extension's future were outlined in the 1958 Scope Report.

Marketing, distribution, and utilization took on more importance. Processors and city consumers became new Extension audiences. We taught foreign governments how to set up extension-type programs. IFYE's brought home new ideas. Now there's RAD. Civil Defense. Low-income families. And more intensive work with commercial family farmers.

Cooperative Extension has had an exciting history—full of unsung heroes and heroines as well as the famed. Their sound experience paved the way, so that we are better equipped to help future Americans who express a need to learn. Extension work is always changing, and change is what we hope to create. ■

Left, staff members check bulletin supply in supermarket display featuring locally-grown fruit. Below, residents in housing development receive homemaking information from Onondaga home demonstration agents.

Farm and Urban Homemakers No Longer Go Separate Ways

by RHODA MEKEEL, *Onondaga County Home Demonstration Agent, Syracuse, New York*

FOR OVER 40 years, Onondaga County in Upstate New York supported two separate home economics programs—one for farm women and another for the women of Syracuse. This is no longer necessary, thanks to changes that have taken place in the county's economy and way of life over the past decade.

Farming is still important, but the number of farms has decreased. Totally rural communities are fast being absorbed by the growing suburban fringe around the city. As city families have moved to the suburbs and rural families have become urbanized in their thinking and way of life, the two groups have melded.

Where a homemaker lives in Onondaga County today has much less effect on the kinds of information she needs than do her stage of life, education, and income.

There is no longer any significant difference between the problems faced by urban and rural families and communities. School concerns—new buildings, curriculum, and teachers salaries—are being scrutinized and presented to local residents for decisions everyhere. Increased use of mass media is fostering a growing awareness of scientific advancement as well as of new products—food, cosmetics, drugs, fabrics, and equipment—with all the attendant pressures to buy, including "buy now and pay later." There are more goods and services available to the consumer than ever before. To have more things, large numbers of women now work full- or part-time outside the home.

In their efforts to meet the demands of a changing world intelligently and effectively, all families—rural, farm, urban, suburban — can be helped by home economics and its practical interpretation for daily living.

To equip themselves to appraise and handle problems in family and community life, homemakers must develop the background for making wise decisions when many choices are presented. They must be able to help their families establish intelligent, worthwhile values in the areas of health, comfort, beauty, love, and safety; to establish appropriate goals; and to direct the family resources—time, energy, money, ability—toward attaining them.

Good family living, doesn't just happen. Someone, usually the mother, must be equipped to help it along.

No matter how sound the program, in a metropolitan area such as ours, we cannot hope to reach very many homemakers on an individual basis alone. We must work with the mass media and through organizations, local leaders, and professional people.

At the beginning of the year when we wanted to help families inventory and organize their important papers —pertaining to insurance, property, finances, personal records—so that they could be easily and quickly located when needed, we chose television as the way of doing it. We presented a program and offered a leaflet. As a result we received 120 requests for the leaflet *Know Your Valuable Papers* and there were indications that many more had benefited from the program.

Television has been a regular part of our Extension program for the past 10 years. Agricultural, 4-H, and home demonstration agents working within a 5-county listening area in and around Syracuse cooperate in broadcasting a daily 8-minute educational program.

This has been an effective medium for reaching all types of audiences with consumer information, reports of new research in home economics and agriculture, and for developing better public understanding of the local Extension Service program.

Nutrition film

To help combat the confusion produced by exaggerated claims and half-truths concerning nutrition being circulated through every communication medium, the Onondaga County Extension Service stepped in with a 20-minute color film *Nutrition Sense and Nonsense,* developed at Cornell University. The film discusses the confusing nutritional advice which is overwhelming today's consumer; presents some guides for protection against the persuasive advocates of nutrition nonsense; and indicates where reliable information can be found. It makes a strong plea for the importance of good food habits and wholesome attitudes about food and eating —that, is for nutrition sense.

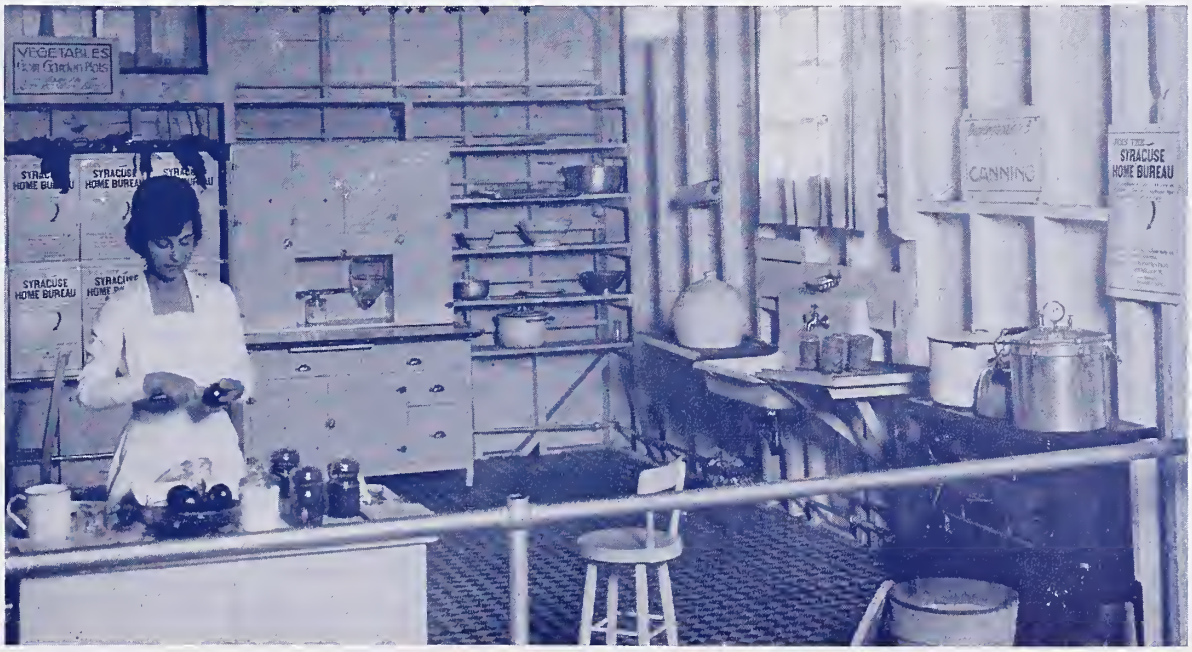
Nutrition Sense and Nonsense, was used in several ways. After a preview, local home economists in the schools, the university, and the utility company borrowed the film for use with their groups. It was shown as part of a nutrition program presented by the home demonstration agents for community organizations, including Extension units, Parent-Teacher Associations, food service workers, hospital dietitians, men's and women's service clubs, and low-income families. Altogether, it has been seen by some 900 county residents and, we hope, has helped them to become more intelligently skeptical about some of the nutrition information they receive.

Problems of women at work

Women make up about a third of the total working population in the greater Syracuse area. Other women are considering going to work but some of them are uncertain about what is best to do. Is it right to take a full-time or even a part-time job away from home? What effect will working away from home have on the family? How much additional income will there really be after expenses?

To help women understand some of the problems involving finances, management, and family relationships that develop when they take on the dual role of career-homemaker, the Extension Service offered a two-day leader training meeting called *Can Wives Afford to Work?* Twenty group leaders participated and later held discussions in their own neighborhoods with some

The Thrift Kitchen program of World War I was the opening wedge to urban extension work in Syracuse.



A homemaker group learns food preparation techniques.

300 women taking part. The information was extended even further as many of the informational leaflets giving facts concerning working women found their way into the hands of women outside of the groups.

Women no longer can be—nor, do they want to be—pampered and protected from the affairs of the world. They represent over 50 percent of all adults and play an important role in determining public policy. Therefore, they participated, along with the men, in *Operation Advance*—an Extension-sponsored Statewide educational program in public affairs.

The objective of *Operation Advance* was education in public affairs and not consensus. Everyone in a group was not expected to agree. The purpose of discussion was to help each individual develop and refine his own judgment. Some 350 persons participated in *Operation Advance*. The result was greater interest and individual participation in public affairs.

Relocated families

When slums were cleared and new housing units constructed as a result of an extensive urban renewal project in Syracuse, the Home Demonstration Department was asked to cooperate in developing a program to help relocated low-income families improve their housekeeping practices and living standards. One of the housing units was used by Extension home economists as an information center It was staffed for 2 hours, 3 days a week, over a 10-week period. Visitors to the center were given information on care of their new homes including how to improve storage, how to care for the house —floors, walls, equipment—kinds of fabric to purchase for curtains, arrangement of study areas for the children. It was not easy to work with these people. We had to bridge a cultural gap and build their confidence in us. Accomplishments came slowly but the experience was gratifying. About 25 families were helped.

Contact with low-income families did not end here. We continue to cooperate with the County Welfare Department in distributing information on the use of surplus foods; and with social workers by giving information on food, budgeting, storage, and child care.

In the city as well as in the rural and suburban communities, much of the social activity centers around the churches, Granges, and other public meeting places where it has become common practice to serve food to groups of people. One of our program objectives has been to develop the ability of community workers to recognize and use convenient, safe methods for quantity food preparation and dining room service including sanitary food handling and dishwashing.

A fast-growing suburban community with many local organizations was chosen as the area in which to concentrate this past year's training in *Community Meal Planning and Service*. This was done through a 4-day series of meetings.

Women who work on church suppers usually help with meals served by other organizations in the community such as Granges, PTA's, firemen's auxiliaries, lodges, and the like. For this reason, recruitment of participants was done through the churches. Because most of the 19 women enrolled represented other organizations in addition to their churches, the course effected a chain reaction. Requests continue to come into our office for bulletins introduced at these meetings.

In an effort to reach food shoppers with buying information, a food marketing program was carried out in two Syracuse supermarkets. One of the markets was relatively new and catered to the middle to upper income customers. The other was an older market where the majority of the customers came from low-income areas. Five different leaflets (*Local Strawberries Are Here, Fruits From Nearby Farms, It's Broiler Time, Selecting Beef, It's Sweeet Corn Time*) were placed in these stores, one at a time. During the 8-week period, 3,384 leaflets were taken, the largest number being from the market serving the lower-income group. This was an urban group with which we have had little contact and we hope that it has opened the way to further work.

Law for homemakers

The more we know about law, the better able we are to make wise decisions in handling family business matters. This was the thinking of the program committee when they introduced a project on *Law for Homemakers,* in the home demonstration program.

Three qualified lawyers conducted a one-day training session for 87 group leaders. Topics discussed were: Wills, contracts, and accidents. A detailed outline on each subject was given to every leader to help her teach the project to her group. The aim of the project was not to solve legal problems but to help homemakers understand some of the basic principles of law; and to recognize more clearly some of the legal problems involved in carrying on ordinary family business.

Leaders' reports indicated that this was a popular and a useful subject. Approximately 1,700 persons participated.

It is interesting and challenging to work in a metropolitan area such as Onondaga County where urban, rural, and suburban families intermingle and share so many of the same interests and problems. New programs and new approaches are continually introduced in order to meet current needs. In some instances audiences have been small but we are growing and learning. Working with and through a wide variety of community leaders and communication media seems to be a key to Extension program success. ■

Duplin County Farmers Now Compete In National Markets

Community leader and farmer George Cowan looks over a couple of young broilers.

by TOM BYRD, *Associate Extension Editor, North Carolina*

DUPLIN COUNTY, NORTH CAROLINA now stands in the mainstream of American agriculture. Her farmers have outgrown Southern yardsticks for efficiency which doubled as crutches for so long. They can now compete in National markets, and they know it.

Duplin's eggs are found on the breakfast tables of Philadelphia; her broilers in the restaurants of New York. Her fruits and vegetables are shipped across the Nation; cigarettes from her tobacco are smoked around the world.

Gone are the days—20 years ago—when a two-horse wagonload (20 bushels) of corn per acre was considered a good crop. Her farmers averaged 90 bushels per acre last year: individuals made up to 180.

Duplin has poultrymen who have produced a pound of broiler with 2.1 pounds of feed and averaged 270 eggs per year from their layers.

"We have come out of hiding," is the way dairyman Melvin Cording put it. "At one time," he added, "we never held National records in the South." Those days are gone, as evidenced by the National honors won by Cording's Jersey herd.

But always there had to be a venturing forth; a willingness to test the waters of the mainstream and be measured by the National yardstick.

Take the time Duplin farmers broke into the National egg market. They held two trumps: a willingness to produce quality eggs and an Extension agent with an egg marketing contact in Norfolk, Virginia.

The contact said, "We'll try your eggs, but they have got to be good." They were good. And it wasn't long before National buyers were in Duplin looking for eggs.

There are two egg-buying stations in Duplin now. Farm egg sales last year reached $3.5 million

Duplin farmers like sailing in the mainstream. How else could they have doubled their farm income in the past 7 years? Or how else could they have broken their dependency on one income source—tobacco?

Duplin farm income in 1957 was $26 million. Last year, it was $55 million, neatly balanced between crops and livestock.

How have Duplin farmers done it? Or perhaps one should say, "How are Duplin farmers doing it?"

The soil is the same as it was when their Scotch-Irish ancestors entered the area 250 years ago. The climate has not changed appreciably.

The story of Duplin is the story of a motivated people who have learned to blend their labors and resources with scientific know-how. Or as dairyman Cording put it, "The people of Duplin have acquired the know-how needed to go with their soil and climate."

That know-how, Cording is quick to add, has come from one primary source: the Agricutural Extension Service. For more than 40 years, Extension agents have planted new ideas in Duplin.

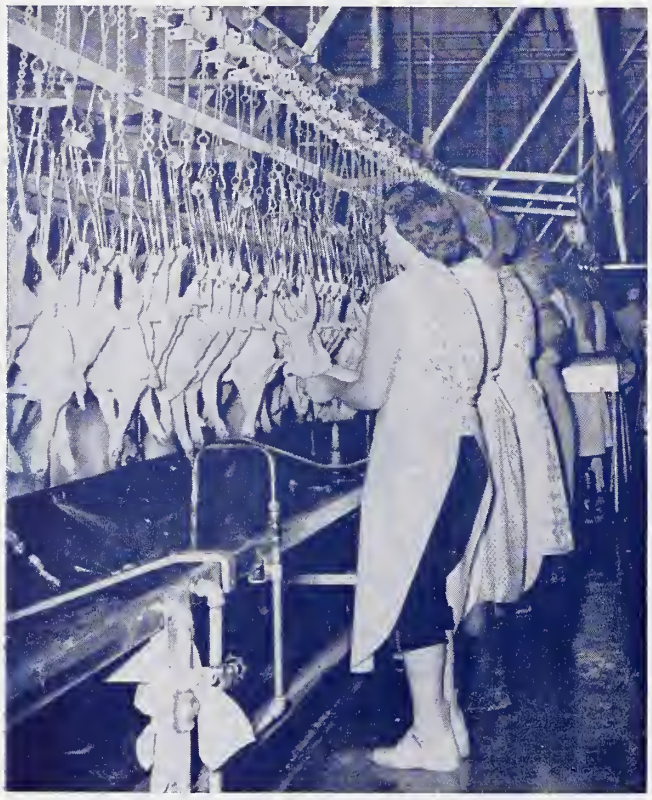
Some Extension ideas took root; some didn't. But each idea that broke the crust of tradition made it easier for those which followed. Success, as the adage goes, begot success.

Dairyman Cording again: "Extension agents in the beginning had to talk about what was being done at Beltsville and such places. Now, we have people in our own county to whom we can point."

It makes a difference.

Along with the promise held out by Extension were the bleak prospects of remaining in the backwaters. Grandpa's methods, as cherished as they might have been, did not offer satisfactory answers to today's economic realities.

Extension teaching techniques had to change, too. An example is the community development club idea which Extension helped foster in the mid-fifties.



This poultry processing plant has provided jobs for Duplin County residents no longer needed on the farm.

"Without a doubt," says Extension Chairman V. H. Reynolds, "these clubs (about 25) have done more to promote agricutural progress in Duplin County than any other single force."

"Community development clubs," Reynolds says, "provide motivation for change, and they cause new ideas to spread like wildfire."

Three years ago in the Pleasant Grove Community, leaders decided corn yields were too low. Prizes were set for those making 100 bushels on a contest acre.

The first year three farmers made it. Last year the entire Pleasant Grove Community averaged 100 bushels of corn.

Extension Chairman Reynolds is quick to point out, of course, that it all didn't happen so easily. In between these two yields were a "lot of leg work and complete disregard for the 40-hour week."

There were Extension corn variety demonstrations and Extension fertilizer demonstrations in the Pleasant Grove Community. There was a soil test drive. And there were meetings on such things as seeding, cultivating, and controlling weeds in corn.

But the ground for new information was fertile. People were motivated. Neighbor was willing to help neighbor. No wonder everybody won.

Success is heady stuff. It breeds confidence and prompts men such as the leader in another organized community, George Cowan, to say, "We can do anything in Cedar Fork that can be done in any rural community."

No one would have said that in Cedar Fork 8 years ago. Back then community development was in its infancy. Cedar Fork leaders were casting around for their first income project.

They decided, cautiously, to try broilers. Extension agents had recommended them, but there were many doubters. A community leader built a broiler house, put in 4,000 birds and kept careful records. The community debated the results.

Now there are chickens all over the place, about 2 million of them in the area last year in fact. And they are conducting tests of various sorts, too. The community motto seems to be "Gather new ideas; test them locally; adopt them if practical."

Income projects have priority in the community development clubs of Duplin County. But some attention is given to all phases of family life.

A community meeting on tobacco production, for example, might be followed by a meeting on pruning shrubs, planning a new home, remodeling an old home, installing running water, or growing a family garden.

Some community development clubs have absorbed home demonstration clubs; others have given birth to home demonstration clubs. Extension home economists win either way.

Aggressive home demonstration clubs have become a Duplin trademark and continue to be an effective channel for disseminating Extension information.

The women of Duplin organized their first home demonstration club in 1914, 4 years before county commissioners appropriated a few hundred dollars to employ a home economics agent. The idea, they said, came from a farm magazine.

One of the first presidents of the North Carolina Organization of Home Demonstration Clubs was a Duplin woman—Mrs. Hubert Boney and one of the most recent presidents was also a Duplin woman—Mrs. David Williams. This illustrates the county's unbroken leadership in home economics education.

Next to community development, Extension Chairman Reynolds says that farmer-businessman cooperation has contributed most to Duplin's agricultural progress, a cooperation carefully nurtured by Extension.

Duplin County is located in the southeastern Coastal Plain of North Carolina, 50 miles from the Atlantic Ocean. The county has 40,000 people, a few small towns, and only one industry — a textile mill — not geared directly to its agricultural economy.

Says Reynolds: "Business people realize that we are an agricultural county. They are willing to spend money on agricultural programs. They attend farm meetings."

Back in 1961, Duplin Extension agents with the help of their County Advisory Board mapped out a 5-year program with income goals for each of the 5 years. It was a part of a Statewide Extension effort in North Carolina to help Tar Heel farmers raise their income to $1.6 billion by the end of 1966.

Duplin's goal called for, among other things, an increase in swine production. Plans were made for an 8-week (one night per week) Extension school for swine producers.

New income has meant new houses for Duplin families. Above is the former home of Mr. and Mrs. Robert Grady. At right their three sons are shown in the new home Extension helped build as a demonstration house.

Prior to the school, however, Extension agents called a special meeting of leading farmers and agri-businessmen. Present were two agricultural economists who discussed in detail the economics of hog production.

"By the time we conducted the school, we had a united program," Reynolds says. "We had everyone in the county talking about hogs at one time." And they were telling the same story, he might have added.

What has agricultural progress meant for Duplin?

It hasn't meant a continuing place in agriculture for everyone. This is why Duplin leaders are seeking new industry. A balanced county, they say, is neither strictly agricultural nor strictly industrial.

Agricultural progress itself has created some off-farm employment. There are now in the county 20 feed mills, 5 hatcheries, 2 egg markets, and a processing plant that can dress 5,000 broilers per hour.

Animal agriculture has had other benefits, too, the people of Duplin have found. Land with grain bins, broiler houses, and pig parlors is worth more than barren corn fields.

This helps explain why tax valuations have increased from $18 million in 1946 to $72 million in 1963. And this explains why Duplin has been able to build its first hospital, consolidate its schools, and renovate and expand its courthouse without going into debt.

Moving into the mainstream of American agriculture has meant changes for Extension agents and programs as well as for farmers.

The new poultry industry in Duplin has meant off-farm employment, new living patterns, and new adjustment problems. Extension home economists met the need by offering wives of industry employees 10 specially prepared lessons on such subjects as budgeting, consumer education, food, and clothing.

Another example is Duplin's 4-H Club program. It has been taken out of the schools and given back to the people, a move that has worked hand-in-glove with the community development movement.

Enrollment has dropped for the moment. But agents say member quality is up so drastically that there is no doubt about the superiority of community clubs.

Quality, flexibility, and enthusiasm — these are the current trademarks of Duplin 4-H. Extension agents are seeing their own work multiplied through the efforts of 50 voluntary adult 4-H leaders. The 4-H'ers, too, are stepping forward to offer their assistance; 4-H'ers like 18-year-old Mary Alice Thomas. She has been conducting at least two 4-H meetings a week on record keeping and sewing since she flew back from Chicago last fall, a National winner in the clothing program.

"We often wish we could put some of the leaders on the payroll," one agent commented. The leaders say they are getting their pay, however. It may be intangible, but it is highly gratifying.

Sailing in the mainstream has meant other changes for Extension workers. The jack-of-all-trades agent, like the jack-of-all-trades farmer is giving way to agents specially trained to handle certain phases of the Extension program.

"Regardless of their particular assignment, however, our agents never lose a feeling of responsibility for the total Extension program," Chairman Reynolds said.

It is this feeling of responsibility that has helped Extension put Duplin in the mainstream; it is the attitude that will help keep it there. ■

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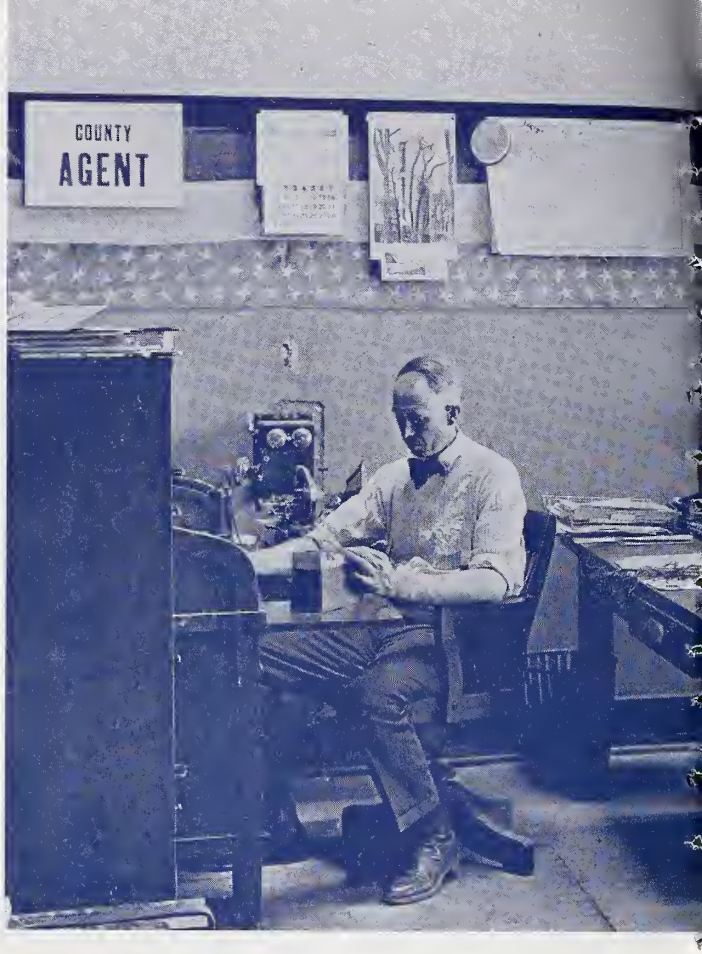

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(1) Honolulu 4-H Club members, 1928. (2) Montana county agent's office in the twenties. (3) One of the first county agents interviews a farm couple. (4) A 4-H canning club from North Carolina. (5) A 1921 New York county agent demonstrates to farmers treatment of seed oats for smut prevention.

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(1) Present-day county agent helps an Ohio couple go over their farm account books. (2) Home agents can reach more people through radio and television. (3) Mississippi Extension agricutural engineer explains hog production equipment at Swine Producers Conference. (4) Virginia boy wins blue ribbon at his first 4-H fair. (5) Community development brought teamwork such as this recent North Carolina soil testing drive.

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1926. Thurston County Community 4-H Club, one of the first in the county, gathers for an achievement meeting.

4-H Idea of the 1920's Shines Again in the 1960's

by OLIVER O. ORR
Thurston County Extension Agent
Olympia, Washington

DURING the fall of 1963, 2,000 club members, leaders, and friends attended community club achievement programs in Thurston County, Washington.

In 1924, County Agent E. B. Stookey wrote in his annual report: "In order to stimulate interest in club work, achievement meetings were held wherever possible and achievement pins publicly presented. Seven such meetings were held with attendance at 323. The club youngsters were on the program in most instances."

In 1925, ten community achievement meetings were held with a total attendance of 585.

These statements came directly from information found in doing research for this article, and both gave rise to examination and comparison with today's picture.

Regardless of all the changes that have taken place since the 1920's, the objectives in 4-H Club work are almost the same today as they were then. One of the most important of these is an opportunity for recognition. It is basic to human nature.

Working on this premise, the Extension staff of Thurston County began asking this question several years ago: "Are we meeting the 'recognition' objective in the 1960's?"

Evidence pointed to the conclusion that we were not. Dropouts were heavy. New clubs were not reenrolling.

Only a small percentage of the youngsters were being recognized before the public or even the parents. In Thurston County, the annual achievement program held

1963. Thurston County's Pigeon Fancy 4-H Club members pose at their first annual club achievement program.

in the fall, gave opportunity for participation and recognition of approximately 10 percent of the 4-H enrollment. The rest of the young people, particularly the 1-, 2-, and 3-year members, received their recognition pins and awards in cars as they traveled home, or later in the kitchen of the leader's home.

The Extension staff, upon filtering out the problems, began to outline objectives that would more clearly meet the needs of the boys, girls, and adults.

These objectives were: (1) Provide equal recognition for all boys and girls. (2) Provide recognition for all leaders and resource people. (3) Provide opportunity for participation by greater numbers of boys and girls, leaders, and resource people. (4) Build club tradition programs to aid in strengthening club tenure. (5) Continue to give opportunity on the county level for recognition in the areas of outstanding member accomplishment, leader recognition, resource recognition, and club sponsorship.

Keeping in mind the long tradition of 4-H in the county that saw the first community club organized in the rural area of Lacey in 1925, the Extension staff began to question some of our methods. We began to think how we could apply our objectives.

We chose the social action process as a method of accomplishing the job. I began to toy with the idea of club achievement programs since witnessing the Rose Valley 4-H Dairy and Sewing Club of Kelso, Washington, put on its annual club achievement meeting. During 3 years of attending these meetings, I saw club members, their younger brothers and sisters, parents, leaders, resource people, and even many elder citizens of the community gather together for a night of fun, fellowship, and recognition for club work. I saw each member being recognized. "Why shouldn't this same club activity work for all 4-H clubs in Thurston County?" I asked myself.

After exploring the method with a number of key leaders in the county, the idea was presented to the Executive Board of the Thurston County Leaders' Council. A number of them agreed that they would like to try the idea of club achievement programs, but there were still questions. Would such a move eliminate our county achievement program? Why not have them on a district level? A leader was appointed chairman of a committee to further explore the club-level achievement program.

The next step in the social action process was to get approval by a number of the other key leaders and parents throughout the county. Early in the spring of 1963 the Leaders' Council decided not only to have club achievement programs, but to continue the county achievement activities as well. A committee was formed to plan and produce the Fall Achievement Festival.

Extension agents were asked to establish a training program for all county leaders to acquaint them with

Recognition comes in many ways. Above, Carol House receives achievement bars from leader M. E. Petersen, Olympia. Below, Junior Leader Cheryl Travis accepts State 4-H Conference Grant from Capitol Kiwanis Club.

the idea of club achievement programs. A panel of leaders formed for the purpose of presenting various techniques of planning and carrying out club achievement meetings. Leaders gathered into "buzz" groups with a member of the panel to explore and ask questions. Plans for the County Achievement Festival were also fully discussed.

The Leaders' Council Executive Board, through its achievement committee, planned and carried out an excellent County Achievement Festival in October of 1963. Three hundred people were in attendance, including club representatives (generally the president), award winners, leaders, resource people, sponsors, and special guests. The club representatives, award winners, and leaders were seated at tables with sponsors. Each sponsor had the opportunity of visiting with the club members and leaders. During the program, club representatives were challenged to do a good planning job in conducting their own achievement program and to see that all local 4-H members were equally recognized.

Building the achievement program on the community club level is an opportunity to build club tradition. The community-type club was a good idea in the mind of Mr. Stookey in the early 1920's and this type of club has prospered through the history of 4-H, and accounts for 90 percent of today's county enrollment.

Not every community club has been successful, but there are indications they last longer and provide more basic needs and opportunities for boys and girls than pure project groups. We have in Thurston County, 25 community-type clubs that have survived 5 years or more. Only two project clubs have this tenure. The community club (two or more project groups that meet together for community and social activities), also provides a greater opportunity for boys and girls in an area to be in a larger group of friends. They have a better chance for more recognition by participating in a broader program.

Now, what were the results of these community achievement programs and the County Achievement Festival? First of all, the County Festival did an excellent job of building prestige for 4-H Club work. Guests included a State Representative, County School Superintendent, County Commissioner, five bankers, and many other industry representatives. They were enthusiastic. The Olympia Chamber of Commerce also participated and did an excellent job of hosting—including refreshments and a fine master of ceremonies.

But the club achievement program was the real highlight. Club members reporting to the county agent's office presented the following information: "One hundred and seventy-five attended the achievement program of the *Saddle-Ites* 4-H Club (a community club with project groups in horses, dogs, and foods). The program featured awards presentations, introduction of new members. completion pins for active members, leaders' pins, county and State achievement awards, and club awards. A potluck dinner was enjoyed by all."

As the club reporter put it: "The dinner was held in an atmosphere of Thanksgiving, as a means of expressing our thanks for 4-H and to our parents. We had a ceremony pinning 17 new members and this was done

Thurston County Swine Project Club, 1924.

by 'big brothers' and 'big sisters' who were to help them throughout the year."

Special guests at this session included a county agent, the State treasurer, and a sponsor of their summer riding event.

Forty-seven clubs held achievement meetings: average attendance was 35. A number of clubs had an attendance of more than 100, while some had 12 to 15.

Here is another example. The *Pigeon Fancy* 4-H Club held a potluck achievement dinner. Eight active members were surrounded by 70 guests, including parents, resource people, and 15 other boys and girls who were initiated and welcomed as new members of the club. A number of breeds of pigeons were in cages around the hall and gave members pride in showing what they had accomplished during the year. New officers for the coming year were installed, members received their achievement pins, and leaders were recognized. A special guest who had helped the club was given an honorary membership plaque.

In further evaluating club achievement programs, statements by the leaders were of high interest. A leader of a fine community 4-H Club said, "'I had the opportunity to talk with parents at our club achievement program that I had never met before. I also met parents who later volunteered to assist the club during the year as project leaders."

Extension personnel are anxious to further evaluate the effect of club-level achievement programs as they relate to club and membership tenure.

County Agent Stookey, in the twenties had the right idea. Community clubs and activities, with more recognition for all, can help meet the needs of youth. ■

Bill Putnam, Pigeon Fancy 4-H Club shows an interested parent his Black King at the club achievement meeting.

a pilot project in extension training and understanding

The Visiting County Agent

by JACK D. GRAY, *Director of International Programs, Texas A&M University*

TEXAS farmers in selected counties, their county agricultural agents, and a number of extension agents from such developing countries as Brazil, India, Pakistan, and Costa Rica, have become involved in a pilot project in extension training and international understanding. This may prove to be one of the most significant developments in the field of international exchange.

This project is being carried out by the Texas Agricultural Extension Service, the USDA, and the Agency for International Development. It is officially called the "Visiting Extension Agent" project. The visiting agent is an AID-sponsored agricultural graduate from a developing country. He is sent to Texas for one year's experience as an Extension agent in a carefully-selected county. Upon arrival in the county, the county government officially appoints the visitor to the position of "Visiting County Agent" and he then works shoulder-to-shoulder with the Texas county agricultural agent in about the same relationship as that of an exchange professor and his host colleague.

Emphasis is placed upon the visiting Extension agent getting actual county extension experience in as much depth as possible. The supposition is that by working for one year in close contact with an experienced American county agricultural agent, the visitor will not only learn well his host's methods of Extension work but will also absorb some of his basic values and attitudes toward his farmer clientele. It is also expected that he will increase his understanding of the American rural scene in general, and that our farmers will gain some understanding of him, his country, and his culture.

Since the project began in 1958, one visiting Extension agent from Brazil and four from India have completed 1-year assignments in Texas and are now back in their countries serving in agricultural development programs. At the present time, one visiting agent from each country—Pakistan, India, and Costa Rica—is serv-

ing in a Texas county; another has been accepted for early arrival from Chile.

What are the results up to now? The results are good beyond all expectations. Not only have the visiting agents learned Extension well, they have, in general, adopted the host agent's attitudes toward farmers and democratic methods of operation. Furthermore, all have done an excellent job of establishing an understanding of their countries and their customs among our farmers. Some have been outstanding in this aspect.

It is worth mentioning separately that the one aspect of the county agricultural Extension program that has received the most universal attention by the five visiting county agents, so far, is the grassroots institution known in Texas as program building committees. All five visitors gave these democratic action groups special attention and studied them carefully, including the special relationship of the county agent to them.

Agricultural Extension Officer M. C. Channarajars of India, who came to Comanche County in 1961 to work with County Agricultural Agent Angus Dickson, Jr., was an efficient Extension worker and a welcome guest in Texas. Although his story was reported in the April 1962 issue of the *Extension Service Review*, some aspects of his experience would stand repeating here.

Ars learned Extension methods, as practiced in Texas, letter perfect. He performed well in the role of an Extension worker. He was a close and special friend of several farmers in the county. After he left, one Comanche County farmer remarked that although Ars was a good friend, he would like to have him back in the county mainly because he was a good Extension worker.

Ars made friends in Comanche County hand-over-fist. He was so popular there that the people of the county bought him a car to use in his work and then paid his ware's fare from India to Texas.

The people of Comanche County probably know and understand more about India than the people of any other county in the United States. Ars was equipped with a set of Kodachrome slides depicting India's problems, development programs, agriculture, and certain aspects of its history which he used intensively. Ars said that during his year there, he thinks he gave illustrated lectures in every organized group in the county including all civic clubs, schools, churches, and community improvement clubs. In addition to this, he wrote regularly for the local newspaper and was given very complete coverage by this paper. Ars taught at least as much as he learned, probably much more.

Ars also acquired some new attitudes which, in our opinion, are the most important dividend of his training in the United States. Ars now has a firmer conviction that farmers are able to think for themselves, and that agricultural development by democratic methods is possible. At the time of his departure, he said, "The most important lesson I learned from Angus was one he does not know he taught me; it is how he gets people to do things for themselves. He works with them, but they do the things that are done. I will use this practice with my own farmers in India."

Ars is back in India now with the responsibility for agricultural development in an Indian Governmental unit known as a District, which means that he is responsible for agricultural development work among hundreds of thousands of Indian farmers. The other four visiting Extension agents who are back in their countries have responsibilities at least equal to Ars.

What these men received in the United States was, in reality, a training in the attitudes and skills of democratic development. The final result will only be known after they have worked at their jobs for some years. If the end results are only half what they appear to be now, Extension will truly have developed an international dimension. ■

District Agent R. G. Burwell, (right) discusses the Visiting County Agent program with Ars and Angus Dickson, Jr., Comanche County Agent.

The author (left) discusses reports of local program planning committees with Victor Martin, chairman of the Extension Council.

by GILBERT RHODES, *Director*
University Extension Center
Jefferson County, Missouri

NOW WHAT?

THE Extension organization has every reason to be proud of the accomplishments of the last 50 years. It has made a tremendous contribution to the development of our country and our way of life. This cannot be denied. But as we begin the second 50 the biggest challenge we face is to *not* rest on our laurels.

The big questions of the day are these. Where do we go from here? Can the organization change with the times? Can the educational needs of our people be met? Can we make what may be painful adjustments to new situations?

Missouri is on the road toward meeting this challenge. With the formation of the University Extension Division in 1960, a flexibility was created which allows adjustments to changing local situations.

When the first county agent came to Jefferson County in 1921, dairy farming dominated the local economic picture. Its 27,000 people depended on agriculture.

Today, Jefferson County is caught in the struggle of urbanization. The spillover from nearby St. Louis has put it into the conflicting, turbulent, mobile situation of an urban fringe area.

Jefferson County's 86,000 people represent all avenues of life. Population increased 74 percent between 1950 and 1960. Schools are strained to keep up. Subdivisions are eating up the farms. Local government does not have the tools or experience to handle the problems. Agriculture is still an important source of income but commercial farmers are moving out as land values go up. Inequities in the propery tax structure cause resentment. Value conflicts between "new people" and older residents are apparent. Changes in patterns of family life are drastic. Youth are struggling to find a significant place in the community.

Can Extension make a contribution to help these people find solutions to problems that are vital to their welfare? In Jefferson County we think we can.

But adjustments have to be made! The Missouri Extension Division, with the resources of every department of the University available, makes it possible. The short course and the credit course are new tools in the Extension worker's kit. Delegation of authority to the lowest possible level (the county) means that programs are developed to fit the area.

We find that our farmers want more depth in subject matter. Specialized agricultural agents in many areas of the State are better equipped to advise a specialized, fast-moving agriculture. Our farmers are eager to pay a fee for "short courses" to get the fine details.

Farm management is crucial as land values, taxes, and other costs put on the squeeze. Electronic record keeping (also on a fee basis) provides information for decision making. Farmers are interested and involved in the community decision-making processes. Many things they are concerned with are outside the field of technical agriculture.

In the family living area dramatic changes are taking place. The whole pattern of family life is being upset as the values of the urban culture take over. What are the implications of working mothers; husbands commuting to work in the city; and the children, mother, and father all going in different directions in their community or "after hours" activity?

Our farm homemakers are not unaffected as the urban orientation creeps in. We see rising interest in family financial management, child guidance and discipline, family relations, the legal aspects of marriage and divorce, care of home grounds, retirement plan-

Through the Extension Division, resources of all departments in the University are available to all the citizens regardless of their location.

By posting electronically computed DHIA records in his milking parlor, Calvin Lindwedel, Jefferson County dairyman uses them in his daily operation. Here he shows county agent Everett Lane how he uses the electronic records to determine the exact amount of feed fed to each cow in his herd.

ning, and the low socioeconomic status family, and youth problems traceable to the home. We have conducted short courses and leader training programs in some of these areas and are planning for others.

In the youth area we find that many of the traditional 4-H methods, techniques and subject matter do not fit. We have a choice between "force-feeding" the traditional program or developing new programs that do fit the situation.

The latter is the hardest but is the route we propose to take.

An organized youth program needs to supplement the home, church, and school in development of young people. A wide open area is the development of patterns of interpersonal relationships that will serve them in later life. In addition to our traditional 4-H Club program, we have added the Junior Conservation Club program in cooperation with the Missouri Conservation Commission. And we are proposing Extension Youth Clubs in which the young people themselves, with their advisors, determine the direction of their activities.

The project, the activity, the organization, will be put into focus as the means to the end—developing competence in working together with people. We hope to get at the heart of the problems of young people rather than skirt the fringes.

The turbulent community situation of the urban fringe presents a particular challenge for us. Our community development program is helping people delve into such areas as planning and zoning, new incorporations, the property tax structure, sewage disposal, water supplies, and other local governmental problems.

The newly-established county planning commission is the first in the State to have intensive educational assistance from an outside agency. The citizens' committee of a new public junior college has been advised by University resource people on curriculum, finances, and buildings. An organization of ministers, assisted by Extension, is studying the implications of the changing situation for county churches.

The aim of our community development program is to teach the process by which people go about attacking their community problems. It is more concerned with the "how" rather than the "what," although the subject matter provided by various University departments and other sources is vital.

The keys to this type of Extension enterprise are sound programing, financing, and staffing. These keys are on the same ring and cannot be separated.

Programs must be of vital concern to people. This means they (our people) should be intimately involved in the program planning process and actually develop their own programs. Extension can "plug in" educational resources to help them realize their objectives.

This cannot be done without money and staff. If people are vitally concerned with the program, they will provide the finances. The staff can be hired and trained. The Jefferson County contribution to Extension finances has increased 3½ times in the last 8 years and the State appropriation has doubled in the last 4 years. Additional professional personnel have been added to both State and county staffs and programs have been revitalized or altered to meet changing conditions.

I can truthfully say that all has not been rosy in making these kinds of adjustments but neither were the early days of Extension an easy road. Progress since 1914 has been made by Extension workers with fortitude and vision. So will it be in the future. ■

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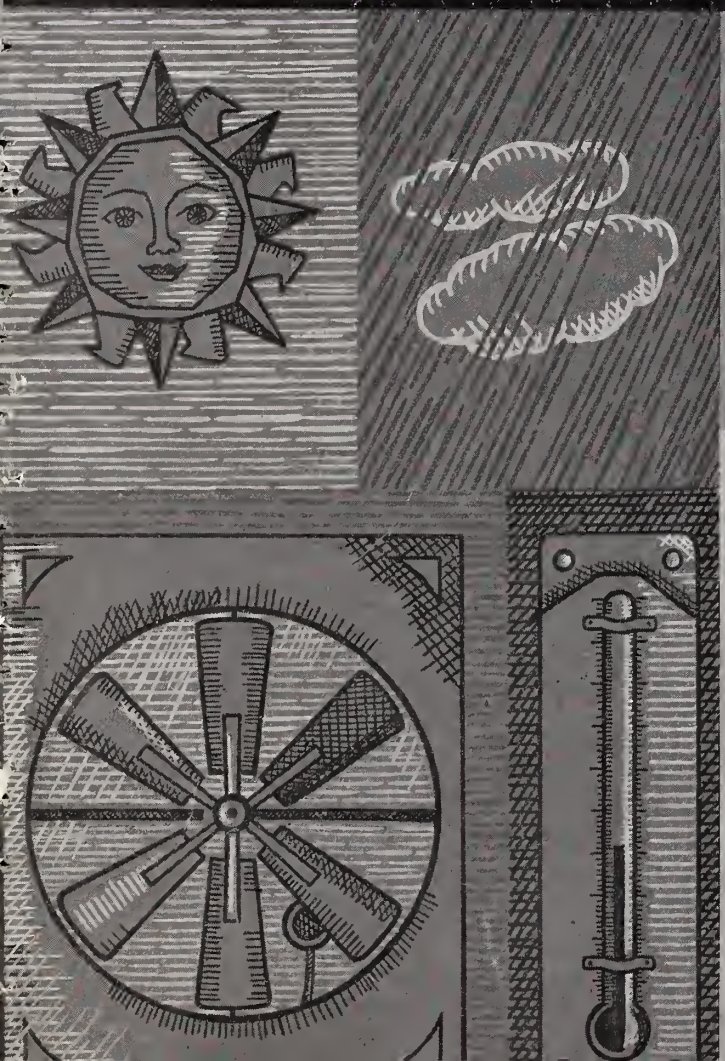
EXTENSION SERVICE REVIEW

U. S. DEPARTMENT OF AGRICULTURE / JUNE 1964

Environmental Control | Material Handling



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The Extension Service Review is for Extension educators—in County, State, and Federal Extension agencies—who work directly or indirectly to help people learn how to use the newest findings in agriculture and home economics research to bring about a more abundant life for themselves and their communities.

The Review offers the Extension worker, in his role of educational leader, professional guideposts, new routes and tools for speedier, more successful endeavor. Through this exchange of methods, tried and found successful by Extension agents, the Review serves as a source of ideas and useful information on how to reach people and thus help them utilize more fully their own resources, to farm more efficiently, and to make the home and community a better place to live.

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EXTENSION SERVICE
REVIEW

Official monthly publication of Cooperative Extension Service: U. S. Department of Agriculture and State Land-Grant Colleges and Universities cooperating.

CONTENTS

EDITORIAL

The future is already here—ALMOST.

Since Way-Back-When, man has been striving to control not only his own environment but that of plants and livestock as well. He has also been striving to find every better way of moving things from where they are to where he wants them.

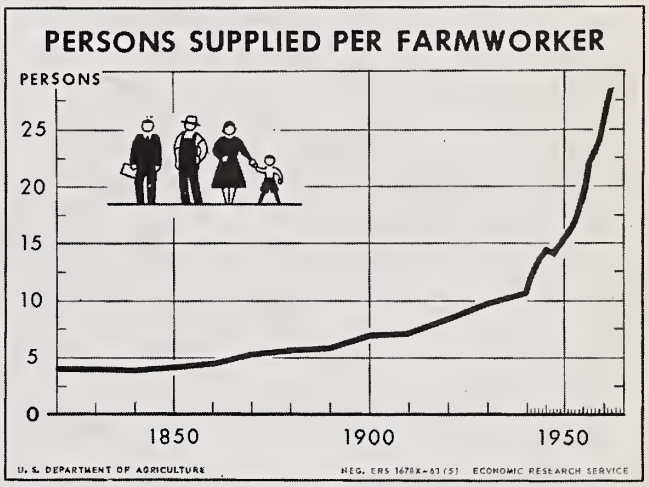
Nature is indifferent to mankind. Good Old Mother Nature lavishes as much attention on a fire-ant or rag-weed as it does on a honey bee or wheat. She will turn clouds upside down and give you a flood, scorch the land with day after day of 90 and plus temperatures, and then do an about face and give you gentle rains and moderate temperatures.

Now getting the best of Good Old M.N. isn't easy. But it can be and is done as you well know. From fans to insulation and points between, a good deal of progress has been made to get temperatures and humidity nearer the ideal. And when it comes to moving things, progress is also the watchword.

This special issue of the *Review* tells of some current Extension educational work—with farm people and others—on environmental control and material handling.—WAL

The World of Materials Handling and Environmental Control

by ROBERT O. GILDEN, *Agricultural Engineer*
Federal Extension Service



Energy

Man's quest for knowledge in understanding the physical world can be best illustrated by his ceaseless search to use and understand energy. Our technological explosion has been built upon this knowledge—some of our current sociological problems can be traced to the substitution of energies as we move from one source of energy to another. This substitution of energy has been the history of man as it moved from manpower to animal power, to wind power, water power, to steam, to internal combustion engines or petroleum power, to electrical, and on to nuclear power. Each of these changes has had a pronounced effect upon farming and agriculture as a whole.

Many of us have lived through some of these changes. I think we all agree that in the words of the showman, "You ain't seen nothing yet!" For example, the direct conversion of petroleum to electrical energy at high efficiency is a fact. Direct solar energy has never been fully utilized. Nuclear energy has yet to be fully explored. Energy sources in the ultraviolet and infra-red regions are just beginning to be realized for the potentials they carry. This knowledge and its application to agriculture will predicate that the only constant we have is change. We are in a dynamic agriculture where the utilization of these energies for material handling and environmental control, is limited only by the knowledge and the economics of the moment.

It is always interesting to compare manpower to electrical power. The 100 watt light you read by—one manpower couldn't keep it burning. Try turning a generator some time and see just how much power you can generate. It's equally interesting to speculate on the developing countries. Why aren't they mechanized? Electrified? Why haven't they substituted energies as we have? Maybe the answer lies partially in the fact that human energy is as cheap as animal-electrical-petroleum.

As the U.S. Department of Agriculture just celebrated its 100th anniversary in 1962 it is interesting to note the change in energy source in our agriculture over this same period of time. One hundred years ago it was something like this—machine 19 percent, animal 65 percent, man 16 percent. Today—machine 99 percent, animal less than 1 percent, man less than 1 percent.

In the last 40 years we have seen petroleum energy replace animal energy in the field, and in the past 20 years we have seen electrical energy replace man-energy on the farmstead. Could there be a correlation between the number of people fed by food produced by one farmer in 1864, 1924, 1944, and 1964?

In spite of this progress, researchers of some typical milking operations on some typical dairy farms (if there is such a thing) estimated that the energy wasted through unnecessary movements by U.S. dairyman in 6½ days would put a 1,000-pound cow over the moon. A most popular concept in the space age—yet an indication of the importance of planned work sequences.

Materials handling

The work done by industry, research, and Extension in the overall field of materials handling has been flowering the past few years in U.S. agriculture. Commercial farms are searching for ways to remove the "human element" from their operation. They, like industry, are searching and using materials-handling systems that make an agricultural factory out of their operations. Also like industry, they want to use the cheapest, most dependable energy available.

Materials handling is always most notable in the "harvesting" operation. An example of a large operation is a feedlot where feed is transported mechanically and processed through electronic feed mills, distributed by a truck which automatically weighs and records feed distributed, and where cattle and feed are continually programed through the lot. Small "family farm" feedlots are tending toward a completely automated system of feed distribution by use of small proportioning mills, time clocks, augers, etc. The materials handling and preparation for storage of the feed is usually different in the above two feedlot operations, but the principle of a complete materials-handling system remains.

Mechanical harvesting of fruits such as cherries, peaches, prunes, apples, and pears, by tree shaking and catching frames has changed labor efficiency and horticultural practices as well as handling systems. New varieties, such as some tomatoes, have been developed to fit a mechanical harvester system. Pressure sensing devices for firmness—as in head lettuce harvesting, light transmittance as in quality of apples for storage, or reflectance as in lemon sorting—all add to changes that influence the materials-handling system and make it a continuing change. Field or farmstead cooling, processing, packaging, and bulk handling from farm through market also contribute.

Changes also cause problems, particularly where provisions for a complete materials-handling system was not established or where previous cultural practices have changed. Waste management from livestock and processing enterprises is such a problem. Increasing numbers of people in the rural-urban fringe as well as concentration of livestock have focused attention on this.

Odors, flies, water pollution, and dust generate social and health pressures for immediate solution that may not be economically feasible. Research and Extension have been devoting resources to this problem to obtain a more adequate body of facts for its solution, or eliminate the problem before it arises.

When we look at the total agricultural picture—as we move products from field, to farmstead, to processing, to market, to consumer—this becomes a gigantic materials-handling problem. We in Extension are engaged in the solution to this problem. In the substitution of energies and arrangement of materias flow to help us arrive at the most efficient system within the economics of the moment.

Environmental control

Whether man's quest for environmental control has produced energy substitutes or vice versa is a moot point, the two have certainly gone hand-in-hand throughout history. As new sources of energy were found they were applied to the area of environmental control for man, for animals, and for plants. Most of the recorded history of environmental control has been devoted to man.

We are just now entering the age of animal and plant environmental control. Our knowledge is still skimpy, but growing. Physioenergetic chambers for animals and plant growth chambers for plants are starting to fill out our knowledge As this happens we are finding additional environmental effects which change our requirements and design criteria. Temperature and humidity limits for optimum production are changing housing systems most markedly in poultry, swine, and dairying. Effects of light, or darkness, on plant growth and flowering are changing greenhouse operations—this same photoperiodism has indications of carrying through to the animal world as well. As we learn more we can expect larger educational challenges as we move laboratory results to the field within a situation that is compatible with the economics of the moment.

We are now faced with a new environmental factor—hazardous when existing in the extreme, as is temperature, or pressure. This factor we term radiation—the release of energy from overexcited atoms and a byproduct of some forms of nuclear energy. The knowledge of this new environmental factor and the methods for its control put a new challenge into our educational system and another factor into our design criteria to control an environment that is compatible with the economics of the moment.

Conclusion

We in Extension have played a leading role in the past and will play an even more important role in the future as we continue to bring knowledge and people together for their mutual use and for the benefit of all mankind. The prayer of "Give us this day our daily bread" has, in this country, been temporarily answered. This is not true in most other parts of the world. It will not be true in the tomorrows of our Nation if we hold the *status quo* of research and development (Extension). As we meet this threat in our country, and in other parts of the world, we will see even greater application of the science of materials handling and the application of controlled environment to offer the optimum in efficiency and quality within the food chain. ■

Extension Tackles Potato Ventilating Problem

by ERIC B. WILSON, *Agricultural Engineer and* RICHARD E. OHMS, *Potato Specialist Idaho*

THE IDAHO RUSSET BURBANK potato could lose its envied position as the best "baker" and preferred "processor" unless Idaho producers equip their potato cellars to hold potatoes at peak quality for many months after harvest.

Existing farm storages do not keep potatoes at desirable temperatures for the best processing or far enough into the summer months to supply the fresh market.

Research at the University of Idaho has determined that good-quality potatoes could be maintained into the summer months with adequate ventilation and chemical growth regulators.

It was up to Extension to get producers to install ventilating systems in their potato cellars.

A bulletin—*Idaho Potato Storages—Construction and Management*—was released in late summer, 1963. It called attention to good construction techniques and emphasized the addition of forced-air ventilation to existing potato storage structures.

This wasn't enough. Even those farmers who were convinced that ventilation was necessary didn't have the aptitude or enthusiasm to follow through the bulletin to the point of designing a system and ordering the necessary parts.

Local ventilation equipment dealers were canvassed. They would furnish whatever equipment the farmer asked for but were not particularly interested in helping him with the design.

A search for commercial firms interested in putting together a predesigned, prewired, and preadjusted package of ventilating equipment and controls was undertaken. Several such firms were located. However, the air distribution system would be somewhat different for each installation. Even these firms could not design the duct systems for every cellar except at a cost seemingly out of proportion to the value. They would, however, provide the equipment and controls package at a reasonable cost.

Thus, Extension still needed to devise a method whereby each farmer could get his duct system designed.

Potato schools were scheduled for early in 1964. A session at each school was devoted to storage and ventilation. First the growers were told of the seriousness of the situation, that ventilation was the answer, and then how to design and install ventilation.

To obtain potatoes suitable for long storage it was necessary to point out the cultural and harvesting procedures necessary for sound tuber production. This involved things such as (1) clods formed during seedbed preparation producing injury to tubers at harvest; (2) the use of good seed to avoid tuber-rot diseases which cause trouble in storage; (3) the timing of irrigations at the start of the season and stopping irrigation early in the fall so that well shaped, mature potatoes free from water rot go into storage; (4) the use of correct rates of fertilizers; and (5) the proper adjustment and handling of harvest equipment to avoid bruising potatoes.

A work sheet was prepared to help show how to design and install ventilation equipment. This was tried at the first school and abandoned. It required too much arithmetic for most farmers to follow.

For the second school we used a table which listed precalculated values of duct and fan sizes for a dozen typical potato cellars. If the table didn't show an example exactly like his own, the farmer could find one or two which were fairly close. From these examples he could estimate sizes required for his cellar.

This approximation method seemed to be accepted. We decided the resulting "sizes" would be close enough and that more cellars would be converted if this method were used.

From this program we hope Idaho farmers will be able to meet the challenge to supply high-quality potatoes to both the "fresh" and "process" markets on a year-round basis. ■

report of a three-year effort

Agricultural Sanitation

by JOHN J. McELROY, *Extension Program Leader, California*

WHEN urban sprawl rubs shoulders with poultry, dairy, and other livestock farms, human friction occurs because of animal odor, dust, and flies. What can be done to reduce such friction?

After facing up to the problem for 3 years, California Extension has found a variety of possible answers. But no simple solutions have developed and at times solutions beget other problems.

Conflict at times has become serious, including charges and countercharges, difficulties between neighbors, ordinances, and economic stresses. Lawsuits have not been limited to city dwellers suing the farmer. Farmer has objected to farmer, charging that the lack of sanitation affected the production of crops.

Problems of agricultural sanitation center around flies, odors, and dust. These are closely interrelated. A high degree of fly control may increase the problem of odors or of dust. It is possible to control odors, but that control may bring about conditions that encourage fly breeding or dust development. We may be able to control the dust but in so doing, create an environment for fly-breeding or odor development.

Agricultural sanitation is not a problem of agriculture alone. It can be an irritant and an economic factor both on the farm and in the urban area. Flies are not localized but may move considerable distances. They breed in decaying lawn clippings and plant trimmings, garbage cans, dumps, sewage disposal plants, and in wastes from food processing plants, as well as in barnyards, poultry runs, and among the wastes of crop harvests.

The problem is a community one, calling for community effort. Because it is a community problem—concerned with irritations, health, community appearance, and satisfactory living environments—it is also a problem for interagency action. No one agency can reach all areas of the problem. Pooling resources of the several agencies is a step toward solution.

Agricultural sanitation requires the knowledge and contributions of the entomologist, the engineer, the agronomist, and the soils expert. It needs the biological and chemical information of the entomologist and the chemist. It needs the engineer to design the structures and equipment, select the materials, and plan the layouts which assist in basic sanitation. It needs the agronomist and soils men with their knowledge of organic fertilizers and the utilization of agricutural wastes. It requires, above all, coordination and management to deploy these resources well.

The University of California recognizes the importance of rural sanitation. Research workers are learning more about the use of animal wastes as fertilizer. In San Diego County, men from the Riverside Campus of the University and the San Diego Poultry Association are cooperating in research on the use of poultry manure on rangeland, a relatively low-value crop on which little manure has been used.

Also on the Riverside Campus we have underway a comprehensive program of research concerned with the development, screening, and field trial of chemicals for pest and insect control. We have an intensifying program in the area of biological control. We eventually will be able to develop integrated programs of chemical and biological control in relation to sanitary measures. A new emphasis on the biology of flies, gnats, and mosquitoes has been undertaken by various research departments of the University.

At the Davis Campus, a research engineer is concerned with basic problems of manure management. This research engineer, supported by a public health grant, will continue to devote much of his time to farm

The Agricultural Extension Service has assigned an engineer to work with farm advisors, local organizations, and operators in the engineering phases of sanitation problems. Two technicians assist the Extension entomologists in carrying on their routine work, so that the specialists may devote more attention to the problem. At least 15 poultry farm advisors give from 10 to 35 percent of their time to the problem of fly control and manure management. Four animal husbandry farm advisors devote a considerable portion of their time to the livestock sanitation problem. There is a growing demand for assistance from dairymen.

The Extension Service specialists in animal husbandry, poultry husbandry, and dairy integrate sanitation into their regular programs of work. The Extension Service employs an animal parasitologist who devotes the major portion of his time to coordinating and developing an organized Statewide program of field research, demonstrations, tests, and service, in cooperation with other Division of Agricultural Science personnel.

A revision of a dairy circular places emphasis on sanitation, with the use of chemicals as a complementary and supporting means of control. The first of a planned series of 20 or more leaflets on animal manure management and sanitation has been issued. The first leaflet is

"Poultry Manure Management."

A few examples show how this sanitation problem is being met in California. Orange County has a particularly acute problem with poultry. The county has experienced a population increase of 37 percent during the past 3 years. The congestion of people in poultry-producing areas has brought about problems that concern the county supervisors, the county health department, poultry association, Extension Service, and citizens in general. The county health officer has appointed an advisory committee consisting of representatives from the U.S. Department of Public Health, the University of California, and the California Department of Public Health to work with the Orange County Health Department and develop agency cooperation. The work underway emphasizes sanitation and control of flies.

In Ventura County, the owner of a new poultry development for 70,000 birds has constructed screened housing which competely encloses the operation. A farm advisor works closely with the management in working out remaining problems. In this same county, another poultry operator gave the University a scholarship for research with the lesser housefly. A member of the staff, taking advantage of this scholarship, is now at Ohio State University. His field work will be completed upon his return.

In San Bernardino County, the county health department and the Extension Service are exploring the possibilities of effective cooperation with the poultry and dairy operators in that county.

California's feedlot industry has grown tremendously during the past few years. Approximately 25 percent of the feedlot capacity in the State is in the Imperial Valley. At least 90 percent of the economy of that area is agricultural.

At present, an economic study is underway to show the contributions of the feedlot industry to the economy of the county. This study should stimulate community-wide interest in working toward solutions.

In Los Angeles County, two feedlots located near Pomona were the sources of odors that became so irritating that lawsuits were filed. The livestock farm advisor conceived the idea of a "smell panel." He selected people in surrounding urban areas to sniff the air systematically and record reactions in accordance with a schedule he devised. They determined the time of day the odors were troublesome. With experience, they distinguished between odors and recognized those from petroleum, smog, garbage dumps, and other sources. The advisor meanwhile worked with the operators on a cleanout and manure management program. After a time, the panel observed a decrease in the feedlot odors and the problem grew less acute.

Following this, an agreement for Los Angeles County operators of feedlots was worked out with the help of many groups. It describes what shall be done to hold down odors. It also provides for inspection by a representative of the County Livestock Commissioner's office. Lawsuits were dropped, and an ordinance which would straitjacket all of the feedlots of the county was avoided.

Tulare County trials with the crowding of cattle have developed useful information. In that county an outstanding demonstration of swine raising under relatively sanitary conditions also has attracted much interest. A local farm advisor and the University Department of Agricultural Engineering cooperated

There are now many dairies and poultry farms throughout the State with lagoons for the disposal of manure. Operators are receiving information about the wise use of this manure on their cropped fields.

What have been the results of 3 years of coordinated effort?

1. Development of an organized program has tended to slow up lawsuits, ordinances, and difficult restrictions. Ordinances are a necessary part of the community approach, but a part only. These should provide a general basis for operation and a guide for meeting situations. They should follow careful study by a community-minded group.

2. Research covering a wide range of the problems is underway. Some of it is being done by the University alone; some involves agency cooperation; some of it is carried on directly with organized community groups.

3. Applied research in local situations steadily gains momentum.

4. There is a notable change in attitude among people, particularly on the part of farmers. Some farmers are finding, apart from urbanization, that it is well to improve their own living environment and comfort and also the health and welfare of their livestock.

When we undertook this work 3 years ago much had been done, but it had been piecemeal. Some of it was expedient and not part of organized effort. Today, organization is developing; agencies are learning; communities are recognizing their responsibilities and gaps in information are being closed. ■

Kansas Materials-Handling Program

by JOHN M. FERGUSON, *State Leader, Kansas Extension Engineers*
and E. CLIFFORD MANRY, *Pawnee County Agricultural Agent, Kansas*

THIS program was and is Extension's answer to a problem facing many Kansas farm producers. The economic situation relative to farm production and prices has made efficient and economical farm operation a must if the manager is to stay in business and earn a satisfactory income.

Many producers also want to reduce the physical labor, "common work," associated with the handling of grains and livestock feeds in the process. When you add the impact of developments such as (1) the continued increase in size or volume of farm businesses, (2) a shortage of qualified labor for hire on farms, (3) increased wage rates for farm labor. (4) the availability of "high line" electricity on 98 percent of the farms, and (5) the rapid development and increasing availability of mechanical equipment designed and adapted to farm use, you have a situation calling for action.

Kansas Extension engineers, county agricultural agents, and farm leaders were alert to the situation. In 1958 they began planning and conducting their educational program of increased emphasis on farm material handling in the grain and livestock feed, storage, processing, handling, and feeding areas.

The primary objective of the program is the development of efficient, economically justified systems for handling grains and livestock feed on the farm. Equal emphasis is placed on efficient systems and economic justification. We feel the program has been effective. A survey to all county agricultural agents last fall (1963), 5 years after initiation of the program, reveals we now have in operation recommended systems or potential demonstration units in nearly every area of the State and for all major production programs.

The teaching methods and techniques have been adjusted to most effectively teach the audience being reached at any time. It is a coordinated effort between county Extension staffs and farm leaders, Extension agricultural engineering specialists, resident agricultural engineering department staff members, representatives of the materials-handling equipment manufacturing industry, and the rural power suppliers of Kansas.

County agricultural agents assumed major responsibility in planning for publicizing and conducting the program on a county basis, and Extension agricultural engineers, Leo T. Wendling, Harold E. Stover, and John A. True for subject-matter preparation and presentation at county events.

Initiation

To initiate action in most counties, public meetings were planned. The purposes of these meetings were as follows.

1. To let the public know the Extension Service was prepared and capable of providing educational information on the development of farm feed-handling systems.

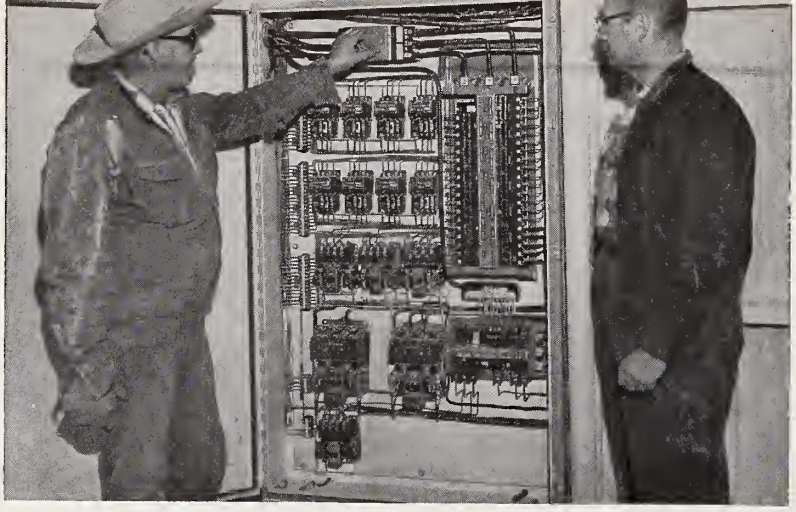
2. To stimulate interest in the development of efficient, economical, on-the-farm feeding and feed-handling systems.

3. To emphasize the importance of planning a complete system prior to construction or equipment selection from both the economic and efficiency viewpoints.

In some instances the public meeting was a correlated meeting with other production specialists. In other counties it was a special meeting on materials handling and livestock production plant layout only. These meetings were effective in getting many producers to think before acting—the first step to a successful plan.

It soon was evident to Extension engineers and county agricultural agents that the average farm producer needed some personal, professional help. In general this type of help was not readily available in

Left, the storage and processing center developed by Mr. Ohnmacht. Right, using mixer distribution wagon.



Mr. Paul Ohnmacht and Pawnee County Agricultural Agent Clifford Manry examine electric control panel.

Kansas. The established engineering firms generally involved in feed storage and design of processing systems were busy with the larger commercial operations. Some equipment manufacturers supplied limited engineering services, but many were primarily sales-oriented and gave little attention to system engineering. To bridge this gap, a training program was developed for county agricultural agents.

The first step in this program was the development of a handbook, *Planning Feed-Handling Systems.* This handbook gave many thumb-rule guides and general information on planning systems, equipment selection, and power and controls in the system. In addition, engineering specialists assembled and bound sets of equipment manufacturers brochures giving specifications on their equipment. Both the handbook and the assembled brochures were supplied to each county agent for reference.

The second phase of the agent training program was a series of 2-day workshops where interested county agricultural agents planned layouts and systems to fit specific conditions under the supervision of specialists. While these workshops did not make engineers out of the agents, they did enable them to function efficiently as personal advisors to local farmers. Approximately 70 percent of the Kansas agricultural agents participated in this training over a 2-year period.

The county Extension agents found that a number of their cooperators needed specific assistance on their feed-handling problems. They had gone through Extension's educational program and were now ready for the detailed planning and construction phases.

Workshop

In 1962 and 1963 a series of special workshops was planned. They were purposely designed to assist those cooperators who were asking the county agent for specific installation planning. The workshops were worked out to assist the cooperators in following through a sequence of training steps as needed to develop a feed-handling system for their specific livestock program.

A series of three workshops was conducted in each of eight different areas of the State. The monthly workshops in each area were limited to three or four cooperators from each county with four to six counties participating in each workshop.

Each county was invited to enroll in the program on the basis of a survey of interest and need. Each county agent who participated in the program selected his own three to four cooperators. His selection priority was based upon cooperators who indicated a willingness and desire to attend the entire series and those who were planning to install a feed-handling system in the near future.

The first training session of each workshop consisted of a discussion and a question-and-answer period by three different engineering specialists on (1) livestock and feed storage and handling facilities; (2) machinery needed in a feed-handling system including augers, elevators, grinders, and feed wagon; and (3) electric motors, automatic controls, and wiring requirements.

The second and third training sessions were devoted to actual planning and recording on paper with a drawing showing all the detailed parts of the feed-handling system that would be needed.

The final session also included an estimated cost of the planned installation. The engineering specialists who conducted this program were in the fields of farm structures, farm machinery, and farm electrification. They acted as consultants and technical advisors to the cooperators.

Through this specialized training program over 100 farm operators were given personal assistance in planning and installing many types of feed-handling systems.

An operating system

Today many of the cooperators who received training at the workshops now have successful systems in operation. One such operator is Paul Ohnmacht of Pawnee County located in the southwestern part of the State. Ohnmacht operates a farm of approximately 1,500 acres, some of which is irrigated.

His livestock program consists of a 200-head Angus cow herd and in addition, Ohnmacht full-feeds about 1,200 head of beef steers or heifers per year.

The feed-handling system and lots being used to store, process, and handle feed for this program consists of:

1. two 20′x60′ upright concrete stave silos,
2. six overhead storage bins over driveway with 5000 bu. capacity,
3. two hold bins over roller mill, with 1,100 bu. capacity.
4. two hopper-bottom metal bins outside the main building with 1,000 bu. capacity each.

The overall size of storage and processing building is 28′x 48′.

The processing phase of his materials-handling system follows:

1. Feed is processed through a 10" roller mill with 350 bu/hr. capacity using a 10 HP electric motor.

2. Feed is distributed with a mixer distribution feed wagon.

3. A 22' platform scale is used for measuring all ingredients.

4. The heart of his conveying system is a 70', 1,200 bu/hr. bucket elevator, powered with a 5 HP electric motor. This elevator leg is supplied from a 6' deep dump pit with a horizontal auger.

5. The feed is distributed through a 12-hole distributor head.

6. The silage is removed from the upright silos with a silo unloader that is transferred from one silo to the other when needed.

7. The processing center is supplied with 200 ampere three-phase electric service which is distributed through a central electric control panel. For standby electric power service, Ohnmacht has a 15 kw tractor-powered generator.

County agent Manry reports the approximate cost of the processing, handling, and storage center, less the two silos, at approximately $31,000.

The feedlot, corral, fencing and 480 ft. of fence line bunk with 8 ft. slab is estimated at $5,000.

Prior to establishing this feed-handling system in November 1963, Ohnmacht had been feeding about 300 head of cattle. At present he is feeding 500 head in one hour per day. He processes about 1,000 bushels of grain sorghum per week plus 2 tons of protein. He can load 1½ tons of silage and 1½ tons of grain into the feed wagon in about 20 minutes with the system.

Exhibits and demonstrations

At the invitation of the Board of Managers of the Kansas State Fair, the Departments of Extension and Agricultural Engineering built a model feed-handling system and exhibited it at the 1962 Fair in Hutchinson.

This exhibit was an operative working unit and represented a complete electrically-operated farm feed storage and processing system. The equipment was supplied on a consignment basis from the manufacturers of the various units. It is now used in the research lab of the Department of Agricultural Engineering.

Metal tanks were used for grain storage, supplement storage, and ground feed storage. The primary feed-handling unit was a vertical cup elevator. Horizontal flow was by gravity spouts where possible, with augers for secondary movement. Processing included grinding with a roller mill, mixing with a horizontal mixer, and measuring with a platform scale. The entire system was electrically controlled from a central control panel with dustproof light indicator pushbutton switches, magnetic controls, and individual circuit disconnect switches for each motor.

In addition to the operating system, four small scale model layouts were designed and built to illustrate how the system could be used on a beef, dairy, swine, or poultry farming program.

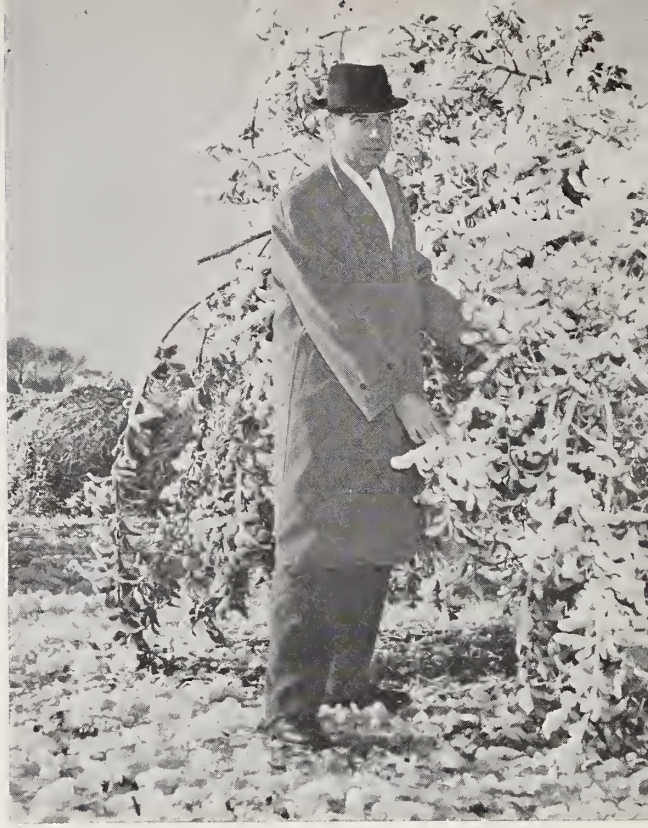
During the State Fair it was estimated that 5,300 different individuals observed the demonstration.

The Departments of Agricultural Engineering, Engineering Extension, and the manufacturers of feed storage and handling equipment have cooperated on conducting an exhibit and educational program at KSU each spring for the past 4 years. This popular program has received wide publicity. Each year 3,500 to 5,000 Kansas farm operators view new equipment and learn of their application through this special on-campus event.

Observation

Many of the planned and completed systems such as Ohnmacht's are now serving the county Extension program as good demonstrations of planned feed-handling systems. Many of these demonstrations are being used as stops on correlated tours with livestock production specialists and special interest feed-handling tours. ■

The Model Feed-Handing System as demonstrated at the 1962 Kansas State Fair. This system is now being used for research at Kansas State University.



Environmental Control

by DALTON S. HARRISON, *Ass*
and JACK T.

LOW winter temperatures have been a problem for citrus growers in Florida ever since citrus was introduced in the State. Florida growers long ago passed up soil fertility in favor of warmer locations.

The age-old practice of heating groves for cold protection, though not practiced widely before 1957, is being used more extensively in Florida today than ever before. Probably one-third of Florida's 735,200 acres are currently under some type of frost protection. Even with the most modern means we have—wood, coke, gas and oil heaters, and wind machines—protection from minimum temperatures is still uncertain and expensive.

In this report we hope to show Extension's role in the dissemination of information about a newly-introduced method of environmental control for citrus—irrigation for cold protection.

Who started it?

The method of adding water to low growing crops and mature trees as a means of "frost protection" has been known to Extension and research workers and other well-informed persons for a number of years. The idea of using water on Florida citrus for *cold* protection, however, sprang from nowhere in the fall of 1962 and stirred interest in every corner. Reports from commercial irrigation concerns and growers in California and Michigan about the successful use of water for cold protection figuratively raised the eyebrows of growers who were already looking for a better and cheaper means of cold protection. Thus, the call to Extension for more information skyrocketed. Rumors ran rampant and many Florida growers were saying: "If it works in California surely it will work in Florida, so tell us what to do." In the meantime; commercial irrigation concerns in Florida, encouraged by their counterparts in California, Michigan, and abroad; began to install (at inflated prices) irrigation systems for freeze protection of citrus.

Since requests for more information continued, we set about searching the literature and prepared a report on "irrigation for *frost* protection." When this was completed we gave a verbal report at one of our citrus growers institutes. The information available showed that irrigation at a 1/10 inch-per-hour rate would not be successful against windborne freezes and very low temperatures. This we underlined in our report, as well as on every occasion we spoke to growers. Nevertheless, growers continued to install systems until some 4,000 acres were covered.

Realizing this was a new concept and fearing that our growers were making a mistake, the next step in our program was to see if we could get some research started immediately. Working closely with research associates, we were able to get an affirmation of their willingness to do an emergency study. Since no funds for the study were available, we contacted commercial concerns interested in this phase of cold protection and asked them to contribute materials for such a project. The response was gratifying and a system was installed on the University of Florida campus. It was completed only a few days before the 1962 freeze.

On the nights of December 12 and 13, 1962 Florida had what has been termed "the freeze of the century." Temperatures plunged to 15°F. in Gainesville and 19°F. in the heart of the citrus belt some 140 miles south of Gainesville. This shattered all hope of favorable results. The results provided an even more dramatic answer. The extremely low temperatures stopped installation of these irrigation systems on thousands of acres —installations which undoubtedly would have taken place had we not received these low temperatures and negative results until some years later.

A survey after the freeze showed over 4,000 acres almost completely destroyed as the result of using a system that applied too little water. Fingers were pointed in many directions and we may never know the persons or factors directly responsible for this mass movement into an untested area.

During a few short weeks, Extension workers kept close watch on research work taking place during and immediately following the freeze. Researchers scanned every piece of data, considered information from other States and foreign countries and came to this conclusion: we were attempting to use insufficient water for *cold* protection. Also there were areas in design wherein systems must be improved.

The few isolated instances where growers used larger rates of water substantiated these research findings. For

The "freeze of the century" plunged temperatures to 19°F. in the heart of the citrus belt.

Citrus in the Grove

Extension Engineer, University of Florida
WN, *Polk County Agent, Bartow, Florida*

the first time we could give recommendations with reasonable certainty, based on research under Florida conditions. The use of overhead sprinkler systems for cold protection in citrus is hazardous. If employed, a system of more closely-spaced risers and larger volumes of water than originally planned, must be used. Extension, with an unscheduled assist from the century's worst freeze, has succeeded in changing this incorrect use of irrigation for cold protection.

Frost warning projects

The minimum temperature experienced in Polk County during the 1962 freeze, resulted in serious damage to a large percentage of the county's 134,000 acres of citrus trees. Following the freeze and under the guidance of the Polk County Citrus Advisory Committee, immediate steps were taken to adjust the county's Extension education program to that of "rehabilitation of the freeze-damaged trees." Educational information and activities concerning horticultural practices, rehabilitation financing, grove-management programs, and demonstrations of pruning damaged trees, were immediately available to growers in the county. This "crash program" received excellent response and groves were recovering satisfactorily by the fall of 1963.

The approaching 1963 winter, of course, alarmed growers who feared another freeze. They knew damaged trees could not withstand low tempratures without being damaged further or killed. This brought questions as to what temperatures and under what conditions should protection procedures be initiated.

The availability of immediate weather information and frost warning bulletins to growers appeared vitally important to the continuance of the tree rehabilitation program. With the assistance of the Federal-State Frost Warning Service and the Board of County Commissioners, a project was initiated by the Polk County Agricultural Extension office to help growers obtain weather information during periods when critically low temperatures were expected. Via weather teletype service from the Federal Frost Warning Service, the county Extension office received continuous 24-hour weather information and frost warning bulletins. On nights when critically low temperatures were expected, current temperature bulletins were relayed from the county Extension office to the five County Commissioners' District offices located in different areas of the county. Growers were able to obtain, by local telephone, vital temperature information and current forecasts. These had been previously quite difficult to obtain due to the inability of the frost warning service to handle all telephone calls and also because local radio stations do not operate on a 24-hour basis.

This project received grower acclaim far beyond expectation. Although a serious freeze did not materialize, several nights of dangerously low temperatures did occur. On these nights the frost warning project proved quite effective in disseminating vital information.

Progress to rehabilitate Polk County's freeze damaged citrus trees, has been directly influenced by the county Extension program. Without further freeze damage, Polk's citrus trees will recover to the point where production will increase rapidly during the next few years.

Present status of environmental control

One winter has passed since the 1962 freeze struck a death blow to many of Florida's citrus trees. Few growers had ever experienced such a severe setback in their efforts to develop citrus groves. And in order to eliminate repetition of the 1962 disaster, more citrus acres than ever before were provided some means of cold protection during the 1963-64 winter. Not only were more acres of citrus provided protection, but also more types of cold protection devices were available to growers than ever before.

Although we now have effective ways of protecting citrus trees during freezing temperatures, cold protection is an expensive grove operation. In years ahead the Florida citrus grower will look to research and the Agricultural Extension Service for development and demonstration of more effective and efficient means of protecting his citrus trees. ■

Extension-Industry Teamwork

by E. A. OLSON, *Extension Agricultural Engineer, Nebraska*

THE EXTENSION SPECIALIST and the football coach have some things in common. Both must give careful attention to selecting or recruiting the members of his team. If either has all positions except one, or if he cannot find a capable and determined player to fill a key position, his chances for a winning team are greatly reduced.

We used this team approach to get farmers to accept crop drying in Nebraska. Our team included the farmer, researcher, Extension, and industry (the manufacturer, distributor, dealer, and power supplier).

Several things happened in the Cornhusker State in the mid-forties that created a need for crop drying. For a number of years farmers had struggled with the problem of soft corn caused by early frost. Stored wheat developed a "sick" condition, caused by too much moisture. Field picking and shelling of corn was being delayed at this time because the shelled corn was too wet for storage. Too much moisture was the problem. The remedy was simple: reduce the moisture by drying grain in storage.

Research has been done by our Agricultural Engineering Department which showed that grain could be dried in existing storage bins. To get this idea accepted, farm drying demonstrations were started in 1949. Several team members were needed.

The first "recruits" were our county Extension agents. They were advised of the needs, methods, and values of crop drying on the farm. Agents then selected several farmers who were eager to pioneer grain-drying systems on their farms.

To acquaint our county agents with crop drying, a series of training meetings was held at which the need for farm crop drying was explained and the techniques were demonstrated. Agronomy specialists assisted with the program by taking part in these meetings. At first some agents questioned the need for this "new" practice, but after observing high field crop losses because of delayed harvesting, agents soon saw the potential of this new practice.

Equipment, the "fullback" on our team, was needed for demonstrations: Blowers, electric motors, and air distribution systems. Several manufacturers of crop-drying fans were contacted, and after learning of the potential future of the program, several agreed to join our team by loaning equipment. Several kinds of equipment were used, giving us an opportunity to get acquainted with the different blowers. Our team continued to take shape with the manufacturers of grain bins providing several air distribution systems for installation in farm grain storages.

Electric power suppliers were also recruited. As "halfbacks" they provided electric motors for running the crop-drying fans. They also made several blower and motor units for demonstrations.

Through the team effort, 19 farm crop-drying demonstrations were set up in 1949. These provided us with valuable operating and design information as well as costs. With the help of research personnel more specific recommendations were prepared and publicized.

As farm interest developed, agents organized local meetings to explain the why, how, and cost of crop drying. A survey in late 1950 showed that farm acceptance was faster than expected. Crop-drying facilities were being used by 132 farmers 1 year after the team had been recruited.

As interest developed in drying and the demand for equipment grew, several local small manufacturers became interested in building these units. To present the latest research information and design requirements to manufacturers a crop-drying short course was held in 1951. This session was enthusiastically attended by some 50 manufacturers, dealers, and others interested in crop-drying equipment. This established an engineering basis from which manufacturers, dealers, power suppliers, and others could start to operate. As a result of this meeting, better equipment soon appeared on the market.

Crop drying was adopted on more farms in the fifties. More farm demonstrations and meetings were held, news articles were prepared and a second series of agent training meetings was held in early 1958. A crop-drying handbook for manufacturers and farmers was also developed.

New information on drying techniques became available, but because there were differences of opinion on the correct applications, another meeting including national crop-drying manufacturers was needed. A second conference was held in 1958 with practically all manufacturers in the United States attending to get the latest information available. As a result, more and better crop-drying equipment is being built by the manufacturer to more adequately serve the farmer's needs.

Teamwork has been the key to rapid adoption of crop drying on Nebraska farms. Each of the groups mentioned—county agents, crop-drying equipment manufacturers, grain storage manufacturers, and local electric power suppliers have been an important part of our team. While no data are available on the number of farms with crop-drying equipment, manufacturers have advised us that it has had its most rapid growth in the Cornhusker State.

We believe that we in Extension are in the unique position of the "quarterback" on many new practices. When we miss on some plays, maybe we are not calling on the right member of our team at the right time. Industry is an important and eager member, and when recruited, trained, and played we all can win. ■

A 40'x 400' broiler house utilizing conventional construction and natural ventilation. The building incorporates continuous ridge vents with continuous floor level ventilation and makes use of adjustable sidewall curtains.

Modified Environment Poultry Housing

Arkansas Extension provides producers with basic information on how to get the best results from insulation and fan-ventilated houses.

by R. C. BENZ, *Extension Agricultural Engineer and* R. H. JOHNSON, *Extension Poultryman, Arkansas*

ARKANSAS currently ranks second in the Nation in the number of broilers produced. With the rapid expansion in broiler production came the need for more broiler houses. In many cases substandard housing was constructed in an effort to build production facilities at a low cost. Basic construction principles were overlooked and many houses were constructed on a trial-and-error basis. Problems of ventilation, wet litter, and inside temperature fluctuation during the winter were accepted by the producer.

During the past 2 years broiler growers have devoted increased attention to these housing problems. Efforts are being made to solve them by controlling or modifying the environment within the house. This means the use of insulation, ventilation, and supplemental heat. Modified environment would describe the type housing being considered because completely controlled environments are extremely difficult to achieve.

Early housing

Askansas' production began expanding after World War II, birds were housed in small, narrow houses. As poultrymen increased the capacity of their production facilities, they began to build wider and longer houses and relied entirely on natural ventilation.

These houses were constructed as inexpensively as possible. They usu-

Insulation is being applied in the roof section during initial construction of the house. A plastic vapor barrier was used and fiberous-type insulation material was installed between the nailing girts beneath the roofing.

This broiler house has adjustable sidewall curtains. It incorporates natural ventilation in summer and winter.

ally incorporated floor, window level, and continuous ridge-vent openings. The operator made manual ventilation adjustments depending upon the weather and wind currents. These houses were succeessful for summer production, but problems were encountered with wet litter, wide inside temperature fluctuations, and inability to adequately close the ventilation openings in the winter.-

When mandatory poultry inspection began in January 1959, producers felt that poultry condemnation during the winter months resulted partially from improper housing. Some producers began to take a new look at improved, redesigned poultry houses which promised reduced condemnation, increased feed conversion, decreased poultry health problems, elmination of wet litter problems, and reduced manual labor requirements in management of the poultry house.

Since 1959, popular press releases have referred to *controlled environment, modified environment,* or *insulated fan-ventilated* poultry houses as answers to some of the housing problems. New materials have been widely advertised for use in poultry housing, and many advantages have been cited for improved environment for poultry. All of these have left the poultryman somewhat confused as to the most desirable type of housing for poultry production in Arkansas today.

With a narrow profit margin in poultry production and the increase in contract farming with vertically integrated companies, the poultry grower asks these questions:

1. How much can I afford to spend on poultry housing?

2. What can I expect in return for the extra investment in insulation, fans, and heating equipment required for modified environment?

3. How do I select insulation materials, fans, and heating equipment?

4. What are the ventilation requirements and operating proccdures for a modified environment house?

Many extremes in insulation and mechanical ventilation were tried in new and existing poultry houses. Much was learned and many dollars were spent in trying to find answers to some of the questions which arose as the idea of modified environment progressed. It is necessary to point out that research was also being conducted by some colleges and the USDA. Due to the expense of poultry housing research, answers to these problems have been difficult to obtain. However, some basic information has been provided, and as research is continued, additional problems will be solved. Some members of the poultry industry are continuing to conduct field trials in an effort to determine solutions to some of the remaining housing problems.

Extension found itself confronted with questions concerning environment-controlled housing which could not be answered based on research findings. In an effort to provide some information the Extension poultrymen and the agricultural engineers worked with industry personnel to modify existing houses and observe various modified environmental systems in the field.

From this work and available research, some answers were provided to Extension agents. Field observations showed a lack of information among poultrymen about the type, amount, and application of insulation. In many cases insufficient amounts of insulation were being used and the desired results were not obtained. Fiberous type insulation was being used, but without an adequate vapor barrier to protect the insulation material.

In other cases, no protection was provided against mechanical damage. Also, Polystyrene material of in-

sufficient thickness for reducing the desired heat flow was used in existing buildings. Under such conditions the heat loss was excessive, and it became impractical to maintain the desired inside temperatures and ventilation rates. Many of these problems were caused by producers attempting to apply insulation at a minimum cost.

Throughout the industry the application of insulation material is a problem caused by random spacing of structural members when the building was erected. No thought was given during construction to designing the building for the addition of insulation material at a later date.

Where houses were properly insulated, difficulty was sometimes encountered in maintaining proper ventilation. Most of these houses still relied on natural ventilation and had problems with Ammonia and wet litter. In other instances litter became too dry and dust created difficulty. Most of these problems were related to rates of ventilation and amounts of supplemental heat used. This is still a problem because of untrained management and lack of satisfactory control systems to provide variable rates of ventilation dependent on weather and age and type of birds.

In summer, lack of ventilation can be a major problem with the insulated houses. Houses that give satisfactory results in winter may lack sufficient, fan capacity for summer ventilation. In some cases, where fan capacity is available, the fans are not properly utilized due to a lack of knowledge concerning air movement. Supplementary ventilation openings must be provided for summer use in many instances. During summer months fans are now used to stir air while sidewall vents are open to take advantage of natural ventilation.

Some misunderstandings are still observed among producers. For instance, they mistakingly feel that an insulated house will have a cooler air temperature inside as compared to the outside, that any amount of insulation material will improve the performance of the birds, and that use of fans is not important.

Extension educational program

With these points in mind, efforts were made to provide basic information about insulation, fans, and their application in poultry housing. Emphasis was placed on teaching that all insulation materials can be evaluated by their resistance to heat flow. But producers should also keep in mind the cost of the material and its application.

Slides and charts have been developed for teaching structural design and basic consideration of insulation in poultry housing. Fundamentals—such as the need for and application of a vapor barrier, as well as protection of insulation from mechanical damage—are stressed.

Statewide meetings also were held to acquaint industry leaders with the information available through the Agricultural Extension Service.

Extension agents are conducting area training sessions with the assistance of the Extension agricultural engineer and the Extension poultryman, when requested. These efforts have been well received by industry. And many producers are giving more consideration to the types and amounts of insulation used as well as evaluating methods and control systems for ventilating modified poultry houses.

The basic outline of the Extension approach to modified environment poultry housing has been to provide basic information on how to obtain the best results possible from insulation and fan-ventilated houses through the sound application of environment control principles.

This information is developed to help the poultryman decide how to modify his poultry houses and whether such modification is economically feasible. ■

This insulated fan-ventilated house incorporates 3⅝" fiberous-type insulation in the roof protected with a plastic vapor barrier and ⅜" plywood. Sidewalls have plastic vapor barrier, plywood for mechanical protection, and 2" fiberous-type insulation material. The ventilation is provided by fans operated by time clocks.

Training Power-Use Advisors For Action Programs

by E. T. SWINK, *Head*
Agricultural Engineering Department
Virginia Polytechnic Institute

ONE OF THE major functions of the Agricultural Extension Service is that of conducting educational programs on new practices that will enable farmers to produce more efficiently and profitably. The usual yardstick for measuring the effectiveness of such programs is the extent to which farmers adopt and benefit from the new practices assumming that the new practice will be of value to the farmer and that he is ready to adopt it, at least two important conditions must be met before it can become a reality for him. First, the materials or equipment that are required must be readily available and second, someone must use accurate know-how in selecting, installing, applying and using the materials or equipment under the conditions that exist on the farm.

In developing plans for educational programs on environmental control in poultry houses and on materials-handling systems for farms in Virginia, the Extension specialists recognized the importance of satisfying these two conditions.

Unfortunately, it is usually not possible for a farmer to go to an equipment supplier and purchase over the counter, a "packaged unit" materials-handling system or an environmental control system for an existing farmstead or building. At best, a good supplier might be able to provide all of the required component parts for such a system. The first problem confronting the purchaser, as well as the equipment supplier, is that of determining what components will be required in a system to meet the specific needs on the farm in question.

Solving this problem involves engineering knowledge. In most cases, neither the purchaser nor the dealer can be expected to have, or to acquire, the amount of engineering knowledge that is necessary to solve this problem. Since private consulting agricultural engineers are not yet generally available in Virginia, and there is a limit to the amount of engineering assistance that can be provided by Extension specialists, it is necessary for farmers to seek technical help from other sources.

From the very beginning of the rural electrification movement in Virginia more than 35 years ago, the power suppliers have been encouraged to employ agricultural engineers to assist their customers with power use problems. Fortunately, practically all of Virginia's power suppliers that serve rural areas have personnel to provide this kind of service. Most of these people are agricultural engineers with sound basic training in electric power and its utilization in agriculture. Intensive short courses have been arranged by Extension agricultural engineers as needed, to keep these power-use advisors up to date on subject-matter information pertinent to their work in farm electrification.

By spring of 1961, research and observations on several field installations showed that modified environmental control in poultry buildings was a sound practice for Virginia poultrymen. The agencies and organizations represented in the Virginia Farm and Home Electrification Council decided that a Statewide educational program on this practice should be developed. The first step in such a program was that of providing up-to-date training for the people who would be expected to be the technical experts and educational leaders in the program. Involved in the training would be power-use advisors (power suppliers); representatives of the manufacturers and distributors of fans, controls and insulating materials and key leaders from educational agencies. Extension specialists in agricultural engineering, agriculture economics, and poultry science planned an intensive, 2-day short course for these groups to:

(1) Provide information on minimum requirements

for the proper and practical control of environment in poultry houses.

(2) Bring about more uniform recommendations and a better understanding of poultry house construction and ventilation details.

(3) Encourage those in attendance to assist poultrymen in solving poultry house construction and ventilation problems.

To achieve these goals, the short course agenda included the following subjects.

(1) Why are we concerned about better poultry housing? (2) The effect of environment on feed conversion, egg production, and egg quality. (3) The effect of environment on feed conversion and condemnations in broiler production. (4) Building design and construction features. (5) Basic principles in selecting and using insulating materials. (6) Pressurized, exhaust, and blended air ventilating systems. (7) Basic principles in ventilating poultry structures. (8) Methods of insulating and ventilating existing poultry structures. (9) Fans and controls for poultry house ventilating systems. (10) Types of air inlets and outlets and factors in their design and location. (11) Typical poultry house ventilation problems and suggested solutions (12) Economic considerations in providing improved environmental control in poultry structures. (13) Explanation of new plans for poultry buildings. (14) Design problems for short course students. (15) Group reports on design problems (16) Laboratory study of electrical controls for ventilation systems. (17) Short course summary and the job ahead.

The short course was held November 1-3, 1961. Participants included 27 power-use advisors, 29 equipment supplier representatives, and 19 educational leaders—a total of 75. Following this short course, four area training meetings, of 1 day duration each, were held for additional power-use advisors in different parts of the State. During March 1962, ten 1-day area production schools on poultry house environment were held for poultry producers and allied industry people. These were followed up by county Extension agents conducting the usual educational activities at the county level with the assistance of power-use advisors.

What were the results of this effort? The specialists had positive information by the end of 1962 that controlled ventilation systems had been installed in new and remodeled poultry buildings with a capacity of approximately 400,000 layers. During 1963, controlled ventilation systems were reported in new and remodeled laying houses with a capacity of 305,000 birds. It is now accepted practice to make modified controlled environment an integral part of new poultry laying houses when they are constructed. Old laying houses are rapidly being remodeled, insulated, and equipped with mechanical ventilating systems. Interest is developing rapidly in controlled ventilation for broiler houses and new buildings were so equipped for 135,000 birds in 1963. The advantages of controlled ventilation in poultry buildings are of significant economic importance. It is expected that practically all of the 6½ million birds in Virginia's commercial laying flocks will be housed in controlled ventilation buildings in the next few years.

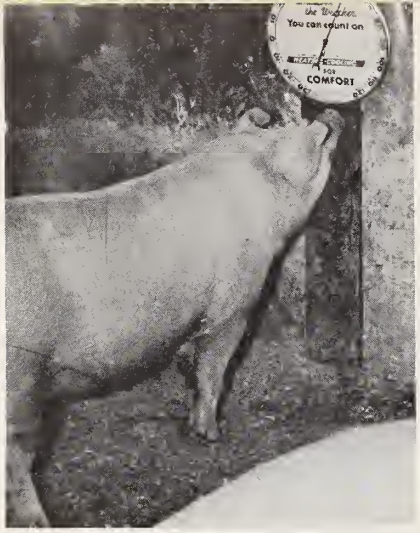
Recognizing the need for an educational program on grain handling in certain areas of the State, the council decided to initiate such a program in 1962. Here again it would be necessary to have people with up-to-date technical training available locally to assist farmers with problems in this area. The first step in the program was for the Extension agricultural engineers to arrange a 2-day intensive short course for power-use advisors, equipment suppliers, and educational leaders. The objectives of this training program were to:

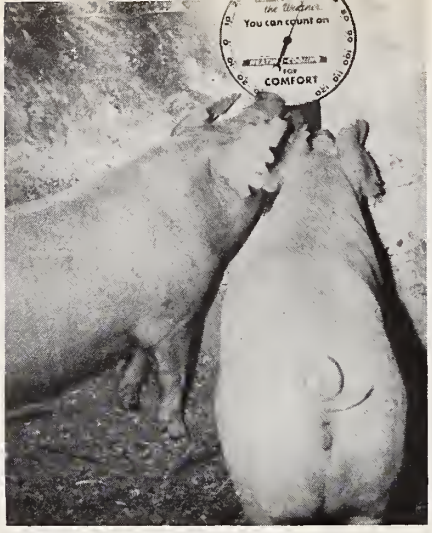
(1) develop a better understanding of the design, layout, and operation of on-the-farm grain-handling systems, (2) acquire information on the economics of grain-handling systems on farms, and (3) encourage the participants to assist farmers with grain-handling.

This short course was held November 28-30, 1962. The same guiding principles that were observed in the training program on environmental control were followed in determining the subject matter to be covered in the short course. The 65 participants included 27 power-use advisors, 10 equipment manufacturer and distributor representatives, and 28 leaders from educational agencies. This program continued to move forward with activities at the county level being carried out by county agents and power-use advisors.

To supplement the grain-handling program that was initiated in 1962, another short course for power-use advisors and others concerned with automatic and mechanical feeding systems for livestock was held November 20-22, 1963. This program of study covered the importance of mechanical feeding systems, applicable motors, motor controls and protection, electric control devices for mechanical systems, steps in planning mechanical feeding systems, efficient feeding layouts for dairy cows and swine, fitting components into a system, design problems for the participants, and economic considerations that were involved with feeding systems. A total of 60 power-use advisors, equipment suppliers, and educational leaders participated in this training.

The power-use advisors in Virginia render an extremely valuable service to the farmers and rural people of the State. Although their primary function, from the Standpoint of the power supplier is to increase the use of electric service, they are vitally interested in seeing that the farmer's use of electrical equipment increases his net return from the enterprise that is involved. Probably the most effective work that Virginia Extension specialists in agricultural engineering do is that of developing and conducting inservice training programs for power-use advisors to (1) keep them up to date on technical subject matter, and (2) make possible more uniform recommendations to farmers in solving electromation and mechanization problems. If the power-use advisor has sound technical college training to begin with, he can be kept abreast of the latest developments through short courses such as those that have been described here. Certainly the current action programs on environmental control and materials handling in Virginia would not be possible without their fine support and participation. ■





by D. G. JEDELE
Extension Agricultural Engineer
Illinois

Environment Control in Swine Production

■ Farmers laugh when I show them the picture of a hog looking at a thermometer registering a comfortable 60°F. They laugh more when I show them two hogs looking at the thermometer. Then I tell them that the first pig called her friend over to see how nice and warm it was. Dr. T. E. Hazen of Iowa State University took these clever pictures several years ago, and I am grateful to him for letting me have copies.

I think of environmental control in hog housing as control of temperature, moisture, odor, drafts, and dust. Research projects have measured heat and moisture production of hogs. Basic relationships of temperatures and relative-humidity are readily calculated by engineers. Insulation values of various materials have been published in handbooks. Environmental control should, therefore, be a simple matter of design, and it could be if it did not have to be done economically. But before investing money for this purpose farmers want to know, "Will it pay?"

Why control environment for hogs?

Some form of environmental control in farrowing houses is already well established. A 1960 survey in Illinois showed that 45.7 percent of the producers had central farrowing houses. The successful ones were insulated and fan-ventilated. All used supplemental heat from heat lamps, floor heat, space heaters, or all three.

Starting buildings, or nurseries, usually provide some means of control over the environment. It is not difficult to convince producers that young pigs need protection. But controlled-environment buildings for finishing hogs is another story.

The usual advantages given for enclosed, insulated, and fan-ventilated buildings over "cold" housing for finishing hogs are: (1) better feed efficiency, (2) higher daily gains, (3) leaner carcasses, and (4) less labor.

Some laboratory research has shown that hogs finished at 60°F. gain faster on less feed than hogs finished at higher or lower temperatures. Unfortunately, the traditional corn-hog States don't have perpetual winter, when temperature is most easily controlled. When comparisons are run for typical buildings and groups of hogs in normally fluctuating temperatures, the feed-saving advantage is not so readily apparent.

Tests made by both Purdue University (1963 Swine Day Report) and Iowa State University credit warm buildings with having helped to produce a leaner hog. But better breeding and better feeding must also have some of the credit for improving carcass quality. The part attributable to the building is hard to measure. Besides, most farmers don't sell on a grade and yield basis, so it is difficult to convince them that controlled environment is profitable on the basis of carcass improvement.

This leaves labor-saving as the only real economic justification for controlled-environment hog housing. Here we are handicapped again by not having much research evidence. Everyone "sort of knows" he can handle more hogs easier in a well-designed controlled-environment building, but actual time-and-motion test results are limited. Purdue University in its 1963 Swine Day Report shows that the labor in an enclosed, partially slotted-floor building was only 54 percent of that required in an open-front building with concrete lot. If such results can be repeated time after time, we will honestly be able to say that the controlled-environment building with partially slotted floors will pay for itself.

In the meantime, farmers are building this type of building for their own reasons. Although many could not be assigned a dollar value, they are still economic reasons.

An Iroquois County swine producer told a 1963 Illinois Swine Day audience that the enclosed building permitted him to be a better manager. He had both types of finishing buildings one winter, and he found himself shivering as he chipped ice out of the waterers and shoveled manure from the open-front building. In the warm building with automatic feeding and cleaning, he had time to study his pigs.

A Tazewell County producer changed from pasture to controlled-environment confinement to expand his business without buying more land, in order to keep his aging father in business a few more years. Dad was no longer able to crawl on his hands and knees in A-frame pasture houses, but the son realized that his father's management ability was worth more than the strong back and legs of a man he might hire.

In Logan County, a producer wants his son to return to the family farm after college. A change from pasture to controlled-environment housing is permitting an expansion in his operation and a reduction in drudgery that will attract the young man to become a partner in the business. The new facilities have already made it possible to increase from 1,500 to 3,000 hogs with the same labor force.

Still another farmer found through his farm management records that he consistently made his highest profits on hogs, so he now rents out his cropland and spends full time managing a greatly expanded swine business on a small acreage in controlled-environment buildings.

These are the innovators and community leaders, but local leaders are already building new swine buildings copied from those of the innovators. The danger is not so much that these buildings might not prove economically justifiable, but that in an effort to reduce costs, the farmer might overlook an important feature that will keep the building from functioning properly. The Extension engineer's job is partly to justify the building, but mostly to educate farmers and builders in the engineering details so that the building will not fall short of operating successfully. We have all been involved in cases where lack of attention to details has caused something to be so near to and yet so far from success.

How to teach environment control

The main ingredients for control of winter environment—temperature, moisture, odor, drafts, and dust—are insulation and ventilation. In Illinois we have gone rather deeply into these subjects with our farmers. We found that we had to talk about BTU's, U value, R value, cfm, and static pressure. Even a sling psychrometer and a psychrometric chart had been used effectively in some farmer meetings. We used to try to avoid these terms as being too technical, but we found that we had to define insulation specifically because many misconceptions have arisen from misuse of such terms as "insulating" glass, aluminum "insulation," and "insulation" board. We have actually run across some farmers who thought they had insulated their buildings when they applied aluminum roofing.

Overselling of good (but no miracle) insulation materials has also hurt our educational program. I refer specifically to expanded polystyrene. Zealous salesmen have done such a good job of selling this material that farmers practically call us liars when we say that one inch of expanded polystyrene is no better than one inch of mineral wool in insulation value.

But with a persistent and consistent program of county meetings and schools, many of these misunderstandings are being eliminated. Results of a 5-minute quiz given at 47 swine schools in 1963-64 showed that farmers know more about insulating now than they knew a few years ago. Most of them also understand the function of a vapor barrier and know where it should be installed. And ventilation questions have changed from "Do I really need a fan?" to "How big a fan do I need?"

Where do we go from here

Now that farmers understand that insulation and fan ventilation are necessary for successfully controlling environment, we can spend more time on the actual mechanics of getting the job done successfully. This is still a big challenge because we are dealing with two things we can't see—air and water vapor. Have you ever stood before an audience and tried to describe a cubic foot of air.

We tell our farmers that the easiest moisture to take out of a building is the part you can't see. But the moisture expelled in respiration doesn't seem to be a problem to them until they see it condense as water or frost. By that time it has not only made everything wet, but must be reevaporated before it can be removed from the building. Teaching farmers about these unseen quantities is difficult.

We have not yet finished the job. So far most of our effort has been concentrated on satisfactory control in winter. Improving control in hot weather will be more difficult, but it may prove even more profitable than wintertime control. We still know little about the effects of spray-cooling hogs. Some air conditioners are being used for snout-cooling in farrowing houses, but profitably cooling the starting building and finishing buildings is still an open field for research and development.

The classroom approach to Extension teaching will be more effective than the general meeting for teaching environment control. One reason is that we will have more time to cover the subject. But I think the greatest benefit is the limited enrollment and nominal registration fee that assures us an interested audience. ■

Insulated duct delivers cool air from window air conditioner to snout of sow. Respiration was noticeably lower for this sow than for sows without snout cooling.

Engineering the Total Farm Plan

by ROBERT L. MADDEX, *Extension Agricultural Engineer*
and R. G. WHITE, *Extension Agricultural Engineer, Michigan*

HOW DO YOU get the job done well and still make a profit? This is one of the big questions faced by all farm operators. The avalanche of technical information and new mechanization has created many pressures for a change. The price squeeze is forcing higher outputs per man, if a farmer is going to stay alive as a farmer. Strong guidelines are needed by many farm operators and by others servicing agriculture, to help identify the information most valuable to their operation.

Engineering the "Total Farm Plan" is an excellent approach to this problem. This approach will let both the farm operator and the educator come to grips with the problem of getting the total job done. It is a method of sorting, selecting, and putting together the technology and mechanization needed for a business operation. It will also help establish a planning base from which management will become easier.

The approach

When industry builds a new plant, it is designed to process raw materials into a finished product at a preestablished rate. The processes and manpower are selected to do the job necessary to meet production schedules. Farm systems should be engineered using the same basic approach. Industrial plants make adjustments in methods, machinery, and labor to meet changing demands, but there are limits to how far they can go before the plant becomes outdated. The same is true with farm production units.

Approaching the farm operation as a production plant has several distinguishing features. The most important is the establishment of a definite goal of operation. A second is establishment of standards and volume of production. A third is the opportunity to bring into play research findings as the basis for making decisions. Specific recommendations need to be evaluated in terms of the total operation as well as for their individual merit.

Formulas are the tools of engineers. A formula that can help in engineering a total farm plan follows:

$$R = O + T + M$$

R—Results defined in terms of labor income desired or as a specific size of operation.

O—Organization or planned mechanization based on standards for production and mechanization. Field machinery, farmstead equipment, structures, labor, and methods are included in mechanization.

T—Technology in the various disciplines such as dairy, swine, and crop production including the latest in research.

M—Management that includes records, credit use, and evaluation of enterprises and also the skills needed in technology and organization to maximize income.

The difference for the farm operator between this formula and others that have been used is primarily one of scope and focus.

The scope must be broad enough to provide a planning base for the total farm operation.

The focus must be on organization geared for profit by integrating mechanization, technology, and management.

The difference from the Extension worker's standpoint is the approach. It means (1) a broader knowledge and appreciation of the many facets of information that are needed in a farming operation, (2) the development of techniques that foster the cooperation of commodity specialists, economists, and county workers in establishing recommendations, and (3) required standards based on scientific information.

Programming techniques

The most effective technique in developing the engineered farm plan, and the systems to carry out the plan, result from the use of a "planning guide" which is illustrated. Similar guides can be used for other livestock or cropping programs. This simplified planning guide, backstopped by good reference and research information and plenty of scratch paper, provides the wide scope of information that has to be considered, yet focuses on organization to get the job done.

As each section is filled in, questions can be raised to emphasize the standards and practices decided upon. For example, as the feed requirements are decided upon, some of the points that need to be recognized and discussed are listed.

1. What are the feed requirements per animal?
2. When should hay be cut to give maximum milk production?
3. How much silage can be used in a ration?
4. What type of storages are required to maintain feed quality?
5. What are the advantages of high moisture corn?
6. Are crop production levels where they should be?
7. Where are the labor peaks?
8. Will the land permit corn, after corn, after corn?
9. Do you need a nurse crop for seeding forage?
10. Can a crop or set of machinery be eliminated?

Research and field trials will provide the answers to most questions. Specialists from the proper disciplines can evaluate field experiences and cite the research.

Deciding upon a ration and determining the quantities of feed required can provide the basis for other decisions such as: Size and types of storages, kind of mechanization to be used for handling the feed, and type of housing for most efficient mechanization.

The decisions on feed requirements also point to

machinery needs. Research indicates when hay should be harvested to get the best milk production. With this information, and knowing the tonnage, we can select equipment that will enable the farmer to get the job done on time. The same approach can be used for determining the machinery required for harvesting silage. When tonnages are large, planting dates and variety selection become more important. Maturity can be spread over more days thereby lengthening the harvest period. Again, research can provide good answers to questions raised in this regard.

There will usually be alternate solutions to a particular problem. These alternate solutions can be spelled out, and the best selected for the farm involved. The important thing is to put together a complete system which includes the field machinery, farmstead equipment, structures, and methods required for the job.

As the farm plan develops, dollar signs can be attached. As the dollar signs add up, they can be charged against the income from the milk. The decision about where to spend the dollars becomes easier, and usually more sound.

Working through a planning guide will often bring out much information that the farm operator may not value or be aware of. This experience may also change the biases of both the farmer and the Extension worker.

Considerable time is required to completely work through a guide for a total plan. It can be best done individually or in small groups. It may require two or three planning sessions to actually complete the guide. Once planning is underway, the county agent may be in the best position to follow through with assistance to the farmer.

The planning guide can also be used effectively with large groups. The objectives are somewhat different. With a large group you can:

1. Introduce this technique of planning and get some enthusiasm worked up,
2. Develop some good group discussions that will let research be introduced as a basis for a decision,
3. Suggest that additional information is available and worth investigating, and
4. Set the stage for some productive work with individuals or small groups at a later time.

The planning guides for Total Farm Engineering have been used successfully in Michigan with individuals, small groups, vocational adult classes, groups at general extension meetings, training programs with Extension agents, and commercial representatives.

Information from the planning guides is beginning to appear in commercial literature almost verbatim. Several sales managers from commercial companies serving Michigan have used the planning guides and reference information in company-conducted sales training meetings. The net result is more people providing the same information to farmers.

The purpose of the planning guide is to focus attention on organization and standards of production. Specific recommendations on feed rations, crop selection, herd selection, and similar technology continue to be the responsibility of the subject-matter specialists and the county workers.

The engineered farm plan brings together the specific subject-matter recommendations to establish a planning base. From this planning base, the farm operator can make intelligent decisions as he commits himself and his family to a specialized farming operation. ■

DAIRY PLANNING GUIDE FOR ENGINEERING THE FARM PLAN

1. Herd Numbers
   - Cows in milk ..... _____
   - Dry cows (cows in milk x 22%) ..... _____
   - Young stock, 10-24 mos. (cows in m. x 53%) _____
   - Young stock, 6 wks.-10 mos. (cows in m. x 29%) _____
   - Calves up to 6 wks. (cows in m. x 17%) ..... _____
2. Pounds of milk per cow _____ Total _____
   Pounds of milk per man _____

FEED REQUIRED (Tons)

3.	*Hay*	*Hay-lage*	*Corn silage*	*Grain*	*Water*
Mature cows					
Young stock, 10-24 mos.					
Young stock, 6-10 mos.					
Total					
Daily Requirements					

OTHER MATERIALS

	Manure	*Bedding*	*Grd. Feed*	*Milk*
Mature cows				
Young stock, 10-24 mos.				
Young stock, 6-10 mos.				
Total				
Daily Requirements				

SIZE OF STORAGES AND EQUIPMENT

Materials	*Storage*	*Cap.-Tons*	*Size*	*Handling Equip.*

HARVESTING EQUIPMENT AND CAPACITIES

5. (List crops under Item 3)

PLANTING, TILLAGE, AND FERTILIZER PRACTICES

6. (List crops under Item 3)

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Men Or Machines?

A problem many RAD committees have to wrestle with is this: what can we do with—or for—men whose jobs have been taken away by machines?

Here's how some RAD committees have tackled this problem.

Don't fight it

A number of smaller sawmills in Central West Virginia faced extinction. They were just too small to compete with bigger mills. One county RAD committee and Tectional Action Panel after a study, helped the operators of one outmoded mill to get modern technical information to remodel and expand.

The RAD committee feels they did the right thing by facing up to the situation. They substituted mechanized mill equipment for hand labor, figuring that in the long run, employment in timber-cutting and transportation would more than make up for the lost jobs in the obsolete lumber mill.

Labor-saving equipment was installed to improve the mill's competitive position. The mill now handles more lumber than ever, although with fewer workers. But the market for locally-produced timber is improved, providing both temporary and permanent employment for more people in this area. And, more lumber means more jobs transporting it.

New opportunities

There are times when new opportunities present themselves. Take the case of one Minnesota farmer. Four years ago he started making pallets for fork lift trucks. It was a part-time operation in his granary but it gave seasonal work to the farmer and two other men.

The Extension Agent, the Industrial and Forestry committees of the county RAD group, and local businessmen helped the former expand to a full-time pallet-making industry that employes 20 men and uses 80,000 board feet of lumber per month.

New occasions teach new duties

Frequently, RAD committees have taken the lead in focusing attention on the changes in farming, commerce, and industry that call for new skills. They've helped increase emphasis on training and retraining to provide these skills.

Many areas have stepped up adult education. They've added new courses in local schools, and put on specific job training programs to help meet new needs. Local action has often been bolstered by increased State educational assistance. Several recent Federal programs offer help with vocational training.

Upgrading the methods of small businessmen is often as essential as improving skills of the labor force. The University of Arkansas, for instance, has a business management consultant program that provides training on new business methods for foremen, managers and others. Courses are flexible enough in content and scheduling to meet the needs of local business groups.

It's not all roses

Of course, there are times when innovations and improvements may mean fewer job opportunities. RAD committees need constantly to be on the lookout for this possibility, and have alternative prospects in mind.

New industries are nice, but they're not easy to come by. Competition for them is fierce.

Merely having people who want work dosen't sway industrial prospects. But a cooperative and active development group that speaks for a progressive community does. Local government services are important. So are good schools, community recreation, housing, and shopping facilities. Intrinsic benefits such as these are weighed by prospective employers—along with favorable plant sites, utilities, transportation, materials and labor supply, and nearness to markets.

Local citizens need to take a realistic look at their prospects for increasing employment opportunities.

They need to recognize which factors they can meaningfully affect, and those that are beyond their control. There are often times when smaller cities or rural areas can benefit from industrial development in a nearby larger city. When this is the case, it's best for the RAD committee to cooperate—rather than compete—with the development group in the larger city.

And once local citizens have agreed on what they want to do, they need a practical plan to focus their efforts on changing employment opportunities.

This is the crux of Rural Areas Development: thorough understanding of the problem situation, and the forces that can be brought to bear on "solving" that problem; imaginative and able local leadership, committed to working for a solution; and a practical plan of action, persistently pursued.—*Don Dickson, Federal Extension Service.*

EXTENSION SERVICE U.S. DEPARTMENT OF AGRICULTURE • JULY 1964

REVIEW

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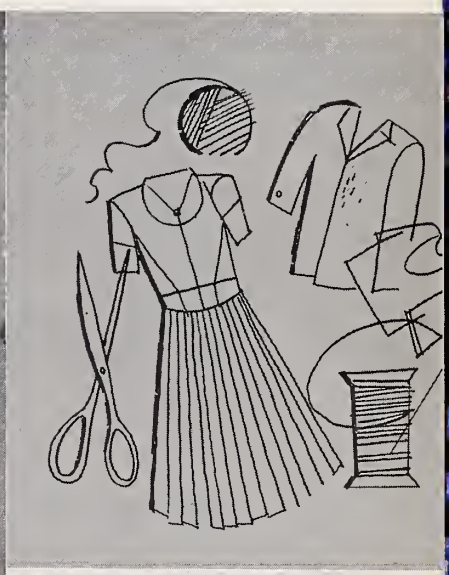

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The Extension Service Review is for Extension educators—in County, State, and Federal Extension agencies—who work directly or indirectly to help people learn how to use the newest findings in agriculture and home economics research to bring about a more abundant life for themselves and their communities.

The Review offers the Extension worker, in his role of educational leader, professional guideposts, new routes and tools for speedier, more successful endeavor. Through this exchange of methods, tried and found successful by Extension agents, the Review serves as a source of ideas and useful information on how to reach people and thus help them utilize more fully their own resources, to farm more efficiently, and to make the home and community a better place to live.

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EXTENSION SERVICE
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EDITORIAL

A noted American financier once said "Don't Sell America Short." Putting it another way he meant, don't underestimate what Americans can do.

Think of the developments of the last 25 years or so. The tremendous broiler industry. Income-producing outdoor recreation serving increasing millions. The development of junior or community colleges. Electronics. Multiple-use of land and water resources. Better communications. Spectacular advances in the exploration of Outer Space.

Yet when you think of it, what has been done is just a forerunner of what will be done. Although a great deal has been done, there is still much more to be done to curb the pollution and silting of our waterways. Metropolitan areas are still trying to cope with problems of air pollution and so are some adjacent rural areas. One of the biggest problems, of course, is to bring all areas into the main stream of American life. That, too, will be done.—WAL

MILKING MACHINE EFFICIENCY

Extension-sponsored meetings in Illinois have helped dairymen become aware of the need to regularly check the adequacy of their milking machine installations.

by L. R. FRYMAN, *Extension Dairy Specialist*
and STANLEY SMITH, *Area Dairy Advisor, Illinois*

EIGHT COUNTIES in northwestern Illinois held a series of milking machine demonstrations during early 1963. At least 133 dairymen who attended these meetings used the information they received to improve the efficiency of their milking machine installations. After the meetings they either tested the adequacy of their milking machine, had a milking machine company representative test the equipment, or made changes to improve their machines.

Each dairyman who attended these meetings was asked to fill out a registration card and list the type of milking machine he used. Although the primary purpose of the cards was to obtain names and addresses so that they could be contacted later, they were not told that they would be surveyed. Within 2 months after the first meeting, 405 double cards were mailed out from the Dairy Extension Office at the University of Illinois.

Of the 405 cards mailed out, 139 were completed and sent back to the Dairy Extension Office. As expected, most of the dairymen (133 of the 139 who took time to fill out the card and drop it in the mail) had made some tests or improvements in their milking equipment. Thirty-nine had used a vacuum gauge to test their equipment themselves while 71 had arranged for a milking machine company representative to do a complete analysis of the installation.

About three-fourths of this group added some new equipment after making analysis of their milker and 29 made changes in their units without having made a test with an analyzer. At least these 29 dairymen did not indicate on the card that they had made any checks previous to installing new equipment. Seventeen dairymen reported they had cleaned their vacuum lines and stall cocks soon after attending one of the demonstrations.

These meetings were planned by members of the local Agricutural Extension Council in each county and were arranged and promoted by the farm advisers. The authors conducted the meetings with the help of a local veterinarian and the farm adviser. Most of the meetings were held in dairy barns in sections where dairy farms were concentrated.

It was seldom necessary for a dairyman to drive over 15 miles to attend and in most cases the distance was no more than 5 miles. Many came in their work clothes and because of the informal atmosphere they freely entered into the lively discussions which developed in many sessions. These informal discussions probably contributed to the high degree of acceptance of the information presented.

The main part of the demonstration was a secondhand portable milking machine unit, especially designed by Extension dairy specialists to show some of the major problems of milking equipment being used in the State. The vacuum pump would not remove enough air from the vacuum system to maintain a constant level of vacuum when two-bucket-type milker units were used. The effect of fluctuating vacuum levels on milking efficiency was demonstrated by a milking machine analyzer and heat-proof glass teat cup shells. Research results showing the relation of fluctuating vacuum to reactions to mastitis screening tests, such as the California Mastitis Test, were briefly reviewed.

The demonstration unit had valves in the short ¾-inch vacuum line to show the effects of partial blocks in such lines when the vacuum regulator is located at the end of the vacuum line farthest from the pump. Importance of the larger vacuum lines and elimination of dead ends in these lines was demonstrated. The effect of sticking and malfunctioning vacuum regulators was also shown.

A brief discussion of the way a milking machine removes milk from the cow seemed to be of considerable interest to dairymen. This gave an excellent opportunity to show the job of the pulsator and to point out the many problems that could develop in it. Surveys have shown that in many areas, about half of the pulsators were not satisfactorily collapsing the teat cup inflations.

In addition to demonstrating mechanical problems which could develop in milking machines, the importance of correct handling of the machine was discussed. Also stressed were items such as proper stimulation before attaching the machine, removal of machine as soon as the cows are milked out, and operating only the number of milker units which can be handled adequately. The local veterinarian spent most of his time talking about good management to help keep mastitis in

check and recommended treatments of mastitis.

The fact that these meetings were well received by those attending is indicated by these comments. "Every dairyman who milks more than 10 cows should attend one of these meetings . . . Excellent demonstration to show some of the problems we should watch for . . . I had a large pump and vacuum line installed and have proven on my own farm the importance of many of the items stressed at the meeting."

As further evidence that the dairymen used the information presented at this series of meetings, here are some statements made by milking machine company representatives who operate in the area: "After attending these meetings the dairymen are more aware of the importance of proper milker maintenance and use . . . . The meetings have made dairymen aware of the fact that larger vacuum pumps and 1¼" or larger lines make for better milking machine operation and better udder health . . . . Nothing but good has come of these meetings . . . . As a result of these meetings and of articles in farm magazines the farmers are becoming more aware of the importance of good cow milking and proper vacuum."

Following the success of these demonstrations in northwestern Illinois, they were offered to other counties through the local farm advisers. To date over 75 meetings have been held. As a result of these meetings and the general publicity given to the subject, dairymen are becoming aware of the need to check the adequacy of their equipment from time to time. An Extension Circular outlining the steps to follow in doing this job has been widely distributed. ■

Grassroots Leaders Study Farm Policy

One tough-minded young farmer said — "I sure have had a lot of my ideas exploded by what I learned in these meetings. Your facts had better be right!"

by JOHN F. McKEE, *Warren County Agent, Indiana and* JOHN O. DUNBAR, *Extension Economist, Purdue University*

HERE in Warren County, Indiana, we've experienced a breakthrough in Extension educational programs in farm policy. Our formula is simple. First, take the program out to the people in their home community rather than asking them always to come to the county seat. Second, develop enough depth in the program to satisfy the most exacting thinkers in the county. Third, limit the audience to the size best suited for teaching understanding on complex controversial issues. Fourth, to satisfy the demand for this higher quality educational product, we organized Farm Policy Study Groups in 3 successive years. We call this the "Sequential Series."

Back in the late 1950's, our farm leaders decided something had to be done to improve farm incomes. Efficiency was going up, but prices and incomes were going down. At the elevators, village restaurants, and after church on Sunday, they talked. They grew impatient with farm organization leaders. Nearly 200 turned out to hear a group from Illinois proposing a new farm program.

Everyone, it seemed, had a solution. As the farm debate grew hotter, our leaders decided that people needed more facts and understanding on the various proposals. Said one, "If we can't answer the questions people here ask us, how are we going to justify the demands we make on our congressmen in Washington."

Formation of policy study groups

This was when we in Extension decided to organize the Warren County Farm Policy Study group. We pro-

posed a series of four meetings: (1) Will farmers have to go through the wringer in the 1960's? (2) improving farm income by expanding demand, (3) improving income by adjusting production, and (4) overall U.S. economic adjustments needed to meet foreign competition and maintain full employment. The people bought our package and were so pleased that they wanted the same series for a second group the next year.

We've now completed three of these series and have over a hundred interested, active, confident, better-trained grassroots farm policy leaders in Warren County. That's one out of six of our Warren County farmers and more than any other county in Indiana.

What makes us all so enthusiastic about this Policy Study Group series is our discovery of the combination that made it click so well with our best thinkers. We believe we put together the five RP's which Dr. Selz Mayo, sociologist at North Carolina State College says are necessary for success—right purpose, right program, right people, right place, right procedure.

Our *purpose* was to provide these leaders with facts, knowledge, and understanding of the farm problem and alternative solutions. They also learned what would probably happen in case the various alternatives were enacted into law. When people have the facts they make sound decisions. Remember, the farm debate was almost white-hot when this program was initiated. Our farmers are mosly Republican, Democrat, Farm Bureau and Farmer's Union. Do you think they'd have wanted a series the second year if we had sided with one political or farm organization group? At the end of the first series, one tough-minded young farmer said, "I sure have had a lot of my ideas exploded by what I learned in these meetings. Your facts had better be right!"

There wasn't much question about an educational series on the Farm Policy issue being the right program. It was the uppermost thing on most farmers' minds. Warren County farmers raise mostly corn, soybeans, and wheat. A good many have a beef herd, feed out some steers, or raise hogs to balance out their farm business. They were down to the point where many were earning less than a dollar an hour for their labor, and low incomes were about to undermine land values.

Enrolling the right people

Who were the *right people?* We could have sent out 625 letters — one to every commercial farmer in the county and announced our meetings on the radio and in newspapers. Or we could have invited only leaders from farm organizations and political parties. But we did neither. We had tried the first method, never very successfully. We knew that we had to keep numbers low if we were to be able to have the discussion and interplay of thought necessary for people to learn and understand. Teachers say 25 to 30 is an ideal class size. We also knew that to get the right 25 or 30 we had to enroll them by special invitation.

Consequently, we decided that we should invite 30 to 40 of the best, most influential thinkers in the county —men with analytical minds who are respected by their neighbors, by farm organization leaders, and by politicians. We wanted 35 to 40 enrolled so our attendance at each meeting would be 25 or 30. And here's the interesting part. We didn't have to call or write them with a special invitation from the county Extension office. Instead we discussed who should be invited with the seven men on the Warren County Extension Farm Management Committee. They agreed with our proposal on who to invite. Moreover, each one agreed to personally invite and bring 6 other men who fit our criteria.

We took the teacher to the people

Another key to the success of this program was meeting in the *right place.* The first year we met in the basement of the library in Williamsport, the county seat. The room was small, just big enough to accomodate our group. It is psychologically important to have a room that fits the group size.

The second year the group met in the western part of the county in Seeger School. The people in this group were mostly from that community. The third year we met in the northern part of the county at the Pine Village School. Even though people are leaders, they tend to stick with others from their home community or social center. The best place to meet, then, is near where people live. Furthermore, when a person is tired after a day's work, he is often unwilling to drive more than a short way to attend an educational meeting.

We arranged tables for the group to lay their materials on and a place to rest their elbows. The tables were placed so everyone could see both the discussion leader and other participants. Some people hold strongly opposing views to each other and they are often as interested in watching each other's facial expressions as they are in watching the discussion leader.

At the first meeting of every group, County Agent McKee made it a point to personally introduce everyone so they would be sure to know each other. This takes time, but it is important for creating a friendly atmosphere in which objective thinking can take place.

At each meeting about half the time was devoted to presenting factual economic information: the other half was open discussion. We were always prompt, starting at 7:30 pm and ending at 9:30 pm with a 15-minute coffee break midway. Our farmers like that. Coffee breaks stimulate interchange of ideas and more intensive discussion, and a good stretch keeps people more alert after working outside all day

Specialists from the Agricultural Economics Department at Purdue conducted these discussions. They have a bigger reservoir of facts and knowledge than county agents do in this specialized area. One reason the previously mentioned young, tough-minded farmer changed his thinking so much as a result of the new facts he had learned was that our specialists took time to help him understand them.

We have taken 110 grassroots farm policy leaders in Warren County through these three study group series. With their increased understanding, these leaders are going to have more influence than ever before. Influence with their neighbors, their farm organizations, their political parties, and their congressmen. Improved farm policy will result from this combination of scientific knowledge with the brainpower of local people. ■

4-H Clothing Evaluation—Focus on the Individual

by JEAN E. SCHUBEL, *Extension Clothing Specialist*
and HELEN B. MEACH, *Hillsdale County Home Demonstration Agent*
Michigan

FOR SOME YEARS several counties in Michigan have been experimenting with various evaluation methods in the 4-H clothing project. Why? Many 4-H leaders and agents felt there must be a way of evaluating that would be more meaningful to club members than the traditional judging of garments, one against the other at achievement time. Needed was a type of evaluation that focused attention on the girl rather than the garment.

In answer to this need, a new method of evaluation was pioneered at Michigan's annual 4-H State Show. Instead of *garments* being judged and awarded A, B, or C ribbons, *girls* were given the opportunity to wear their garments and discuss their entire clothing project experience with an evaluator.

Many people who experienced this type of evaluation were impressed with it. *Here was a way to make project evaluation more of a learning experience for each member; a way to minimize competition between members, but maximize the opportunity for each member to learn how to better her work.*

Statewide training

As some counties began incorporating this way of evaluating in their programing, other counties expressed a desire to do so. The need for training and to share experiences with this technique became evident.

A State training meeting was planned for two reasons. To provide a climate for sharing ideas and methods, and to give the clothing specialists an opportunity to reach 4-H clothing leaders and agents from all over the State with a common background and philosophy of the clothing project necessary for the successful use of this evaluation technique.

Of Michigan's 83 counties 73 sent several key 4-H clothing leaders and the agent concerned with the 4-H clothing project to this meeting. This group of leaders and agents represented different background in experience with evaluation techniques. *The clothing specialists who conducted the meeting felt this group could give future leadership for introducing or further developing this idea of member-leader evaluation in their areas of the State.*

Setting the stage for this meeting was most important. The clothing specialists were anxious to avoid resentment by anyone who might be resistant to discussing changes in relation to the clothing project. For this reason the meeting was introduced as one which would discuss clothing for teenagers and, more specifically, the current 4-H clothing project in Michigan with some ideas —new to some and familiar to others—that were being tried throughout the State.

Margaret Reed, Extension clothing specialist, began the meeting by discussing some of the sociological-psychological meanings that clothing holds for teenagers under the topic, "Keys To What Clothing Tells Us." This portion of the meeting was aimed at helping leaders and agents understand why and how clothing is important to teenagers and specifically to teenagers enrolled in the 4-H clothing project.

This was followed by a discussion from Bernetta Kahabka, Extension clothing specialist, of the total 4-H clothing experience focusing on the importance of the development of the individual through the project rather than the garment itself. The purpose of this part of the meeting was to help leaders understand the importance of designing 4-H clothing experiences—in terms of the planning, accomplishing, and evaluation of the project—around each individual member's development.

This discussion led to the introduction of "Guidelines for Clothing Evaluation" designed to help leaders to evaluate with a member the planning, the accomplishing, and the results of a 4-H clothing experience. Part of this discussion was aimed at giving leaders some pointers on how to conduct a member-leader evaluation discussion. The other part gave some considerations or guidelines for evaluating garments as they are worn by the members or the garments themselves whether homesewn or purchased. *These guidelines were not a series of steps to be checked off during an evaluation session, but rather, they presented some standards of acceptability that leaders and members could use in making judgments about the success or need for improvement in clothing experiences.*

Some important considerations about this kind of training became evident to the clothing specialists who worked with this meeting.

1. It was important not to capsule this training. The background information was essential to help leaders recognize the merit of projects planned and evaluated around individuals. An overnight meeting was helpful in letting leaders share ideas and discuss the philosophy of focusing on the individual in the clothing project. For many this was not a new idea but being able to discuss it informally with leaders and learn how it was working in other areas helped convince many of those who attended of its importance

2. A summary period was just as important as setting the stage in helping leaders go home with the philosophy as well as the techniques of member-leader evaluation. Many leaders expressed anxiety about implementing this type of evaluation in their own counties. The summary period was designed to urge leaders and agents to move slowly into this philosophy of the clothing project—changing their program only as fast as the thinking of those who worked with the project developed. Small-scale attempts in this type of evaluation in counties that had had no experience with it were recommended

500 leaders and agents from 75 counties attended Statewide training in clothing evaluation.

rather than complete changes in one year.

3. Followup training in the form of visits by clothing specialists was desirable in many counties to implement member-leader evaluation. Many of the leaders who attended the State training did go home and create interest in using this type of evaluation in their counties. Some of them requested help from the clothing specialists in explaining and implementing the idea while in other counties the agents and leaders felt competent enough in the techniques of member-leader evaluation to implement the idea without assistance.

Member-leader evaluation in the 4-H clothing project in Michigan is developing in several different ways. The methods are quite often outgrowths of the traditional ways that clothing projcts were judged or evaluated in counties over the past years with one important addition. All of these methods are attempts to broaden evaluation in the clothing project from that which was traditionally garment-centered (the judging of only clothing construction and rating of one garment against another) to that which is individual-centered (the evaluation of the planning, the accomplishing, and the results of a clothing experience emphasizing the growth of the individual member rather than the comparison of her project results with other members.)

One county's experience

Member-leader evaluation had been introduced experimentally in Hillsdale County in the spring before the Statewide training meeting in clothing evaluation. As in all previous years, clothing projects were exhibited at a county achievement day. They were judged on construction and given A, B, or C ratings. In addition to having their projects judged in this way, the members were given the opportunity to talk about their project with an evaluator if they wished.

A surprising amount of interest in this "new" way of evaluating was displayed by the members. Enough, so that three clothing leaders and the county Extension agent in home economics decided to attend the State meeting on clothing evaluation.

Some of the ideas gained at this meeting were presented at a county-wide clothing leaders' meeting early last fall by one of the leaders who had attended the meeting. Response from this meeting encouraged both the agents and leaders that member-leader evaluation should be attempted for clothing projects in the spring of 1964.

The county's Clothing Developmental Committee, composed of 12 4-H clothing leaders took on the major responsibility for planning and conducting member-leader evaluation at the Spring Achievement Days. The county was divided into five districts for five separate achievement days. Plans were made to have leaders from one section of the county evaluate projects with members from another section.

It had been suggested that each leader evaluate the members in her own club. Since no one knows better than a girl's own leader how she has grown as a result of taking the project, it was felt that this evaluation would be more effective for a member than having a stranger evaluate with her. However, since most leaders felt they would like to have another leader's opinion in evaluating their club's work, most decided to have leaders who were strangers to their girls conduct the member-leader evaluation sessions. One leader who did evaluate with her own club members, however, found the experience very successful and recommended it to other leaders for another year.

By means of a questionnaire and direct contact with leaders the county Extension agents and the county Clothing Developmental Committee learned that leaders were impressed with this type of evaluation. Some remarked that "the girls learned so much." Others who said they had resisted the idea before seeing it in action now supported it. And others commented on how successfully this type of evaluation put emphasis on the development of *blue ribbon girls* rather than *blue ribbon garments.* ■

This 4-H clothing leader is helping her girls evaluate their clothing project experience for garments that are knitted, home sewn, or purchased.

TRAIN

MARKETING, distribution, and utilization of agricultural products is a complex segment of our economy, but it is a major one. This vast agri-business sector is undergoing many basic changes as a result of economic and technological developments. Adjustments of these changing conditions sometimes create operational problems for wholesale and retail marketing firms.

The management of these firms has the same basic goal as do producers. Profit is the chief motivating factor: they want to handle larger volumes of food products with reduced handling costs. They strive for efficiency just as ardently as the farmer who trades in his three-plow tractor for a five-plow tractor.

They have the same goals as the consumer. They try to buy fresh vegetables, carcass beef, and canned beans that will satisfy their customers. Just as the homemaker trys to buy the ingredients for a delicious meal that will satisfy her family "customers."

Traditionally, Extension has not worked with the "middle man" to the same extent as it has with the producer and the consumer. And yet, Extension work with these food wholesale and retail firms is really not much different from the time-honored methods used for other Extension projects. It is simply a matter of working with key personnel and relying on their follow-through to effectively utilize and extend the improvements in operations and management recommended.

The main goal of the Kansas State University retail food marketing project is to help wholesalers, voluntary groups, cooperatives, chain stores, and independent retail food operators to become more efficient. As a firm discovers new ways to become more competitive by improving efficiency, this may mean selling the same product at a lower price, or an improved product at the same (or higher) price, and thus contributing to improve the total market by expanding unit and total dollar sales.

The major emphasis of the Extension retail marketing project is with individual wholesalers, independent retailers, and chain store managers. The short-run results are to improve the competitive position of the firms and bring them additional profits.

The long-range results are less obvious. Keen competition in food retailing causes competitors to copy profit-making ideas. When Extension helps a few pilot firms analyze and reduce market costs, the results are soon extended to other firms. Long-run advantages spread to consumers and farmers through improved quality, more and better services, and greater market stability.

The Extension approach to the firm's opportunities concerns both managerial and operational problems. However, the decisions reached by management make the greatest contribution to improved efficiency. Once management can visualize the value of improving operations such as space allocation, inventory control, layout, merchandising, or work scheduling, they see the need for more personnel training. Then and only then, can Extension offer training suggestions and seminars to the company with the expectation that a reasonable follow-through will result.

The first step in such a study is to carefully analyze the details of the operation. If it is a wholesaler, his cost per ton of product handled must be determined. If this ratio is out of line, the cost factors are analyzed. This starts with the average order size. If it is too

THE TRAINER

by S. E. TRIEB, *Extension Economist, Kansas*

small, it may be due to the type of stores the wholesaler is serving, or it may be due to inefficient delivery schedules. Other factors to be considered are turnover rate, a size of crew, and overtime. Since lack of effective work scheduling is the key to overtime costs, material handling systems are also checked. The crews may not be effective because of physical layout bottlenecks. Narrow aisles and inefficient handling equipment can reduce productivity as much as 60 percent.

The same principles of analysis are used with retail firms. Here the decisions of management are even more critical because unit size becomes more cumbersome. A full pallet load that was handled with a hydraulic lift truck at the wholesale house, is now 30 cases of "beans" that must be handled one at a time. A full case is now 24 or 48 individual cans; a beef carcass is 350 packages. There are 7,000 shelf items, 40 to 50 employees, 6,000 customers per week, and numerous competing stores. All these must be considered by management in making decisions.

Management's job at the retail level is to blend people, products, and profits. An "average" supermarket moves two to three semi-trailer loads of product per week. Extension can help the retailer by developing "demonstration stores." These demonstrations are also valuable for helping the wholesale firms through a "Train the Trainer" program.

Here is how it works. The Extension marketing specialist conducts an operational efficiency and business management study. He works through the principal supplier, generally a grocery wholesale firm. The wholesaler is asked to select one of their most efficient retail stores for the study. One or more "contact men" from the wholesale firm is assigned to work with the Extension specialist; usually this is a grocery merchandiser who also invites the produce and meat merchandisers to assist with the study. If the wholesale firm has an engineering department, the store engineer is also asked to help with the customer traffic analysis and the backroom layout.

Numerous Extension specialists help with the study including: Mildred Walker, K-State Consumer Information Economist; Lynn Fitzgerald, Kansas Extension Engineer; and Lowell Mohler, Assistant Marketing Director, Kansas Board of Agriculture.

County agents and home economics agents in the "home county" help conduct the customer traffic studies. They usually solicit help from Extension personnel in a neighboring county.

At the conclusion of the week-long "store-study," written and oral reports are presented to management. Actually, the merchandisers that have assisted with the study present a major portion of the report. This is a very necessary ingredient to secure the desired follow-through. *Without* company participation it *never* becomes "their" program.

The study includes a detailed analysis of the competitive position of the retail store—it's strengths and weaknesses. The wholesaler merchandisers and the Extension specialist jointly present the findings of the study to store management. This meeting is also attended by the other merchandisers of the wholesale firm.

Left, meat supervisor discusses inventory control records with meat department manager; Center, quality control begins with beef selection and cutting methods; Right, ad readership is checked by traffic analysis and interviews.

Here are examples of typical problems and recommendations from a study.

(1) Due to lack of work scheduling, the meat department is not achieving maximum sales per manhour. A schedule based on product sales movement would enable the meat department to have improved productivity.

(2) Produce displays do not reflect customer preference. Displays are too high, causing customer inconvenience and quality losses.

(3) Improved cutting methods will provide greater customer satisfaction and increase yield per carcass, thereby maximizing sales and return on investment.

(4) Present backroom layout is causing considerable backtracking of product flow. The revised layout will reduce employee travel time by 30 manhours per week.

(5) The location of the courtesy booth causes store congestion and customer inconvenience. Relocate this booth in the traffic pattern next to the store entrance.

(6) Only 30 percent of the customers passed the fresh meat display, while 69 percent passed the smoked meats. Feature displays of groceries block customer traffic.

(7) Grocery inventory is too high ($60,000) due to the present ordering system. Store orders should be based on sale needs enabling the store to achieve adequate inventory turnover.

(8) Present method of receiving groceries with eight clerks results in productivity of only 166 cases per manhour. USDA research indicates that three men using a conveyor system can receive 258 cases per manhour.

Following the presentation of the store analysis the "Train the Trainer" Extension technique moves into high gear. Store management wants to know *why* grocery inventories are too high, *why* customers are not effectively shopping the entire store, and *why* an eight-man crew looks efficient, but really isn't.

As these store study recommendations are adopted, the "demonstration" is established. The improved practices are then implemented through the combined efforts of the assigned wholesaler personnel (generally a merchandiser) and the Extension specialists.

The demonstration store then becomes a part of the wholesaler's ongoing retail store program and eventually becomes a part of the produce, meat, and grocery training schools conducted by the wholesaler.

The wholesaler and the Extension specialist often cooperate in planning and conducting joint management seminars and all store owners and managers of the firms serviced by the wholesaler are invited to participate.

The "heavy end" of the presentation rests with the wholesaler who assumes the role of trainer. He is supported by the Extension specialist, who provides the interpretation of demonstration store data and applicable USDA marketing research. The wholesale personnel now has a few more tools to use in his day-to-day contacts with individual store managers.

Some of our Extension work is of a regional nature. For example, a produce company located in Pittsburg, Kansas, also operates branch houses in Missouri and Oklahoma. To handle this Extension training program, specialists from the three States combined talents to present a seminar to top management personnel. In the followup programs each State specialist will work directly with the branch house in his respective State.

The K-State consumer information specialist and cooperating home agents also analyze customer preferences about the store, its ads, its displays, and its employees.

These studies indicate that customers want more information on meat cookery. Therefore, on a pilot basis, a meats cookery school for meat managers was held in cooperation with a Topeka wholesale firm. Each manager cooked 16 different cuts of meat by dry heat, moist heat, and pan-fry methods. As a followup to the training, the Shawnee County home economics agent provides the managers with a recipe of the week and holds a biweekly demonstration in a retail store. The market managers participate in the demonstration and prepare their own weekly displays based on the model.

Through the recipe of the week demonstration, Extension is again training the trainer, by helping meat department managers provide meat cookery advice to 6,000 customers weekly.

In a related retail food area, another K-State Extension study of a cafeteria kitchen revealed that 17 percent of the manhours could be eliminated through changes in layout and product flow. In followup work after the study, the dietition continues to refine daily operations and work methods through worker travel patterns. These are charted with string and pins on a scale drawing of the kitchen. Then the dietition consults with each employee and helps him to develop better work methods.

Another phase of the Extension Program is a store planning and layout seminar for store engineers. It has been found that the store engineer is more receptive to layout suggestions if made for future stores rather than changes in recently completed stores.

Each of these marketing activities serves as a catalyst in the marketing channel. Effective interaction between the producer, wholesaler-retailer, and consumer is essential to a smooth, efficient total marketing system.

The farmer, wholesaler, and retailer all seek adequate return on their investment. Consumers want quality, quantity, variety, and service at a reasonable price.

The Extension philosophy, "to help individuals help themselves," applies to this "Train the Trainer" program with marketing firms.

First, it involves the wholesaler personnel because they work constantly with their retail store customers. The wholesalers has a vested interest in seeing that the retail store stays on the profit side of the ledger.

Second, the program helps build enthusiasm. This makes it possible to put ideas into action by building active interest and enthusiasm on the part of the wholesaler-trainer.

Third, the follow-through, check-back, and analysis gives the trainer examples of accomplishment to support his recommendations.

Through this concept Extension can extend research, through the wholesaler, to several hundred retail stores. The increased efficiencies achieved by food firms as a result of the activities of this project provide better outlets for the farmer-producer, and continue to provide American consumers with more food for their money. ■

4-H leaders learn to

Simplify Methods Without Sacrificing Quality

by KENNETH C. MINNICK
Benton County Extension Agent
Corvallis, Oregon

SERVING as a 4-H clothing club leader for 12 years and also as a professional dressmaker has given Mrs. E. C. Wells, Benton County 4-H Club leader, a chance to discover and perfect many improvements in sewing and teaching techniques.

During the many years that Mrs. Wells has been working with the clothing project she has seen many changes in sewing techniques with the advent of new fabrics, laundry and drycleaning facilities, and fashion demands. Her goal is to help the 4-H club member have a satisfying experience from the clothing project by constructing a garment which the girl will enjoy wearing. One that will serve her personal needs rather than emphasize "theor-ies" of construction or techniques which in some instances do not have a real or practical value.

Mrs. Wells' quick wit, radiant smile, and eager willingness to give of herself and her almost unlimited knowledge has encouraged and provided initiative for many of her 4-H girls to become expert seamstresses in their own right. Her home is always open to her club members to bring their sewing machines and do their sewing under her expert guidance.

In this "step-by-step" method, mistakes are caught before they are made, and long hours of discouraging ripping, resewing, and refitting are avoided. The result is a happy, eager 4-H club member interested in continuing 4-H club work from year to year. Needless to say, the erratic coming and going disrupts what otherwise would be a quiet, well-organized household for Mrs. Wells' and her husband. However, they are both to be commended for their unselfish devotion to the young people.

As a result of her work with the 4-H club members, a training course was gradually developed through the past years. Starting about 3 years ago, Mrs. Wells and her club members worked the ideas into an illustrated lecture which was presented for their parents and other clothing club members in the county during 4-H club week. Step-by-step samples were made by the girls showing the new techniques. Members were stationed in teams throughout the house, each team of girls explaining to the visitors the procedures and the reasoning behind them, as well as most capably answering questions directed to them.

Growing out of the open house events conducted by Mrs. Wells and her club members, the 4-H leaders asked to have a more intensive training course. This resulted in a leader training program which included 54 club leaders, school teachers from the high school and junior high schools, and agents from the State 4-H staff. Through the attendance of the home economics teachers, we hope to attain a closer coordination of the sewing techniques taught in 4-H clothing club work and those taught in the home economics classes at the public schools.

Mrs. Wells has handled all details of scheduling and has made the arrangements for the sessions which included four 2-hour meetings. Included in the four meetings are the basic rules or use of line and color, new procedures for pattern adjustments, proper use and care of sewing equipment, new procedures in construction, including women's tailoring.

In the field of construction. Mrs. Wells taught a new method of setting-in sleeves, doing all stitching from the bodice side, which results in a smooth sleeve cap with no unwanted tucks or pleats. Also included were three types of skirt bands and the techniques involved, a new method of constructing bound buttonholes, and methods for putting in three types of zippers.

The club leaders have completed the training sessions and are now using these techniques in working with the some 250 4-H club members enrolled in clothing projects in Benton County. Summarized printed materials will be prepared by Mrs. Wells and made available to the leaders as reference material for their instructional use. The methods used in the course have been tested for durability, appearance, and application. The aim has been to simplify methods and procedures WITHOUT sacrificing quality workmanship.

Mrs. Wells' training course is designed for those persons who are interested primarily in constructing good-looking, good-wearing garments. Basically these are the reasons for joining a 4-H clothing club. Good grooming, poise, posture, and the choice and use of accessories, are fitted into the course as the lessons progress. Careful planning is essential in achieving this goal. The leader must know each club member well enough to advise in selecting fabric, pattern, and accessories.

A personal interview stressing the use of line and color combined with the member's personality and wardrobe needs and training will be helpful to the club member and make the leader's job much easier in working with the individual. It is equally important to help each member develop a program of work to determine the best procedure in order to complete the project at a designated time. "One who fails to plan, plans to fail" according to Mrs. Wells.

It is Mrs. Wells' hope that at the end of the club year a teenage member will have learned the basic steps in sewing, in pattern and fabric selection, pattern alteration, in fitting, and a great deal in grooming, modeling, posture, and other aspects of being a poised, attractive, and well-disciplined person. For each club year improvement in all of these fields should be achieved. Leaders and members should be constantly and conscientiously endeavoring to live up to the club motto. "To Make The Best Better" ■

This furniture salesman is discussing drawer construction with a young homemaker during the "scavenger hunt."

by JAN ARMSTRONG
Purdue University, Indiana

CONSUMER EDUCATION: from dilemma to decision

THE CONSUMER—his welfare, habits, and idiosyncrasies—has become the hottest item on the educational market. He may be known as *hot copy, bright star,* or *best of show.* He finds himself courted, observed, consulted, written about, and cajoled. His discovery has been as revolutionary to our time as the steam engine was to its time.

The late President Kennedy opened the door to this discovery with his message to Congress on the "Rights of the Consumer." He pointed out that the advance of technology has not only increased the opportunities of the consumer but has added to his difficulties, and observed that the consumer has certain rights. These are the right to safety, to be informed, to choose, and to be heard. The first Consumer Advisory Council to the President was established under his guidance. President Johnson has continued the program with the recent appointment of Mrs. Esther Peterson as his advisor on consumer affairs. Increased interest in the consumer and his well-being has created new fields of activity in educational and legislation with a better informed consumer as the focal point and the end result.

Standing in the midst of the hurry and scurry for their favor are Mr. and Mrs. Consumer. Befuddled, confused, and bewildered. They say, "We know we need help but whom do we ask. Where do we go? What can we do?"

In this Consumer Age, Extension workers ask, "Who is this dynamic individual? Who is the consumer? Who isn't? What makes him different? Where has he been hiding?" They add, "We have been working with urban, suburban, rural nonfarm, and farm people for years.

All consumers. Our program includes young homemakers, aging groups, labor union organizations, and low-income families. All consumers."

These groups are not new in the Extension clientele but until recently were a part of the whole. Now each part has attached itself to an identifiable group such as mobile groups, low-income, aging, etc. It's like the baby in the family who ceases to be a baby and develops an identity and a personality of his own. Certainly, Extension workers have been in the consumer business since the program's inception over 50 years ago.

The Indiana home economics Extension staff recognized the plight of Mr. and Mrs. Consumer and their need for guidance. Too, they realized that Extension needed direction if it were to have the ability to guide.

As the policy of Indiana Extension is a continuing effort to keep all staff members trained and current in program trends, they need the initial training in consumer citizenship. To help meet this need, a 3-day in-service training session on consumer education was held on the Purdue University campus in November.

The goal of the workshop was to train Extension home economists so that they can help consumers realize maximum satisfaction from their purchases. The workshop was divided into two areas—general and specific subject matter. The general sessions were planned to review basic economic concepts, the marketing structure, and other factors that influence buying decisions such as advertising, research, types of stores, and protective laws. Subject-matter classes were in the fields of home furnishings, housing, home management, and clothing.

General sessions

The general sessions were to bring into focus the various facets of our intricate marketing systems and showed their relationships to the everyday purchases of our clientele. Since most of the agents had some economics background, instructors were asked to review and show practical application of basic economic concepts.

An Extension economist told the agents that the consumer is the boss through the price-mechanism system. And our problem as Extension workers is to develop ways to help them through their values and goals system to become more effective "purchasing agents." He said that Extension home economists are working in the operational framework in which they must learn to assess and understand consumers' needs and wants.

To survive in the era of the consumer, agents need a working knowledge of supply and demand, competition, cost of production, and how returns on capital invested affect the kinds of goods available to the consumer. These goods are directly related to the satisfaction they receive from their purchases. The economist further stated that Extension's overall objectives in consumer education are three: (1) Make the market function more perfectly through a more rational and informed consumer; (2) help the marketer to function better; and

An Extension Specialist discusses today's furnishings fabrics at the Workshop on Consumer Education.

(3) serve as the communication link between the consumer and the marketer.

Another instructor informed the agents that we have a tendency to refer to the consumer as if he were someone else. When in fact, the consumer is you and I. Research indicates that consumers are different, one from the other, and they need to be motivated to want to change their habits.

There appears to be two schools of thought in teaching and training consumers. One says that goals of others cannot be changed. On the other hand, some educators feel that one cannot educate without causing some adjustment in values. The instructor pointed out that consumer studies have developed a pattern for thinking which is the same as the home management decision-making process. Individuals progress through the steps of defining the problem, using available resources, determining alternatives, making decisions, and following plans through action and evaluation. Furthermore, the agents learned that in today's world changes are coming so fast that they are obsolete before they are actually made.

The marketing system and how it functions came alive under the skillful hands of one of Purdue's agricultural economists. He used the evolution of the retail store to vitalize the story of storage, transportation, processing, and packaging. He cautioned agents that they have a responsibility to prevent the consumer from being exploited. He emphasized that retailers and advertisers tend to treat consumers as if they were alike. However, retailers are changing as they have learned that buyers are different.

Specialist-instructor points out to Extension home economists characteristics essential to clothing quality.

Continuing in this line of thought, a speaker from the psychology department reiterated the fact that people differ greatly and that the difference means that we need a large variety of goods available. These differences arise from variations in age, income, experience, values, and training. If one can help consumers understand that some things appeal to them because of individual differences, they will not try to justify purchases from other motives. Other buying motives discussed by the psychologist were those oriented toward some goal or need satisfaction or an attempt to conform and "keep up with the Joneses." When consumers can be helped to understand their buying habits, they will be better satisfied with their purchases.

The kinds and types of retail stores may either work for or against consumer satisfaction. Since not all consumers want the same things, they need to know the services offered by different types of stores. The home economics specialist discussed these items in relation to stores; location; store layout; number of brands; range of prices and sizes; credit; personnel; and related services and conveniences such as restrooms; telephones, restaurants, beauty shops, and babysitting. The instructor pointed out that trends in retail stores indicate more self-service selling techniques, a continuing growth in discount stores, and a wide diversification of product lines and assortments. Any one of these further emphasizes the need for agents to be able to help consumers to become more discerning buyers.

Advertising must be understood both from the standpoint of how it may persuade consumers to buy and what it can tell them that will facilitate shopping. The home management specialist who discussed advertising said that desirable advertising can help lower prices by increasing demand; improve the quality of a product through competition; raise standards of living; give prices for comparative values; and indicate location of goods and services.

Concluding the general session, it was brought out that the consumer should know how he is protected by law—and how he is not. The line between legislation to direct and legislation to control is a thin one. In this discussion it came out that laws and regulations may correct unfair or dangerous practices. Also, some laws may operate to eliminate some products from the market. Various laws, either now in force or proposed, were used to show how some conditions may or may not be improved by law.

Subject-matter classes

The subject-matter classes started the afternoon of the second day and continued throughout the workshop. The agents had been assigned by the supervisory staff to classes according to interests and program needs. Agents received training in one of five classes: clothing textiles, lighting, furniture buying, laundry equipment, and credit. Home economics specialists taught the subject-matter classes. They instructed the agents in training consumers to look for basic materials and information, performance expected, and other desirable characteristics such as appearance, strength or style, and undesirable qualities to guard against.

The basic concepts discussed in the general sessions were applied in the subject-matter classes. Specialists discussed the effect that the market, the kind and type of store, advertising, and laws can have on a particular product. The dynamic interaction of principles and practical application was enlightening. One agent remarked, "This is real subject matter, I can sink my teeth into it. I have been teaching this subject for years but this total bundle idea is good. The tie-in of goods and service from their beginning to eventual consumption."

Byproducts of workshop

The workshop offered a comprehensive display of teaching methods and techniques that could be used by agents. A useful tool was the specialists' tape-recorded reports of trips to various stores in the area. They reported on the type of store, services offered, and kinds of merchandise available. Other methods used were panel discussions, buzz groups, and slide presentations.

Probably the most exciting technique and a highlight of the workshop was the "scavenger hunt." Each specialist-instructor assigned the agents in her class visits to different stores to shop for types and kinds of equipment, or to survey the goods available in the store. For instance, in the laundry equipment class, agents compared prices of various brands and types of automatic washers. They studied the service guarantee or warranty available with the washer.

In the credit class the agents were sent to banks, stores, and automobile dealers for sample contracts. Back in the classroom the group, under the guidance of the specialist, analyzed the contract for interest charges, and desirable and undesirable qualities. Also, agents viewed the contracts from the standpoint of what a contract may not include. These omissions are important elements in whether credit serves consumers as a trap or a tool.

The furniture-buying class studied labels, new fabrics and finishes, care instructions, and quality of construction. In their "show and tell" class period, the agents examined the characteristics of furniture discovered in drugstores, variety stores, supermarkets, and regular furniture shops. One home economics agent said, "probably one of the most interesting experiences in the furniture search was not only evaluating the quality of information that is on the label but also seeing the many pieces of furniture without any information whatsoever."

Most agents agreed that the workshop was helpful and that a continuous emphasis on consumer education was essential in the new age of the consumer. The consumer education approach to buying decisions incorporates economic consequences, product information, and the relationships of the decisions to satisfactions received by the consumer. Several of the Extension home economists have reported the use of workshop training for local leaders. One reported a tour to a wholesale furniture outlet as a focal point for her lesson on buying beds and bedding. Another said, "I applied the basic principles learned in the laundry equipment class to my lesson on food buying.

The success of the workshop and the intensive emphasis in consumer enlightenment were reflected in the June

A banker discusses credit loans with a home economist.

Homemakers Conference which included many ideas patterned from the workshop. Over 5,000 Indiana homemakers invaded Purdue's campus to gain an understanding of their responsibilities and opportunities as consumers. Programs centered in areas of training homemakers in buying protection, food, clothing, health, education, and housing.

Nationally-known speakers discussed the rights of the consumer and the role he plays in society. A government official shared with the homemakers his concept of the Government's role in consumer concerns.

A high note of the conference was the panel discussion, "What a Consumer Can Do." Homemakers, as consumers, want to know where to turn when they want a question answered or when they think a product is questionable.

The conference served as an initial "scratching of the surface" to the consumer and his problems. The homemakers and the Extension agents with the training they have received through the conference and the workshop can work together in their local areas to develop a strong consumer education program. ■

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NEW ADVENTURES IN RAD—Experiences in the Endless Mountains of Northeast Pennsylvania

The Endless Mountain area offers much of interest to draw the tourist trade. Wooded mountains, beautiful lakes, and sparkling streams create many breathtaking scenes.

Summer activities that entertain vacationers are the "Bow Hunters Festival," canoe racing, river float trips, summer camps, swimming, boating, summer theatres, trail rides, golfing, and skiing. For the ardent hunter, the area provides excellent hunting and fishing.

To capitalize on all these recreational resources, an Endless Mountains tourist promotional association was formed. Shortly after this, Extension helped organize RAD Committees in the counties of the area.

A subcommittee was appointed by two county RAD committees to explore the potential for expanding the farm vacation business. Many families had been soloing in the business with the help of commercial advertising firms. Extension aided the committee in canvassing Wyoming and Susquehanna Counties to find out if there were more interest in the farm vacation business.

About 2,200 questionnaires were sent out early in 1962. Enthusiasm for this new project ran high. Ninety-two families were interested in learning more about the business. Meetings were held in central locations.

Successful farm vacation hosts were invited to tell about their experiences. They told how they met people "from all over the world." They said advertising was important. Most received free advertising with a State agency but many also paid for listings with a commercial farm vacations directory.

By 1964, 85 farm hosts were listed in the Department of Commerce Farm Vacation Guide, 50 of these vacation farms are in the Endless Mountains area.

Profits realized by these families have made possible many new kitchens, living rooms, dining rooms and higher education for their children.

Recently, our farm vacation families have formed a four-county association, elected officers and are meeting twice a year to update and improve their businesses.

Farms have found a new crop—their city cousins and the exchange of ideas is beneficial to all concerned.

Most regional people, especially those involved in RAD work, began to realize that there were many advantages in a regional approach to project development. In December of 1962, a four county Endless Mountains Area Development Association was formed.

The area development association asked me, as an Extension home economist, to form a subcommittee on handicraft development. Farm vacation hosts were also clamoring for handicraft items for their guests. We drew on Extension specialists, county planners, and area citizens to formulate plans on how to locate and bring together the craftsmen of our area. Four meetings were held during the summer of 1963 to plan an exhibit at the local REA Cooperatives new building. Publicity through newspapers, radio, and television invited all regional craftsmen to participate.

Ninety-one exhibitors took part in the 3-day event, held in November 1963. They showed wood carving, cabinetry, weaving, ceramics, painting, jewelry, and some novelty items, such as raffia pineneedle baskets and trays. Twenty-six retailers visited the show and evaluated the handicraft articles. A final tabulation indicated possibilities for sales of two types of items: the very high quality and the inexpensive, strictly souvenir, item. Three professional craft judges evaluated items from a professional craftsman's viewpoint. Each craftsman received a copy of the constructive criticisms of his items.

The general public was invited the last day and nearly 600 people responded to the invitation.

A craft exhibit evaluation meeting followed. The craftsmen were pleased with the results and many of them had received orders from local retailers.

The craftsmen decided to form an organization. Officers were elected and a constitution and bylaws drawn up and accepted. Educational programs are being planned. We hope to have an exchange of ideas with the Southern Highlanders Craft Guild.

A renovated barn in Sullivan County has been donated for use as a handicraft items sales center during the summer tourist season. Some of the area tourist activities will offer special sales opportunities.

We are looking forward to arranging for handicraft training workshops in wood carving, weaving, and ceramics. These workshops will involve the Pennsylvania Department of Public Instruction and the Department of Labor and Industry. All of the projects which we now anticipate will involve county agents, home economists and Extension specialists and other USDA agencies working with special citizens committees.

I feel that home economics can play a part in RAD—nearly every month brings new avenues to explore.—*by Emilie K. Lunger, Associate Extension Home Economist, Wyoming County, Tunkhannock, Pennsylvania.*

U. S. DEPARTMENT OF AGRICULTURE / AUGUST 1964

EXTENSION SERVICE

REVIEW

4-H NEW DIMENSIONS

VOL. 35 • NO. 8 • AUGUST 1964

The Extension Service Review is for Extension educators—in County, State, and Federal Extension agencies—who work directly or indirectly to help people learn how to use the newest findings in agriculture and home economics research to bring about a more abundant life for themselves and their communities.

The Review offers the Extension worker, in his role of educational leader, professional guideposts, new routes and tools for speedier, more successful endeavor. Through this exchange of methods, tried and found successful by Extension agents, the Review serves as a source of ideas and useful information on how to reach people and thus help them utilize more fully their own resources, to farm more efficiently, and to make the home and community a better place to live.

ORVILLE L. FREEMAN
Secretary of Agriculture

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EXTENSION SERVICE
REVIEW

Official monthly publication of Cooperative Extension Service; U. S. Department of Agriculture and State Land-Grant Colleges and Universities cooperating.

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EDITORIAL

"Learning for Living" is the theme of National 4-H Club Week this year (September 26–October 3).

With the ever-growing emphasis on learning, 4-H is in a strong position to draw new members. 4-H Club work offers a unique educational experience. No matter where the club may be, it is backed by the scientific resources of the U.S. Department of Agriculture and the State Land-Grant Colleges and Universities. In addition it is backed by private resources, including the National 4-H Service Committee and the National 4-H Club Foundation.

Through 4-H, young people have the chance to test their abilities and skills in a wide variety of individual projects, group activities, community building, and citizenship training. In communities throughout the land there are many young people with the potential of being 4-H'ers.

From its inception 4-H has been flexible in meeting the needs of youth. It has been and is now receptive to new ideas and new approaches. For the youth of the 1960's (both young men and women) it has much to offer in career exploration to potential farmers, agri-businessmen, scientists, civic leaders, and hundreds of other careers and vocations. 4-H gives youth a chance to test their abilities and skills in real-life situations. Let us extend the opportunity of 4-H to more of the Nation's Youth.—WAL

New Dimensions in 4-H

AS EXTENSION WORKERS we have a specific and dynamic opportunity to work with youth. More than ever before 4-H is *dynamic* because of its versatility in these times that are changing so rapidly. Half a century-plus of experience has equipped us with a broad philosophy, tested educational methods, and a program design that is highly respected by educators and the general public.

Boys' and girls' Club work originated as a program to each elementary skills in agriculture and homemaking. Today, more than 53 percent of the Nation's 4-H members do not live on farms. Now 4-H offers challenging educational experiences to these suburban and nonfarm youth as well as to farm boys and girls. The increased demand by parents and youth for 4-H work in nonfarm areas is consistent with the change in our total youth population.

New dimensions in 4-H, which are expanding continuously, can be observed in many ways—the program emphasis, the project offerings, audiences reached, the clientele served, community responsibility, leadership development, and private support. Today the 4-H program is not considered complete unless it contributes to the fourfold development of the member — educationally, socially, spiritually, and physically. This demands the constantly upgraded program seen throughout the country.

Extension staff members are actually stretching to meet the requests that new audiences have brought about. In most cases, Extension is striving to do more with the same number of staff people.

Personnel at every level are obtaining additional formal education, are reevaluating objectives, and are studying and adjusting structure and methods.

Helping disadvantaged youth

Today we are all more aware than ever of the nearly 9 million American families with low incomes or with incomes at the poverty level. Half of these families live in rural America. There are 4 million rural youth in these families many of whom are members of minority groups—Indians, Negroes, agricultural migrants, Spanish-Americans. No matter where they are, they are for the most part isolated from our technological-educational economy that has made America the world's wealthiest and most powerful Nation.

4-H has much to offer disadvantaged youth in both rural and urban America. Through 4-H the unskilled can learn basic skills and workmanlike habits that are essential to future training in industry or business. Club work can also help create a keener awareness of the need for education and be a powerful motivator in unleashing the potential of each individual. The youth who has successfully completed a project has made the first successful step to continuing growth and development.

We have just compiled the results of a survey of examples of 4-H Club work with disadvantaged youth. It is thrilling to review these evidences that 4-H is flexible and adaptable to serving the needs of youth in public housing areas of the central city, children of the unemployed in Appalachia, and boys and girls of low-income rural communities. Many of us have enjoyed the satisfaction of assisting some disadvantaged boy through the 4-H program, helped him develop purpose, establish goals, and the know-how to achieve better things. New ways must still be found to expand this dimension of 4-H in the years ahead.

Agents in a low-income urban area have commented about the meaningful interchange between their youth and 4-H members from the more rural counties in nearby districts. The established clubs are helping to assist members in the newly-organized urban program—both groups are gaining in understandings.

Eugene Morris of Indiana points with particular pride to the 4-H program in Lake County where various economic levels have been reached, including an urban housing development. The key point was expanding the number of local clubs and local leaders through agent training.

Changes in the 4-H clientele, as well as new technology and new ways of living, require variability in

". . . While poor people tend to live in concentrated 'pockets of poverty,' those pockets are scattered all across the face of our land. It is the responsibility of each community to search out these pockets, . . . analyze the causes of their poverty, and devise the measures that will help remove those causes.

"And we must begin with the children and young people, who must be given the opportunity to break out of the cycle of inherited poverty into which they were born so that they in turn will not transmit their poverty to still another generation."—*Orville L. Freeman, Secretary of Agriculture*

the projects being recommended. There was a time when project specifications were quite definite. Today's trend is to modify the project to fit the member's interest, ability, and home situation. Project literature is including built-in suggestions for adaptation. An expanding innovation developed in Montana and several other States is to have young people carry out self-determined projects. Here the member, in consultation with the leader, develops his own individual project objectives and goals. The leaders advise with the members in their efforts to achieve their objectives.

In many States, real effort is being given to project evaluation, which includes a face-to-face experience between the members and a sympathetic and trained counselor. This may replace or supplement the exhibit.

We tend to think of the 4-H project program in terms of "Useful and Challenging" learning experiences. Today we have some very popular 4-H projects that were undeveloped a few years ago—such as careers, money management, riding horses, and town and country business. No doubt, we will have additional projects by 1970, not even in the imaginary stage at this time. Particularly, we need to think of and stress projects for nonfarm boys.

Adding depth to 4-H programing

Adding depth to 4-H programing can be accomplished in a number of ways. A study of the real problems of youth will give vital cues. Two special programs having great outreach and potential are career exploration and citizenship.

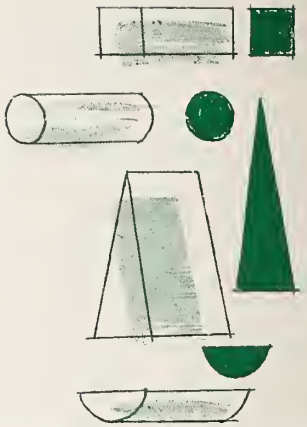
The need for help in career exploration is almost unlimited. There are many opportunities to reach out to youth, motivating them to get a basic education, knowing about available and potential jobs, appreciating the kinds of training that are necessary, and helping them find ways to get the necessary training. There is a tremendous opportunity to make a contribution to youth as we share in rural area development.

The oncoming generation of young people will face increasingly complex public issues at every level—community, area, State, National, and international. Objective and active study and discussion of selected public issues by young people can build a solid foundation for exercising judgment on complex problems which they will be called upon to solve as mature citizens through voting and civic participation.

Practice and training in analyzing public issues needs to begin early and form a major segment of informal education as young people move toward adulthood. In addition they need to understand the structure, functions and interrelationships of various levels of government and the political processes which underlie our representative form of government. The successful methods and procedures that are being developed and used in Extension youth programs need to be extended, with the resources of the Land-Grant Universities and the United States Department of Agriculture brought to bear in helping young people in their study.

We are currently emphasizing the inclusion of more science in 4-H projects. In the early days the objective was, "How to grow corn"—now a major concern is "How does corn grow." The National study of science in 4-H made a great contribution in pinpointing the opportunity for enriching the 4-H program by including a greater emphasis on Science. Progress is reflected in much of the new 4-H project literature being prepared today.

There are some important developments such as the special materials prepared by the plant science departments of North Carolina, the 13 lessons on 4-H Animal Science prepared by Iowa State University in



cooperation with the Federal Extension Service and the inclusion of science in food-nutrition work in a number of States. Negotiations are in progress with commercial organizations to make 4-H Science teaching materials available to all interested States. These efforts all help 4-H fulfill its role of providing supplementary educational support to the school, the church, and the home.

Do you realize that at least 8 out of 10 girls today will be gainfully employed at some time during their lives? Widening the choices for women beyond their doorstep does not imply neglect of their education for responsibilities in the home. In fact, in 4-H we need to help tomorrow's homemakers to be equipped for a dual role.

The *Report of the President's Commission on the Status of Women* points up the need for the modern woman to be a good manager. To quote the *Report*. "The teaching of home management should treat the subject with breadth and includes not only nutrition, textiles and clothing, housing and furnishings, but also the handling of family finances, and the purchase of consumer goods, the uses of family leisure, and relation of individuals and families to society." Management, as interpreted in the *Status Report* will be taught in terms of something to manage in the range of 4-H projects.

Vital role of volunteer leader

Although 4-H is recognized throughout the world as primarily a youth education program, it also is one of the important adult education services. This is accomplished through

the training done by the Cooperative Extension Service to better prepare adults for their work with youth and for other areas of leadership. The volunteer leader is the key to most highly successful 4-H programs. The dynamics of 4-H are evidenced in the accelerated development, utilization, and motivation of the volunteer leadership. Training methods and teaching materials portray the modern concepts of leader development. This is receiving first priority in most State 4-H plans of work. The adult volunteers, providing leadership to 4-H have increased from 307,745 in 1961 to 366,937 in 1963—another expanding dimension of 4-H Club work.

Their acceptance and carrying out of significant responsibilities adds meaning to the program, provides enriching educational experiences, and allows the professional Extension worker to carry out other important duties.

The greatest hope for making 4-H available to our increasing youth population must hinge on expanding the corps of junior and adult leaders who accept responsibility for the 4-H program in the community. Pulaski County, Arkansas, is one of the many excellent examples of a county which has expanded the role of adult 4-H leaders and members working as committees to plan and conduct 4-H programs and activities.

Many States are reporting progress in defining more specific roles of volunteer 4-H leadership. With different people taking the roles of organization leader, project leader, junior leaders, and resource people, it is easier to recruit, train, and help them function with efficiency and satisfaction.

Both adult and junior leaders show a willingness to take on new responsibilities. For example, Michigan reports they have some attitude survey results that seem to establish that local leaders see the task of member recruitment as one that they can and will do if given the opportunity. As a result of new methods, John Sterling, agent in Tompkins County, New York, nearly doubled, on a sound basis, the number of clubs and leaders. The Vermont State Leader reports a 5-year experience with committees of young people taking increased responsibility for the State 4-H Conference, thus releasing professional staff for other roles.

Many of the new dimensions in 4-H are being provided by the boys, girls, and leaders themselves. There is a saying, "4-H becomes greater as you give it away." Extension agents have been finding more and more opportunities to give 4-H to the people most concerned—the members, the parents, the volunteer leaders, and friends of 4-H at many levels.

Better understanding—better support

Some of these new adjustments are not restricted to the boundaries of one county. For example, agents around Kansas City, Missouri, including both Missouri and Kansas agents, have met together to plan coordinated approaches on certain areas, including public understanding and membership promotion.

The State Club Leader in Oregon points out the need for public understanding of today's programing:

"We cannot assume others are as well informed about 4-H potential as we are. We must be sure. The immediate future is particularly important. We have a stewardship in the field of public education. One way to discharge this responsibility is to help local and State leadership know more fully what this phase of public education is or can do for the youth of the State. 4-H did not just happen. It came about by design, and we all are standing before the drafting board, helping create new designs.

"One informed State official leaned forward on his desk recently and said: 'How fine you have almost 35,000 4-H Club members in our State, but, I think repeatedly how can we get 100,000 4-H Club members. What a positive force this could be.' This man is informed, but he did not obtain all his information through his own efforts. Extension helped him get these understandings."

Douglas County, Nebraska, set out to tell that the 4-H program is available to all boys and girls and that it offers a wide variety of educational experiences. For the second year, they have arranged a 3-day exhibit in a busy shopping center in Omaha. Television and news media gave the exhibit excellent coverage and many thousands were reached.

Extension is opportunity

The effectiveness of 4-H Club work in the future is dependent upon the willingness and ability of Extension leaders to keep it dynamic. County staff members will be in the forefront of the effort to keep the program flexible and modern. The new dimensions of 4-H make it appealing today and challenging tomorrow. The old adage of the "Better Mouse Trap" and the "Beaten Path to Your Door" still applies. But more than this, we must *sell* the product we have. A program designed in the dimension of today's needs is attracting youth in greater numbers than ever before, and every Extension worker either aids or impedes that progress.—*Division of 4-H and Youth Development, Federal Extension Service.* ■

City Folks See 4-H As Important Part of Their Youth Program

by FRANCIS R. CALDERWOOD
Cuyahoga County Extension Agent, 4-H
Cleveland, Ohio

WHAT does 4-H Club work mean to the "city kid?" Cuyahoga County junior leaders say, "Education takes place in many forms and 4-H gives us the kind that most schools don't have time to teach. In the 4-H Club we learn important values such as leadership; understanding our purpose in learning; what we stand for; how to accept responsibility; and understanding our relationships with parents; the opposite sex, and other people. We are learning more about understanding, how to think, problem solving, and decision making." These junior leaders also feel that they are learning to exercise freedom through developing a greater sense of responsibility and self-organization.

Meaningful experiences

What are some of the basic needs of young people that are being met through an Extension youth program? The 4-H Club program with its interesting projects, activities, and community support meets many needs. Some of these include the need for personal worth; attention; belonging to something important, security; sense of accomplishment; and a variety of meaningful experiences.

There is also the chance to exercise creativity and imagination, individual expression, decision making, and evaluation in terms of worthwhile goals; to understand oneself as an individual; and to know what one stands for and one's basic beliefs. All young people also need an understanding of the limitations within which they must operate as well as freedom and responsibility.

Present technological and cultural changes and their vast effects on society have created new situations for young people. In a complicated world becoming even more complex, where we live together in more compact communities with increasing pressures, apprehensions, and inconsistencies, a young person finds adjustment more than just confusing. His search for personal identity becomes exceedingly critical in a complex metropolitan community where toughmindedness and sensitivity to others compete for emphasis, where longer periods of education must be balanced with immediate needs, where "values to live by" often seem to be "whatever you can get away with," material gain, and the "almighty dollar." In an urban community the mere mass of people alone intensifies the apparent insignificance of one individual, adding up, as so aptly described by Conant, to "the building up of social dynamite."

Awareness of the values of 4-H Clubs as a part of the Extension educational program encourages educators and other community leaders to turn to Extension for assistance in solving some of these community problems. These people feel that 4-H Club work is unique among youth groups in its relationship to the Land-Grant University. They associate 4-H and Extension as a part of the university—a source of unbiased information—capable of bringing all others together to discuss youth problems.

As a result of the catalyst-educator-coordinator role played by the Cuyahoga County Cooperative Extension Service, the following are among recent accomplishments. (1) A career exploration committee involving school guidance leaders, industry representatives, labor officials, and others, was formed to determine the extent of job opportunities for urban young people in the food, agri-business, horticulture, and similar industries. This group has provided pertinent literature to school guidance counselors, helped in planning radio and television programs on careers, and initiated a job survey being conducted by the Cleveland Board of Education. (2) A Greater Cleveland Conservation Education Council was organized. Again, all youth organizations were involved. In addition, many adult groups working together for the first time found they could help each other, but primary attention was given to work with leaders of youth groups. This spring, the Council assisted in developing a conservation education program for more than 60,000 Scouts in the Cleveland area. (3) At an exhibit workshop emphasizing safety was planned and conducted with youth groups making up the junior fair: Boy Scouts, Girl Souts, Campfire Girls, Junior Achievement, Cleveland Schools, and 4-H Clubs. The Greater Cleveland Safety Council, City and County Boards of Health, and other agencies provided resources and talent. Cuyahoga County's junior fair was recognized as the "outstanding junior fair in Ohio," this past year. (4) A clothing workshop involving all youth groups was planned and conducted this spring. Remarks by other groups —"Outstanding . . . Best we ever had . . .We should do it again." (5) A teenage nutrition program initiated with a breakfast serving approximately a thousand prestige teenagers is underway. Followup nutrition workshops, contests, and similar activities are being conducted in schools, 4-H Clubs, and other youth groups. These and other programs cooperatively planned and conducted involve basic leader training for youth group leaders. The mass media, civic groups, and other community-minded leadership provide strong assistance.

Extension leadership

In addition to these types of organized programs, de-

veloped as a result of sitting down together to discuss community problems, Extension workers have been asked frequently to serve as consultants for many different city groups. Again, association with the university is most important.

Present 4-H Club advisors and community supporters of 4-H have been involved in these activities. Some have also served as consultants themselves. In fact, 4-H Club advisors were among the first to recognize some of the areas of mutual concern that other agencies now also regard as important. Most advisors are clearly orienting their 4-H Club work and the Extension program to broader problems. They see 4-H Clubs as an important part of a total youth program. They also see Extension offering the kind of educational program, assistance, and involvement that helps people become responsible citizens.

A review of the history of the Land-Grant College and Extension, the Smith-Lever Act, and the testimony of subsequent legislation affecting Extension, offers considerable evidence that even early Extension work had a higher mission than simply to teach a farmer how to double his crop and increase his income. Extension's primary role in helping people to help themselves has always been an *educational* rather than a *service* function. This means that Extension must be concerned with people's social, educational, and economic problems.

With the help of junior leaders, 4-H Club advisors, and community leaders we are helping others to change their attitudes. They are beginning to feel that they need 4-H Clubs. They have found that there is a world beyond their own personal interests. Through 4-H Clubs and other Extension youth programs they are developing employment attitudes and skills and a new confidence in their own abilities. They are developing appreciations for new values, especially the concept that education is lifelong.

Extension flexibility

Extension is recognized worldwide as an agency of continuing education effective with both adults and youth. As a problem-oriented and people-centered institution, Extension has an inherent flexibility permitting adherence to broad purposes, development of practical local programs, and employment of varied means to reach goals—respecting people, their desires, and needs. When changes have been necessary, Extension has recognized the need and has usually provided the initiative to make such changes. Extension programs and changes have met the test of public review. Otherwise we could not retain the confidence of the people or perform our full obligation to society.

Who are the people with whom Extension is concerned? Just farmers? The language of the Smith-Lever Act indicates that Congress had all Americans in mind. The Capper-Ketcham Act of 1928 and subsequent legislation clearly express the interest of Congress in work with families and young people. The U.S. population today is 92 percent nonfarm. There should be no doubt about Extension's basic purpose and authorization for serving so-called "new audiences."

This authority does exist and has been reiterated through Extension's history. Extension's acceptance of the responsibility to serve a significant number of people —those urban families and youth beyond the traditional producers of agricultural products is another question. To date this has been answered at the county or community level to the degree that local people, county, and State staffs have been able to relate university resources to community needs.

The flexibility of the Extension educational program in meeting these needs is hindered only by the limits we place on our thinking in acceptance of the responsibility. When we ask "why" long enough, we find a basically sound educational foundation that has been hidden by habit, misconception, a lack of understanding, motivation, and a broad sense of purpose.

From this foundation we can define some purposes so large that young people can feel excitement in being participants in a most challenging period of history. We can help them see that they are living their own lives in following their own convictions. We can point to man's relationship to man as one of the important opportunities needing a full measure of their wisdom, courage, and individuality. Problems of citizenship, health, jobs and careers, and moral standards offer many other program opportunities. All youth-serving groups are concerned with these problems.

With its broad objectives and flexible methodology, Extension needs but to exercise imagination, initiative, and leadership to reach a significant percentage of our population with a full compliment of university resources. The principles and methods that have worked so well in the rural communities can be equally effective in urban centers, where the need is now even greater than in rural areas. We live in an urban Nation and the Land-Grant College, including the Cooperative Extension Service, has an opportunity to build on 50 years of successful experience in providing the desperately-needed spark of educational leadership that somehow *must* be provided. Social dynamite *is* building up in our urban centers. Time may be shorter than we think! ■

Objectives of 4-H Club Work

★ Gain new knowledge, skills, and attitudes through real-life experiences.
★ Realize the satisfactions and dignity of work.
★ Develop leadership talents and abilities.
★ Recognize the value of research and learn the decision-making processes.
★ Understand how agriculture and home economics contribute to the economy and human welfare.
★ Explore career opportunities and continue needed education.
★ Practice healthful living and constructive use of leisure time.
★ Appreciate nature and apply conservation principles.
★ Strengthen personal standards and citizenship ideals.
★ Cultivate desire and ability to cooperate with others.

Junior leaders Ruth Carlson and Bill Ireton chose special clothes to go with a German meal preparation demonstration. They will represent Clark County at the State 4-H contest in Yakima this coming fall.

4-H VALUES Adjusted to Today's Needs

by EARL OTIS, *Extension Information Specialist, Washington*

CONFESS TO SUCCESS? Not on your 4-H record book!

And yet there are those who feel 4-H work in Clark County, Washington is "guilty."

A clue to the situation might well be the constant plea of those people involved that 4-H has plenty of room for improvement in Clark County. With this as their premise, those connected with 4-H are striving continually to deliver a dynamic, changing program that continues each month and year to meet what is wanted and needed by its members.

Tradition tempered with flexibility has been an obvious aid to those closest to the program.

Mae Stephenson and Paul Wesseler, county Extension agents, help provide part of the "tradition" simply because they are each fast approaching 20 years of service out of their offices in Vancouver. Both spend part of their time on 4-H work and are aided by Agents Mary Vonderwahl, Allen J. Estep, and Chairman James A. Johnston.

All of these people show a solid front of agreement when they begin to talk about the leaders and junior leaders who have done so much for 4-H work in Clark County.

A prime example of this leadership can be found in the Ivan Crosby family. Mrs. Crosby is this year's president of the county Leaders' Council, her son, Robert, is president-elect, and a third generation (Robert's daughter, Robin) is about to begin 4-H work. But this isn't quite all of the story. The Crosbys, Miss Stephenson has figured out, have compiled 81 years of 4-H service. It just so happens that Robert has five brothers and three sisters and all nine Crosby "kids" have been long-time members of 4-H. Most of the Crosbys have left the farm now but are still finding their 4-H background serving them every day.

As Larry Brown wrote in the Vancouver Daily Columbian recently, "... Bing isn't the only Crosby Washingtonians can boast about.

"Ivan and Elsie Crosby of Orchards have given as much of themselves to Clark County 4-H work as the famous crooner has to show business."

Robert Crosby, the eldest, and his wife Kay are now leaders of the Toppers 4-H Kennel Club, which specializes in dog obedience training. It is a branch of the Toppers 4-H Club, led since 1955 by Robert's parents. The dog club is just one of the directions 4-H has taken in Clark County as needs are met for the benefit of the young people who are members.

There still are home economics, garden, dairy and other clubs, of course, but the Crosbys, the county agents, and others working with 4-H are not closing their eyes to the expanding needs and desires of the people who are joining 4-H clubs these days.

Robert Crosby, a real estate salesman, says it this way: "If I had received nothing from 4-H training other than public speaking I would consider it all extremely worthwhile. Fairs, projects, and other work is great and fine but the composure gained in being able to communicate is the thing for which I am most grateful."

The county agents agree and point out that demonstration work certainly draws no boundaries. The youngsters benefit equally whether they live on a dairy farm, a home within sight of the courthouse in Vancouver's downtown district, or a home in growing suburbia.

Brown's story goes on to quote Wesseler on a point that bears repeating.

"Widespread changes in agricultural technology in recent years are being faced squarely in [Clark County] 4-H. Leaders realize it is neither possible nor desirable for all farm youth to stay on farms. So rural members and others need help in becoming well-rounded individuals who can earn and serve in many fields."

Clark County doesn't have the largest 4-H enrollment in Washington, but it does stand sixth—exactly duplicating Clark County's population position in the State. And although those closest to the program don't seem overly concerned with using figures to impress, a brief taste might be interesting for comparison.

There are presently more than 900 members in 71 clubs in Clark County. Leaders number 165, including 126 women; there are 117 junior leaders.

"In clubs where members are older, some have benefited themselves and others as well," says Wesseler, "by moving into other groups as junior leaders. Often the adult leader has little time to be much more than a legitimizer and the junior leaders go on to grow personally while building and directing the club. I am convinced," he says, "that we don't fully take advantage of the leadership talent we may have right in our own clubs."

In Clark County, as is the case in many others around the country, agents work more and more with the leaders rather than with the individual youngsters.

"Sure, it conserves the agent's time," says Miss Stephenson, "but it also makes the leaders realize that it is *their* program and they then have a guide for passing on this responsibility to the youngsters."

Similar insight is noted in the newest and latest projects undertaken by Clark County 4-H'ers.

Money management, for instance, now is one of the projects in 11 clubs. Just 4 years ago membership stood at 6 and now 42 are enrolled.

Gun safety and outdoor survival are other areas that have gained with speed and practicality, along with planting for home beauty, one of the newest and most unusual of 4-H efforts in Clark County. It is divided into three divisions. Young people can concentrate their efforts on flower growing, lawns and shrub plants, and landscaping. Youngsters, whether they've ever lived on a farm or not, can benefit now and later from this kind of training.

With vision of this sort, Clark County leaders feel that 4-H will survive its present rebirth and go on to even bigger and better things in the future. ■

Typical of the excellent leadership in Clark County is the Ivan Crosby family. Mrs. Crosby is president of the county leaders council and son Robert will succeed her in October. Mr. Crosby has been a leader for 4 years; granddaughter Robin will begin 4-H Club work this fall.

Mike McGraw, a Clark County 4-H'er used his electric club training to construct this panel of switches, dials, doors, and buttons. It is now being used by handicapped children in the Vancouver school system. Also pictured is special education teacher, Stanley F. Gomulkiewicz.

UNISON IN UNIONVILLE

A town's united effort to prepare it's children for adulthood—and perhaps for another way of life.

■ Plateaus rise and fall as the superhighway approaching Frederick County, Maryland, strikes through rich dairy farmland—just an hour's drive from Baltimore or Washington.

Dotting the countryside along with grazing Holsteins, sturdy white barns, and old Sugarloaf Mountain are atomic energy sites, rocket building centers, and new industry. The traveler leaving the East Coast megalopolis and motoring northwest can see that bigness is still with him—the bigness, abundance, of American farming and the bigness, limitlessness, of the space age.

But what his eyes do not reveal is the fact that though the atomic-space age creates thousands of jobs, bigness in farming means more food produced on larger, fewer, more mechanized farms by fewer and fewer farmers. It is even estimated that 60 to 70 percent of today's rural youth growing up in Frederick County as well as across the Nation must seek their livings off the farm.

An alarming statistic? The people in Unionville, a small community 15 miles northeast of its county seat Frederick, thought so.

Late in 1962, when their 4-H club grew too large for individual attention, six daring local leaders decided the time was ripe to better meet the needs of youth by gearing programs to their "developmental stages" and career opportunities. They called an October town meeting in the Grange community hall to reorganize the local 4-H structure.

The tri-club system

Their idea, unique to Maryland but tried successfully in other States, was to form three 4-H clubs; one for boys 10-14, another for girls 10-14, and a combined boys' and girls' club for youths over 14.

The Unionville 4-H Club of 30 members, aged 10-21, reached the point where programs could not satisfy everyone; either they were aimed above some members' abilities or below the interests of others. Besides, the emphasis on agricultural projects was not keeping pace with projected occupational shifts.

Already in Unionville, a strictly rural community, half or more of the farm owners had professions too—a psychiatrist, architectural engineer, rocket designer, Public Health Service researcher, ex-Navy commander.

Thus the autumn town meeting became not only the start of a tri-club system for youth but a beginning awareness of other people, other vocations, other ways of life, shared by the entire community.

The leaders took advantage of USDA information which shows that youth between 10-13 require: A small local club of a single sex group, meetings, and group activities with ceremonies, games, songs, rules and regalia, self-selected, individual projects and demonstrations with work planned and dispersed in small amounts, simple literature and records, and an adult leader who gives major direction.

The junior boys

In the junior boys' club, the leaders decided to preserve activities that tied in with home, farm, and school interest. The club, which increased from 6 to 17 members in one year, selected dairy, beef, tractor, entomology, rabbits, forestry, dog care, and public speaking projects.

A dog that disappeared before his feeding demonstration; a boy's bedroom crammed with plants, weeds, and 100 hatching praying mantises; and a talk recommending ". . . some bales of hay and a scoopful of silage" as proper dairy feed are a few milestones in these eager boys' achievements.

Other accomplishments include a scrap drive to raise money for the Maryland 4-H Dairy Judging Team which represented the United States abroad, many county fair exhibits, and a school science fair project that took root in a 4-H entomology activity.

But the biggest advantage to the junior club, is the opportunity for children to provide leadership and develop their own programs at an early age. Not overshadowed by older members, the younger boys quickly talked more, participated more, at their monthly home meetings. Each willingly spoke at their successful Demonstration Night.

The junior girls

As with the younger boys, the advisors to the junior girls stressed skill development aimed at the group's interests. Membership soared 500 percent in one year—from 3 to 15. No longer do girls, disinterested in feed rations or corn yields, sit bored through meetings. Now 5 months out of the year they plan their own activities, while the Frederick County 4-H Council advises on 7 monthly programs.

One problem encountered is that girls who are anxious to show animals receive no subject-matter training at their junior club meetings. However, they may then attend the junior boys' meetings.

Knitting and sewing buttons, snaps, and hooks and eyes were big learning endeavors for the 12-year-olds. One little girl now knits for her dolls, others make scarfs.

The main leader and two junior leaders show the girls how to care for their rooms and beautify with flower arrangements. A brunch brought them together to learn how to keep records. Other activities are sewing aprons and dresses for the county style review, preparing lunches and entertaining at the county home for the aged where, "the children learn respect for older people."

The Unionville plan is that boys and girls may automatically "jump up" into the senior club (which also welcomes non-4-H'ers) at age 14. But slower children are encouraged to stay back until the leaders feel they are ready to gain from and contribute to a coed club. The adults agree, "The success of the older club depends on the progress of the younger clubs."

The senior teens

The senior club marks the departure from primarily traditional 4-H activities. Again, the local leaders coun-

by LINDA KAY CROWELL, *Maryland Extension Information Specialist*
and DAVID EIGENBRODE, *Frederick County, Maryland 4-H and Youth Agent*

seled that programing be slanted to the "developmental stages" of ages 14-18; namely that this age group:

(1) Lives in a larger community with wider loyalties and interests;

(2) desires coed social activities, a chance to meet others;

(3) is developing leadership ability, wants a voice in own programs;

(4) is self-conscious, conforming, wants acceptance by peers; and

(5) is interested in citizenship development, vocations.

As our teens—numbering 21 at 1963's end—advance more toward college, they lose interest in agricultural projects and think more about the sciences, engineering, and physics.

And most want to go to college, partly because they are exposed in school and 4-H to children of the professionals living in the area who are expected to continue their education. Their parents also place a high value on informal learning.

The senior club's career-exploration program capitalizes on the resource people from nearby Lingamore High School and a county cooperative who tell abut job possibilities in agri-business through college training.

"I never realized how interesting a delegate's life could be," one member said after hearing Charles Smeltzer, former representative to the Maryland House of Delegates. He spoke as part of the club's emphasis on citizenship and international affairs.

With teens avid to drive cars, the senior club invited their high school driving instructor to lecture and test the members on safety.

What's more, with boys and girls at this age showing an interest in one another, they are happy to think, work, discuss together and learn to be at ease in mixed groups. There is no pairing off; they do things as a group. "Instead of behaving like little boys and flighty girls," says one leader, "they are maturing and taking their responsibilities seriously."

Where it was previously impossible to discuss boy-girl relationships in the 10-21 age group, talks about dating and etiquette are now conducted intelligently with a high school advisor's aid. Questions which teens might hesitate to ask their parents are posed freely here. One session on grooming let each sex group evaluate what the other sex wore.

Leaders feel, these older teens are more vocal in their programs too, and they are getting more out of them.

"The once-a-month meetings don't fall apart; we have to stop them," leaders say enthusiastically, noting that "we can feature enough different, pertinent topics to complete a 3-year cycle of meetings."

Most members are also active in extra curricular school events; some belong to the National Honor Society. Club droupouts are mainly youngsters working part time to finance college costs or those already college-bound and pursuing careers, for example, in teaching. They are quickly replaced, however, by new members encouraging their school friends to join.

In unison

Cooperation between the three clubs is spotlighted at the annual achievement night in November when former urbanites, entrepreneurs, farm owners, and renters and their families come to the Grange Hall to learn the clubs' purposes and honor their sons and daughters.

About 120 attended at the 1963 covered-dish supper with volunteering mothers becoming a part of the organization and offering future assistance.

The Clubs' progress reports and safety skits by the younger boys pointed up a mutual respect by each age group for the others' work. Before the preteens were nuisances; now attitudes have changed.

The senior club also invites the junior clubs to take part in special programs—horse farm and soil conservation tours and home demonstrations. Brothers and sisters are together at county fairs when they jointly exhibit their animals.

And the leaders work beautifully together, with benefits to each child, every family, and the community.

This realistic program is reversing evidence that 4-H is not for the most mature youngster. It is equipping boys and girls to enjoy the companionship of today's childhood, while meeting the challenge of tomorrow's adulthood. ■

Young girls enjoy arranging flowers at their meetings but preteen boys are more curious about mechanical things. Social-minded, older coeds talk about dating, etiquette, proper dress, career exploration, and good government.

Educational Self-Help Program New Hope for Tenement District

by KENNETH L. COOMBS
State 4-H Club Leader
and VIOLET B. HIGBEE
State Home Demonstration Leader
Rhode Island

Providence Journal-Bulletin Photos

Madelyn and Cynthia Johnson as they modeled in the show. Ten-year-old Madelyn made her sister's dress.

WHAT is the Agricultural Extension Service doing in the middle of Providence? Is John Rego, Associate Director of Extension, going to raise chickens and cows in the city?

Facetiously, but with some skepticism, these questions were asked by several persons when it was announced that the Cooperative Extension Service of the University of Rhode Island had been given a 4-year grant to conduct an educational self-help program with children and families wih low incomes in a rundown tenement district of the capital city.

The South Providence area is well known. Juvenile misbehavior, underemployment, and deteriorating family units; like the housing in the area, have been subjects of numerous news articles. A study authorized by the Rhode Island Juvenile Court in 1960-61 asked for a positive plan utilizing existing agencies offering services to families and youth.

Individuals representing several agencies and churches recognized the need for informal education of the type conducted by Extension throughout the State. They called on State leaders and Extension administrators for specific advice and help. Advice was freely given and help within limitations of existing staff and facilities was offered. The increasing frequency of requests in 1962-63 clearly indicated that here was a job which Extension should do—one which would require a staff and a budget.

In the spring of 1963, Rhode Island Extension applied for and received from the Federal Extension Service special funds to initiate the pilot program. In July of that year a home economist and her assistant began their duties. In August a youth worker was added and in December he was given a program assistant. Initially, the first staff members visited the various agencies to become acquainted with their programs, their personnel, and the area. They introduced themselves and their resources.

Four weeks later they held a rally to announce their program to the people of the community. This was well attended. From that time on, the staff workers began receiving referrals from other agencies, phone calls, and office calls from persons having attended the meeting. The program was launched.

The home economics program aims to teach families, including adults and youth, to improve their status—to manage their finances; to plan and maintain nutritional diets; to select, repair, and make clothing; to improve and care for their homes and surroundings; and to have good human relations within their families and their community.

Staff workers have found that much of their program must be conducted individually, especially the phases

including budgeting, housekeeping, and consumer purchasing. Some 25 housewives (potential leaders) have regularly attended bi-weekly meetings conducted by the staff and other Extension specialists. Health, nutrition, family relations, home management, clothing, and such subjects are being taught. It is hoped that eventually those being taught will teach others.

There are four organized homemaking groups for girls. Two of these meet in a housing project and two in a church. For their sewing project they bought mill end materials from a textile plant for 10 cents a yard. A lady in a nearby community heard of the program and offered to teach the girls to sew. She has driven 30 miles twice a week all winter at her own expense. Now she has three assistants.

The South Providence homemakers and girls presented a fashion show late in May. The fashion editor of the Providence Journal attended and a resulting newspaper release stated: "The theme of the showing *The Proof of the Sewing is in the Showing* pointed up the importance of the University of Rhode Island's Cooperative Extension Service South Providence program. The results of the sewing instruction of the past season were amazing. The finished garments, shown in four groups, were attractive, colorful and well made though many items shown were the first ever attempted by their makers." This public statement is indeed a great tribute to what has been done in this area alone.

These garments ranged from aprons and play clothes to Sunday best and party clothes. They were made by all ages for themselves or other members of their families. Two 10- and 12-year-old girls made dresses for their younger sisters aged 3 and 6. This is an unusual achievement for any group.

Three groups of boys have organized 4-H clubs. Two are doing woodworking and one leather work. Rather than ask for outside funds for materials, they collected and sold papers. These boys were reached through basketball activity conducted by staff members two nights a week in a school gym. They became interested in 4-H after a 4-H Club from an outlying area came to demonstrate woodworking.

At Christmas some 500 South Providence boys and girls accepted the invitation of the Southern Rhode Island Rhody Riders Club to be their guests at a special party. Traveling by car 15 miles was a great adventure to many for whom it was their first time out of their own neighborhood. Now they are learning the 4-H pledge and motto and how to conduct their own meetings.

Leadership is a problem. Fathers are absent from the homes of the majority of the members. Boys would like the 4-H automotive program, but efforts to locate a volunteer with the knowledge and skill to lead this project have been unsuccessful. Perhaps it will remain for older youth from adjacent towns to help their city cousins.

Tutoring in academic subjects has filled a great void. When mothers asked for help, Extension workers could not say "no." About 25 students from Rhode Island College and Providence College volunteered to help and now 25 to 30 elementary students meet weekly in a school and in a library for individual help in reading, math, and other subjects. Without this assistance, failing students find themselves in an ungraded class where they likely will remain until they become dropouts.

The fact that someone cares enough to help, works miracles with many discouraged under-achievers. A 13-year-old boy was getting poor grades and was a problem to his teacher. His mother called the Extension Office. In a few hours she was told that a member of the Brown University Guidance Group would see her son the following Saturday. During the intervening week the boy's grades climbed to B's and A's in anticipation of the visit.

A parole officer commented to the Extension Youth Agent about the decline of juvenile offenses and vandalism since the program came into the area. Area policemen have also commented favorably. A group of girls who last year engaged in a gang fight, this year enrolled in the sewing program.

Ten of the most interested boys in the group are planting 10′ x 15′ gardens outside the city. They are learning plant science by experience and will later bring home some fresh, tasty, vitamin-rich vegetables. A youth center is being developed on the University of Rhode Island's 2,300-acre, W. Alton Jones Campus. Its woods, ponds, plants, domestic and wild animals will manifest an entirely new world and a changed outlook to youths from the crowded tenements of Providence.

Extension's aim is not to make farmers and natural scientists of South Providence youths, but to guide them to become worthy citizens, community leaders, and family members. Some of the educational methods which have been tried and proven by Extension while raising the level of living of America's rural population appear to be just as effective in motivating and assisting children and families with low incomes and limited opportunities in metropolitan Providence, Rhode Island. ■

Models in the South Providence Homemakers fashion show display large variety of outfits made by participants.

4-H Animal Science Project

six counties test new approach

WHAT tools do 4-H livestock leaders need to feel confident in conducting livestock project meetings in California 4-H clubs? This is the question that faced a committee of 4-H farm advisors and specialists last September when they met on the Davis Campus of the University of California to take a look at the 4-H livestock project work in the State. First, they examined the situation in 4-H livestock project work.

Each 4-H project in California is provided with: (1) the project outline which describes the work that is expected of a member each year, (2) a project manual for members, (3) a leader's manual which has lesson plans and suggestions of ways to work with boys and girls, and (4) the project record sheet. So, lack of literature did not seem to be the problem.

As this committee discussed the situation it became evident that few 4-H livestock project leaders hold regular meetings: many do not hold any. The average livestock leader holds only two or three project meetings a year. The 4-H livestock project is an excellent example of the "learn by doing" method. But if the 4-H member does not have a cooperative parent, he may not be getting very much supplementary training out of his experience with a livestock project.

California uses the community club system of organization. All members attend a monthly community club meeting and meet at other times with their project group for instruction. It seemed to the committee that the members were learning the basic skills of fitting, showing, and judging but did not learn many of the "whys."

In our State there is one adult leader for every 3.7 members, so most California 4-H clubs are supplied with sufficient leadership. In fact, a good many 4-H clubs have a leader for each type of livestock. This is the situation that faced the committee.

As we worked on the problem, the idea of a 4-H Animal Science project developed. Each of the five 4-H farm advisors on the committee agreed to test a part of the proposed project with selected leaders in their counties during the 1963-64 club year. A sixth county was later included in the testing. The committee will make necessary changes and improvements as a result of the testing. Since approximately 40 percent of all California 4-H members have an animal or poultry project, improvements will have a far-reaching effect.

The committee developed a 4-H animal science outline and a leader's guide to supplement existing livestock project literature. The emphasis in the new program is on increasing knowledge each year along with increased skills and experience with animals. Since the basic principles of animal husbandry are applicable to poultry, rabbits, and horses as well as to dairy, beef, swine, and sheep, the project is designed so that all 4-H members in any type of animal or poultry project are grouped according to the age of the members rather than type of livestock.

All beginning members in animal science project work take the beginning unit. It contains lessons on judging and selecting desirable animals for projects, feeding rations to animals, characteristics of breeds, common livestock terms, parts of animals, and fitting and showing.

Three intermediate units were designed, one on feeds and feeding, one on management practices, and one called an agricultural science field trip unit. It is expected that each of these units will take a project group one year to complete.

Currently there are four advanced units, marketing, career exploration, veterinary science, and special interest projects. Members enrolled in the marketing unit may choose either the "Town and Country Marketing Program" or a cooperative marketing study program recently designed for use in California. Special interest projects will include test plots or result demonstrations.

The 4-H'ers will enter the advanced units about the time they enter high school. The advanced units are designed on the group project approach. The members will decide on the specifics they wish to explore in each unit and call on resource people as needed. An adult leader will guide them in coordinating their work. The literature for each unit is color coded for easy identification: mimeographing is being used during the testing stage.

In an average 4-H Club in California which would consist of about 38 members, 14 to 16 of them carrying animal projects—a minimum of 3 animal science leaders would be needed. One leader would take the beginning unit members and another would handle the intermediate unit being featured that year. A third leader would work with the advanced members. The intermediate leader can rotate the three intermediate units over a 3-year period. As boys and girls graduate from the beginning unit they can enter the intermediate unit that is being conducted that year and follow the 3-year rotation. Each year as the members complete their fourth year and are ready for the advanced unit, they may join their fellow club members in the particular advanced unit being conducted.

In small clubs which might not have enough members to conduct a particular unit members may join a neighboring club for their project work. In some cases, the advanced units might be conducted on a countywide

basis or on an area basis within the county. In large clubs having sufficient leaders and junior leaders, projects can be grouped according to type of livestock; or more than one intermediate unit or advanced unit might be offered each year. So the project is flexible and can be adapted to the needs of a particular community or area within the county.

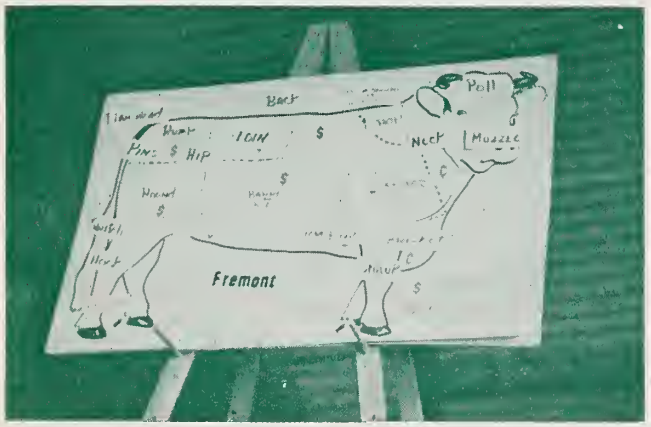
Most 4-H livestock project leaders lack the time and the training to prepare for project meetings. This is part of the reason for the lack of more livestock project meetings. The committee realized that tools would have to be provided to make it easier for the leaders to teach the various subjects in the outline, so they have developed a variety of types of work sheets and training aids to accompany the lessons. These make it more interesting for the members and provide a better learning experience.

For example, in the lesson on livestock terms in the beginning unit, crossword puzzles are used. Some of the worksheets have basic information on one side with a "fun" type quiz on the back. The questions in the quiz are serious, however, and there is a rating for the member to see how well he did. An example is the feed term worksheet in the intermediate unit on feeds and feeding. If a 4-H'er answers all 10 questions on feeds correctly he is rated as a "professor;" if he answers 8 or 9, he is a "feed mill operator;" 6 or 7 make him a "sack sewer;" if he has 5 or less correct he is "unemployed."

The intermediate agricultural science field trip unit features check sheets that the members complete as they tour the sales yard, creamery, or other business firm they have selected to study. Written and oral reports are given at the next project meeting.

One aid that is popular in the beginning unit is a large chart of the silhouette of an animal used for learning the parts of an animal. A small piece of looped velcro is attached to the chart on the location of each of the parts. A name tag for each part has the hooked velcro on the back side. The name tags are passed out to the members. They take turns in placing the tag in the proper location on the large chart. This is a game something like "pin the tail on the donkey." When someone puts a name tag in the wrong location the others correct him. This is an excellent technique for group participation and it is inexpensive and easy to make.

This silhouette chart is used in the beginning unit to help teach 4-H'ers the different parts of the animal.



The leader's guide contains an outline for each unit and the answer sheets for worksheets and quizzes. Each outline lists the items to be learned, the aids provided, and ideas to further the learning process.

Even though at this writing the evaluation has not been completed, several things are apparent. Some principles of veterinary science should be included in the first four units. We hope to get the California Veterinary Medical Association to provide help in designing and conducting the veterinary science unit.

We find that the leaders seem to like the animal science approach and are making good use of the material. One leader reported that in the last 10 years as a 4-H livestock leader he had never held a project meeting until this year: he had worked with the members individually. He now holds monthly meetings. On the other hand there are leaders who are continuing in their pattern of two or three project meetings a year.

As in most other changes in practices that the Extension Service has fostered over the years, acceptance has not been dramatic and immediate. Among 4-H leaders are those who are "late adapters" as well as those who are "innovators." When we finally have the project ready for Statewide use it will take some good Extension procedures to get it accepted and properly used. The project will have to be fitted into the present situation in each club in California. This will take much thought and planning.

Although the project is planned to eventually include all animal and poultry projects, the committee has started with material for dairy, beef, swine, and sheep. It will be expanded later when the basic format has been perfected. The idea has been accepted by the plant science people and a Statewide committee has met and is currently producing a similar approach to plant science in 4-H. It will be tested during the next 4-H club year.

It will be another year or two before the animal science project will be ready for use throughout California. At the close of this club year the 4-H specialist will meet with the leaders in each of the six test counties for their evaluations. He will also meet with a random sampling of members to get their reactions to the project. (This article was written prior to those meetings.) Following the evaluation meetings the committee will meet to make the revisions and the additions indicated. Further testing may be required for another year before the project can be introduced Statewide. However, when this is done the 4-H animal science committee feels confident that it will provide the tools that the leaders need and will use in regular animal science project meetings. The goals of improved attitudes and of increased knowledge and skills each year will result. ■

Youth Grow Through 4-H On All Economic Levels

by A. S. BACON
Assistant to the Administrator
Federal Extension Service

expanded outreach

THROUGH broad avenues, 4-H Club work is making invaluable contributions toward the development of America's youth—white and Negro. There are many identifiable patterns of results that will indicate how the outreach of 4-H is contributing to fuller growth and development of youth, including children from low-income families. Moreover; these young people are finding a continued challenge in 4-H Club work as they discover the possibilities of gaining extra dividends through wider knowledge and higher competencies.

For example, James Marvin Gibson of Campbell County, Virginia, started out with 100 baby chicks. Now, after a dozen years of hard work, he owns a 265-acre swine and cattle farm valued at more than $75,000.

Alvin Foster of Caroline County, Maryland, became interested in animal science through his 4-H livestock project. As a result, he decided to devote his life to treating sick animals. After graduating from Maryland State College, he entered Tuskegee's School of Veterinary Medicine and is today a successful, practicing veterinarian.

Thomasena H. Fennick of South Carolina attributes her success as a New York dressmaker and shop owner to 4-H Club work. Through her personal improvement and clothing projects, she learned to sew. Her needle helped finance her education.

And also on a community basis, 4-H is reaching out to extend a hand. The results show up in a variety of ways. For example, in 1960 Florence County, South Carolina, organized two baseball teams among the boys and two softball teams among girls. The first season 144 young people in three communities took part.

In 1963 over 600 boys and girls participated. When the season closed they had traveled over 500 miles in the county and played before an estimated 4,000 spectators.

At one of the games a college baseball scout observed Gene James, a pitcher, and was impressed. He encouraged the youth to enter Benedict College last fall. Gene is now on the pitching staff of that Instiution's team.

More than 350,000 Negroes are now enrolled in 4-H Club work throughout the United States. Over the past 50 years more than 2½ million have participated in 4-H Club work. The majority of these members in the past have resided in the Southern and Border States. But, increasingly, Negro people outside this region are participating in 4-H Club activities. Some of this increased participation is in such States as Connecticut, New York, Rhode Island, Wisconsin, and Illinois.

Everywhere 4-H participation in project work, citizenship development, conferences, tours, and career exploration is widening the horizons of these young people and pointing them to careers in many fields such as medicine, law, engineering, nursing, teaching, and agri-business.

The trend of 4-H Club work toward the expansion of its outreach can be noted with many examples of achievements among Negro 4-H members. Through the efforts of Extension agents and volunteer leaders, these young people are acquiring many attributes for better living. And this is taking place at all socioeconomic levels. Among the attributes being instilled are higher aspirations, greater self-respect, increased dignity, a new sense of purpose, and fresh hope fed for the first time by definitive promise. However, there is still the continuing need to help 4-H Club members develop a positive belief in a value system which places a high priority on learning, working, and achieving.

One of the most pressing problems we face in our society is that of providing young people with ample opportunities and incentives for developing their full potentials. Many of these young folk are groping for the chance to share in such learning experiences such as those provided through 4-H Club activities. This is supported by positive comments of parents and governmental and civic leaders throughout the Nation.

In many instances, the extended outreach of 4-H Club work is meeting the felt needs of youth in families. One of the keys for this is that 4-H Club work is oriented toward the problems and needs of boys and girls; therefore, it contributes to their total development in numerous ways. Thus, a high degree of belonging is established among 4-H Club members as they select desirable projects of their choice and follow through with the 4-H objective "To Make the Best Better."

As Club members carry forth their projects under the guidance of their leaders, they fully recognize that the ability to plan and think is highly important today. Such consideration enables them to transfer many of their experiences, knowledge, and skills into adult life. As one surveys 4-H Club work it can readily be recognized that 4-H is experiencing tremendous prestige throughout the Nation through its efforts to help young people develop into mature useful citizens. ■

Adapting 4-H to People

by LAUREL K. SABROSKY
Extension Research Specialist
Federal Extension Service

BECAUSE of flexibility of thinking on the part of our 4-H Pioneers and their belief in adapting educational procedures to the needs of youth, 4-H work was born. Ever since then, 4-H has been to some extent, continually changing and adapting.

As the living pattern of Americans started to change markedly before and after World War II, people began to see that 4-H should and could adapt more rapidly to the new ways of American life. No longer do a majority of the 4-H Club members need to learn agricultural skills—a large number of members do not have facilities for learning them. Schools and other youth organizations have become more active during this same period; many of our youth, especially in towns and cities, are finding themselves busier than youth used to be.

Nowadays, even though *children* seem to be busier than ever; at the same time, many *older youth and young adults,* out-of-school, do not find jobs to be busy at or they are not trained to take the jobs available. This has led Extension into trying to help teenage youth become interested in preparing themselves for careers. One way has been for Extension to cooperate with other youth organizations and agencies in career exploration and preparation, without having to organize 4-H Clubs in order to do so.

In the western region of the United States, and in Minnesota, only 3 percent of the Extension workers felt that a boy or girl needed to belong to a 4-H Club to receive help from Extension Service. This is real flexibility in thinking compared with some 30 years ago; it is reflected in such activities as helping train leaders of any youth group and providing subject-matter help to them.

Children differ, according to ability and interests. Dr. Glyn Morris (Director of Guidance, Board of Cooperative Educational Services, Lewis County, New York) says, "The fact that individuals differ from one another, and that these differences must be taken into account in teaching them, is probably the most repeated axiom in educational literature. But strangely enough, it is the axiom taken least seriously."

Do 4-H leaders take this into consideration? The new interest in member-evaluation illustrates they do. The local leader and the 4-H member get together at the beginning of the year and set goals and methods based upon the member's facilities and abilities. At the end of the year these two discuss how nearly the member reached his goals. This procedure for determining accomplishment is flexible as compared with the long-used project-completion method, which usually requires every member to reach the same minimum goal.

And what if the members of a group turn out to be different from those expected to attend? Does 4-H expect the youth to adjust, or does the program adjust? In Bridgeport, Connecticut, 14 boys aged 15 to 18, and 3 girls, aged 15 to 17, were attracted to a group which was set up for a fairly even distribution of boys and girls. 4-H adjusted so that, as they say, "our range of topics and interests have been extremely varied."

Not only the needs of our youth, but also the needs of our country, are bases for adaptation of the 4-H program. At one time, 4-H Club work mean farm-production or homemaking skill projects, and not much in addition unless the club worked on a local community-service project. (The wide variety of community-service projects in 4-H work, incidentally, reflects flexibility in local 4-H programs.)

Although the pattern of projects *offered to* 4-H Club members still follow pretty much an agricultural and homemaking pattern, the projects *carried by* 4-H Club members do not conform as closely to the older pattern. Home economics projects still make up a majority of 4-H projects carried. However, only 11 percent of 4-H projects carried are crops, livestock production, and farm management, 4-H members have been offered many projects other than purely agricultural projects, and many have accepted.

Today, even though the first-place beef animal or the chance to participate in the State Dress Revue provide real thrills to many boys and girls, and receive top publicity in the local newspaper, we find more and more often that subjects such as learning how to become a better citizen, learning about foreign affairs, and appreciating the arts, are the objectives of Statewide and National meetings and trips. The 4-H youths who have the privilege of participating in them have had to display a much wider span of interest than the animal or the dress. This is as it should be in our smaller and smaller world.

Because there are leaders who see beyond their own homes and yards and towns, and who can visualize how important a citizen that a 10-year-old child will sometime be, 4-H Club work is aiming to adapt to the needs of our youth, of our homes, and of our country. ■

IT IS IMPORTANT to us that our 4-H enrollment keeps growing. We are fortunate that an organizational system has evolved in our county to provide for such growth.

The growing youth population needs all the help it can get in these complex times. 4-H must increase the numbers with which it works as well as the depth of its programs in order to obtain the support of parents, volunteers, and legislators.

Since it is not easy to obtain additional professional Extension staff, Hampshire County has attempted to find efficient ways to multiply the efforts of its two 4-H agents through an adult committee system of organization. There are community or town committees on the local level, and a county Advisory Council on the county level. As 4-H agents we also attempt to identify work areas where a systematic plan can be developed to make our work more efficient.

Hampshire County occupies a rectangular area in

Adult Committee System of Club Work

by REBECCA DEA *and* CHARLES WISSENBACH
County Extension Agents in 4-H
Hampshire County, Massachussetts

Western Massachusetts divided by the Connecticut River and midway between Vermont and Connecticut. It contains 2.4 percent of the State population excluding Suffolk County (Boston) which does not yet have an organized 4-H Club program. The population is 103,000 with the largest city, Northampton, having 30,000 people. Seven of the 20 towns have a population under 600. Of the State's 14 counties, Hampshire County is ninth in total population, tenth in rural, and ninth in urban population (excluding Suffolk).

The local 4-H town committee consists of all adult leaders in the community plus other adult volunteers. The officers are not leaders and usually hold office for 2 years through annual elections. It is recommended that each committee have five to eight non-leaders who represent the major areas and groups in the town. The aim is to have a committee which jointly knows every person in the community. New people should be added to the committee each year.

The town committee is responsible for all Club work done in the community. Meetings are held at least four times a year. The town committee chairman acts in behalf of the committee between meetings and is the key person to whom the Extension agents turn. No volunteer is accepted, and no new program initiated, without the approval of the local 4-H town chairman who is treated as an "assistant 4-H agent."

The primary responsibility of the committee is to obtain the necessary leadership for clubs. Leadership needs are determined in a number of ways including interest

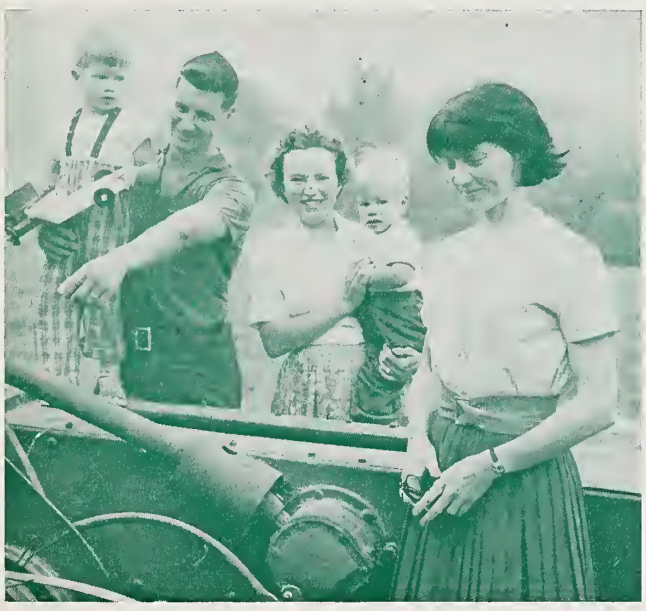
4-H council funds which come partly from this Fair lunch counter (above) will help pay expenses of these girls (left) who are packing for an Interstate Exchange trip.

surveys conducted in the schools among the young people of 4-H age. The second most important job of the committee is to lighten the load of the leader, supporting him wherever possible. The committee uses its nonleader members to conduct community 4-H events, raise funds if needed, and make reservations and provide transportation and scholarships for members and leaders to major events as needed.

The 4-H agent who works with the town or community committee and county council finds that he loses some of the freedom of operation enjoyed by those who use a more member-oriented approach. Club work can grow no faster than the local committees are educated and motivated to work for local youth. For the agent to step in and personally solve local problems is a mistake. Such an approach causes the committee to lose its feeling of responsibility and gives rise to a hope that whenever problems arise the agent will step in and solve them. The agent needs to mean it and make it stick when he says, "Here! The local 4-H program is yours. Its success or failure is entirely in your hands." The agent cannot wait until the last minute to make his plans. An organization of the size and complexity needed thrives on careful advance planning.

The agents must forego the pleasure of working with individual members and often individual leaders and individual clubs as the organization grows. He must come to view serving the organization and especially maintaining and strengthening the town committee as his most important work. Committee work is not dramatic. It takes patience. The agent serves an executive function. He helps the committee to explore local needs, evaluate the potential, set realistic objectives, and give effective direction to achieve a worthwhile program. Whenever possible an agent is in attendance at each town committee meeting. A suggested agenda and ideas should be given to town committees through the 4-H newsletter or other communication.

The Westhampton 4-H Town Committee placed this Polish IFYE with the family showing her their farm machinery.



The agent builds an organization that will provide continuity. It works in many ways. Leaders enter and leave the program yet the committee sees that 4-H Club work continues. An agent sometimes leaves—a 4-H town committee keeps going.

The county 4-H advisory council is a second essential part of an effective county organization. All 4-H town chairmen are automatically members plus a second elected representative from each town who may not serve more than 2 consecutive years. The Hampshire County 4-H advisory council provides several thousand dollars of financial support not available from other sources, staffs many county program committees, considers program areas where requested by the agents or local committees, acts as a coordinating body, and provides for communications between volunteers and agents.

The Council meets every 2 months. Occasionally leader training meetings are held on the same night as Council meetings so that transportation will be assured for leaders. While the Council is only advisory to the agents, every effort is made to solicit and follow its wishes.

Hampshire County today has an enrollment of 1,351 4-H members in 153 clubs. This is the third largest county enrollment in Massachusetts. It is first in the number of clubs and members per agent among the counties of the State and contains 10.5 percent of the State 4-H enrollment. As 4-H agents we do less traveling and probably work fewer hours than the 4-H agents in most other counties.

We are convinced of the value of a committee organization and are proud to be associated with the enthusiastic and capable volunteers the system has fostered. We feel that the program can and will continue to grow without the addition of professional staff and without reducing the high standards set for the 4-H program.

As town committees increase in size it will probably be advisable to divide the larger committees into two or more community committees within a town. We feel a committee can serve an enrollment of 200 members, but in some cases it may be preferable to split committees that have enrollments well below this size.

The county 4-H staff is seeking continually to develop better and more complete programs for use by the town committees. Under the direction of the State 4-H office and in cooperation with neighboring counties we seek to promote specialization among the 4-H agents of Western Massachusetts so that more advanced programs and training can be offered. The photography project is being intensively explored. A 4-H electric science project is being developed with visuals, materials, and scripts being offered in a complete package so that town committees may select a person with average leadership ability to lead electric clubs rather than having to obtain trained electricians. This, it is hoped, will help interest a greater number of boys in the program.

The type of organization outlined gives the agents free time to do such pilot work. This, in turn, can point the way to increased quality and quantity of club work in Hampshire County. ■

Enough trained adult leaders are necessary for a successful club program.

LEADER DEVELOPMENT in Duval County

by SARAH ANDERSON
Assistant Home Demonstration Agent
Duval County, Florida

EAGER LEADERS are used quite successfully to meet the needs of youths in Duval County, Florida. Therefore, recruiting, selecting, using, training, supervising, and recognizing 4-H leaders is a continuous process. Continuous recruiting adds to the array of talent and insures success for 4-H programs.

Duval County, which is primarily urban, has a population of 482,000. Boys and girls 18 years of age and under make up 39.5 percent of the population. Two years ago, the Community Planning Board, a part of the United Community Services, did extensive research to find out the relationship between the number of youth organizations in a community and the ratio of delinquency.

The latter source of information was based on Juvenile Court records. In Duval County, it was found that the greater concentration of youth organizations in a community, the less juvenile deliquency. A map showing youth organizations and concentration of juvenile delinquency by areas was made available to all workers by the Board.

As a result of this research, the Extension Service discontinued a few 4-H Clubs in communities where there were many youth organizations, and organized other 4-H Clubs in communities that had a noticeable rate of juvenile delinquency and few youth organizations.

In August 1963, an organized drive for the recruitment of adult leaders was launched by a special committee of the Community Planning Board. This was a follow-up to an extensive survey which revealed that every youth organization in Duval County needed more leaders. Insufficient numbers of trained aduled leaders was recognized as one of the major limiting factors in expanding each youth organization.

Among the organizations participating in the campaign, were the YMCA, the YWCA, Campfire Girls, Boy Scouts, Girl Scouts, Boys' Service Council, 4-H Clubs, and the County Recreation Department.

The newspapers, television, radio, and exhibits were used to recruit adults to work with these youth organizations. Prospective volunteers were encouraged to contact the youth organization with which they were most interested in working. As a result of this initial step, the public became more aware of the great need for adult leaders and each organization received some volunteers.

The newspaper was used as the starting point to make the public aware of the lack of volunteer adults working with the youth organizations. A picture of the committee outlining plans for the drive and a news article emphasizing how the shortage of leaders was curtailing the potential growth of youth organizations, started the ball rolling. As a result of this initial news coverage, there were several newspaper editorials urging the community to accept its responsibility to its youth.

Five radio stations used 10-, 20-, 30- and 60-second spots to recruit volunteers. Each participating youth organization was responsible for writing its script.

Each of the youth organizations participated in a mid-morning television program. The telecasts were scheduled so that one was conducted each week. The purpose of the program was to familiarize the public with each organization and the dif-

ferent ways that volunteers could serve that particular youth group.

On behalf of all of the youth organizations, the assistant home demonstration agent appeared on the county agent's early morning television program to appeal to the viewers to volunteer their time and talents to the organization that they were most interested in helping.

An appeal was made to the Ministerial Association to aid in the drive for leaders. As a result several ministers preached sermons urging adults to accept their responsibility to youth.

"You Too Can Serve" was the theme of the 4-H exhibit at the 1963 Greater Jacksonville Fair. The exhibit showed the different ways volunteers could serve 4-H clubs. The exhibit was located in one of the better spots in the exhibition auditorium. Fair attendance was 147,000.

A representative of one youth agency stated that as a result of one newspaper story and an editorial, his organization received as many volunteers in 1 day as it usually received in 3 months.

One of the most important outcomes of the Community Planning Board drive was that the agencies participating in the drive became better acquainted with each other, and the purposes and activities of each group. This included the exchange of many ideas on how they recruit, train, supervise, and recognize leaders. Each group learned the general structure of the other youth agencies.

The special committee heading the drive had several meetings to coordinate the campaign. Since these meetings were held in the Extension Service Office Auditorium, the other youth agencies became more familiar with Extension and how it could serve the different youth groups.

In April 1964, the home agent helped train a group of Campfire leaders in basic nutrition. Both the Boy and Girl Scouts have called upon the Extension Service for bulletins and information on various subjects. The County Recreation Office and the Home Demonstration Office cooperated on a charm school for teenage girls.

The special committee of the Community Planning Board plans to continue the drive to recruit volunteers. The committee plans to again involve the Ministerial Association by suggesting that ministers devote a sermon to the community's responsibility to youth.

The committee also plans to send mail stuffers, asking for volunteers. These would be included in either bank statements or utility bills. They also plan to familiarize the Parent-Teacher Associations with the great need for volunteers. Radio, newspapers, and tv will be used also.

Even though the countywide drive to recruit volunteers strengthened all youth agencies, each agency continues to use its own methods for recruiting leaders.

The special committee has the endorsement of the group and plans to hold countywide leader training meetings for all participating youth groups. The training will be basic, including general information on the developmental stages of youth, planning and conducting recreation, planning handicraft classes, and general teaching principles.

Besides participating in the Community Planning Board drive, the Duval County 4-H Clubs have recruited leaders through the following methods: leaders, 4-H'ers and parents recruiting leaders, agents contacting principals and Parent-Teacher groups, questionnaire sent home to the parents of 4-H'ers asking them to check the ways they could help, and through the home demonstration clubs.

Another, and so far lightly tapped, source is the group of young adults who have been active 4-H members in the past. The adults serve as organizational leaders, project leaders, transportation leaders. They also help with county activities and judge Achievement Days.

Training leaders after they have been selected is a very important part of the leadership development process. In August 1962, Dr. Emily King, State Girls' 4-H Club Agent, participated in a county adult leader meeting for the girls' program. It was decided that future leader training meetings should be conducted on an area basis instead of countywide.

The county is now divided into four areas and the training meetings, which are conducted by the agents, are held in these areas. By having the training meetings in areas instead of countywide, more leaders attend the meetings and the meetings are more informal—thus the leaders express themselves more readily. There are four training meetings a year.

The adult 4-H leaders for boys' projects are trained at informal meetings held in the communities where the leaders work with the clubs. The county project leaders receive individual training and supervision.

Supervising the leaders after they are trained is very important. This is done by telephone calls, home visits, talking with the leaders before and after the 4-H meetings, monthly newsletter, and handbooks.

The leaders are recognized at 4-H Achievement Nights, and also through leader banquets, radio programs, television programs, club meetings, newspapers, and many public occasions.

In March 1963, there were 25 organizational leaders and 1 project leader for the 4-H girls' program. In March 1964, there were 40 organizational leaders and 6 project leaders, plus transportation leaders. Each home demonstration club has a 4-H chairman that secures women to judge at Achievement Days.

During 1963, there were four organizational leaders, three project leaders, and four activity leaders for the boys' 4-H program. In 1964, there were 25 organizational leaders, 9 project leaders, and 8 activity leaders.

The Junior Leaders of Duval County make up a very important part of the Leader Development Program. A girls' Junior Leader Club with 26 members was organized 3 years ago. The group meets 10 times a year with each meeting lasting about 3 hours. Each meeting is divided into four parts: social, business, personal development, and training for working with younger 4-H'ers.

In 1963-64, there were 22 members in the club. Of this number, 10 worked directly with clubs composed of younger girls. Each of these clubs also had an adult leader, often a mother of one of the junior leaders. Those girls who did not work directly with a club that they had organized, worked as leaders in other capacities.

In March 1963, 11 meetings were

conducted by adult and junior leaders with an attendance of 172. In March 1964, the adult and junior leaders conducted 36 meetings with an attendance of 647.

By improving the leadership development program in Duval County, the home agents attend one meeting or less a month and the leaders conduct the second meeting of the month—thus the agents are spending more time expanding the 4-H program through adult leader recruitment and training.

The goal for the Leadership Development Program for 1964-65 is at least one organizational leader and one project leader for each of the 45 girls' clubs now existing, and two organizational leaders for each boys' community club and one county project leader for each project field for the boys. Another goal is to expand the program to reach more youth. ■

Revamping the Leadership Pattern

multiplied leadership

by BEN W. STUDER, *Idaho County Extension Agent, Grangeville, Idaho*

IN JANUARY 1961 the entire Idaho County 4-H Club program and its problems were reviewed by the County 4-H Leaders Council. Distances and geography had created differences in interest and attitudes in the four areas of the county. At that time a decision was made to elect a set of council officers for each of these four areas.

The following May agents met with each council and area leaders to take a detailed look at their 4-H Club program. First we identified the problems, set priorities and objectives, and then made a time and manpower schedule.

Leaders have found that systematic planning is one of the most difficult tasks of 4-H leadership; yet it is one of the most important. We also realized that it is difficult for a council officer to assume a dual role—that is, leading a 4-H club plus conducting council officer activities.

Possibly the most beneficial result of this area planning process was the chance for club leaders to take a systematic look at the total situation and discuss possible solutions to their problems. Working with these leaders has also made the agents aware of definite needs in the area of leader training.

We decided to hold new leader training meetings for all organization leaders coming into the 4-H Club program. Junior leaders were also included in the organization leader program as participants and trainees. Our goal was to develop a core of experienced 4-H leaders that could function as leader training assistants over the county.

We publicized all new leader training meetings in the county newspapers, over the local radio station, and through newsletters. We decided to conduct project training meetings on an area basis according to the needs expressed by each area council. Although we did not want to disregard personal counseling, we did want to discontinue new leader training on an individual basis.

The primary objective in the Idaho County leader training program was to help leaders develop their own leader training programs—programs that would enable the 4-H Club leader to understand and meet the objectives of the 4-H program from the standpoint of members, parents, and the Extension Service. We tried to point out that 4-H leaders can actually grow in leadership.

Because 4-H has moved from a project-oriented base to a community-wide multiple project club, more than one leader is now involved with the program in each respective club. This change in organizational structure has developed many new areas of leadership.

The organization leader is responsible for guiding the club's organization. Within the club and cooperating with the organization leader are the project leaders. The 4-H leader-trainer or council officer has been developed because of the reorganization of the county 4-H council. Also, the junior leader is becoming more important in the overall club program.

No matter what type of leader is involved, the first step in development is that of mastering the job—the actual mechanics of leadership. The second step is working with others—applying the mechanics learned.

When a leader begins to work through others he must become a skilled advisor in the organization or the project area. Once leadership has been assumed, additional training becomes necessary. A leader must keep up to date.

We would like to think that an important step is the development of a replacement—the leader's actual training of another to take his place in the club makeup.

Since the initial meeting, we have developed a new training program for organization leaders. This new program was reviewed and accepted prior to the spring training session but we will continue to evaluate it to make sure it is fitting the needs of the new leaders.

Our next step is to develop training programs for junior leaders through the Idaho County 4-H Builders' program. This will be in addition to what junior leaders receive by attending adult volunteer meetings.

In conducting training meetings for project leaders we have encouraged them to exchange teaching aids, ideas, and methods and have tried to interest them in developing a resource library from which they can draw ideas and visual materials. We have gone so far as to develop lesson plans, one in particular for livestock leaders in teaching sheep judging.

This fall we plan to meet with the councils and make long-range plans to continue the program in each of the four areas in the county. Prior to these meetings we will develop a detailed council officer training program for the new officers.

We feel we have made significant progress in reorganizing and developing a long-range 4-H Club leader-training program. ■

program redesign

Modern 4-H Programing

by GEORGE S. FOSTER
4-H Club Specialist and Leader
and MARGARET USSERY
District Supervisor, Home Economics Programs
Tennessee

SUPPOSE Rip Van Winkle had gone to sleep when the Smith-Lever Act was enacted and was awakened this year to take part in the 50th Anniversary celebration. Would he note any changes in the image of Boys' and Girls' Club Work as 4-H was known then? You bet he would! For example, instead of a few thousand members in scattered clubs enrolled in a limited number of projects such as corn, canning, poultry, and tomatoes; he would find more than 2 million youngsters in 90,000 clubs conducting a wide variety of projects from corn to career exploration . . . canning to consumer information. Yes, the program has changed and fortunately so.

As David Sills illustrates so effectively in a recent book, *The Volunteers, Means and Ends in a National Organization,* "the pages of history abound with examples of organizations which have failed to adjust themselves to a changed environment . . . Other organizations, however, are highly successful today because: (1) they have had flexibility in redefining their objectives and adopting goals even more relevant to the needs of the society which they serve, and (2) their professional workers, volunteers, and other supporters have accepted and implemented the changes."

We believe 4-H has earned a place among the ranks of organizations whose programs have constantly been modified by personnel in tune with the times. However, as Mylo Downey, Director of the Division of 4-H and Youth Development, FES, and others have noted: With the change in our agricultural technology, our shifting population, the new needs of a modern society, the 4-H Club and total Extension program is faced with the necessity of making further adjustments.

We are not without guidelines as we proceed to improve the image of 4-H. The new set of 4-H objectives, listed on page 135, points up the purpose of 4-H Club work to provide opportunities for mental, physical, social, and spiritual growth of boys and girls.

In addition to 4-H demonstrating its flexibility in redefining its objectives and adopting goals relevant to needs of society, we must think about the competencies we need as professional workers in order to accept and implement needed changes.

Among the needed competencies would be an understanding of: (1) the Cooperative Extension Service, its objectives, philosophy, policies, and relationship to the Land-Grant College; (2) technical subject matter appropriate to the needs of those with whom we work; (3) the principles of teaching and learning; (4) the principles of program development and skill in applying them; (5) the communication process; (6) human development; (7) the nature and function of social systems; and (8) the principles and techniques of evaluation.

We believe Extension workers do have the competencies for modern Extension youth programing. This has been demonstrated across the Nation. May we cite some examples in Tennessee, the State we know best, where the following five would be among the important program thrusts:

(1) Our 4-H curriculum for teaching basic subject matter through regular local 4-H Club meetings has been redesigned so as to emphasize each of the new National 4-H objectives.

(2) Guides for members enrolled in each project are being written to highlight areas of science (the whys) recommended in the National study of "Science in 4-H." About half the units have already been written; others are in the making. Federal Extension staff members are consulting with us.

(3) Ninety of our 95 counties have conducted one to six basic annual courses for volunteer leaders, since this was first undertaken Statewide in 1959. Advanced seven-session courses for organizational and project leaders (who are basic course graduates) are now being conducted by agents in addition to continued basic courses for new leaders.

(4) Office procedures, equipment, and supplies for agent use are being modernized to help them to get the operational job done. For example, every county has been equipped with punch-type enrollment cards, and equipment which facilitates data collecting and analysis.

(5) New and challenging projects are being offered to older 4-H Club members. "Career Exploration" and "Town and Country Business" are two programs available to older 4-H members which reflect the changing times and the changing 4-H needs.

The regional approach to problem solving has proven beneficial to those involved in 4-H and has brought expanded opportunities. The Ninth Senior 4-H Resource Development Conference, held at Fontana Dam, North Carolina in June is a good example. More than 300 members, leaders, and agents from the seven Tennessee Valley States studied the natural resources of atmosphere, soil, minerals, wildlife, forestry, water, and human resources. The 4-H members learned that many of these resources are closely interrelated, also that citizens must work together to most effectively utilize them.

Today more than any time in the 50 years of Extension's existence, it is important that we have the know-how lest we allow technology to run ahead of our concern for a meaningful life. Technical know-how is a must! *But it is the use of a tool, rather than the possession of it, which gets the job done.*

In a recent issue of The Tennessee Extension Review, our Director said, ". . . groundwork of Extension work in Tennessee was done by another generation. But there is no question that the groundwork was well done. The groundwork for the next 50 years is up to us who are active now." Do we have the professional competencies to improve the programing of 4-H in the next 50 years so that those following us can say, "Well Done." ■

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Township Level 4-H ACTION Program
. . . a new approach to career exploration

Mrs. August Zirbell, a Kenosha County, Wisconsin, 4-H leader and a member of the Long Range Extension Planning Committee and Elroy Lueder, County 4-H Agent, felt strongly about the need to encourage young people to continue education beyond high school and help them get better jobs.

Their interest sparked a township level career exploration progam involving 35 teenagers. Here's how they did it:

Mrs. Zirbell invited six 4-H members, 16 and 17 years old, to her home to talk over ways of channeling intrest in careers. The four who came agreed to help get a project underway. They served as a steering committee to plan and conduct meetings, keeping in mind that their tentative plans needed to be flexible so they could be changed to meet the needs as the others expressed them.

The steering committee compiled a list of the names and addresses of all the township's high school students who were sophomores, juniors, or seniors. Fifty were invited to the first meeting in October, sponsored by the local 4-H Club.

The committee knew that for a successful series the first meeting was most important to build interest. Using material from the University of Minnesota, they planned a "What's My Line" game, chose a youth to be panel moderator, and ordered a film, "Choosing Your Life's Work."

Twenty-eight young people showed up for the first meeting, played the game, viewed the film, and took part in discussions. They also helped make plans for future meetings.

The steering committee listened at school the next day for comments. Most were good. Unfavorable comments were analyzed and used to improve later meetings.

At November's meeting, the Registrar at Kenosha Technical Institute led a discussion on job outlook and implications. A "20 Questions" game on careers helped liven up the program that was attended by 24 of the original 28, plus 4 new students.

Here are some highlights of later meetings, A tour of a local industry, where youth saw equipment used, the various skills required, and the role management plays in production . . . Local people in varied vocations (the planning group was amazed to find so many interesting occupations so close at hand!) served as resource people on job opportunities and requirements . . . A session with parents, where job opportunities in the broad fields of agriculture and home economics were discussed . . . Members were given questions to ask people in careers they were interested in, and a school guidance counselor talked about job interviewing and outlook . . . Nearby Carthage College was toured to give them a look at the campus side of college . . . The final meeting mixed fun and evaluation.

The impact of this career exploration on the commuity has been felt. Two PTA meetings, using two members of the Planning Committee and Elroy Lueder, 4-H Agent, were the direct results of the career emphasis program.

This has been a different type of 4-H project. The program was flexible. Young people planned and explored.

Many of the young people had once been 4-H'ers but were no longer active in 4-H—yet they were all very interested in activities of the group. This township level experiment brought them together for a common interest—*their future.*

The success of this group isn't to be listed as statistics. But in a few years, a follow-up survey is planned to determine the whereabouts of the group.—*Adapted from a report by the Wisconsin State 4-H Staff.* ■

The Manager of a Co-op Elevator explains to these two 4-H boys the method of determining dockage on grain.

EXTENSION SERVICE 35/9

REVIEW

U. S. DEPARTMENT OF AGRICULTURE / SEPTEMBER 1964

marketing facility feasibility

VOL. 35 • NO. 9 • SEPTEMBER 1964

The Extension Service Review is for Extension educators—in County, State, and Federal Extension agencies—who work directly or indirectly to help people learn how to use the newest findings in agriculture and home economics research to bring about a more abundant life for themselves and their communities.

The Review offers the Extension worker, in his role of educational leader, professional guideposts, new routes and tools for speedier, more successful endeavor. Through this exchange of methods, tried and found successful by Extension agents, the Review serves as a source of ideas and useful information on how to reach people and thus help them utilize more fully their own resources, to farm more efficiently, and to make the home and community a better place to live.

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EXTENSION SERVICE
REVIEW

Official monthly publication of Cooperative Extension Service: U. S. Department of Agriculture and State Land-Grant Colleges and Universities cooperating.

CONTENTS

EDITORIAL

Once-Upon-A-Time if you were looking for a spot for a grist mill you naturally picked a site by a stream with a good steady flow to keep the wheels turning. With local grain and customer close by. Down by the Old Mill Stream was famed in song and story.

Today a grist mill, a processing plant, or a factory is not a matter of happenstance. As this issue of the *Review* seeks to show there are many factors to be considered in starting a new enterprise.

A sorrowful sight is an abandoned factory with cobwebs where windows once were. You wonder what happened. Was it handicapped by poor site choice right from the beginning? Too far from potential customers? A tough market? Off the beaten track of transportation and communications? It could be one or many factors that sent the factory to the economic trash heap.

From that picture of lost hopes let's turn to a brighter scene. A sparkling new processing plant, say, some place in rural America. Under good management. Handy to its scource of supply and labor. Good transportation. Communications. Banks. Utilities. A lot of hard thinking and planning went into this one. The odds are that it will be a success.—WAL

Extension, Marketing, and Feasibility

by RICHARD G. FORD, *Economist*
Division of Marketing and Utilization Sciences
Federal Extension Service

EXTENSION work in marketing has entered a new era during the past few years—an era of emphasis on feasibility work. Much of the impetus for this work has come from private entreprenuers and public groups such as Chambers of Commerce, RAD Committees and other development groups.

Yet feasibility work is not entirely new. Marketing and utilization specialists have recognized for some time that feasibility work is basic to improving business decisions in marketing, and that effective educational work in marketing necessarily contains different phases or aspects of feasibility.

Extension's response shows up in the increasing amount of feasibility work being done by established marketing and utilization specialists, and by the number of new staff members who have been assigned to it.

Extension workers are asked for analyses and information about the practicability of establishing various types of marketing facilities such as canning and freezing plants, dried milk plants, grain elevators, potato flaking, feedlots, and briquettes. Their primary concern is about size, types, and costs of equipment; employment; raw materials; market outlet; wages; location, permissive and restrictive codes, regulations, and ordinances; and pricing policy.

Characteristics

In an effort to bring our feasibility material file up to date on all types of feasibility work done by the Federal Government and by State Extension Services, we have collected about 175 pieces from 16 States. These range from one-page mimeographed simple statements of the cost of constructing a particular facility, to elaborate econometric models relating interregional demand and supply responses and which require linear programing techniques.

A cursory analysis of these materials suggests that much current feasibilty work is of the "one shot" type —a specific analysis for a particular firm for its individual use. Perhaps too little attention has been given to the development of a balanced educational program in feasibility.

Furthermore, a substantial part of research and Extension work in feasibility is partial and fragmentary —i.e., it is concerned with only a small segment of total feasibiilty, or a few specialized aspects.

Central role of processor

Even though different groups make decisions controlling procurement (production), processing, and distribution (wholesaling-retailing), the processor plays a vital role. He coordinates operations of these three groups. This is essential if the marketing enterprise is to succeed.

Consider the producer (grower)-processor relationship. The producer has the final say as to whether or not he will produce a particular product. But the processor must be able to obtain a flow of raw products with certain specifications if he is to operate efficiently and produce a product that meets consumer aceptance.

On the other end, the wholesaler-retailer has the final say as to whether he will handle the output of any particular marketing firm. But again, the processor must be assured that when he produces a product and services of given volume and specifications, it will be acepted by the wholesaler-retailer.

Another critically important area is price policy. Prices paid by processors to producers and prices received from distributors must be properly related to total costs of processing (including assembling, transportation, actual processing, storing, and financing) and should provide adequate income to hire competent management and earn a surplus for capital accumulation.

Feasibility package

Feasibility work may, therefore, be classified into four functional categories: (1) Procurement of the raw product, (2) processing the raw material, (3) distribution or selling the finished product, and (4) plant location.

The first three areas are of continuing concern during the entire life of any particular marketing firm but with changing emphasis over time. The fourth area, plant location, is of major concern when the business is intiated, when considering the construction of new facilities, or moving an existing business to a new location. As marketing and utilization specialists gain more experience, they tie these four areas into a "feasibility package."

To attain the greatest potential from the "package" approach, marketing and utilization specialists are working in teams. Some problems also require interdisciplinary coordination to effectively assess the economic technological, and political facets affecting feasibility. The one-man or single disciplinary approach is often superficial, and at best it only partially identifies and describes the problems and alternatives facing decision makers of marketing firms. ■

Economic Considerations in Feasibility Work

by DANA G. DALRYMPLE, *Economist*
Division of Marketing and Utilization Sciences
Federal Extension Service

and LEON GAROIAN
Market Management Specialist
Oregon Extension Service

THE determination of the economic feasibility of a marketing facility is not an easy matter. It involves a complex balancing of general supply and demand factors, plus consideration of the facility itself. Yet this is an important area and one which is drawing Extension workers more and more frequently.

In this article we shall attempt to cover some of the main points that should be considered in feasibility work. Emphasis is given to processing facilities, but the lessons would apply to other marketing facilities. And while our discussion will center about the principles involved, their application is discussed elsewhere in this issue of the *Review* by several State specialists.

Before we discuss the basic economic considerations involved in feasibility, some questions must be answered.

The first is one of objectives. Why is the facility desired? Different groups may want it for different reasons. Local governments or Chambers of Commerce may, for instance, be interested in a facility primarily to increase employment. Farm groups, on the other hand, may want a facility in order to obtain new outlets for their produce or to increase farm income. But in either case, a rather detailed economic analysis should be a key factor.

Next, the area has to meet certain technical prerequisites. It must be physically possible to produce the crop that is to be handled in the facility. If processing is involved, the area must obviously have the power, water, sewage, transportation, and other necessary physical resources and community services.

Economic factors

The basic economic factors center about supply and demand. Both need to be considered in terms of the raw and finished product, and in terms of the short run and the long run.

Supply. One of the immediate problems facing the facility will be that of lining up a supply of the raw material. The raw products must be of the right quality and be available for processing at the right place, at the right time, and in the right volume. Moreover, these requirements must be met consistently—not just when it is convenient for the producer. Many farmers think of processing outlets only in years of surplus production. Long-term contracts may be an answer.

Furthermore, if a farming area is not already producing the requisite raw material, there will be the problem of persuading the farmers of going into production. To do so they would probably have to be convinced that this would be more profitable than other alternatives. At the same time, the growers must have, or have access to, the resources and the know-how to go into production of the item.

In addition, it is necessary to consider longer-run changes in production as well as potential shifts in utilization between fresh and processing. The possible influence of supply control or diversion programs might also be examined. And the potential for new technologies should not be overlooked.

As for the finished product, decisions must be made as to what form of product to put up (canned, frozen, dried, etc.) and what sort of pack to use (institutional or retail). The possibility of new suppliers coming into the picture must also be weighed.

Demand. An all-important consideration, of course, is whether there will be a demand for the finished product—that is, under given conditions of price and other factors whether or not the product will be purchased. While the firm may initially be concerned with wholesale demand, ultimately it must be concerned with retail or consumer demand.

Assessment of demand can be a complex business. It may well involve a study of elasticities of demand and and of trends in prices and consumption for the proposed and for related products. In addition, firsthand knowledge of the market should be included.

If it is rather obvious that the market for the product appears to already be saturated and/or demand is decreasing, caution should be exercised in going into production. Some rather special compensating feature would be needed to offset these disadvantages.

If, on the other hand the market appears to be good or to have potential, other questions come into play. These center about characteristics of the product (such as quality) which might bring it into stronger demand than products from other firms or areas, possible changes in demand in the future, and the degree of competition and type of market structure involved. If the product is new, a considerably more involved promotion effort may be necessary than if it is relatively well known.

Prices. The result of the interaction of supply and demand is price. Will the price for the proposed product be high enough to provide an adequate return on invested capital in the processing facility? Will it, in turn, enable the facility to pay an adequate price to growers? If these returns are not available now, are they likely to accrue in the near future?

To determine net returns it will likely be necessary to

make a detailed examination of costs—costs of the raw material, costs of assembly, processing, and distribution. These should be made at several levels of output and over varying lengths of season. There are certain minimum lengths of both for efficient operation.

In studying prices and costs, it will be desirable to look not only at the local area, but to also consider the influence of interregional and international competition in the short run and the long run. The alternative of investing comparable resources to improve existing marketing channels should also be evaluated.

The facility

If an analysis of the foregoing factors suggests that the general climate for a facility might be favorable, a number of more specific questions remain. Again, both the short and long run should be considered.

One is the physical structure itself. What size of plant appears desirable in terms of anticipated supply, demand, and most efficient operation? Determination of this may well involve a more detailed examination of alternative methods of plant construction and layout. These studies would also shed light on the questions of whether there should be more than one plant and where they should be located. Picking the best location can in itself be a complex job.

Once these matters are settled we need to give some attention to answering the question of how the facilities are to be acquired. Should they be constructed or rented? Sometimes older facilities can be remodeled. Perhaps a merger of presently available facilities would be a more desirable alternative. Or possibly it would be better to try to attract an existing firm into the area.

A closely-related problem is one of obtaining adequate financing. Both fixed and working capital are involved. Many groups forget that in addition to the capital needed to build and equip the factory, a considerable amount may be necessary to carry out operations—including plant operation (wages, electricity, water, gas), promotion, and distribution. The amount necessary for promotion is often underestimated.

For the actual operation of the plant it will be necessary to obtain adequately trained management and labor. *Incapable management is the most common cause of small business failures.* To make most efficient use of these and other resources it may be desirable to extend the length of operation. Possibly production could be combined with other products. Buyers generally prefer more than one product line.

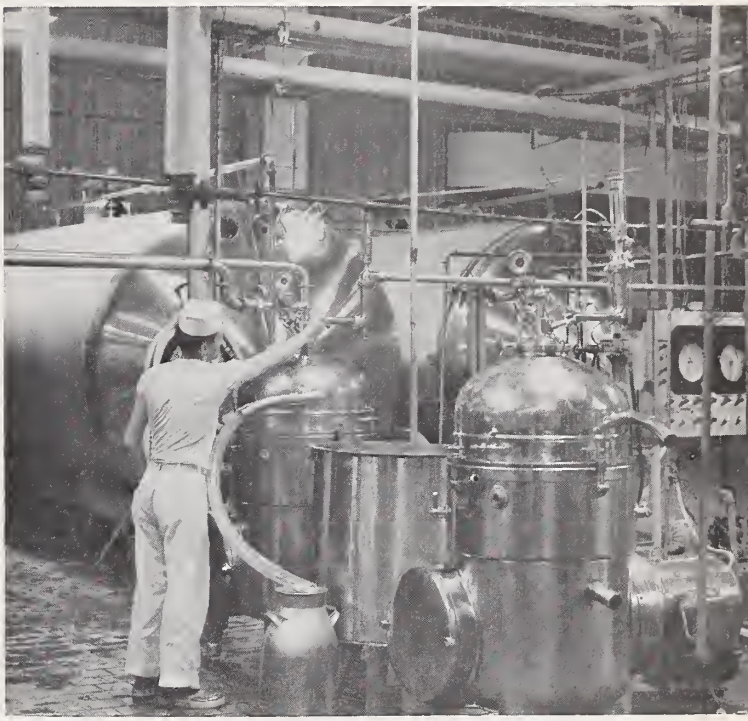
Market entry

After studying the economic factors and considering the facility, the firm must devise a strategy for actually getting the product on the market. If the product has some special characteristic, such as unusually high quality, this may not be such a problem. However, it is probably the more usual case that entry will have to be based on lower prices, improved services, a strong promotion program, or the like.

The strategy to be adopted will also be closely related to the market channel selected. If the product is to be sold through an existing processor, or under the buyer's label, distribution and promotion will be simplified (though at the expense of dependence on one outlet). If, on the other hand, the firm is to sell under its own label, a distributor must be found, a territory decided on, and a promotion program established.

If these and the many other questions involved in feasibility work are to be satisfactorily answered, a lot of work may well be involved. It's not a job for one man. Rather it will take a team effort—involving local leaders, Extension workers at the county and State level, and researchers from agricultural economics, engineering, and food science. In addition, assistance can often be gained from other areas of government and from private industry. By working together such a team can help rural groups to avoid costly errors in considering feasibility projects, and do a better job of setting up and operating a facility.

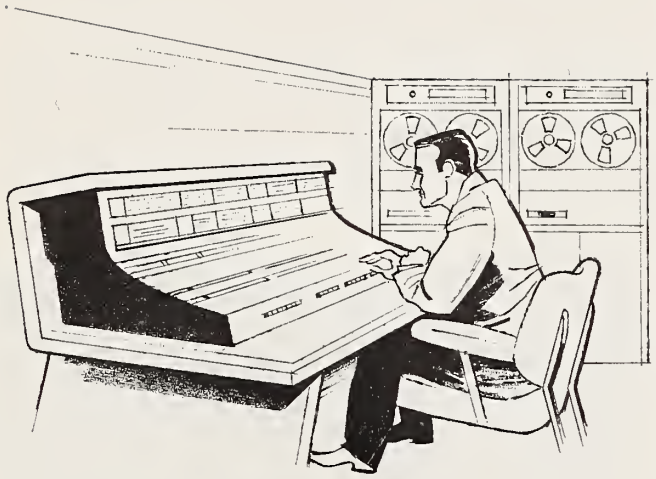
Iowa State University Photo



Shown here are twin separators in a new skim milk drying plant built as a result of merger of two Iowa firms.

A subcommittee of the Western Extension Marketing Committee, in cooperation with the Federal Extension Service, has prepared two publications to assist Extension personnel carry out their work in feasibility. They are: *Marketing Facility Feasibility* (a leaflet to aid in screening proposals at the local or community level), and *Economic Considerations in Determining Marketing Facility Feasibility* (a comprehensive checklist to be used jointly by county and State workers).

Both have been made available to all States. In addition, the Federal Extension Service has prepared a bibliography of *Economic Studies Pertaining to Processing Plant Feasibility.* The Southern Extension Marketing Committee is also preparing some aids in this area. ■



Plant Feasibility . . . a comprehensive approach

by ROBERT D. DAHLE
Firm Management Specialist
North Carolina Extension Service

EXTENSION workers are often requested to help groups determine whether a marketing facility in a specific area will be profitable. Most often the request comes from a group of persons forming an action group (such as an area development association or an investment organization of a local Chamber of Commerce) who are interested in increasing employment opportunity and income levels.

The analysis which the group requests should be comprehensive and soundly formulated so that the long-run effectiveness of the efforts can be predicted with some degree of confidence. The approach outlined in this article indicates how to determine general economic feasibilty under various given sets of conditions. It is not designed to determine the profitability of a specific facility. Food processing will be used for illustrative purposes.

It should be noted that the approach described is only a starting point for the development of action programs by the people within and outside of the development area. Site selection, obtaining investment capital, selection and training of employees, and farm production of raw products are all decisions which are not completely considered in this approach.

Groups involved

Two types of firms are involved in the development of a processing industry in a given area: the processing firm which will assemble, process, and distribute the products; and the farm firm which will grow the raw products. The comprehensive approach presented here permits these two types to be considered at the same time in order to determine if conditions exist or could be created so that the establishment of a processing facility would be a profitable business undertaking.

People who might invest their money in a processing facility need sound information on the probable returns on their investment. They also need to be assured that farmers will profitably adjust the production of products to be processed and their marketing patterns to permit the operation of the processing firm at some profitable volume.

Farmers, on the other hand, need assurance that production is physically and managerially possible, given their resource conditions. The prices which they will be paid for their products should also provide competitive net returns for the land, labor, and capital used to produce them. Once the investors and farmers are assured that the operation of the processing plant and farm production are physically, managerially, and financially sound, then carrying out the various parts of the project can only be restricted by considerations other than economic or technologic.

Analytical process

The comprehensive approach involves calculation of plant price and farm budgets. The process is outlined below; further details may be found in an article titled "The Integration of Price and Cost Analysis in Developing Processor-Producer Feasibility Studies" in the August 1964 issue of the *Journal of Farm Economics.*

Plant Price. Determining the price which the processing plant can afford to pay for raw products is the basic ingredient in the analytic approach. Raw product price per unit is regarded as the amount of money remaining after all other marketing service charges have been paid, divided by the amount of raw product used. Marketing service charges include: Finished product transportation and storage charges, selling costs, all processing costs (including specific assumptions concerning pack-out end finished product quality), any assembly costs, and a target rate of return on initial investment. The usual interest charges are computed as part of the processing plant operating costs.

Most of these calculations are done by computers which greatly simplifies the amount of work involved.

The procedure for determining the price which the processing plant can afford to pay for raw products is as follows:

(1) The costs of plant operation (exclusive of raw product costs and profit on invested capital) for various sizes of plants operating various lengths of seasons are computed.

(2) The price per unit of finished product f.o.b. plant for a specific type of mix of finished product is estimated.

(3) Rates of profit on invested capital are computed using the assumed set of target profit rates.

(4) The annual revenue received by the various-sized plants operating different lengths of season is computed by multiplying the estimated price for finished product by the units of finished product processed.

(5) A raw product "fund" is computed for each plant size for each length of season and for each rate of profit on invested capital. The fund is derived by subtracting all operating costs (exclusive of raw product costs) from total annual revenues.

6) The derived demand prices for raw product are computed by dividing the raw product fund for each set of conditions by the volume of raw product necessary to supply the plant for each set of conditions.

Multiple-product, as well as single-product situations, can be handled with this type of analysis by budgeting-in additional buliding and equipment investment and the operating costs for the additional products. The price for all raw products, but one, would be fixed in order to compute the price which the processing plant could afford to pay for a given raw product.

The Southern Extension Marketing Committee will soon publish a series of publications containing single- and multiple-product plant analysis data. Present publications in this series include an analysis of snap bean canning, blueberry freezing, and strawberry freezing. A publication on sweetpotato canning is under preparation. This series is intended for use by area development groups and will be distributed by State Extension Ecomics specialists.

Farm budgets. A second ingredient in the comprehensive approach to plant feasibility is the preparation of a farm enterprise budget for each raw product under investigation. These enterprise budgets should express the relationship between returns to land, operator labor, and management and specific production practices and yields. The use of detailed enterprise budgets enables the person making the feasibility study to consider various conditions of raw product production, such as different levels of fertilization or irrigation.

Usefulness of the approach

Information on the farmer's ability to produce the raw product and the processor's ability to convert and sell the finished product must be meaningfully related to establish sets of feasibility conditions. By bringing together information on the price which the processing plant can afford to pay and the price which farmers must receive, mutual profitability is determined.

In North Carolina we have used this approach to evaluate the feasibility of developing a blueberry-strawberry freezing plant in northwestern North Carolina. A similar approach was used to determine the chances of success for a sweetpotato-snap bean canning operation in northeastern North Carolina. Both of the studies emphasized the importance of mutually satisfying the economic considerations of the plant and the farmer.

A similar approach has been used in evaluating the potential for a poultry deboning plant and tomato canning operation in the southern piedmont area of the State. Our intention is to blanket the State by continuing to investigate the processing feasibility for products which show some production potential. As part of this effort, other studies are under preparation by Extension personnel, ARA contract personnel, and Federal and State research workers.

We have also suggested to processors that they might wish to use this information to determine the price stability or risk exposure under various assumptions concerning raw product yields. As yields increase, the raw product price necessary for a profitable farm operation declines. Thus, the price that the processor would pay for raw product would depend on his ability to bargain with the farmer within the range of prices that satisfies the minimum profit conditions of both parties. This type of analysis can be used by plant managers to simulate the financial results of different kinds of operating conditions with respect to market prices for the finished product and raw product procurement costs.

An action group project growing out of a feasibility study similar to the one described here, would involve interviewing growers to determine whether or not they would grow the raw products under specific price conditions. Action groups would also work with prospective investors in solving problems in the acquisition of capital; hiring and training production workers; and developing and letting contracts, when utilized, for raw products. Supplying the organizational structure and the motivation necessary to implement the new production activities would be one of the unique contributions which the action group would make after being supplied with information contained in the feasibility study.

People make decisions on the basis of economic and noneconomic considerations. The approach presented in this article is intended to tie together the major economic considerations to be used in predicting the long-run economic effectiveness of a development effort. This article has attempted to present the answer to the economic question—*what will it pay people* to do under certain assumed production and marketing conditions? The big question—*what will people do* in a given situation, involves both the answer to economic questions and their appraisal of noneconomic considerations.

This comprehensive approach is not a cure-all for the problems which face people interested in evaluating the feasibility of a marketing facility. But it does provide a point of departure for a sound long-run development program. ■

Combining Facilities For Greater Efficiency

by J. ROBERT STRAIN
Dairy and Poultry Marketing Specialist
Iowa Extension Service

PROCESSING plant feasibility work may bring to mind the study of an area not now being served with processing faciilties. But in Iowa, some of our most needed processing plant feasibility work has been for areas already containing from ample to excessive—though outmoded—processing facilities. Feasibility work here centers around the need for combining present volumes into fewer plants.

Many new cost-reducing techniques and equipment have been introduced since most of our agri-business plants were built. However, these often require plant volume increases before the potential cost reductions can become reality. In these cases, the necessary prerequisite for increasing returns to farmers for their product is the combining of the volumes of two or more organizations.

The usual reaction of processing organizations to this need for volume has been to initiate agressive procurement activities to "raid" the volume from neighboring competitors. When successful, this approach results in "involuntary consolidation" at the expense, and often the demise, of a nearby organization. But it is a slow, costly unorganized, and uncoordinated way to combine volume.

Growth by merger and consolidation

Consolidation or merger offers a relatively easy and systematic way for farmers who own and operate cooperative processing plants to form larger units. All farmers involved can begin enjoying the economies of combined volume from the date of combination. Excessively wasteful, duplicated investment can be avoided. Equipment additions and building modifications can be made more efficiently. Interassociation conflict and resulting hard feelings between producers and board members are usually less intense when two groups have agreed to combine.

However, many areas of adjustment soon become involved in any plant feasibility work requiring a merger or consolidation. For instance, in towns which are losing a plant the attitudes of Chambers of Commerce and businessmen in general, often become serious obstacles for economically-sound planning and action.

The problem of combining boards of directors, reducing the total number of board positions available, and eliminating some positions of local prestige can be a serious problem. Personnel adjustment must be made, usually with fewer employees. Sometimes employees must move to another town in order to continue working. Furthermore a shift in thinking from thoughts of rivalry to thoughts of co-partners may be difficult.

In some cases, it may be necessary to close plants in order to permit greater efficiency in those that remain in operation. In other cases, a new, more efficient plant may be needed to replace outmoded facilities. In both instances, this usually requires a combining of volumes of two or more organizations before the potentially more efficient processing of products is possible.

Use of existing facilities

A recent example of organizations combined for more efficient use of existing facilities is Consolidated Co-operative Creameries at Whittemore, Iowa. It resulted from an Extension-assisted merger in 1958 of five organizations into one. All companies were churning butter and selling skim, three were bottling milk, and two were freezing ice cream. The plan was to operate two plants. All the bottling and ice cream freezing was centered in Lone Rock and churning was moved to Whittemore.

Almost immediately after combining the churning operations, the new organization (as were all manufactured milk plants) was faced with the drop of 13c per hundredweight in the support level for 3.5 percent manufactured milk. But the increased efficiency permitted a continuation of the previous Whittemore pay price for milk in spite of the drop in value of the finished product. This was an increase in price for those who were previously members of the other four organizations.

Since then, two more organizations have joined Consolidated. Now, the butterfat of seven previous organizations is being churned in a plant that once processed the volume of only one organization.

Replacing existing facilties

One of Iowa's earliest examples of combining creamery organizations for greater processing efficiency was a 1953 consolidation of two firms into a new organization, the Maquoketa Valley Cooperative Association.

Interest in combining apparently grew out of an Iowa State University plant efficiency research project which included these two plants. Prior to consolidation both firms were churning butter and selling skim wherever they could; one put some skim into a cottage cheese operation. The plan was to install one drying facility for the skim milk of the two organiations. This was not done at first, but it soon became apparent that it would be more efficient to do so.

A new spray-drying plant was built capable of handling a million pounds of milk a day. Since then, two cooperatives have joined with Maquoketa Valley. The plant is now running at full capacity during most of the spring and summer months. Processing costs are in the neighborhood of two-thirds of the State average cost per hundredweight.

In these and other cases, it was necessary to combine the volume of two or more organizations to increase the returns to farmers. Merger, consolidation, or similar forms of organizational unification have proved quicker, less costly, more organized, and more effective methods of combining volumes than competitive growth by overpowering neighboring organizations. Thus, organiational unification may be a necessary phase of plant feasibility work. ■

state experience in feasibility studies

The preceding articles presented many of the principles utilized in feasibility work; in this section we present brief sketches of feasibility projects that have been conducted in several States. The seven projects reported represent different approaches and varying stages of progress. We have, however, asked each author to stress a particular aspect of his work. The three main areas emphasized are (1) raw materials (supply), (2) markets (demand), and (3) the facility itself. The reports will be presented in this order.

evaluating raw product availability for . . . Vegetable Processing in Florida

by KENNETH M. GILBRAITH
Vegetable Marketing Specialist
Florida

Florida Agricultural Extension personnel have recently been involved in two projects concerned with feasibility of establishing vegetable processing facilities. Both projects stemmed from requests for assistance by groups of *new* firms in areas where the processing of vegetables has been of no commercial importance.

During the two studies contributions were made by representatives of many agencies, both public and private. The requests were initiated through county Extension personnel and ultimately involved five county agricultural agents, two State Extension specialists, and representatives of the State Department of Agriculture, Florida Development Commission, U.S. Department of Agriculture, Florida Power and Light Company, and two Chambers of Commerce. While the Florida Agricultural Extension Service assumed leadership throughout the first project and during the initial stages of the second, completion of both would have been most difficult without the cooperation given by other agencies.

The nature of the first project was such that it should actually be considered as a basic step which precedes detailed feasibility work. The interested group was mainly concerned with developing information pertaining to vegetable processing opportunities in a broad, general sense. This study resulted in the publication of two reports containing information on soils, climate, water resources, labor, raw product availability, utilities, financing, taxation, transportation, potential markets.

One report views processing opportunities from a Statewide standpoint while the other contains similar information for a three-county area in north central Florida. Copies are available.

Processing feasibility

The second project was a full-scale study of the feasibility of establishing a vegetable canning or freezing plant in Jackson County. As mentioned above, Extension assumed leadership of this study only during the inital stages.

Extension's role dealt with raw product availability and consisted of three major steps.

(1) A State specialist in vegetable production worked with county personnel and first determined the production potential from the standpoint of physical limitations.

(2) Extension economists then compared the area's competitive position on a commodity-by-commodity basis with other areas in the Southeast where production of vegetables for processing exists on a relatively large scale. This was accomplished by using average prices paid for the raw product by processing firms in the Southeast and vegetable production costs in the Jackson area.

(3) Consumption trends were then examined for the various processed vegetable commodities in Southeastern markets. This procedure provided information that was most helpful in determining the most feasible product mix.

Because a full-scale evaluation is an involved process, financial assistance was obtained from the Area Redevelopment Administration and a formal study was conducted by USDA's Economic Research Service. (F. W. Williams, *A Vegetable Processing Plant in Jackson County, Florida,* U.S. Department of Commerce (with ERS, USDA), ARA Casebook No. 2 November 1963, 20 pp.) Aside from the contributions made by Extension personnel, the ERS economists devoted an additional 1½ man-years to the project.

Problems involved

The major problems in raw product availability which have distinct bearing on the success of a vegetable processing plant in Jackson County, Florida may be typical of those in others parts of the country. They are discussed below.

(1) Most of the producers in the area look upon the production of vegetables strictly as a means of supplementing income from more important farming enterprises.

(2) Many of the producers view the processing facility as an alternative outlet for existing vegetable production to be supported when fresh market prices are depressed.

(3) Under the existing pattern of production a supply large enough for efficient plant operation would have to be obtained over a relatively large geographic area.

(4) Closely associated with supply density in a geographic sense, the size of individual production units poses problems. Generally speaking, vegetable production on individual farms is on a very small scale. This would hamper the use of labor-saving machinery and make it most difcult for growers to compete with those in most other processed vegetable areas.

Final results of the Jackson County study indicate that a successful operation would require a much larger investment than was originally visualized. Plant and equipment costs alone are estimated at $350,000 for a canning firm and $860,000 for a freezing firm. Faced with a situation in raw product availability such as discussed above, prospective investors in a venture of such magnitude will likely be difficult to find.

Outlook

Many people, this writer included, are optimistic about the prospect for future growth of vegetable processing in the Southeast. Results of the Jackson County study, however, lead one to the conclusion that a large share of this growth will take a place through the expansion of existing firms in commercially important vegetable producing areas rather than through the establishment of new firms in areas where vegetable production is relatively unimportant. ■

lining up supplies for . . .
A New Processing Plant

by ROY E. LAMBERT, *Marketing Specialist*
Fruits and Vegetables, Arkansas

In 1965 Gerber Products Company, a worldwide firm in the baby food business, will begin processing Arkansas-produced fruits and vegetables in a new $10 million plant located at Fort Smith, Arkansas.

The plant will employ 700 to 800 people, many growers will produce fruits and vegetables under contract, and the acquisition of this industry will mean many other economic benefits for the State and the area.

The Arkansas Agricultural Extension Service played a major role in providing information needed by company personnel before a decision was made to locate the plant in Arkansas. County agents conducted most of the educational programs designed to determine the interest of growers.

In addition to information relating to the feasibiilty of producing and marketing fruits and vegetables, Gerber also asked the Agricultural Extension Service to help in other ways. An example of this is the assistance given in arranging for conferences with other agencies relative to information on water supplies, sewage disposal, taxation, labor, transportation, and available locations.

State specialist role

Gerber first contacted me and the Extension horticulturist in August 1961. They requested assistance in making a study to determine the possibility of the firm being able to obtain sufficient quantity and quality of certain fruit and vegetable products in the State. We supplied information about crops, climate, production and marketing experiences of growers, prices, the present processing industry, cost of certain crop production, interest of growers, and many other facts about the area.

Educational meetings with growers and Gerber representatives began in February 1962. At the meetings county agents discussed probabilities of profitable production and marketing of fruits and vegetables for this firm. Gerber representatives attending the meetings were able to determine the interest of the prospective growers.

In September 1962, Gerber representatives and county agents visited fruit growers in several areas of the State to discuss contracts for apple, plum, pear, and cling peach production. In January of 1963 and the winter of 1963 and 1964 a start was made in planting the fruit needs of Gerber Products Company. About 70,000 cling peach trees, 10,000 apple trees, 30,000 pear trees, and 8,000 plum trees were planted in four areas of Arkansas.

County-level assistance

One example of how information was developed and supplied on a county basis is provided by Oliver L. Adams, County Agent in Carroll County. Adams worked through his County Development Council in discussions about the need for increased incomes and improved levels of living in the county. They decided that one answer was to produce and market fruit crops. With the assistance of leaders in the county, Adams made a detailed survey of fruit production and the interest of potential growers. As a result, 20 growers were selected to plant 15,000 pear, plum, and apple trees, or about 150 acres of fruit under contract to Gerber.

This is only a beginning in Carroll County and more acreage will be set in fruit as experience is gained and the processing firm decides that more volume is desirable. Apple produc-

Odell Stivers, Marianna County Agent (left), discusses pruning methods for pear tree with the fruit grower and the representative from Gerber.

tion is already of commercial importance in Carroll County and some of the existing varieties will also be marketed to Gerber.

Similar work was conducted by county agents in Johnson, Howard, Pope, Cross, St. Francis, Lee, and Sebastian Counties.

Several vegetable crops will also be produced in Arkansas for Gerber.

In all the educational work it was emphasized that high-quality raw products would be needed to start and maintain this important market.

When Gerber Products Company announced its decision to locate this $10 million processing plant in Arkansas, the Agricultural Extension Service felt that its educational work had considerable influence in this determination. Extension realizes that the real work with this firm is just beginning and the big responsibility will be in assisting them and other firms to obtain the high-quality fruits and vegetables needed for processing. ■

evaluating the market for . . .
A Proposed Livestock Auction

by CHARLES RUST, *Montana Extension Marketing Specialist*
and ALLEN NELSON, *Flathead County Extension Agent*

A growing number of rural communities in Montana are showing interest in economic development. They are becoming more aware that their local economies are sagging or at least not keeping pace with other areas, that young people lack job opportunities, and that the rate of population growth is not what it should be.

As these deficiencies become evident, many communities seek the cooperation of the Extension Service in making an appraisal of their resources and their potential.

An example is the city of Kalispell, County Seat of Flathead County. For a good many years Kalispell's economy, has been based largely on lumbering; touristry; and an agriculture which consists mainly of small farms, some dairying, and beef.

However, in recent years the lumber business has not been as steady a source of employment as it once was and the county has been plagued with chronic unemployment.

The Board of County Commissioners was well aware that something needed to be done to boost the community's economy. The board stated, "Problems of underemployment in our county and the lower economic growth trends of the area place severe strain upon county financial and physical resources. It is very evident that the development of local resources is essential to provide permanent and year-round employment so important to the well-being of this county."

The county Extension staff said that "there is a real opportunity for the development of marketing and processing industries for agricultural products." It also stated that it was prepared to work with agricultural groups in analyzing their problems and taking inventory of the resources which might be used to solve their problems.

In searching for ways in which the local economy might be boosted, the Agricultural Committee and the Industrial Development Committee of the Kalispell Chamber of Commerce made a preliminary survey of the livestock marketing situation in the Kalispell market areas. These committees felt there was a need for a livestock auction market.

With this in mind, the committee approached County Agent Allen Nelson and requested his assistance. Their primary concern was what the next step might be in terms of accurately evaluating the livestock marketing situation in the Kalispell trade area, and what procedures might be followed in determining the opportunities for developing a livestock market facility.

Using materials developed by the Western Extension Marketing Committee in reference to market feasibility work, Nelson provided assistance to these groups. He also contacted the State Extension staff and the Agricultural Experiment Station.

At a meeting attended by all concerned, it was pointed out that the Kalispell market area has no unique characteristics that indicate a livestock market should develop within the area. At the same time, it had no unique characteristics that say a livestock market should not develop.

It appeared that a more accurate appraisal of the situation would involve some detailed study and considerable time and effort by an experienced person. One who could readily avail himself of other resource people who are familiar with this kind of a market and with formulating a feasibility report.

The Kalispell Chamber of Commerce agreed to partially finance a feasibility study. Pacific Power and Light Company agreed to furnish the Chamber with the funds that would contribute to such a project. Jack Lackman, Graduate Research Assistant at Montana State College, was assigned to work on the feasibility study. Dr. Clive R. Harston of the Montana State College Agricultural Economics Department served as staff advisor. County Agent Nelson and Extension Marketing Specialist Charles Rust were involved as additional resource personnel.

The cooperation between the committees of the Kalispell Chamber of Commerce, the Flathead County Extension Agent, the Extension Marketing Specialist, and the Experiment Station has greatly facilitated development of this feasibility report. We have found little or no problems working in this environment which, from the outside, might appear to be somewhat cumbersome.

One of the most important phases of the feasibiilty report were the methods developed by Lackman whereby he estimated the potential source of the raw material (livestock) that would be available for a potential auction market located in the Kalispell area. He estimated the market for livestock in terms of who would buy and what kind of livestock they would buy. He also listed the advantages and disadvantages as well as contributions that a livestock market would make to the community of Kalispell in terms of employment and economic gain.

The feasibility study provides an estimated minimum volume necessary to operate economically in the Kalispell area. It may be argued that smaller volumes (than the estimated minimum) could be economical by reducing the physical facilities and operating costs. However, the feasibility report emphasizes that if physical facilities and services are reduced, the market could attract less business, and producers may be more likely to seek other marketing channels.

The feasibility study has provided a sound economic base from which the economic development committee can operate. It is no longer limited to statements of someone's opinion. Facts and figures, based on research can be quoted to prospective auction market operators.

With this kind of background the evaluation of resources in Flathead County has continued and various groups are taking part in this activity. These groups are keenly interested in their community and in the economic opportunities that are available—or should be available to the Kalispell market area. ■

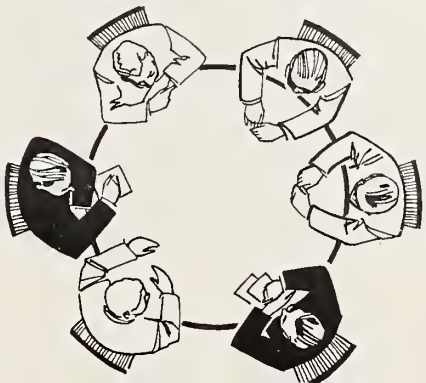
finding better markets for . . . South Dakota Butter

by LEONARD BENNING, *Extension Marketing Economist, South Dakota*

The dairy industry of South Dakota has for a number of years been going through a turbulent transitional period. Many marketing and structural changes have occurred. Among these have been shifts in the type of product marketed by the producer (whole milk rather than farm separated cream), a decrease in the number and type of processing plants and marketing changes.

South Dakota has a limited market for fluid milk because of low population density and great distances from large population centers. Consequently most of the milk is sold for processing. To increase income from this outlet it is necessary to improve quality and reduce costs —on the farm as well as in the processing plant and marketing.

The conversion from cream to whole milk processing noted above created serious problems in many communities where the local creamery was a major source of economic activity. In many of these communities, the local plant was not able to make the necessary transition. Therefore, the diversion of milk supplies to plants outside the area further reduced the competitive position of these local creameries. Reduced volume and increased unit costs for the remaining supply of milk left little or no opportunity for many of these plants to remain in dairy processing.



In searching for ways and means of increasing efficiency, seven such plant operators in the State asked the South Dakota Extension Service to study the feasibility of reorganizing and establishing a new centrally-located butter-powder facility to serve their area. The study which began in 1960 included all of the commonly accepted procedures and methods used in determining product and facility feasibility.

Marketing methods studied

In light of the long-run downtrend in consumer demand for butter, however, considerable emphasis was placed on determining the efficiencies that might be gained from various new marketing methods over the traditional method of wholesaling.

Efficiencies of selected butter marketing agencies as related to different organizational structures, operating method, merchandising methods,

and channels of distribution were studied. It was noted that creameries received very little more for high-quality butter than for low quality. Also, they received no more for well-flavored butter than for flat-tasting butter. There is considerable evidence that many consumers prefer high-quality, well-flavored butter. Yet the marketing mechanism did not reflect these consumer choices back to creameries and dairy farmers.

Most buyers purchase butter on the basis of U.S. grades or their own grade specifications. However, in many cases butter of different qualities is not segregated. Some of the higher-quality butter is allowed to deteriorate, and a large proportion of the butter reaching consumers is not uniform in quality or flavor. The longer and more involved the marketing channel, the greater the likelihood of these practices.

If as was indicated, many consumers have a preference for high-quality, well-flavored butter, at least a partial solution to the problem lies in getting to consumers the kind of product they prefer at a price they are willing to pay. The indirect channels of distribution do not do this.

Changing marketing pattern

Interviews with dairy product purchasing agents of two National retail food chains revealed that changes in purchasing methods and distribution patterns were being initated in their organizations. *Transportation and labor costs in packaging* were the major factors encouraging these retail chains to adopt new programs.

With respect to butter, the chains planned a long-range program to increase purchases from midwestern States such as South Dakota for distribution through West Coast stores. Meetings were held to acquaint processors with the milk quality, quantity, and purchasing schedules desired by the chains.

Although the quantity of butter presently processed, packaged, and marketed through these outlets from the State is still relatively small, indications are that about half of the State's total butter production will be marketed directly through these retail chains during the next 3 to 5 years.

These markets have provided dairy plants in the State the opportunity to improve returns by processing for consumers the kind of product they prefer and to provide employment opportunities for a greater number of persons by expanding into the packaging of the finished product. Through direct marketing to retail stores, the milk plants hope to maintain quality of product, to have a close enough contact with consumers so as to reflect tastes and preferences, and to eliminate some of the inefficiencies in distribution.

The success of this undertaking could mean an increase in income to South Dakota farmers, provide a stability of income badly needed in this area of high-risk crop farming, and provide additional employment opportunities for a greater number of people. ■

estimating costs and returns for...
A Sweetpotato Flaking Plant

by ROBERT P. JENKINS, *Fruit and Vegetable Marketing, Virginia*

Across the Chesapeake Bay from the mainland lies the Eastern Shore of Virginia. The economy of this region is based largely on the production of vegetables and field crops.

Sweetpotatoes, one of the major crops in the area, are well adapted in terms of yield and cultural requirements. There is, however, a problem in marketing large or misshapen roots.

A process for flaking sweetpotatoes has been developed which is adaptable to these roots. The success of potato flaking and the increasing demand for convenience foods added to the favorable marketing prospects.

Accordingly, Eastern Shore growers and business leaders, through the Northampton Marketing Cooperative, Inc., sought information about the feasibility of sweetpotato flaking. To coordinate the project, they organized Virginia Agricultural Products, Incorporated (VAP). All subsequent flaking plant activities have been through this stock corporation.

Since the feasibility study involved many considerations, several Federal, State, and county agencies made vital contributions.

Estimating costs

Costs are usually classified into fixed and variable components.

Fixed Costs. Fixed costs are those incurred whether the plant is operated or not. Facilities are generally fixed and must be depreciated over a period of time. Fixed costs in this project include land, buildings and equipment, and salaried personnel.

After considering physical processing facility requirements, a building housing a local tomato cannery appeared to be adequate, with certain modifications.

The building housing the tomato canning plant was inadequate without certain structural modifications. The construction of lye and waste disposal lagoons was also required. Cost of these modifications was estimated from information provided by the Virginia Tech Department of Architecture and by local contractors.

The USDA Southern Utilization Laboratory developed equipment cost estimates based on its pilot project. Because of new technological development, these estimates were modified from information secured from manufacturers, used equipment dealers, and trade publications.

The cost of managerial and secretarial help was based on the need for experienced managerical help.

Variable costs. Costs which vary with the amount of product processed were based on a production goal of

Assisted by F. W. Bell, Marketing Agent, Virginia Department of Agriculture; Roy Nottingham, Northampton County Agent; and John Rodgers, Accomac County Agent.

500,000 pounds of flakes per season, determined by members of VAP. This goal was based on a study of market conditions and warehousing costs made by the Virginia Department of Agriculture. Since two types of flakes could be produced, estimates of variable costs for both dense and bulky flakes were determined.

The number and type of workers required was determined from: (1) functions performed, (2) equipment operators required, (3) operating requirements of the pilot plant of the Southern Utilization Laboratory, and (4) comparison of requirements for similar functions in conventional processing plants using the latest technology.

It was important to consider the cost for fringe benefits and taxes which require employer contributions, such as social security and unemployment insurance.

The production goal was related to the time required to produce a given amount of flakes, as established in the pilot study. The wage rate times the number of hours the plant must operate, plus considerations for extra cleanup time, yielded the total yearly variable labor cost.

The amount of flakes obtainable from a given amount of sweetpotatoes was determined from the pilot studies. It was decided that 85,000 bushels would be needed to meet the production goal. Estimates by county agents and others showed that 38,000 bushels would be available as pick-outs from the fresh market packing operation, and could be bought for about 1c per pound. The other 50,000 bushels would be bought on the open market or contracted for about 2c per pound.

The amount of other ingredients was determined by Experiment Station food technologists and a technical consultant retained by VAP.

Packing costs including cans, cases, and labels were readily computed for the two types of containers.

Insurance, utilities, and miscellaneous items were figured at 10 percent of the production cost of bulky flakes.

Forming a budget

After the above costs were obtained, budgets were prepared listing each cost when both new and used equipment were used to process either bulky or dense flakes, and with 5 and 10 years depreciation schedules on equipment. The addition of interest charges to the fixed and variable cost gave a total cost to produce the flakes; amortization of the debt was added to give the total income needed to meet all obligations.

A study of market conditions indicated the selling price which might be expected. When the selling price, less selling costs, was higher than income needed to meet all obligations, the firm could be operated profitably.

Of course there are hazards which must be considered such as the possibility of an insufficient supply, excessive raw product prices, or oversupply of the finished product. Amortization was also taken into account. The budgets attempted to reflect this by means of discounts for uncertainty.

There were other considerations not reflected in the budget which are important: (1) the possibility of economy by forming the flaking plant around an existing sweetpotato canning operation; (2) the effect on the quality of the fresh market pack by removing the temptation to include marginal roots; and (3) the effect on the growth of the industry in the area due to this better market.

After weighing all of these factors, VAP has decided to go ahead and start processing this fall. ■

planning and locating facilities for . . . The Formula Feed Industry

by ROBERT W. SCHOEFF, *Flour and Feed Milling Specialist, Kansas*

Increased grain sorghum production and livestock feeding in Kansas and other Plains States has stimulated a great interest in remodeling or building of new custom feed mills.

Kansas State University, through its contract with the Federal Extension Service on Marketing and Utilization of Formula Feeds, has pioneered in the area of Feed Plant Feasibility.

To assist management of grain and feed firms who were considering remodeling or building new mill facilities, a feasibility checklist was developed. Essential to the successful planning of any new facility is the careful and realistic consideration given by management to these key areas of the checklist: Objectives, sales volume, facilities, location, costs and returns, and feasibility.

This checklist served as the core of materials presented at two feed plant feasibility workshops. Managers and owners attending the 2-day workshops were urged to develop long-range plans. It was explained why and how they should go about making a feasibility study of their need for new feed mill facilities.

A market survey form and other materials were developed by the Formula Feed Extension staff to aid management in their feasibility analyses. A brochure, *Determining Feed Plant Feasibility* was prepared from the workshop materials.

Need for new facility

While the more popular and rewarding experience comes from making a feasibility study that culminates in new construction, not all feasibility studies should end in the planning and building of a new facility. The decision may be made not to build at all!

Here is an example. Don Spitze, County Agent for Stanton County,

located in southwestern Kansas, requested that we meet with a selected group of local business and farm leaders to discuss the feasibility of building a new custom feed mill.

A long evening was spent in active discussion of all phases of the feed business, and local crop and livestock trends. There were many opinions and few facts. A market study was recommended to determine (1) if there were sufficient sales potential in the area and (2) if farmers would use the custom milling service if it were made available.

Farm survey forms and a suggested pattern for surveying a representative sample of 200 farms were made available to the county agent. The agent tabulated the data and prepared the figures for distribution.

The survey data confirmed that there were too few livestock and too few interested farmers to justify the construction of a feed mill. No further action has been taken in this county. This was a sound decision. Many farm supply firms would not be in financial trouble today if they had first made a feasibility study.

Potential for new mill

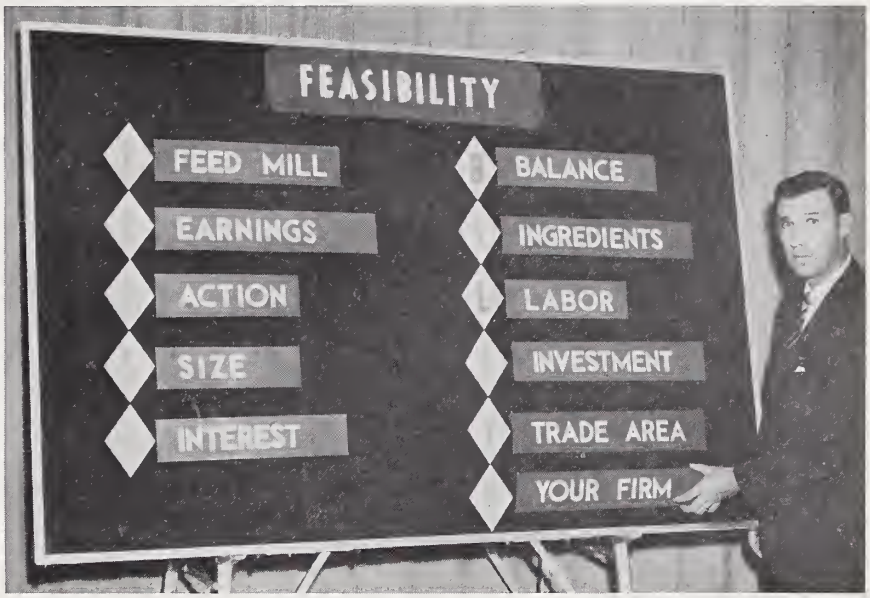
In order to plan a mill of an efficient and economical size considerable detail is necessary on production and sales volume in physical units and dollars. A typical example was a firm that we worked with several years ago.

The manager felt his present mill facilities were obsolete, inefficient, and lacking in capacity to meet growing needs. With the help of the Federal Extension Service, a feasibility study was initiated. There were no records available to show: (1) the total volume of feed manufactured and custom mixed; (2) the breakdown of how much was received for custom grinding and mixing; or (3) the quantities of various ingredients purchased annually.

After much work on the part of the manager, sufficient data were assembled which indicated that it was more feasible to build a new feed mill rather than remodel the existing facilities. A new mill costing approximately $50,000 was tied into an existing warehouse and pelleting facility. With the assistance of an aggressive sales program, the firm has doubled its feed tonnage: mill labor costs have remained the same. The employees' work is not as difficult because all major ingredients are handled in bulk rather than bag.

As Extension recommended, the manager has changed his accounting system to provide better information on production volume, income, and expenses by departments. He is having his auditor make quarterly profit and loss statements for better management.

Location of the mill in relation to the market it will serve is always stressed. There is danger today in



locating in a small, declining community where other business services are lacking. Increased pressure from city residents to eliminate dust and noise nuisances through stricter ordinances makes it imperative that mills be located upwind from residential areas. The mills should also be in commercially-zoned areas or far enough away from residential property that there will be no problem for at least 10 years.

Advisory procedure

Requests for assistance have come mostly through the county agent. Several have come from managers who attended meetings conducted by Formula Feed Extension specialists.

Kansas Extension specialists have made no feasibility studies as such, but rather have shown the manager and his directors why and how it should be done and provided guideline material. Help is given in locating and interpreting data, in outlining mill specifications and alternatives; but the final decision is always the manager's!

The Extension specialist draws no plans. He does help get a flow sheet prepared, but avoids making cost estimates. The wide range in prices of equipment and materials and complexity of the plans which requires knowledge of mechanical, electrical, and structural engineering makes it unwise to offer advice on probable costs. A file is maintained of new mills with key features and total costs for reference purposes. At this point a list of competent mill designers and contractors is made available so cost estimates can be obtained and feasibility decided.

Based on experience in Kansas, where approximately 75 new mills have been built at a cost of $7.5 million, the Extension specialists recommend that the buyer get a complete job from one contractor.

Experience has shown that managers become so involved in planning and building new facilities that other equally important factors are overlooked! Considerable educational effort is also given to the need for: Competent personnel, additional operating capital, an effective sales program, and a managerial accounting system. ■

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financing and managing...
The Formula Feed Mill

by R. E. PAGE, *Grain Marketing Economist, Oklahoma*

Problems in financing and managing a new feed mill are no more unique to this business than any other small business. In determninig the feasibility for establishing a feed mill, financing and managing are responsibilities that enter the picture immediately.

For purposes of this article it is assumed that the project is feasible at least by the interested parties that will share in the investment. The next question that needs answering is *"Will owners invest enough?"* This question needs answering whether this business be a corporation, cooperative, partnership, or an individual ownership enterprise.

Some of our new ventures in feed mills in Oklahoma have failed because there was not sufficient capital committed prior to the commencement of operations. Some of our firms have failed because fixed assets were not acquired, and there was not enough working capital to carry on operations until the firm was able to generate its own adequate flow of funds. Capital commitments must be firm since management cannot depend on vague promises — and management has great difficulty in seeking additional capital when its back is against the wall.

In many instances the people who start feed businesses underestimate their financial needs. Too often, in anxiety to get going, a person or persons will launch an enterprise without enough money to adequately finance the inventory. Inadequate financing greatly magnifies the risks. The first setback usually spells insolvency.

Fixed capital requirements

Planning and budgeting capital requirements are a necessary part of the feasibility study for a new feed mill.

Fixed capital requirements should be determined by sizing the plant and equipment. Where will this capital be obtained? If from sale of stock, how much capital has already been pledged? What percentage of total pledges will be made good? If financing is to come from several agencies, who has the first mortgage and what percentage of the total is each lending? What rate of interest is being charged? When do monthly payments begin and how much are they?

Below is an example of estimated fixed capital requirements to meet the objective of a $52,000 feed mill in Oklahoma.

Estimated cost of equipment and facilities to meet the objective are as follows:

	Dols.
Custom feed mill with installation and freight	25,332
Grain feed tanks for feed mill	4,809
Erection of tanks	950
45 yards of concrete	1,840
50-ton beam truck scale	6,900
Electrical wiring	2,400
Steel building	8,000
Subtotal	50,231
8 acres of land	2,200
GRAND TOTAL	52,431

Working capital requirements

The amount of working capital needed depends on the kind of business that is to be started. Approximately how much capital will be required for labor, power, overhead, depreciation, insurance, and interest? If this capital comes from stockholders' equity, how much capital has been pledged? If this money is to again come from several agencies, what are the repayment terms and rate of interest?

Below is an example of estimated working capital requirements necessary to meet the objectives of the $52,000 mill in Oklahoma, less cash on hand for the opening inventory.

	Dols.
Labor	
2 mill hands	8,000
Manager	9,000
Power	2,000
Overhead	5,000
Depreciation	2,500
Interest on borrowed money ($50,000 @ 5%)	2,5000
TOTAL OPERATING COSTS	29,000

Other considerations

After determining capital requirements, some additional questions need to be answered.

a. Are anticipated sales above the break-even point?

b. How much additional operating capital will be required for inventory and credit?

c. Are there alternative uses for capital that will earn greater returns in the short or long run?

d. Does this business have community backing and continued enthusiasm?

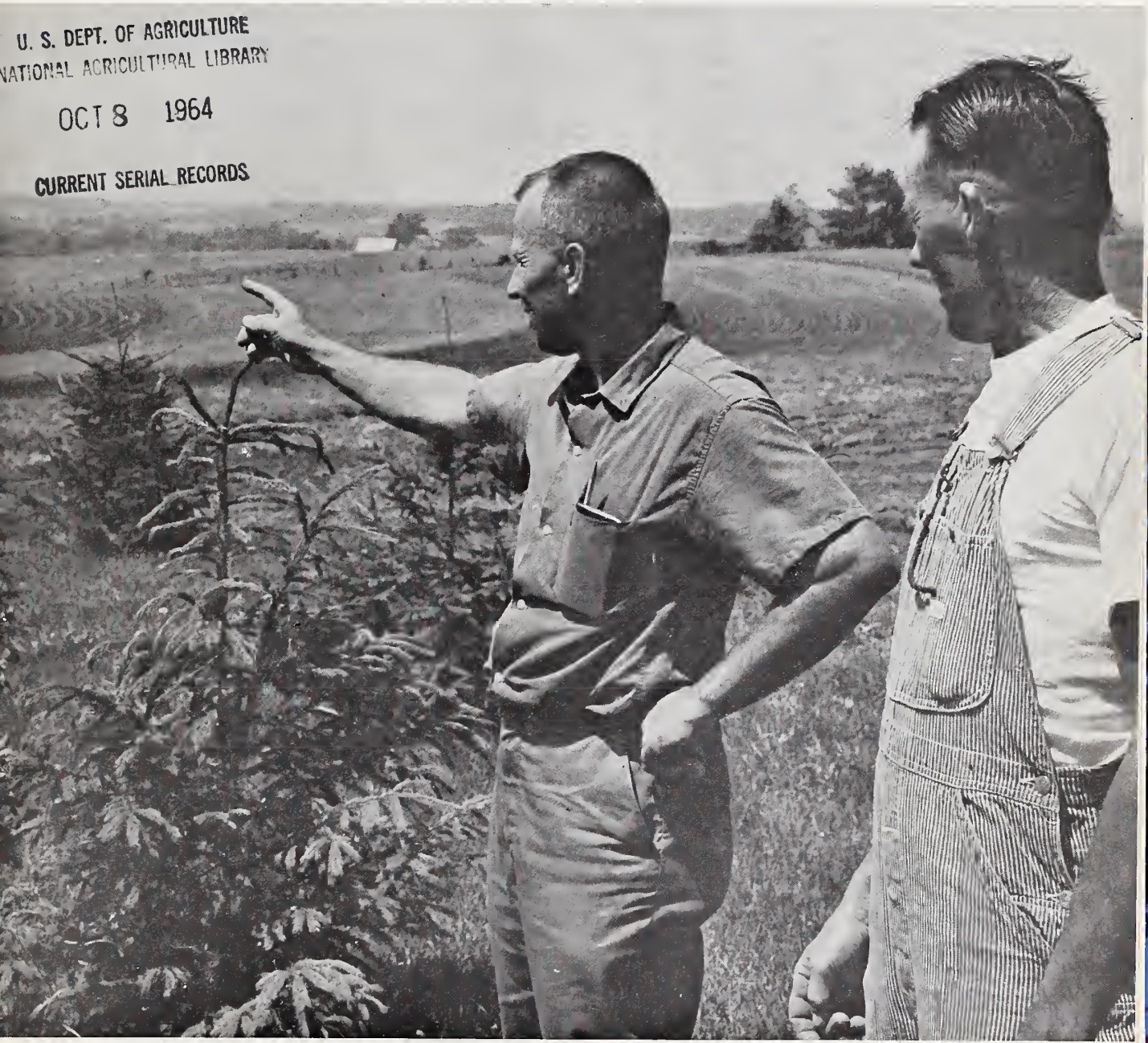
e. What are the possibilities of combining production and /or distribution of this product with other products—now and in the future?

f. What are the possibilities of a merger with another firm? ■

U. S. DEPARTMENT OF AGRICULTURE / OCTOBER 1964

EXTENSION SERVICE

REVIEW



in this issue

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The Extension Service Review is for Extension educators—in County, State, and Federal Extension agencies—who work directly or indirectly to help people learn how to use the newest findings in agriculture and home economics research to bring about a more abundant life for themselves and their communities.

The Review offers the Extension worker, in his role of educational leader, professional guideposts, new routes and tools for speedier, more successful endeavor. Through this exchange of methods, tried and found successful by Extension agents, the Review serves as a source of ideas and useful information on how to reach people and thus help them utilize more fully their own resources, to farm more efficiently, and to make the home and community a better place to live.

ORVILLE L. FREEMAN
Secretary of Agriculture

LLOYD H. DAVIS, *Administrator*
Federal Extension Service

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EXTENSION SERVICE
REVIEW

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CONTENTS

EDITORIAL

National Farm-City Week is coming round the mountain. It begins November 20.

The need for Farm-City Week is possibly greater now than at its inception. Farm people and agriculture as a whole play a far more important role in the National economy than most city people realize. The decrease in farm population and in number of farms leads some urbanites and suburbanites to conclude that farming and agriculture aren't as important as in the past. Quite the contrary is true. Feeding a Nation of 192 million-plus people that in not too many years will hit the 200 million mark is something to crow about loud and clear. Add to that farm-produced fibers and you have a story that doesn't need any embellishments. And don't forget U.S. agricultural exports whose impact both at home and in other lands is so far reaching.

On the other side of the coin, farm people need to be more aware of problems confronting city and suburban dwellers. A good part of their free time is spent in getting to and from work. These, and other problems, have been complicated in recent years by smog that is too thick to breathe and not thick enough to walk on.—WAL

Trash dumping along the highway is too common.

Home demonstration health program sparks countywide action

by HELEN N. MAINES, *Simpson County Home Agent, Mississippi*

RESULTS of health education are not often immediately apparent, but a project carried on in Simpson County, Mississippi over a period of 10 months in 1963 has already yielded tangible results. It has also awakened a personal and community health consciousness that will continue to pay off in improved health.

After a study of the Overall Economic Development Program for the county, I asked the Extension health education specialist to aid in planning a health program. Since this specialist is jointly employed by the State Board of Health and the Extension Service, she suggested that we enlist the cooperation of the county health officer for firsthand knowledge of county health needs.

When the county home demonstration council met in late 1962 to plan its 1963 program of work for the 13 home demonstration clubs, it chose to include not one but all six subjects suggested by the county health officer. The subjects were diabetes testing, sanitation, safety in the home, safety on the highways, nutrition, and home care of the sick.

The specialist, the health officer, and I worked closely in making final plans for the program and selecting people to present the various subjects. All of the assignments were accepted by members of the State and county health departments.

Response to the first of the countywide programs on diabetes testing held in February was almost 100 percent.

The sanitation programs in March spearheaded a movement that has had far-reaching effects and made Simpson County a pace setter in refuse disposal in Mississippi.

During the month two health department men visited all home demonstration clubs. At each meeting they distributed and discussed pamphlets concerning sewage, water, and the refuse problem. As a result of these meetings, the planned countywide refuse disposal survey was undertaken with community support.

The actual survey got underway on April 8, when health department members began traveling all community roads, gathering facts and taking slides to present at a countywide meeting.

Among the 103 persons who attended the county meeting on April 18 were all members of the county board of supervisors, the mayors of the two largest towns, and representatives of both county papers. Keen interest was manifested by the fact that all present offered their services to correct the conditions described and shown by the slides.

Committees were appointed in various areas to find locations for sanitary landfills or specific dumping sites, thereby eliminating roadside dumping. The County Coordinating Council, with members from all agricultural agencies, offered a prize of $25 to the community establishing the first landfill site in the county. This first landfill built to serve a strictly rural community in Mississippi was in Harrisville.

Twelve communities have designated landfill areas and six were in use by December. The Bouie Boosters 4-H Club has a landfill in use in its community. The countywide goal is 40 landfills.

In addition to the home demonstration club members, assisting with the program were 4-H, FFA, the County Coordinating Council, Health and Welfare Committee (RAD), Board of Supervisors, technical panel of the Simpson County Development Council, Farmers Home Administration county supervisors, and the Simpson County Development Council, of which an associate county agent is executive secretary.

Other health education programs conducted through the year were almost equally as successful, although in a less tangible way. Accident prevention consultants of the State Board of Health conducted programs on safety at home and on the highways.

The nutrition program was expanded to include the use of commodity foods among the welfare groups. Local health nurses conducted programs on home nursing.

In evaluating the program, two things stand out: (1) the opportunity to work cooperatively with the health department and (2) the development of an awareness of the health problems in the county plus what can be done as individuals and groups to resolve them.

Our women were making this a continuous effort by projecting the health and safety information gained into all areas of home demonstration programs and projects. ■

training for recreational development

The tourist dollar is spent more than twenty times before it is finally deposited.

by HENRY W. CORROW, *New Hampshire Extension Editor*

■ Another valuable educational feather is being added to the caps of New Hampshire's county agricultural agents and county foresters.

On-the-spot training in helping the operators of income-producing recreational development was tucked under the hatbands of service-minded Cooperative Extension Service personnel during a 2½ day tour of some of the State's topflight resorts.

And, in a day-long session at the University of New Hampshire, the foresters absorbed more useful tips on how the outdoor recreation business is financed.

These are part of a long-term, concentrated effort in support of Rural Areas Development. They're designed to add additional advisory potential to the already extensive educational services of the Extension Service.

Purity Spring Resort in Madison in the heart of the Granite State's famed White Mountains was host to the 20 agents and foresters and supporting specialists, guests, and administrators on June 3. Here they were brought up to date on their part in assisting landowners to convert to multiple uses former agricultural land, buildings, and forests.

They heard New Hampshire Extension Director, Samuel W. Hoitt, set the stage. Then Malcolm I. Bevins, University of Vermont economist, pointed out that with more camping in New York State than in the twin States of Vermont and New Hampshire, there's a great incentive in trying to bring some of these tourists farther east. But both public and private recreation development is needed. The State of Vermont spends $1,000 per campsite but Bevins feels private developers can do it for less. And income per site can be as high as $100 and 50 percent occupancy can be expected. Liability insurance would be about $5 per site and, if there is swimming, this cost would rise. With his own labor used, the owner should be able to set up a campsite for between $300 and $500. Bevins advised his audience to give those who want to get into recreation the whole picture including the cost-return relationship.

The personality of the owner is most important, emphasized Purity Spring operator Milton Hoyt who fielded questions on management pitched by his visitors.

A briefing the following morning brought the latest information on roadside vegetation control and a rundown on electronic farm accounting. Leslie Clark, Society for the Protection of New Hampshire Forests, and Extension Economist Silas B. Weeks, did the honors.

At Ossipee Lake Camp Ground, first stop on the tour, owner Urbain English has, since 1956, built up a 180-acre complex containing 140 sites for tents, trailers, and shelters. English offers eight motel units, a recreation hall, small restaurant, and a beach. He charges $2 per day per site per family; $100 for the season, and pays $5 insurance per $1,000 of business liability. English, who is treasurer of New Hampshire Campground Owner's Association, maintained that training sessions for campground operators are needed. He hires no salaried help during July and August and realizes 100 percent occupancy. For this he expects to carry on promotion work noting that if campers don't seek out the site it isn't a good one. Costs to get a water supply here average about $75 per site with plastic pipe costing not over $10 per site and there's a toilet for every five tents.

Farm family vacations and skiing are the double attractions at Rock House Mountain Farm, Eaton, where John Edge, who once ran a sporting goods business in New Jersey, can house and feed 50 people. The Edges, who began operations in Eaton with a more traditional dairy venture, now rent ski equipment to use on their rope tow in winter and horses for their trails in summer. Edge, who said he can't run horses only part of the year economically, rents the animals for $250 during the warm months. He charges $1.50 for guests per hour, $2.50 for outsiders. Ski poles and boots rent for $5 for the weekend or $14 per week. The equipment costs $90. The poles and boots will last about 5 years.

Twenty-five children can enjoy the farm at one time. The operators feel the environment is an excellent experience for the youngsters. The farm's reputation is partially based on this. The original idea of the owners was the purchase of an inn catering to the general public. After considering several in North Conway, the Edges settled in their present location.

Numbers are impressive at Purity Springs, the Extension workers found. Its King Pine Ski Area's chair tow has a 900-per-hour capacity. There's a rope tow, a base lodge and snack bar and capacity for 50 lodgers. In Hoyt's boys' camp at Madison, 105 can be accommodated and 40 girls can enjoy the facilities of their own similar setup. The planned area was established by Hoyt's family in 1895 with youth quarters added in the early 1930's and skiing opening up in 1939. Expansion will feature a series of family-owned chalets near the slopes. Presently, Hoyt hosts 170 ski reservations per winter. The owner, a former public school teacher, returned to run Purity Springs in 1947.

Observation of recreation sites gave way to useful theorizing during the agent's evening hours. Weeks explained budgetary procedures, defined accounting problems such as fixed and variable costs and told how resort operators might handle capital and opportunity costs on their books.

New England, with 6 percent of the Nation's land and 25 percent of its population, has the land and recreational demand, said Steven Foster, project landscape architect for the State Planning Project. He said forest practices are not conducive to recreational use, that recreation is concerned with the visual effect. What's needed, he continued, is the identification of user demands and budgeting to satisfy these.

The vacationer has money to spend if the services provided are worth it. Foster outlined the trend toward: increased governmental activity on all levels in expanding recreational areas, increased cooperation between all government agencies in this, and more public control as year-round activity increases in locations used as free time centers. There's a great need for a refinement of land management policies, he concluded.

"The tourist dollar is the most active dollar spent; over 20 times before it's deposited," Miss Mildred Beech, Executive Secretary of the Lakes Region Association, told the group. She warned her hearers against establishment of recreational areas which are too small to be put into operation. Foresight is needed since once an attraction is established, motels, guest homes and other businesses spring up.

The resort trade cannot be built on a shoestring, she added, and employing unskilled labor has detrimental effects. Seasonal employees can be brought into the market but during spring and fall they may be at loose ends for work. This can affect the community adversely.

A family summer cottage colony is Transvale Acres, Conway, where 36 dwellings are valued for tax purposes at about $140,000. In 1954, the agents were told, the total value of land and buildings in the farming area was $6,150.

In the first stage of development, the Big Bear Ski Area, Bartlett, sits astride 715 acres on Mount Attitash. Here the Bartlett Recreation Development Corporation has put up family-owned chalets. The owners plan four major trails, a 6,200-foot double chair lift, a 3,500-foot T-bar lift, and a 600-foot beginners lift. In the future it's planned to build a base lodge costing about $485,000 or a smaller project with fewer slopes including a T-bar, base lodge, and parking area costing $150,000. Bartlett, a winter sports center, had in 1960 a total of 1,013 persons, 3 industries employing 70, at least 15 motels, and between 6 and 10 ski clubs which own buildings in town.

Sharing in the initial tour and training session on invitation were representatives of Extension's colleagues in RAD, the Soil Conservation Service, Forest Service, Farmers Home Administration, and the Maine and Vermont State Forest Services. Arrangements were made by Arthur G. Dodge, Carroll County Forester, who with John F. Damon, County Agricultural Agent, are leaders in county RAD activities.

Buttressing what they learned on location with in depth information, the county foresters gathered at Durham on June 23 for their second instructional period —this time on ways to finance an outdoor recreation business.

Speakers were drawn from a broad cross section of New England's economic sector. Opening speaker, Earl F. Pettyjohn, RAD program leader from the Federal Extension Service, outlined the need for more input and output research in the resort field. He offered FES help in area or State training meetings and noted that, unfortunately, there are now only a limited number of Federal bulletins available on recreational subjects. "In the wake of demand for camping, hunting, and other facilities," he said, "it's important that families and communities consider adjustments in attitutes as well as facilities as the influx of vacationers brings change in local living conditions during certain months."

Said Kenneth Feldhusen, Vice President of the Concord National Bank, "Recreation is going to be a big lift to New England. But farmers need more fiscal education and more planning ahead for needed funds."

Distributing a recreation business file to the foresters was Silas B. Weeks, Extension RAD Coordinator for New Hampshire. Included were three pieces of training material: Using the Budget as an Analytical Tool for Evaluation of Recreation Businesses, An Exercise in Forward Accounting for a Recreation Business Enterprise, and a Recreation Business Analysis.

Five basic types of insurance for recreational enterprises were described by John A. Perkins of Perkins and Prescott, the final speaker. Defining insuring as "spreading the risk," Perkins said insurance is intended to protect one's finances in case of loss and is not a source of profit for the insured.

New Hampshire agricultural agents and county foresters have for 3 years cooperated with county RAD committees and have been active in arranging educational programs and giving technical advice to all who are interested in turning their suitable rural lands into profitable attractions for the year-round tourist and recreational business. Other training workshops are planned for the future. ■

Kona Low-Income Coffee Growers "Look Up"

Florio Sebay is one of the 13 farmers who took part in the first training project. He is shown with his wife and daughter in his coffee orchard.

by BLAINE BRADSHAW, *Extension Rural Areas Development Specialist and* JEAN A. GUTIERRES, *Training and Communication Specialist, Hawaii*

THE publicity about Kona in Honolulu, is that this rugged, beautiful, coffee-growing, western coastline of the Big Island of Hawaii is developing. Tourists are coming and hotels are being built. Coffee prices look good this year, farmer cooperatives are working on quality control and promotion, and the agricultural outlook is optimistic. "Mainland interests" are looking the place over and new capital may come in.

The figures show that Kona's average annual income is $5,710, the highest for any rural area in the State and $844 more than the average for the County of Hawaii, where Kona is located.

All this is so, but it is so in the same way that the U.S. is maintaining its position as the most prosperous nation in the world, and there is, at the same time, a "poverty problem." Local leaders—Extension agents, government agency representatives, and businessmen—know that among Kona's people are those who can barely speak English, who have no modern plumbing in their homes, and who are lucky if they earn more than $1,200 a year.

The average figures are deceptive. By rough but informed estimates, half of the families in Kona live in substandard homes with incomes averaging from $600 to $3,000 a year.

The real-life poverty hidden in the figures is nothing new. Low coffee prices, marginal farms, and lack of skills resulting in low family income and underemployment were some of the factors cited to gain designation of Hawaii County for assistance under the ARA in 1961.

A significant result of this designation was that many in Kona resented the publicity that theirs was a "depressed community" and began organizing their efforts to prove that the area has been developing and, moreover, had much potential for further growth.

With the support and cooperation of government agencies at all levels, and stimulated by Extension workers, key leaders formed a community committee devoted to economic development. Called the Kona Rural Areas Development Committee, it had a membership truly representative of the various segments of the Kona socioeconomic picture. By May 1962, a County Technical Action Panel had been formed, members had a handbook explaining the RAD concept, and subcommittees were engaged in constructive work on economic development.

One of the first jobs of the committee—to survey resources and identify the problems of the area for an overall economic development plan—taught members to appreciate the problem of poverty in Kona. It was clear that no neat program-package would solve the problem because so many diverse factors were implicated.

For example, Kona coffee prices are determined by world prices—and no one along the coast pretends to be able to "do" much about that. The marginal farm may be the result of bad farming practices, but often, it is the result of poor soils, unusually bad weather, unexpected insect damage, and other natural conditions—and the farmer can control these only in limited fashion.

The lack of know-how may be because the farmer hasn't kept up with the fast pace of agricultural technology. But in Kona, at least, it is too often because of the farmer's lack of basic education. Roughly one-fourth of the estimated 800 coffee farms in Kona are operated by Filipino immigrants, who are unable to take part in Extension's farm education program for lack of schooling.

The problem of poverty in Kona will be solved slowly, in small steps. Even then, only some aspects of the total situation seem to offer themselves to a programed solution. RAD committee members realized this and took their opportunities where they found them.

The training provisions of the ARA Act seemed one such opportunity.

Extension agents, vocational agriculture instructors, and the Experiment Station superintendent, worked with leading farmers and developed a course outline. State Department of Education administrators and Employment Service officers structured the curriculum and developed the logistics of the course. Technical Action Panels, both county and State, supported the idea. Approval to use ARA funds finally did come and the first group of farmers began its training in January 1964.

The approval was to train 30 farmers—much too few, but still something, representing a small step forward. To keep the class small enough to enhance learning, it was decided that the farmers would be taken in two groups. Selection criteria were clearly laid down.

The trainee would have to have less than $1,200 annual net income; he must own, rent, or lease coffee land and be engaged in coffee production; he must have a yield below the Kona average of 2,689 pounds of parchment coffee per acre; he must pass an oral examination, be willing to attend classes, and agree to use the improved practices he learned.

The training was set up to last 16 weeks for a total of 640 hours of instruction. Ten hours a week would be in basic English (reading and writing) and 10 hours a week in techniques of coffee culture (planting, controlling weeds and rodents, pruning, fertilizing, harvesting, processing, marketing).

Because the land used for coffee is usually also suitable for the production of macadamia—a tree bearing delicious nuts with economic potential—a total of 90 hours was set aside for macadamia production and 100 hours for farm management. The sessions would make up a 40-hour week and would be held in the classroom and in the field. Those who qualified and were accepted for training would receive subsistence pay of $39 a week.

In the first group of 13 farmers finally selected, 10 were Filipino. That this ethnic group would dominate the class was fully known in advance, although the training was carefully set up for the low-income farmer, with no ethnic qualification. In fact, as soon as the target audience was determined, planners knew that they had to structure their training for the Filipino grower.

There is no question that the Filipino coffee grower in Kona sorely needs assistance. He is a farmer who probably had little, if any, formal education. (It is known that roughly 70 percent of the Filipino growers are illiterate.) He speaks Tagalog, a dialect of the Philippine Islands, and manages to get around in the community with pidgin English. (By rough estimate, less than 10 percent of the Filipino growers are able to speak English.)

He is probably an alien and past 50 years old. (The average age of the group selected for training was 56 years.) If he knows about government assistance to farmers, he could not qualify for those programs with citizenship requirements.

Brought to Hawaii to work in the sugar plantations, the Filipino farmer was laid off because of increased mechanization of sugar production. Then he probably got a short-term lease on a 3-acre farm—a lease he took up possibly because low world prices of a few years back, combined with increased cost of chemicals and labor, forced someone to sell. His entire job experience has been in some form of agriculture, but he knows almost nothing about the highly-specialized coffee industry. Consequently, his coffee yields are sometimes 50 percent below average

The job of training a group of such farmers was turned over to two remarkable teachers.

One was Kaoru Uyeda, a young man who has the ability not only to teach techniques of coffee and macadamia culture, but also to develop a strong teacher-pupil relationship, such that the trainees buckled down to work. He is known to have gone on with his class demonstration in the rain. He expected the most from his students, and in return, his students tried hard to measure up.

An observer remarked that even now, after the training is over, the farmers who took part still look upon Kaoru as teacher. When he visits their farms—which he does frequently—they expect reprimands for sloppy work. Satisfaction and a sense of pride were evident in Kaoru's report to the Kona RAD Committee that 13 out of 13 macadamia grafts made during one training session "took."

Mrs. Margaret Cagampang, the second teacher, was interpreter for Kaoru and also taught basic English, a part of the course that was regarded as essential.

After talking to Mrs. Cagampang, one comes away with the impression that she is motivated by a profound sense of responsibility to the Filipino in Kona. From firsthand, day-to-day living with these farmers, she knows that they need—and want—help. She is able to give numerous examples of farmers who want to learn to read and write desperately, whose shame and pride force them away from strangers, but who come to her, a friend, for private help.

These two teachers, as a team, worked diligently with the 13 farmers for 16 solid weeks, fully aware that this was a kind of test project. In the process, they learned that this type of adult teaching, at once vocational and basic, can become an important, specialty field of education.

After the first group was trained, they had solid experience to offer against the opinion held by some educators that the very low rung of the economic ladder is usually occupied by people who are "unreachable" and probably "unteachable."

The opinion of one official involved in the training is that in the first group are a few farmers who might very well become future leaders in the Kona coffee-growing community. The claim may be extravagant, but it reveals the enthusiasm that the project has generated.

The immediate prospects are: (1) that the coffee yields of these farmers will go up in the next 2 years; (2) that a few will continue working on their reading and writing in night classes; (3) that some will work toward citizenship; and (4) that almost all will be, in their own neighborhoods, unofficial promoters of the virtues of education for economic betterment, however, late in life it might come.

Testimony of the last point was made when the 13 farmers held a graduation banquet-luau with money they had saved and chipped-in from their subsistence pay. At the luau they received with obvious, unashamed pride, the first certificate of learning they had ever earned.

The second group of 17 farmers is now undergoing the same training program. The difference between the two groups is in the climate. These trainees seemed to anticipate the training more eagerly than the first: the instructors and planners seemed less apprehensive about the success of their work. The climate, in a word, was hopeful, as all concerned watched a handful of Kona low-income coffee growers "look up." ■

IOWA is many things. It is a land of rich agricultural resources lying between two great rivers. It is a State of lush green pastures on rolling hills, of level prairies with straight long rows of tall corn, of abundant cattle, hogs, and sheep. Its soil is the richest in the world.

Iowa, too, is a land of people—some rich, some poor, and many in-between. Even with all this abundance it has its problems—social and economic in nature. We have our poor and needy just as does every other State. We all have known the poverty of the depression days and we recognize rural poverty as well today. For too long we have just ignored poverty with the hope that some day it would just disappear. Herein lies a group which needs Extension's help; however, too often this group is most difficult to reach.

Extension workers always seem to be searching out new audiences. This was the case when our former County Home Economist, Mrs. Shirley Stakey, happened

a county director views work with LOW-INCOME FAMILIES

to discuss the Extension Program and its offerings with the local public welfare worker.

As a result of this discussion a new group of low-income families was reached in our county for the first time. A series of four lessons on the preparation and use of commodity foods was given by the county home economist. The lessons were well received by the low-income families. It soon became evident that these people wanted more help from the Extension Service, especially in the area of makeover clothing.

The request was incorporated into the normal county program planning process. This was given approval and support by the County Extension Council. The Council further suggested that other low-income groups within the county might benefit from this program as well.

Help was received from Miss Opal Roberson, Extension Specialist in Textiles and Clothing. At an office conference with Miss Roberson and the county Extension director, plans were made to formulate a clothing workshop of six sessions for the low-income families. It was decided that additional families suggested by the Farmers Home Administration Supervisor, and the county Extension associate working with Farm and Home Development couples, be invited to attend the workshop. They would be included in the group along with the women suggested by the public welfare worker.

It was further decided that if this were to be a sizable group, additional leaders would be needed to assist in the organization of the workshop, and to provide personal assistance in teaching sewing skills to some of the women who needed such help. A group of five Farm

by DAVID R. MAY, *Adams County Extension Director, Corning, Iowa*

Bureau women who had attended a previous Extension leadership training program volunteered to help.

The local Singer Sewing Machine Center at Creston, Iowa cooperated in the project by loaning portable sewing machines for the six weekly sessions. The Farm Bureau Office provided the meeting place and the churches provided old coats and suits to make over into fine garments for children.

At the first meeting 35 women, many young mothers with small children, came to get information on the problems involved in making over clothes. They found out what could be done about these problems and how they could be helped. The group decided how often to meet and how to proceed. The workshop continued for five sessions, held weekly with 22 women participating. The group decided to work on clothing construction, putting emphasis on "New Ways with Cast-A-Ways." A target date for completion of the made-over garments was Easter 1964.

As the workshop continued and clothes for the small tots gradually took shape, many articles of clothing of excellent quality were made. In addition to actually learning sewing skills, however, the women themselves received something which was much more important—and which none of them had previously thought too much about. It was the feeling of new friendships and understanding and a realization that someone really did care what happened to them. They needed status in their community just as much as any one else does. They wanted their children properly dressed for school and Sunday School.

After the final workshop session it was suggested that a style revue could be held. This idea was quickly accepted. A potluck dinner was planned, and the women brought their husbands and children, grandparents, and relatives. Following the dinner the youngsters modeled the clothes their mothers had made. It was heart warming to see the gleam in the eyes of these children as they proudly modeled their new suits, coats, and dresses. Prouder still were Dad and Grandma and, of course, Mother too. This was our first experience working with low-income families as a group.

An interesting point was brought out by Mrs. Loren Fuller, one of our local volunteer leaders. She said that these women needed clothes for their children, and even though some of the completed garments cost $1.42 for a child's coat or 88c for a little girl's dress, these people wanted their children properly dressed. But even more, they needed the feeling of being accepted by others in the community.

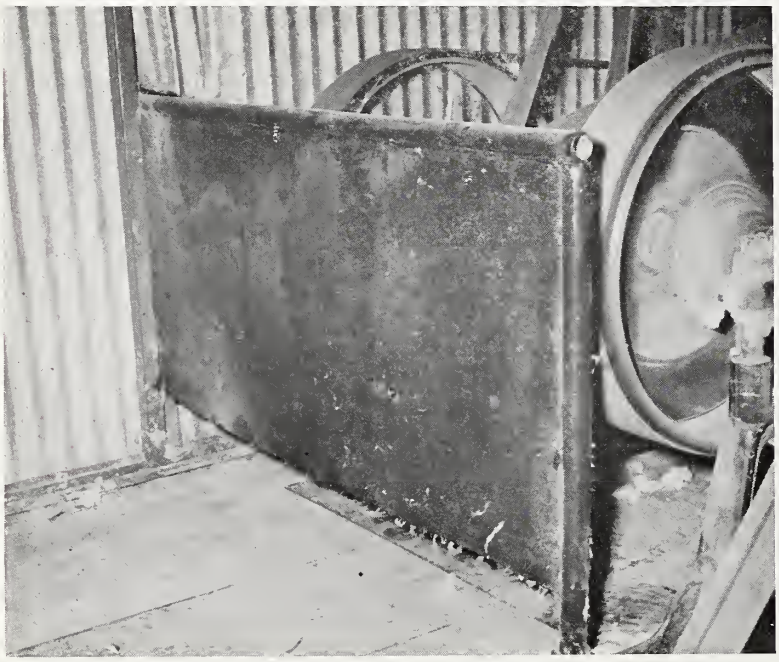
It was readily agreed that we in Iowa do face a new challenge as field staff members and specialists in working with low-income people.

Programs are already being planned in home economics for next year with an ever-expanding group.

Other areas which are being considered are pattern alterations, refinishing old furniture, and buymanship of secondhand home furnishings and appliances.

This has been a most rewarding experience for the Adams County Extension Staff because these people appreciate so much what the Extension Service has done for them. ■

Something to think about...



UNGUARDED HORIZONTAL BELT DRIVES

THE UPPER photo shows damage to metal wall by flat belt drive. Fortunately, no one was hurt. The lower photo shows metal guard which now prevents such dangerous action by broken belts or laces.

By A. M. Pendleton, Extension Ginning Engineer, USDA

That's the title of a regular feature I have been preparing for a biweekly trade magazine. I believe this method of using pictures to present an idea is extremely effective. Each picture shows only one or two ideas or practices that will benefit the audience toward which the series is directed. Words are used only to focus attention to the specific idea included in the photograph—and to point out the advantages of its adoption.

The primary purpose of this particular series was to gain acceptance of certain basic safety principles in many of the Nation's 5,000 cotton gins. The medium chosen, therefore, was the official trade magazine of the cotton ginning industry which is read by management and operating personnel throughout the Cotton Belt.

After preparing this photo column for more than 6 months, I think that this is an excellent method of presenting new ideas to a specific clientele. Many simple ideas, and these are often the best, can be adopted immediately. Others will create an interest so that the "how-to-do-it" can be handled by usual Extension methods and activities.

As this series progressed, I received many valuable suggestions from cooperating State Extension specialists and county agricultural agents for enlarging its scope and effectiveness. These include pinpointing interesting research, applying new methods, and emphasizing the *timeliness* of adopting specific practices. There are many other possibilities.

Finally, most of these photographs were taken for other educational purposes in the course of my usual Extension work. They were *in my files* ready to give the *extra educational effort* made possible by the photo column series.

Do you have photographs in your files which may help sell the ideas you have been working to get across? Would some variation of this photo column device help your photographs present their ideas more effectively? ■

Mrs. Lillie Mae Thomas discusses plans for improving her home grounds with Elmore County Agent Roscoe A. Lee, and Home Agent Eindie M. Frazier.

a community that wouldn't die

by GRADY W. TAYLOR, *District Extension Agent, Tuskeegee, Alabama*

IN THE eastern part of Elmore County, Alabama lies a distinctively rural community called Flatrock. The 78-family community is surrounded by neighborhoods of 40 families who participate in some of the area activities. Flatrock's economy is based on small farms and an increasing number of part-time and full-time jobs.

Just a few years ago Flatrock thrived on an individual action program for solving problems. The single exception to this was church affiliation. Thus, when the evolution in rural life came, the community began dying because of its weak economic base and almost nonexistent leadership. People began migrating, housing was deplorable, community services were hardly available, and income was at an all-time low.

The county agent and the home demonstration agent recognized that something needed to be done. Having already organized club work in the community, they introduced to club groups the policy of solving problems through community action. This idea had dynamic appeal.

Because people showed high interest in this action policy, Roscoe Lee, County Agent, invited Rev. V. A. Edwards, Director of Religious Extension at Tuskegee Institute, and me to talk with community groups on community development. Through the joint efforts of these two agencies the community experienced constant guidance in developing understanding, unity, and trust. These essentials for mutual problem solving have been the basis of better community and family life at Flatrock.

The first rallying point of this program involved the church. The three community churches made tremendous physical and organizational accomplishments. The Flatrock Baptist Church, for example, secured and recorded deeds. (This process revealed, unaware to the membership, that two acres of land had been deeded to the church.) Further, the church structure was completely renovated and redecorated inside and outside. A deep well was dug and a water pump and baptismal pool installed. Butane gas heating was also installed. Finally, an educational annex was constructed.

Programwise, church services were extended from one Sunday to two Sundays per month. Sunday School is operating on a 52 Sunday per year schedule instead of only during good weather seasons. An active youth program was started; in fact the entire organization of the church was revised.

Similar progress—made by the other two churches, Mt. Zion No. III Baptist Church and Oak Valley Methodist Church—shows up in renovated and reorganized programs.

Within the last 5 years several communitywide programs were initiated. An improved cemetery program is one. Mr. Hampton Mitchell gave the cemetery land. A cemetery committee, assisted by the county agent, laid out new lots and relaid existing lots. Voluntary labor made the initial development, but the maintenance was financed by community families paying $2 a year.

The community club obtained the local school building which had been abandoned for consolidation and developed it as a community center. During the year, the building was used as a meeting place for the home demonstration club, a nearby church, a kindergarten, and other groups. The kindergarten is conducted by Mrs. Hampton Mitchell, a retired school teacher who is doing the community and working parents an invaluable service.

Although farms in Flatrock are quite small, full-time farmers and a growing number of part-time farmers have increased yields through improved practices. Cotton yield last year was 581 pounds, and corn yields were up to 58 bushels per acre.

Fifty-eight families, over half the families in the large community, have either built new homes or remodeled old ones. This and other community improvements were made possible through increased income from improved farming and off-farm work.

It is extremely significant that community projects have solved many of Flatrock's economic and social problems. But still more significant was the development of strong leadership and cooperation in the community, for inevitably these driving forces will perpetuate the growth of Flatrock through future generations. ■

Ladies attending the Institute examine world map showing countries employing home economists from Cornell.

Farm and Home Week Grows Up

New York State College of Home Economics sponsors an annual Institute for Community Leaders which has acquired some new audiences and at the same time held on to traditional ones.

by EMILIE T. HALL
State Leader, Extension Teaching
New York

SEVERAL YEARS AGO the faculty of the New York State College of Home Economics at Cornell University realized that the program the College offered as part of Farm and Home Week was no longer appropriate to present-day needs. After some experimenting, an annual Institute for Community Leaders was developed. The first one was held in 1961.

Sponsored by the College of Home Economics alone, the Institute presents a fast-moving 1-day program dealing with an issue vital to the welfare of families. Attendance ranges from 700 to 1,000. The program includes a luncheon to which Dean Helen G. Canoyer invites key leaders from around the State. Proceedings are multilithed and sold for a dollar. One or two regional follow-up meetings held in other parts of the State are sponsored by the local county home demonstration department in cooperation with other community organizations.

The first Institute dealt with "Families in an Interdependent World." For it were assembled speakers of National renown . . . a sociologist to discuss the impact of the world situation on families; a newscaster who

spoke of the world economic situation and its effect on families; and three members of our faculty who discussed home economics as it crosses cultures in terms of scientific exchange and technological changes.

The second Institute, "The American Family: A Critical Appraisal," was dedicated by Dean Canoyer to the Land-Grant Centennial as "one way in which this College strives to conserve and cultivate civilized values and human resources." Again authorities of Nationwide reputation including a member of our faculty, were assembled to discuss the American family from the point of view of disadvantaged children, working mothers, and citizen responsibility in a democracy.

After this Institute a follow-up meeting was held in Syracuse where 135 community leaders attended a dinner metting and program focused on issues facing Syracuse families. The Onondaga County Home Demonstration Department, the local Cornell Woman's Club, and the local chapter of Home Economists in Homemaking sponsored the event, with the home demonstration department as the working hub of the group.

"Follow-up" television shows

The 1963 Institute addressed itself to "Family Housing: Critical Needs and Issues," focusing on shelter and care of the aging and community planning for housing needs. In Syracuse a follow-up evening meeting on local housing problems attracted 60 community leaders. In Buffalo, a television program on housing was presented by Mrs. Mary Switzer, a retired home demonstration agent and coordinator of Extension television programs for a Buffalo station.

Using a 15-minute television film "Aging and Independence," made at the College by two professors of housing and design, plus a panel of Buffalo persons whose primary interests were in housing and related areas, Mrs. Switzer narrated a half-hour Sunday afternoon program estimated by the station manager to have an audience of around 950,000. The movie has since been used by television stations in Binghamton, Rochester, and Watertown.

The 1964 Institute was titled "The American Consumer: A Critical Appraisal." Speakers were distinguished economists, including Dean Canoyer who was chairman of the Consumer Advisory Council appointed in 1962 by the late President Kennedy.

Responsibility for the 1964 follow-up sessions was assumed by the home demonstration departments of five counties. Niagara County organized a television panel on consumer behavior. Albany, Rensselaer, and Schenectady Counties sponsored a public meeting on "Consumer Sovereignty, Real or Imaginary?" Nassau County held a meeting on "Consumer Dollars and Sense," that attracted 175 persons representing civic and government organizations. Coverage was excellent.

Support from county home agents

The Institute as it now exists could not have been possible without the cooperation and support of the home demonstration agents. They back us up on publicity not only in their newsletters but also in the local media: they bring local leaders to the Institute and some have even brought local reporters with them.

In addition to Extension support, the Institute has the backing and cooperation of the College Alumnae Association. The latter sponsors an "early bird" dinner and program the night before the Institute. Many organizations such as the League of Women Voters, New York State Congress of Parents and Teachers, Inc., and the New York State Council of Churches have given support by publicizing the Institute in their State publications.

The home economics part of the old Farm and Home Week program used to generate news releases covering everything from frozen foods, manmade fibers, laundry appliances, and parent-child relationships, to dating, parent-teenager problems, and what makes a marriage succeed. To this smorgasbord of information was added a fashion show.

Expanded press coverage

By contrast, the Institute provides material for only two or at best three major releases, but these are widely used. *The New York Times* among others, this year carried long releases on the Institute for two consecutive days. Two syndicated services, three large dailies, a Northeast farm paper, and a National home economics magazine had representatives at the Institute.

On the basis of experience with previous Institutes, it is safe to say that for at least a year we will receive requests from publications here and abroad for some information or comment that originated at the 1964 Institute. Part of this continued interest will have been engendered by the press packets distributed immediately following the event and containing complete texts of all speeches as well as the releases.

When the printed proceedings were distributed in midsummer there was a renewed flurry of interest and requests. In fact, proceedings from the three previous Institutes are still in demand.

One criteria for the Institute was that it should be designed to reach community leaders and others in a position to pass on the information and thinking it generated. How well we have succeeded in meeting this criterion was indicated by an analysis of registration for the 1963 Institute on housing. In the audience were bankers, merchants, and architects. Insurance and real estate were represented. There were persons from government agencies including county boards of supervisors, public health and welfare, relocation agencies, and urban renewal groups. Community and social agencies and educators, including Extension personnel, were present.

It seems reasonable to expect that the 1965 Institute, with nutrition as its theme, will attract some of the same audience, but there will be others too, whose interest primarily is in nutrition, just as in 1964 many in the audience were primarily interested in people as consumers of goods and services.

Thus it appears that the Institute is fast becoming a device for reaching new as well as the more traditional audiences. ■

Management Education for Farm Couples

In the past 4 years, more than a thousand Wisconsin farm couples have participated in this series of management meetings.

by ROBERT RIECK *Extension Economist, Farm Management, Wisconsin*

Wisconsin Extension agents have been working toward developing a particular "breed" of farmer—the kind who appraises alternatives carefully, then derives a plan for coping with changes in farm conditions, or for using new technology. It's a complicated business—even for the agent—but through the use of management meetings, farm visits, and a well-organized plan Wisconsin agents are scoring a number of successes.

Take the case of Joanne and Elling Sherry of Ferryville. In 1958 they settled on their hilly 97-acre farm in Crawford County, and faced a difficult challenge in hoping to support a family of four while paying off the farm debt. In 1960 Hubert Hafs, Crawford County Farm Management Agent, helped them make a complete farm business analysis and gave them new ideas for analyzing management decisions and planning ahead.

The Sherrys sharpened their management skills in a series of six step-by-step management meetings. Along with other families in their group, they (1) set goals, (2) evaluated their resource potential and pinpointed problems in their business, (3) weighed alternatives for improving income, (4) planned ways to get the most from family living expenditures, (5) appraised their long-run family insurance needs, and (6) prepared a money plan for the year ahead.

The Sherrys feel the management skills they developed through these meetings contributed to their later success. After the 1960 management meetings they established strip cropping and grass waterways to improve use of their limited, hilly cropland. Elling kept machinery investments at a minimum and concentrated on building up crop and livestock efficiency—coping with the problem of skyrocketing costs. Today his operating expenses are low compared to other dairy farms and returns are correspondingly high — about $180 per acre gross.

Efficiency like this has helped the Sherrys pay off their farm debt in 6 years, and to build a new three-bedroom home on their hillside farm.

The Sherrys have reciprocated by offering their cooperation to the Crawford County Extension Program. The Sherry farm has been used for many field demonstrations and has served as headquarters for an Extension field day. Of course, these demonstrations of new technology help keep Elling up to date with farming methods, though he reads farm papers and educational material a lot, too.

The close cooperation of people like the Sherrys with Extension was fostered greatly by the interest which Extension showed in them and the opportunity it provided for them to actively participate in the series of management meetings.

Another Crawford County couple who benefited from attending a management series are the Peter Dillenbergs. They are planning and improving family living steadily from their $40,000 farm investment. The Dillenbergs bought their farm in 1960 and have doubled net income during the past 3 years, but still have big plans to accomplish. They may choose between expanding their hog enterprise or nearly doubling their present herd of 25 dairy cows.

It will take good management either way and it will mean removing a flood hazard on about 60 acres of low cropland that is not now available for cropping. They feel this step is necessary in order to accomplish their long-term income goals to better provide a satisfying living for their five sons and a daughter.

The Dillenbergs attended a management series in 1962. During the second meeting of that session they completed an analysis of past farm records and compared these against profitable income standards for the future. They were stimulated to make some changes following the series.

They began keeping individual production records on their dairy herd and have since improved their forage quality and feeding system. In spite of generally declining milk prices in Wisconsin during the last 2 years the Dillenbergs have managed to substantially improve their farm income, after starting at a very low level.

The Dillenbergs now make a habit of trying things out on paper before they make major changes. In fact, Pete said they almost always budget ahead before applying for new farm credit. Their present buildings are old and need modernization and expansion in order to complete their plans. Since they can expand either in hogs or dairying, they must plan carefully before investing in new buildings. At present they plan to specialize in dairying. In 1962 they built an additional silo and have since added a silo unloader to save labor. Labor already limits the amount of expansion in livestock that Pete can consider.

The Dillenbergs, with the help of the grandparents, do a substantial amount of home gardening to cut their family food expenses.

Part of each management series is devoted to family living needs. The home economics agent presents information on how to use consumer credit, how to cut food expenses, and other items of particular interest to the specific group of farm couples.

At the sixth meeting each family ties together a money plan for the year ahead. It reflects the goals the family decided upon and the changes planned to increase income. Such a plan may be extremely useful or even necessary to obtain credit for carrying out expansion or improvement plans. Betty Dillenberg is keeping a record of 1964 family living expenses for the first time to check the outcome of their financial planning.

In most of the management series more than half of the time is spent in small group discussion with each farm couple doing pencil work on their own operation. Some counties devote as little as 20 percent of the classroom time to lecture. Couples work with case farm exercises as well as their own farm. Each couple is asked to bring information from their home farm to the meeting, but they usually complete their pencil work at home.

In 30 Wisconsin counties more than 1,000 farm couples have participated in these management series during the past 4 years and about 90 percent of them received planned follow-up visits by an Extension agent after the series.

In addition, agents offer further assistance when families need to gain confidence or extra know-how in using newly acquired management methods. Families are alerted to adjust plans to meet emergency expenses or price drops.

Agents must stimulate farm couples to do their own planning if education is to be successful. This often requires a considerable amount of homework by families. However, agents take pride that plans developed by Wisconsin families are those of the farm couples themselves and not of the agent. The agent's primary role is that of an educator, not a personal advisor.

Farm couples, like the Dillenbergs and the Sherrys, are typical of many young farm people in Wisconsin. They do not represent the largest commercial dairy farms of the future or even of the present, but they make the most of the resources they have.

When their goals change, technology changes, or cost-price relationships squeeze too tightly, they will be in the habit of appraising their alternatives carefully and planning ahead to make the next adjustment. Also, many become leaders in the community, as well as in Extension activities. Pete Dillenberg is

Most of the farm couples received a planned follow-up visit from the county agent (left) after attending the series of management meetings (below).

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active with watershed planning for flood control, which will influence future development of his own farm, as well as others in this community.

Education in management does not stop with Extension management meetings like these, it starts. Besides teaching specific analytical and budgeting methods agents want to stimulate families to be inquisitive about new information and the economics of their decisions.

Farm management agents in Wisconsin want to improve on their management meetings too. They would like to accommodate larger groups (currently 6-10 couples) but they like to spend group time getting families started on solving their own problems. They also want to begin a new series for more advanced commercial farmers who need economic information and understanding of economic principles and methods for evaluating costly technology and adjusting to highly mechanized operations. Also, low-income farmers could benefit from educational assistance in evaluating farm and off-farm opportunities.

Future management education will make increasing demands on the farm management agents. However, progress made by couples like the Sherrys and the Dillenbergs makes the challenge a living reality. ■

CO-OP MONTH

This is Co-op Month and has been so designated by a number of States. It is being recognized by the USDA with an exhibit in the Department's patio plus 3 weeks (October 5-23) of other types of activities oriented toward cooperatives.

Fittingly, the theme of the patio exhibit is *Cooperatives-USDA Help Build A Better America*. Exhibits and programs will relate to these main points.

a. Cooperatives assist in raising farm income.

b. Cooperatives help bolster the economy of rural areas.

c. Cooperatives pioneer in providing quality products to consumers.

d. Cooperatives aid in developing international understanding.

The Federal Extension Service will have an exhibit depicting programs which are being carried out by various States. Included will be such examples as: Youth work and cooperatives; workshops and seminars for managers and directors; work with producers as they evaluate need for a cooperative; and educational programs for cooperative managers and employees to increase service to members.

During the 50 years of Extension no single group—in or out of Extension—has done more to assist farmers in organizing their own marketing and purchasing cooperatives than have county Extension workers. Such cooperatives as Grange League Federation (GLF), Mississippi Federated, Pacific Supply, Land-O-Lakes, to mention but a few, can find their origin in the interest of a county agent in strengthening the farmer's income.

During the past five decades, Extension educational programs relating to problems of cooperatives have broadened far beyond the "organizing" stage. Today, educational programs are carried on to cope with such problem areas of cooperatives as: Efficiency, transportation, member relations, market development, pricing, and quality control.

Some of the most effective programs of Extension are the seminars for directors based on a pilot project conducted for FES by Oregon State University. In 2 years, 41 States have conducted such seminars and over 12,000 managers and directors have attended. And, many production specialists and county agents work directly with field staff and scientists of cooperatives in such programs as genetics, nutrition, fertilizer recommendations, and farm management.

Much emphasis, too, is being given to mergers and consolidation of cooperatives and cooperative facilities. The pace is quicker and the distances are time-shorter, but the objective of *increasing farm income* remains the same. Farmer-owned cooperatives continue to be an important tool toward this objective.—*Paul O. Mohn, Federal Extension Service* ■

EXTENSION SERVICE
REVIEW
U S DEPARTMENT OF AGRICULTURE ✲ NOVEMBER 1964

HOUSING EDUCATION

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The Extension Service Review is for Extension educators—in County, State, and Federal Extension agencies—who work directly or indirectly to help people learn how to use the newest findings in agriculture and home economics research to bring about a more abundant life for themselves and their communities.

The Review offers the Extension worker, in his role of educational leader, professional guideposts, new routes and tools for speedier, more successful endeavor. Through this exchange of methods, tried and found successful by Extension agents, the Review serves as a source of ideas and useful information on how to reach people and thus help them utilize more fully their own resources, to farm more efficently, and to make the home and community a better place to live.

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EXTENSION SERVICE
REVIEW

Official monthly publication of Cooperative Extension Service; U. S. Department of Agriculture and State Land-Grant Colleges and Universities cooperating.

CONTENTS

EDITORIAL

Housing, whether brand new or remodeled, is one of the accomplishments of our family-centered technological society. The building, remodeling, or the purchase of a house is one of the biggest decisions a family makes.

The farmhouse in particular occupies a unique place in our society. It is home to the family and also the command post for operation of the farm.

Extension's educational work in housing is people-oriented wherever they happen to be. It aims to fit housing to the needs and financial ability goals of the family. In this work Extension is concerned with all aspects from space requirements to landscaping.

The resurgence of Rural America owes much to the increasing effort being put on housing. The building of new houses and the remodeling of old houses puts dollars and people to work. It also makes Rural America a more desirable place in which to live. On farm and in village and town better housing is also a good advertisement for communities seeking recreation income and industry.

Farm and other rural people have over the years shown marked initiative in housing. Today they have possibly a bigger opportunity than ever before to have housing better fitted to their needs and goals. Extension's research-based education is a vital factor in advancing better housing. Educational work in housing is a dynamic and challenging process.—WAL

The Plan Exchange: Our Teaching Tool

by ROBERT O. GILDEN, *Agricultural Engineer, FES*
and STELLA MITCHELL, *Home Management Specialist, FES*

AT LEAST ONCE during a lifetime and often many times more, every person in the United States is interested in housing education. Likewise about every person in the United States is a self-made expert on housing because, after all, he lives in a house. Usually the longer he lives in a house the more he realizes how little he actually knows about housing.

Do we in Extension have an obligation to provide housing education? A number of States say yes we do. It was most interesting for us to check on the legality of Extension in housing educational work. It was equally interesting to note that this authorization or assignment comes right with the administration of the Smith-Lever Act, the mandate under which we have worked for so long. The assignment of functions from the Secretary of Agriculture under which we are now engaged states in part". . . Rendering educational and technical assistance to persons not receiving financial assistance under Title 5 of the Housing Act of 1949, including extension demonstration. . ."

With the tremendous job to be done by the Cooperative Extension Service it is often enlightening to measure the resources allocated to do specific jobs. A measurement of the personnel engaged in housing education is one method of doing this.

From our general observation there is a direct correlation between the push of the specialist staff and program activity. This appears to hold true in housing education as well. Those specialists who have worked intently in housing education have found that it is a dual assignment. The engineering specialist handles the structural and environmental features of housing and the home management or housing specialist handles space arrangements. Because of the role of the specialist in a housing program, we feel that the measurement of specialist personnel engaged in housing makes a good yardstick to measure the allotment of resources to the housing program.

In 1963 it was estimated that the Cooperative Extension Services had 11 man-years of effort from architects or engineering specialists. Of these 11 years, 5 are full time specialists located at Cornell University, Michigan State University, Kansas State University, North Carolina State of the University of North Carolina, and Virgina Polytechnic Institute.

Fortunately, the home economics staff has been able to devote more time to housing and the breakdown is as follows: A total of 28 man-years with half of those man-years coming from full time specialists from Arkansas, Indiana, Kansas, Kentucky, Louisiana, Massachusetts, Missouri, Nebraska, Pennsylvania, South Carolina, Texas, Virginia, Washington, and Wisconsin.

Another way of measuring this is from Extension's Statistical Report of 1962. This report indicates that the time spent by State staff members in dwelling and equipment, amounted to 35 man-years. The time spent by county staff amounted to 129 man-years. If this were equally divided among all States our total time spent on dwelling and equipment would amount to slightly more than 3 man-years per State.

Experience has shown us that the majority of these man-years were spent on equipment and remodeling. The impact of this effort, however, is not as easy to measure as the impact of new house construction.

Let's take a look at house plan distribution and estimated construction from these house plans in 1963. A recent survey of 41 States shows that the limited staff working in housing distributed 27,911 new house plans. Of these plans distributed, 15,399 were prepared through the Cooperative Plan Exchange Service, and 12,277 were house plans prepared within a State. The remaining number were house plans from other sources distributed through the State Plan Service.

The States estimated that slightly over half of the plans distributed were used either "as is" or usually with minor changes to suit the needs of the farm family. From their estimate, about 15,000 of these houses were constructed in 1963. These plans incorporate the latest research findings in space, arrangement, and construction details commensurate with the economy requirements for the house.

The Plan Service is not in competition, nor attempts to be in competition, with standard plan services of private firms, magazines, or industry. We use our Plan Service as an educational tool and as a method of bringing to the people the latest research. They are also used as idea pieces from which to implement our educational programs with farm families.

Looking at this another way—we in Extension have one man-year for each 90 new homes built from our plans. These are certainly conservative estimates because the majority of the time, as previously mentioned,

is spent in equipment and remodeling, not in new home construction. Extension and Research is being looked to more and more to develop plans for homes that will fit into the farm family's repayment abilities.

We can look for greater demands for adequate low-cost housing. Our Plan Service will once again be the tool through which we attempt to answer some of them.

We have attempted to show that the Plan Service for house plans is worthwhile, whether it's from extending the new research findings such as the energy-saving kitchen, or post and panel construction into housing. Whether it's a teaching tool through which we show room arrangements and traffic patterns. Or whether it is an outright service through which we attempt to measure a dollar and cents return. The question might well be raised, how do these plans come about?

The Cooperative Plan Exchange Service has a relatively long history which began in the middle 1930's and was based on a problem. The problem was that no one State could produce enough plans of varied nature to meet the requirements within that State. By pooling resources and knowledge, information from all States could be brought to bear upon specific problems.

At this same time there was a small flurry of research being conducted within the Agricultural Research Service. They too, were looking for some way of getting their results into the hands of people so that it could be used immediately. It was then natural to pool resources of the Extension Services and the Research Services to get the most and the latest information to the people. This problem and this need was focused at that time on farm service buildings.

The United States was subdivided into its Extension Regions: Northeast, Southern, Western, and North Central. Committees of Extension and research engineers were formed in those regions to study, evaluate, and recommend plans for regional adoption. Drafting facilities were established in agricultural engineering of ARS to serve as a National headquarters and liaison group.

The North Central States, feeling that they could better service their own needs, formed their own Midwest Plan Service to work on their service building needs. The need for house plans in their other regions was soon recognized and committees were established to work along the same lines as for service buildings.

The organization of these regional housing committees consists of Extension and Research engineers and home management specialists working in housing from each Land-Grant University within the region. Working with this group is the Clothing and Housing Division of ARS and the Agricultural Engineering Research Division of ARS and the authors of this article.

At present there are two active committees, the Western Region and the Southern Region. The Northeastern Region is in the process of organizing and the North Central Region has yet to act. Each region organizes and functions differently as determined by the group within that region. The meetings have been annual or biennial depending on the wishes of the committee. Our wish and our goal would be to have active committees within each region meeting and working annually.

In order to understand the operation of the Plan Service it might be best to follow the making and adoption of a plan for National exchange and distribution.

Let's take Plan No. 7153, a five-bedroom farmhouse. This plan was first introduced to the Western committee about 3 years ago. It was a plan that had been developed in Utah to meet some specific requirements and was in the Utah Plan Exchange Service.

When this plan was introduced to the Western Committee it was analyzed with regard to filling a need for the States in the West. The entire committee agreed that it was needed, and referred it to a subcommittee for study. The subcommittee, usually comprised of an engineer and home management specialist, either Research or Extension, studied the plan carefully and brought back to the entire committee their recommendations for changes to meet additional requirements or to improve functionalism.

This plan with the proposed changes was then referred to the Agricultural Engineering Research Division and the Clothing and Housing Research Division of ARS at Beltsville. They, too, went over this plan very carefully making certain minor revisions to incorporate latest research results and ran the structural requirements through a stress analysis.

The plan was then drafted into its final form on three sheets of 17x22 tracing cloth. This final drafting was then offset printed on reproducible intermediates and distributed by us back to the engineer in charge of the Plan Service at each of the Cooperative Extension Services. This, then, gave each State a reproductible intermediate from which they made blueprints available to the people within their State.

The blueprint, however, did no good remaining in a file. It soon became obvious that additional steps would have to be taken to let the people know of the availability of these plans. Following through with Plan No. 7153, in December of 1963, a one-sheet Miscellaneous Publication No. 946 was issued. This publication illustrates Plan No. 7153, the five-bedroom farmhouse. Approximately 40,000 copies of this publication were printed and distributed to the States at their order.

This publication was redistributed from the State office to the county office for display and for support in the housing programs. Because of environmental and architectural differences throughout the Nation, each Cooperative Extension Service has what might be called veto powers over each plan. If the plan is completely unsuitable for their region they do not carry it.

Our plans like any other product are not useful unless people know about them. Several years ago we ran a short test with a matte service. We issued six mattes per State illustrating a farm shop plan. We asked the State Extension Agricultural Engineers to measure the return from this matte publicity. The response was gratifying when viewed as one plan in the many that are available. Unfortunately, the expense was too great to develop this type of service to the States.

We then explored other methods and came up with a glossy print service. This consists of a two- or three-column glossy print of the floor plan or perspective of a house plan and includes a suggested news release. These prints are distributed to the States and redis-

tributed by them to the press or to the county office.

In March 1963 this was done for Plan No. 7153. We know that this news release system has some impact as the total plan distribution by all States was up about 25,000 plans in 1963.

Not all plans are developed as Plan No. 7153. Often the regional committee has need for a specific type of house plan. If no one has devoted any resources to this, the problem is turned over to the Clothing and Housing Division and the Agricultural Engineering Research Division of ARS.

They put an architect on the problem and he attempts to solve the need. The preliminary tracings are sent back to a screening committee within the region where they are gone over carefully and changes made. Eventually the architect arrives with the finished plan, incorporating the latest research. This plan then goes into the Plan Exchange Service as, for example, Plan No. 7153.

Plan exchange committees do not devote their complete time to studying plans, they also bring the need for other teaching materials to the front. As a result of this we have had several teaching aids prepared on kitchens and many others are still in the mill.

In discussing our Plan Exchange Service and how we use it as a teaching tool with a group of engineers from the USSR several years ago, they could not conceive of individual families being allowed to make their own decisions regarding house or service building plans. This cafeteria system where the individual could adopt and change, revise, substitute, personalize, in order to meet his needs as he saw them did not fit their system. The Russians said that when they design a plan it is built Nationally. We countered with, "then if you make a mistake, you really make a big one and you also only have the thinking of a small group in the design."

Our plans are tools—they represent the best thinking we can put into them. But we hope and expect them to be improved upon by the changes, often knowledgeable changes, of a great number of plan users in our free enterprise system.

Our plans are only educational tools—not the finished product. ■

House Plans Available From State Extension Agricultural Engineers

Plan No.	Floor Area Sq. Ft.	Slab on Grade	Crawl Space	Basement	No. of Sheets
		No Bedrooms			
7137	468	X			1
7148	468	X			2
		One Bedroom			
7146	1017	X			2
7147	1017	X			2
7154	1032	X			2
		Two Bedrooms			
7122	1122		X		4
7149	2319		X	X	3
7155	1316	X			3
7156	1180	X			3
7157	1267			X	3
7158	1267	X			3
		Three Bedrooms			
7127	1596		X	X	7
7128	1152	X			9
7132	1512		X		3
7134	2347	X		X	4
7136	1781	X			3
7138	1441	X			3
7139	1492			X	3
7140	2090	X			3
7141	2156	X			3
7143	1440			X	3
7144	1440			X	3
7145	1440	X			3
7150	1306	X			3
7151	1356			X	3
7152	2208	X			3
7159	1173			X	3
7160	1173	X			3
7161	1860	X			3
7163	1387			X	3
7164	1403	X			6
7165	1544		X		3
7167	1100	X			3
7168	960		X		3
7169	960		X		3
7170	1081	X			3
7174	1344	X			3
		Four Bedrooms			
7129	2194	X			11
7162	2166	X			3
		Five Bedrooms			
7153	1544			X	3
		Fallout Shelter			
7166	170	Shelter for Six People			1

Recreational Building Plans

Plan No.	Floor Area Sq. Ft.	Bedrooms	Construction	Sheets
5185	400	2	Frame	1
5506	1300	2	Log	2
5507	660	2	Log	1
5928	576	1	Frame	3
5964	480	2	A-Frame	3
5965	720	3	A-Frame	3
7010	640	2	Frame	2
7013	943	2	Log	4

Extension cooperates with industry for

BETTER KITCHENS AND LAUNDRIES

by JEANNE PREISTER,
Extension Specialist in Equipment and Housing, Alabama

—If you're interested in reaching new audiences. . .

—If you'd like to involve more resource people in your program . . .

—If you're interested in a singular program which can be easily adapted to meet the needs of low, middle, and high income families. . .

—If families in your county need to form the habit of planning before new construction or remodeling is begun. . .

. . . then an Extension-industry sponsored program such as a Kitchen-Laundry Improvement (KLI) Program is recommended. Home agents in Alabama realized that they were being consulted when the decorating stage in kitchens and laundries were reached, rather than in the preplanning stage. Hence, kitchens and laundries were actually being planned by carpenters, draftsmen, and architects. These areas then included only a few of the needs of the family, as well as only a few of Extension's research recommendations.

This situation was discussed by State Extension staff members with representatives of the three major power suppliers in Alabama, including numerous Rural Electrification Associations, the Tennessee Valley Authority and its 30 power distributors, and the Alabama Power Company. As a result, a co-sponsored KLI program was begun.

The power suppliers published 15,000 kitchen planning books, 10,000 laundry planning books, 15,000 folders, and numerous posters. Also, home service advisors, rural service engineers, and power-use men have joined the teaching force. So each home agent has at least one professional resource person as well as more resource publications to aid in directing the county's KLI program.

The objectives of the co-sponsored program are as follows:

. For families to know the available resources which might be used when planning new or remodeled kitchens and laundries.

. For families to use resources and make plans prior to actual construction of new or remodeled kitchens and laundries. Hence, families will gain more convenient, time- and energy-saving features for the money spent.

. For Alabama families who participate in this program to improve their kitchens and/or laundries for added convenience, comfort, and attractiveness.

. For families to show others some of the advantages of kitchen and laundry planning which is based on research recommendations with the adaptions necessary to meet the individual family's needs.

Initially 1-day training meetings were conducted by State office staffs of the power suppliers and the Extension Service. Invited to these district meetings were home agents, home service advisors, rural service engineers, and power-use men. The mechanics of the program as well as basics in laundry and kitchen planning were presented. Methods of executing the KLI program were discussed and teaching tools which are avail-

The "before" kitchen in the below-minimum-standard home of a family who enrolled in the KLI program early in planning stages for a new home.

able from Extension were shown.

Home agents then discussed the KLI program with their home economics committees or home demonstration councils. Out of 67 counties 64 elected to participate in the State program during 1964.

Next, home agents invited 10 ladies in the county to serve as KLI leaders. Area training meetings for the leaders and agents were conducted by the specialist and a home economist from the local power supplier. Over 650 leaders attended the 1-day workshop. Some were home demonstration club members, some were Federated Club members, and some were homemakers who had never given leadership to our programs in the past.

Included in the leader's group are retired school teachers, librarians, and social workers. It is thought that serving as a KLI leader will have an even greater appeal to this group, and in the future we'll capitalize on the leadership abilities which many of our retirees possess.

What are the responsibilities of a leader? Foremost is that she will, personally, explain that reliable resource information on kitchen and laundry planning is available from the local Extension Service office. She'll also encourage people to enroll in the program. Two of the KLI leaders visit a homemaker who is enrolled. They score her kitchen and/or laundry prior to any remodeling or building.

The checksheets remind the homemaker of the many desirable features which might be included in her improvements. Checksheets also provide an outline to follow and are used to establish a benchmark so that improvements may be easily measured after the room or rooms are completed. One of the advantages of using such a checksheet is that it is just as useful in scoring a kitchen and laundry in a $10,000 home, in a $50,000 new home, in a 100-year-old remodeled home as it is in scoring those that are in the blueprint stage. The same checksheets may also be used to score a kitchen or laundry in which the enrollee will merely relocate or rearrange the centers to make them more convenient and time-saving.

Seven district Award Days will be conducted in the late fall. At this time the homemaker in each county who has *earned* the most points in the laundry program and the homemaker who has earned the most points in the kitchen program will receive a small electric appliance. The club (home demonstration, federated, community, etc.) that has earned the most points will receive a $25 cash award.

The awards are insignificant; however, they add interest to news releases and to the occasion. Each homemaker who enrolls in the KLI program may invite an interested homemaker as her guest on Awards Day. Then the guest, we hope, will enroll in the next year's KLI program. Slides of "before" and "after" kitchens and laundries are shown during the meeting.

So why an Extension-industry sponsored program? **First of all, the more professional people involved, the more homemakers you'll reach. The more leaders you have to explain the KLI program to homemakers, the more people you'll reach.**

Homemakers and retired professional people like the challenge of serving as a leader in a program that is sponsored by industry. You gain financial support for publications, Awards Days luncheons, and leader recognition. The industry sponsors have purchased ads in many State papers and magazines to inform the public of the KLI program.

The men with the power suppliers who are in areas that have no utility home economists have attended many of the training meetings on kitchen and laundry planning so they are better qualified to offer the personalized service of drawing kitchen and laundry plans for their customers. Home agents are working so closely with the home economists and the men that they seldom have to give this personalized service. Leaders have become very proficient in kitchen and laundry planning; hence, they're actually teachers too.

Even though a general plan was suggested by State staff members, each county has adapted the program to meet the needs of its people.

Alabama home agents and industry personnel have been successful in expanding an educational program. Therefore, more kitchens and laundries are being planned and rearranged by more homemakers than ever before. ■

The interior of the home including the kitchen has been completed. Because the family is doing most of the work the exterior is not finished.

Teaching housing education by

Mass Media

by DORIS OGLESBY, *Head*
Extension Home Improvement
Georgia

WHEN a Georgian says *"from Rabun Gap to Tybee Light"* he really means "Statewide." Rabun is a gap in the Blue Ridge mountains in the north and Tybee Light is a lighthouse on the southern coast. When he says *"Covers Dixie Like the Dew"* he is quoting the slogan of the State's largest newspaper. But if he says *"From Rabun Gap to Tybee Light, it covers Georgia like winter rain"* he means Extension's use of mass media. And he is speaking of considerable coverage when he compares it to winter rain. It's frequent, it's steady, it drenches, it soaks, and it makes things grow!

Our physical setup is conducive to mass media work, and for a natural-born ham it is almost "hog heaven." The University has three television stations which are on the air 5 nights a week. Each night from 7:00 to 7:30 a program called "Growing South" is presented by the College of Agriculture. Each Friday the Growing South program is directed primarily toward women, although our mail indicates that we also have many men viewers. In addition to these stations, five commercial stations regularly carry at least one Growing South program per week and another, although not on the regular schedule, carries many of them.

Now, let's get around to housing programs. Since I enjoy television, I probably take more than my share of time. I have done shows on kitchen planning, wiring, lighting, cabinets, countertops, floors, doors, house planning, materials for a house, built-ins, and appliances in the news—to mention some. A few of the shows are "one shot deals," and I think they can be very effective as interest and attention getters, if nothing else. I try to choose subjects for these single shows which will be of interest to viewers whether or not they own a home or have plans to build or remodel.

Most of the shows are in series — sometimes two or three—but most often four, five, or six. I like to have one series in the fall and another in the winter or early spring.

I am the one who decides on content. But about a week before the first show, the producer, director, and I sit down together and decide who the audience is to be and how best to reach it with the material I have.

We use different kinds of props. Miniatures are very good in some areas, particularly kitchen planning. When possible I like to use the real thing, and am probably the champion borrower of Athens. We are allowed to thank the lenders on the air. We use flip charts liberally, and we also use slides. Rear screen projection of slides is a good backdrop for a set and we like to use them for housing programs. We pick those which have furniture similar to what we have available; it looks as if we are in the actual situation.

I have a personal aversion to wide use of charts and statistics on television, especially for consumer information shows, which all of mine are. Often charts tend to be amateurish. I think a show should sparkle, and it is pretty hard to find sparkly statistics!

Last year I did a series called "So You're Going to Build a House," and offered a publication by the same name. On the rear screen we used a slide of an Athens home. As the announcer entered each time, he carried a large book with the same picture on the front, plus the title. We used it for every show in the series, reviewing the previous programs, taking up the new aspects, and previewing with the last page. It was certainly effective and in a short time we had over 5,000 requests for the book, many as a direct result of the series. Slides of the drawings in the book were made available to the counties.

Television isn't the only medium: we make great use of radio. Someone on the home economics staff is on about 45 stations every weekday for 5 minutes. We take turns, a week at a time, and the programs are taped far enough ahead of time so mimeographed copies of the script can be sent to agents. Response from stations and listeners has been gratifying.

In housing I usually have the entire week's tapes on the same general subject and have covered such areas as air conditioning, cabinets, hardware, countertops, floors, lighting fixtures, plastics, windows, doors, prefabrication, climate control, built-in vs. free-standing appliances, finishes, space, bathroom planning, storage, and materials. When I have radio tapes at about the same time that I have television, I try to keep them in the same vein.

On the early morning Dixie Farm and Home Hour, Thursday is homemaker day, and even though this is primarily a farm program, our mail indicates that on Thursday, at least, we are also reaching urban people.

Newspapers are also useful in teaching housing. Each time that I have a week's radio tapes I also write a feature article on the same subject which is sent to about 190 weekly and 26 daily papers. Another regular feature, *Consumer Buy-Lines*, is written in turn by the home economics specialists. It takes the form of questions and answers and is carried by many papers.

In addition to using all three media to emphasize one subject, we use one to advertise another. For example news releases advertise television programs and publications; radio releases sent to stations throughout the State advertise television and publications. The schedule for the University TV stations is published every day in the main papers of the State, and a monthly schedule is available to anyone who will ask to be put on the mailing list.

For me, wide use of mass media is the very best way to teach housing. How else can one idea be so widely circulated as through 9 television stations, 45 radio stations, and 50-100 newspapers? If you aren't already doing so, try it. I can give you a simple formula for success, too—*Pick your target, keep it in sight, aim high, shoot straight, and try to do a bang-up job!* ■

Housing Task Force

by GLADYS M. LICKERT, *Kentucky Housing Specialist*

KENTUCKY'S housing problems are being attacked by a Task Force and the opening battles have already been won by arousing widespread interest in the State's housing needs.

The Housing Task Force originated with the Kentucky Development Committee, which is made up of almost all major Statewide agencies and groups that provide development services for Kentucky. Thirty-seven different organizations are members of this committee, with each participating voluntarily in terms of their own program interests and responsibilities.

The Committee, which was organized to help coordinate the development services of these groups, has set up an organized approach to help overcome local development problems. The State has been divided into 24 districts; and councils, made up of outstanding leaders, have been organized in 17 of these districts. The purpose of these councils is to help determine problems, find solutions, select local leaders, and assist in development programs.

After making a study to determine Kentucky's major development problems, the State Committee decided to concentrate efforts in eight priority problem areas—one of these is housing. The other seven are: local organization for development, water and sewage systems, enterprise development, tourist industry development, forest and timber industries, community health facilities, and agricultural enterprise development.

The State Committee then selected subcommittees from its membership to work in each of these eight problem areas. Each subcommittee was directed to plan a training program for and give guidance to Task Forces or technical service teams, who would meet with district councils and help them plan local programs.

The Housing Subcommittee is made up of representatives of the following groups: Extension Agricultural Engineering; Home Economics Extension; Federal Housing Administration; Farmer's Home Administration; Kentucky Rural Electric Company; Home Builders' Association; and loaning agencies, such as the Bankers' Association, Building and Loan, and private loan firms.

The Housing Subcommittee first collected background information to aid their training program. It was decided that in order to help meet the housing needs of Kentucky families the Task Forces would need the following information.

1. Housing needs in the different areas.
2. Characteristics of those with serious housing needs.
3. Restrictions, if any, on opportunities to obtain satisfactory housing even if sufficient funds were available.
4. Ways of providing adequate financing for which the very low-income families can pay.
5. Possibilities for building and remodeling homes for people in different income categories.
6. Special opportunities of housing for the aged.
7. Possible benefits from enforcing good housing codes. How can it be done?
8. Assistance needed to help low-income families with income management.

To provide training for the Task Forces in these areas, the subcommittee set up a workshop in January 1964. About 150 interested persons attended this 3-day workshop which was held in cooperation with the East Kentucky Electric Cooperative Corporation. The workshop was conducted by technically trained personnel, who presented subject matter specifically concerned with these two objectives.

1. What are the opportunities for substantially improving the housing of low-income families? How can more adequate housing be provided for such families at lower costs? How can reasonably safe, spacious, healthy, more comfortable, and convenient housing best be provided for families of very low income? How can we reduce construction costs of such housing?

2. How can more adequate financing be provided in rural areas? What are the opportunities for providing readily available loan funds from 90 percent or more of the cost of homes in all the rural areas in the State at rates comparable to those paid in cities?

The Task Forces then were organized for work in the districts. Each Task Force consisted of an agricultural engineer, a home economist, an expert in housing finance, and a local Extension agent whose assignment was to present the situation in that particular area. The Task Forces conducted meetings in the 17 organized districts in March 1964, with an average attendance of 40 leaders at each meeting. At each meeting the Task Force members:

—gave more exact definition to the problems involved;

—reviewed every type of assistance available;

—appraised local capacity to meet requirements of assistance programs or gave information on how to act without them;

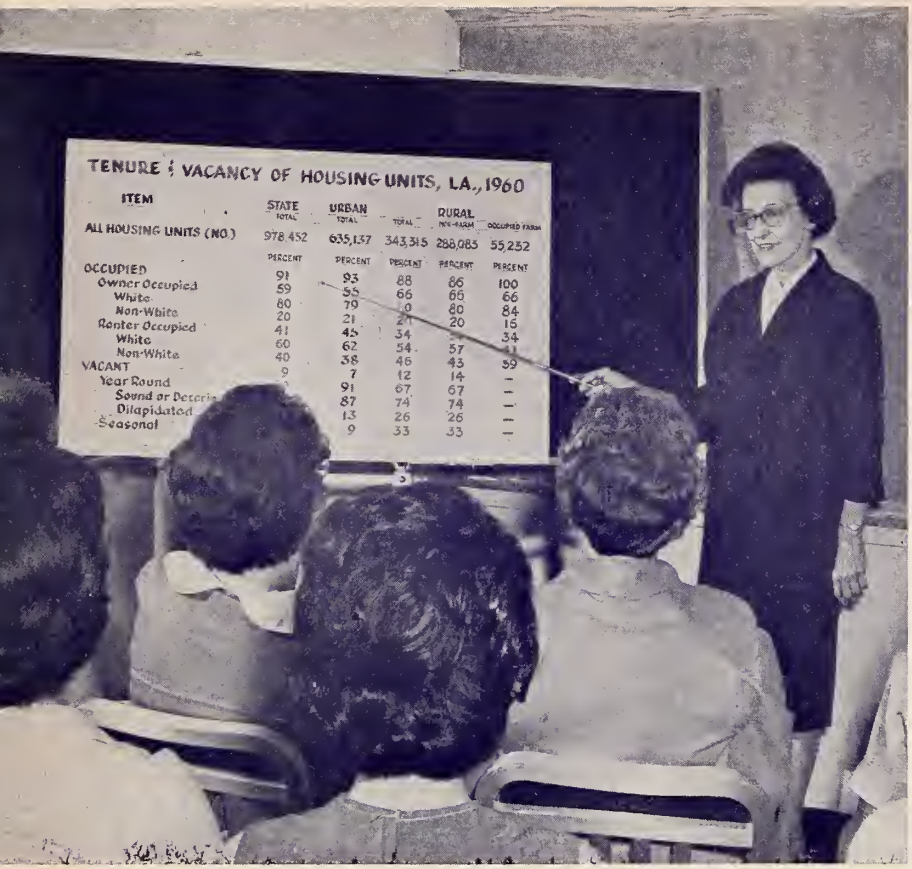
—where possible, identified a project that could be successfully completed, outlining programs to be used, information needed, and action steps to be taken; and

—drafted a workable overall program for future action.

The major purpose of these meetings was to stimulate enough interest among the leaders that they would promote housing programs in their local communities and counties. The Task Forces made clear to the leaders that follow-up assistance would be available on request.

Evidence of favorable results from the Task Force effort is already appearing. One county, for example, has set up a series of monthly meetings on such topics as home planning, construction techniques, low-cost building materials, landscaping, and decorating.

The "victories" expected from the Task Forces' "battles" with Kentucky's housing needs are better understanding and cooperation among the State agencies and more families given the technical help they need to improve their homes, such as financial assistance for remodeling or for building new homes; aid in obtaining low-cost house plans designed for efficiency, information on low-cost building materials, construction techniques, and landscaping; and help in decorating and beautifying their homes. ■



Mrs. Bryson presents Louisiana housing data at agent training meeting.

IN-DEPTH STUDIES

determine housing need

by BERTHA BRYSON
Louisiana Housing Specialist

and EFFIE LOFTON
Tensas Parish Home Agent

EXTENSION AGENTS in Louisiana realize that personal knowledge and observation alone, however valuable, cannot furnish enough information on the housing situation in a parish (county) to provide the basis for an effective, meaningful Extension program. This was clearly revealed when agents in several parishes began making depth studies in housing to improve their knowledge of the housing situation and their ability to determine program objectives.

In August 1962, shortly after the housing census information became available, the State agent in home economics asked four specialists, including the housing specialist, to present timely home economics information of a Statewide nature to State, area, and parish supervisors, of the Farmers Home Administration at a series of area meetings.

The four decided to present the latest research information in different areas of home economics. The housing specialist gave both the research findings in kitchen planning and storage for the home and the specific data available from the Census of Housing for Louisiana.

Data from the Census for Louisiana were presented in chart form showing tenure and vacancy status of residences, plumbing, water supply, bathroom facilities, age and structural characteristics, types of fuel for cooking and heating, types of selected equipment, and related information. Since large figures are not as meaningful, the data were presented in percentage form.

This same review of the housing picture was given to home demonstration agents at agent training meetings which had already been scheduled for all districts in Louisiana. They were also given copies of the mimeographed data and were responsible for passing this information along to other members of the parish staff.

It was suggested at these meetings that each agent study similar data regarding her own parish. Depth studies, in which the entire parish staff assisted, were made in three North Louisiana parishes in 1962. A careful study of the 1960 Census for Housing for Louisiana pointed up many facts of which agents and parish advisory committees and had not been aware.

Further information was gained from interviews with individuals, from organized groups and agencies, from parish records, and through questionnaires.

The following is used in making the parish studies.

At the first planning meeting in the parish where a study is being made, we discuss information needed, possible sources, and methods of gathering it.

After the agents obtain figures from the census; parish records; builders' reports; and other agencies, groups, and individuals in the parish; the information is analyzed and implications for program objectives are determined.

Plans are then made for the agents to present the information to the Housing Advisory Committee. This committee is usually composed of interested families, a builder, a contractor, a member of the Police Jury, a member of the School Board, the FHA supervisor, a home furnishings and appliance dealer, the Health Unit sanitation officer, a garden club member, home demonstration club members, representatives of electric and gas suppliers, and other resource people. The home demonstration agent serves as advisor.

Tensas Parish in northeast Louisiana, was one of the three in which such a housing study was made. The results, as presented by the Tensas home demonstration agent, show the kind and variety of information that is available.

Tensas is a small, largely rural Mississippi River Delta parish with a total population of 11,796, of whom 4,128 are white and 7,668 are nonwhite.

According to the 1960 Housing Census, there are 3,616 housing units in Tensas Parish. Of this total, 3,100 are occupied, 37 percent by whites and 63 percent by nonwhites. Approximately 66 percent are rural nonfarm dwellings and 34 percent are rural farm.

There is an average of 4 rooms and 3.2 persons per house. In the parish, 20 percent of the houses are less than 10 years old, 50 percent are from 10 to 30 years old, and 30 percent are more than 30 years old.

Approximately half of the houses have piped water and complete bathroom facilities. Fifty-eight percent of the homes are heated with butane or natural gas, 41 percent with wood, and 1 percent with kerosene.

Almost 70 percent of the families have some type of washing machine and 6 percent have dryers. A third of the families have home freezers and telephones. Over half have one or two automobiles and a few have three. Twelve percent have air conditioning and about 60 percent have television.

The extent of home building and improvement in Tensas since the 1960 Census is indicated by data from other sources. Records show that 78 building permits were issued during the past 3 years for new dwellings in the three towns. Farmers Home Administration records show loans for 19 new houses and loans for repairing 18 houses. Parish Agricultural Extension records show assistance given to 81 families with plans for building or remodeling.

A 1963 survey of 172 families in Tensas Parish shows that 44 percent of them plan to remodel within the next 5 years. About half of this number expressed a desire for information on kitchen planning. More than a third wanted information on family rooms, storage, bathrooms, laundry, and carports. A fourth wanted information on patios, flooring, and interior walls.

Mrs. Effie Lofton interviews a homemaker during the study on housing.

According to this survey, 11 percent of the families plan to build a new house within the next 5 years. More than two-thirds wanted information on house plans, kitchen planning, flooring, storage, and bathroom planning. More than half wanted information on heating and cooling, carport and outdoor storage, interior walls and roofing, and insulation.

Almost half wanted information on exterior wall construction, termite control, wiring, patios, and sewage systems. Other topics on which information was wanted included landscaping home grounds, home furnishings, insurance for house, home financing, and fire protection.

The associate home demonstration agent in Tensas reported that a recent survey among 326 4-H Club members showed that 45 percent had their own bedrooms. Of the remaining 55 percent, 72 percent shared a room with one person, 19 percent shared a room with two persons. The rest shared a room with three or more.

Eighty-nine percent of the club members had a closet in their bedrooms and 67 percent had a study desk. About three-fourths used study lamps, but bare bulbs were used in over half of the lamps.

Following these reports, the Tensas Parish Housing Advisory Committee recommended that more work be done to supply information in the following areas.

1. Number of rooms and room arrangement in house plans. 2. House plans and specifications. 3. Foundations construction. 4. Kitchen Planning. 5. Water systems—water softeners and fire protection systems. 6. Sewerage and sanitation. 7. House wiring. 8. Better lighting. 9. Insulation. 10. Central heating and cooling. 11. Good construction methods and good materials. 12. Storage. 13. Termite control. 14. Landscaping—planning and soil preparation.

Definite program objectives were developed from the recommendations of the housing advisory committee and from a careful study of all available data. Teaching objectives for the coming year and tentative plans for emphasis during the following 3 years were outlined.

Other parishes in Louisiana now are taking a better look at the housing situation through use of depth studies. ■

REMODELING OLD HOMES

by EARL R. BELL
Extension Building Specialist, Oklahoma

In Oklahoma, did our grandparents build all the houses with 14 foot lumber? We have reason to believe they did, and the "oldtimers" have told us why. They say that longer than 14 foot material fell off the back of the 8-foot wagon bed when the lumber was hauled over rough dirt roads for considerable distances.

With all the problems Grandpa had, he still in many cases built a structurally sound house. We are talking about the years before 1935 when the "nonconformity era" began.

Many of these old houses are still in fair condition. Especially those belonging to the hardy pioneer stock families who were proud of their heritage and took care of the old family abode.

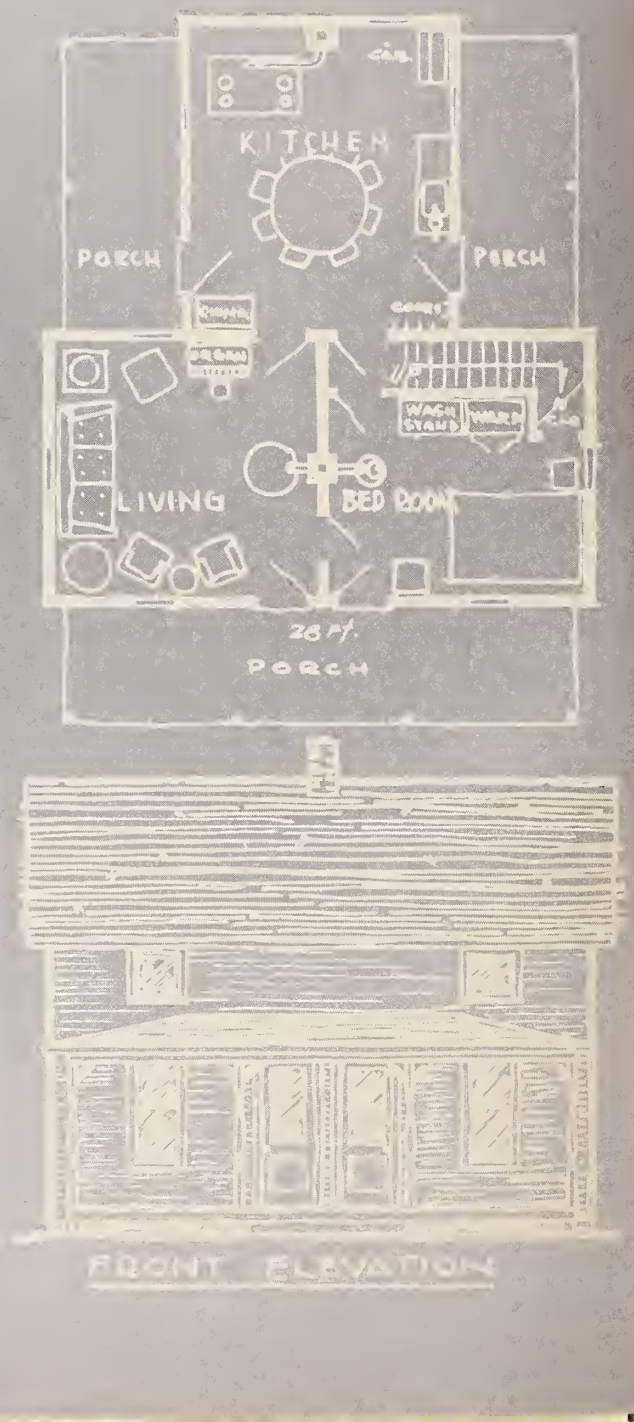
There are in Oklahoma four basic house design types built in the 40 to 50 years before the thirties. These types can be classified as follows: Type I—Model Tee, 1880-1919; Type II—One-Story Tee, 1890-1919; Type III—Box House, 1900-1920; Type IV—Bungalow, 1920-1935.

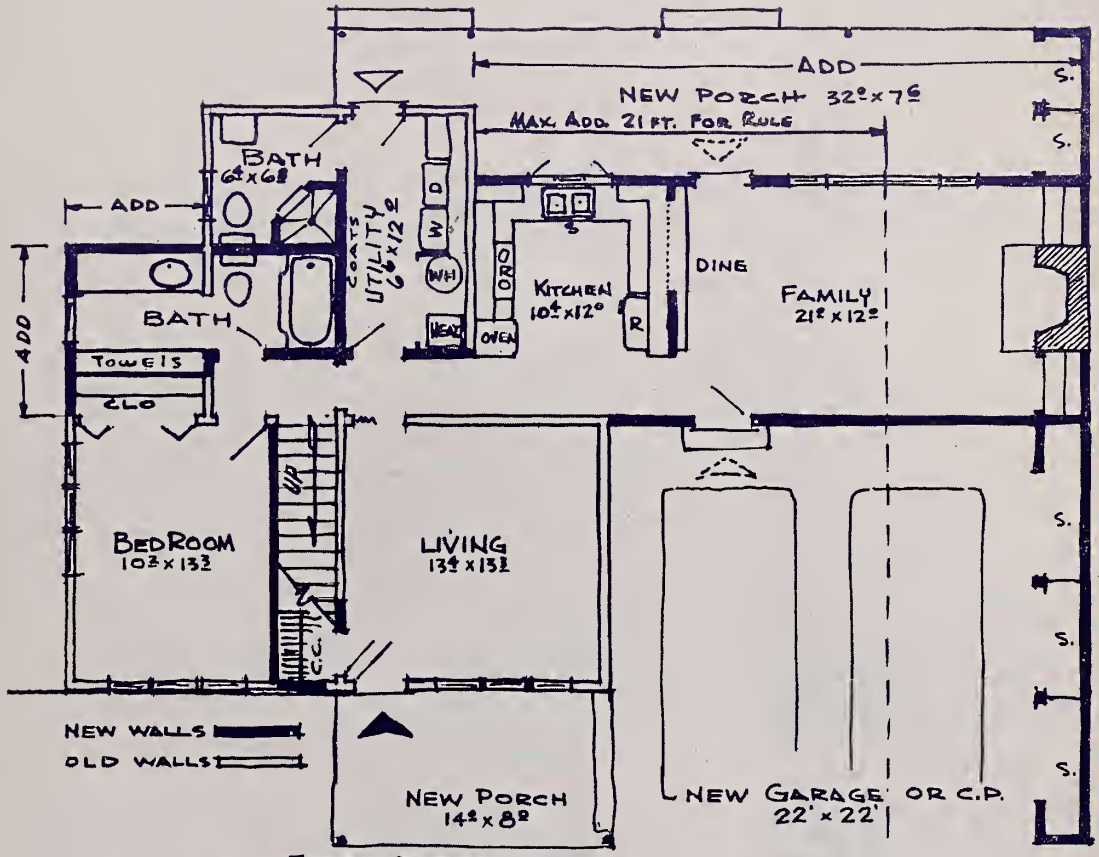
The design ideas came with the settlers but the transportation dictated the material length and consequently the living space of the family. It is with this simple classification that one can, with very few exceptions, lay out the original plan without visiting the site.

Remodeling these houses to fit today's living standards can be accomplished nearly always by correspondence with the family or Extension agents.

The needs are always about the same. A new or better location for a bathroom, a new kitchen and provisions for storage which was seldom built-in and is always inadequate for family activities of today. Space for family living has been secondary in need although called for by most families today.

(Continued on page 198)

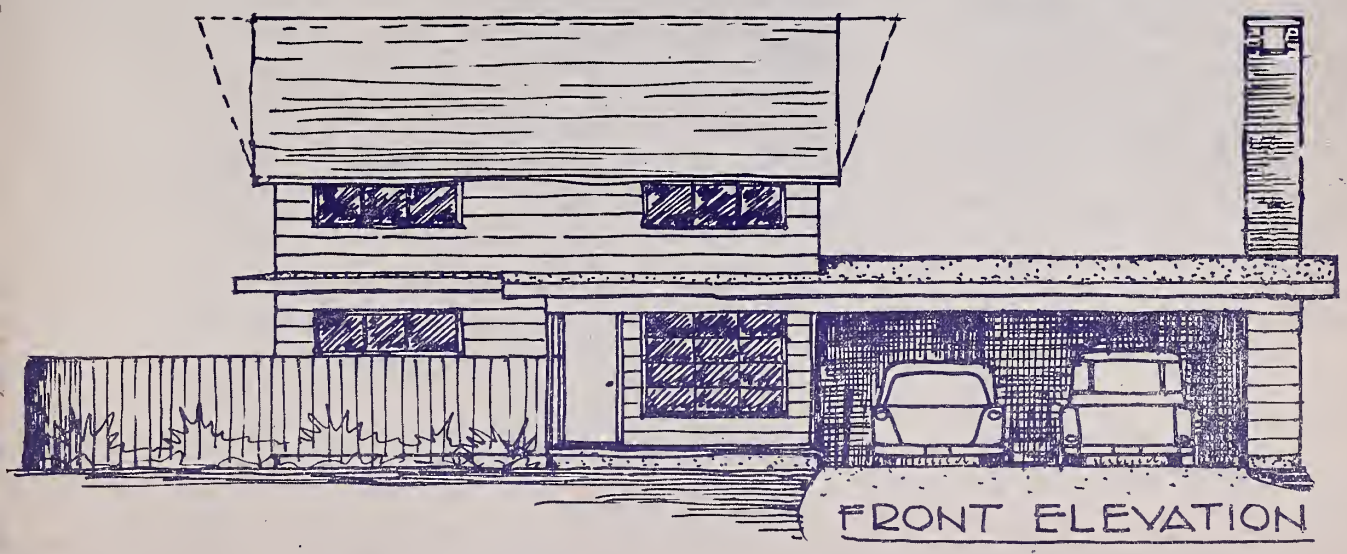




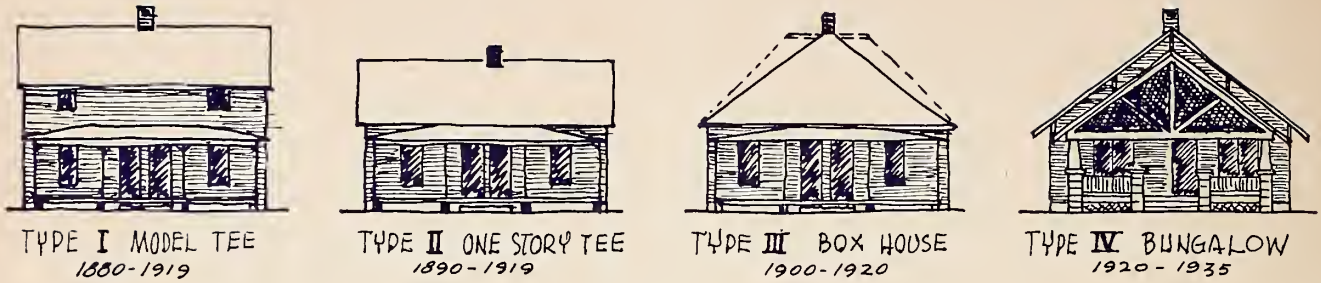
FIRST FLOOR

REMODEL FLOOR PLAN

SCALE 0 5 10



FRONT ELEVATION



This needed space is never in the basic design provided by the four types and must be added on to the present house. But, based on a theory of economics, it is never recommended that farm families add more than one-third the square foot area of the present house or a cost of the complete remodel of 70 percent or more of the estimate of building the same space and facilities in new construction.

There are several other considerations one must make in remodeling types I, II, and III in particular. The side wall heights were always high and exterior remodeling is necessary to lower the appearance. By using predominant horizontal lines, for instance, one-story additions, flat roofs, wider overhangs, white "sky reflective" asphalt shingles, and privacy walls or fences, one can lower the apparent heights. Use of these may be noted in the illustration for the remodeling of the "Model Tee."

Oklahoma housing may occupy a unique position in that we are a young State and have not had the long-time tradition of many States. We feel that this has been an aid in our housing program.

The information gained from the observation that housing classification is possible and how remodeling can be done has been of great value for Extension agents in helping the people of Oklahoma help themselves to better living. ■

Low-Cost Housing

by EVELYN SEVERSON
Extension Building Development Specialist, Arkansas

"WHAT A spacious and livable house you have," is a typical remark made to Mr. and Mrs. Fred Kennedy by many of the visitors to their new home in Cleburne County, Arkansas. This house which is located 11 miles from Heber Springs and 6 miles from Quitman was built for less than $6,000.

The Kennedy's chose Extension Service Plan No. 617704—a modern compact, three-bedroom, two-bath plan containing 1,344 square feet of living space. The house plan was adapted to their needs. Since they were building an all electric house, they omitted the exterior storage space and placed their automatic washer in this area with the exterior door opening into the living area of their spacious living-kitchen. This room is 14'6" x 23'6" in area.

A drop-in range with cabinets at each side and a breakfast bar to the back of the range form an island that separates the kitchen from work areas and the family-living area. Prefinished Philippine mahogany panels were used for the walls of the living-kitchen. The cabinets were constructed of ¾-inch birch plywood. A laminated plastic counter topping was used on the work surfaces and the floor was covered with vinyl asbestos tiles.

Hardwood floors were used in the living room and the three bedrooms. Sheetrock was used for the walls of these rooms.

Mr. and Mrs. Kennedy stated that they spent $1,000 for hired labor, approximately $4,000 for building materials, and $1,000 for heating, plumbing, and kitchen equipment. Nine thousand board feet of lumber was taken from their farm.

Mrs. Kennedy assisted with much of the construction. For example, she painted the outside of the house and sanded and finished the hardwood floors and the birch cabinets.

Mr. Kennedy is an electrician. He wired the house and helped with the installation of the ceiling tiles. The house has 240 wiring, 16 house wiring circuits, and 12 heating circuits.

All necessities for living in comfort are contained in the Kennedy's new house. They are rightfully proud that by hard work and careful planning they were able to build the house they wanted for the amount of money they wanted to spend. The lumber from their farm and their own labor reduced the cost of their house at least $4,000. ■

Challenges and opportunities are met through the program building process which is concerned with people as well as subject matter.

County Housing Program Committee

by LAURA J. RUSSELL, *Area Housing and Home Furnishings Specialist*
and LILITH FLEISCHER, *Parker County Home Agent, Weatherford, Texas*

BECAUSE houses are for people and because the Extension Service is county-, community-, and family-centered, a committee of leaders can render greater service by considering the total situation in the county and the effects of this situation on people. This committee, comprising leaders representative of the county and of the building industry, studies the levels of housing existing in the local situation. They have been selected by the larger County Program Building Committee because it recognizes housing as a problem of major concern.

When a meeting date is set, the county home demonstration and agricultural agents and the housing specialist appear before the committee to project the scope of housing and its influences on citizenship and society and democracy. The use of county background information to create an awareness of these influences brings into focus the problems, the challenges, the opportunities.

With a broader concept of housing, the committee now devotes further studies to the county situation in depth. Members think on it and discuss it with friends, neighbors, and other leaders.

Again the committee meets, this time to identify major problems and to agree on long-range objectives. Based on these objectives, a goal is established for the ensuing year.

Typical of this approach, the Parker County Housing Committee chairman, O. T. Davis, presided in developing the county program. He involved all members of the committee in planning the activities for the year.

Decisions were made by the committee as to what would be taught, how the points were to be taught, who would give the leadership, and when and where the educational program would be presented. In October 1963, the committee held a third meeting to determine the methods for evaluating accomplishments of the planned program.

The following month the housing committee chairman reported to the County Program Building Committee on the program developed by his group. The plan was approved by the larger county group.

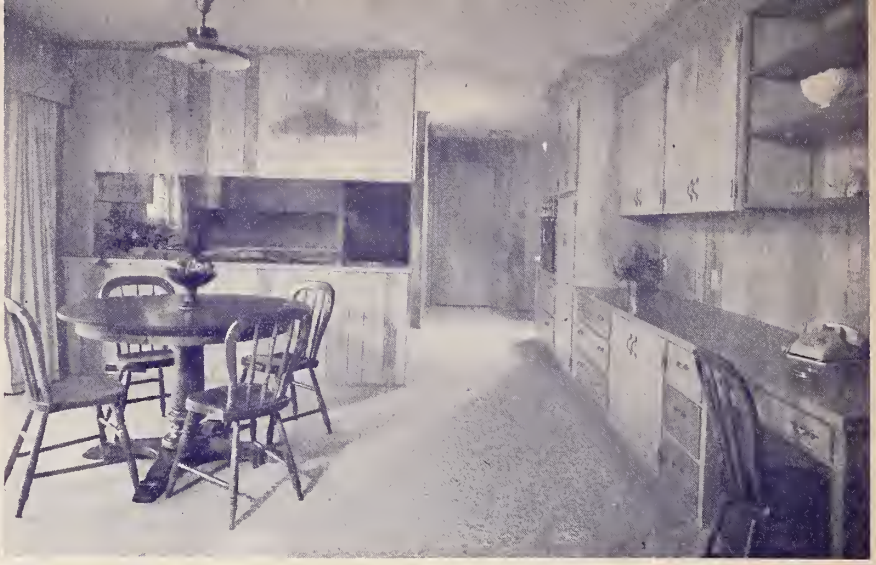
Coordinated with the housing program were resources of farm and home management, family life education, and civil defense. Throughout the development and execution of the program, the Extension information specialist provided mass media material to publicize the activities and accomplishments.

As a result of observations by the committee and the agents and the use of a checksheet, the accomplishments and progress were measured. The accomplishments and progress gave great satisfaction to the committee members and agents, and became the basis for establishing future goals toward obtaining the county objectives.

In summary: Under the leadership of Extension, people were involved in recognizing problems and opportunities, audiences to be reached, needs of these audiences, establishment of goals and objectives, a plan of activities, and evaluating effectiveness of the program

Since county program building is the involvement of people in recognizing and solving problems, it is a process of training agents and committee members to provide resources and to solve housing problems that meet family needs and preferences for the money invested. These were the considerations given by the Parker County Housing Committee.

Challenges and opportunities are met through the program building process, which is concerned with people as well as subject matter. ■



The family room-kitchen-dining room combination in a demonstration house.

North Carolina Housing Program

by CHARLOTTE WOMBLE, *In Charge of Housing and House Furnishings and* W. C. WARRICK, *Agricultural Engineering Specialist, North Carolina*

THE oft-quoted statement from the Smith-Lever Act—"to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage the application of the same"—gives authority for doing rural housing work. One of the nine broad areas which Extension has outlined to be covered in its program at the State level is family living, and better housing is one of the main dimensions of better family living.

The housing and furnishings specialists in North Carolina see their overall responsibility as an educational program to bring about behavioral change in people necessary to effect better housing. It is the belief of the housing and furnishings staff that just a house does not meet all the family needs and goals. The house must be decorated and furnished to meet the family's physical, aesthetic, and status needs.

The ultimate aim of the housing program in North Carolina is to provide better housing for all its families. In order to attain this goal, many methods are being used.

The Demonstration Housing program and the county Program Building Committee are two cooperative methods which have contributed to the overall program.

Each method involves the State specialist staff, county professional staff, and a team of interested people in the local community as well as other Federal and State agencies.

Demonstration housing program

The demonstration house is an excellent teaching method. The purpose is to plan, construct, and show to the people in the county and State a well-planned, convenient, comfortable, and attractively-decorated home at reasonable cost. The house is designed to meet the needs of an individual family and to incorporate research findings which make for better family living.

In most cases, the first discussion with the family is originated by contacts with the home economics agent. It is only natural, of course, for the home economics agent to show a special interest in housing because of her basic concern for family living. However, the most successful demonstrations have been cooperative between home economics and agricultural agents. The county staff assumes the responsibility of explaining the program and what is expected of the participating family.

The selection of the family is very important. It must be willing to cooperate with the county and State staffs if the program is to be successful as a teaching method. The family is expected to keep records of expenditures and to allow the records to be used by county and State staffs for teaching purposes. The family must agree to complete the project and to allow it to be shown to the public.

The agricultural engineering specialist and the house furnishings specialist meet with the family and one or more members of the county staff. They discuss (1) the stage of the family in the life cycle, (2) the family's needs and wishes, and (3) any special areas desired to be included in the plan. The group also discusses site selection, building plans, and financing.

Extension house plans, which are on file for distribution, are used as guides for study by the family. Sometimes minor changes can be made to an existing plan in order to meet the family's specific needs. If a new plan is necessary, the agricultural engineering specialist has full responsibility for drawing one to meet the family's needs.

The actual building is done by local contractors of the family's choosing, or sometimes by the owner.

The county staff is in constant contact with the family for consultation on all problems. Plans for furnishing and decorating the house are in progress as the building is being done. Many learning experiences for agent and homemaker result.

Planning of color and selection of appliances, fabrics, carpets, and accessories — all become important to the family. Some furniture needs to be refinished, and it may be desirable to buy some new pieces. It is amazing how well the old furnishings can be fitted into the new house if a little elbow grease and ingenuity are util-

ized. Most homemakers make their own draperies.

The Horticulture Department at North Carolina State or a trained county Extension worker develops plans for landscaping the yard.

After the house is finished, the county staff and family plan for an "open house." The date for this event is set as soon as possible after the family moves into the house. Most young couples have open house with only a suggested plan for furniture in the living room and dining room. In such cases, the purchasing of furniture is part of the family's long-range spending plan.

Open house is a big day for the family, the county staff, and everyone else who has contributed to the project. Publicity is given by means of newspapers, radio, and television. Hours for the event are set for both afternoon and night. Members of the county staff, home demonstration clubwomen, or relatives explain or demonstrate features of the house to visitors. This makes for more positive teaching than that afforded by the casual walk-through.

A brief story about the family, an itemized cost of the house, and other information is printed in leaflet form for distribution to visitors and to county offices over the State.

Open house is not the end of the project. Once a demonstration house is officially "open," it is always a demonstration house. The houses and plans are used in other ways, such as for magazine and newspaper articles, television programs, and visual aids for State and county departments.

During the years that the program has been in progress, the procedure has changed very little. Styles of architecture have changed, and materials and the techniques of building have likewise changed. The houses have varied from $3,400 to $24,000.

Demonstration houses have contributed to the total housing program as a means of (1) motivating people, (2) developing new plans, (3) training agents and leaders, (4) involving the entire county staff, (5) involving people in commercial fields, (6) involving Federal and State agencies, (7) obtaining visual aids, (8) integrating research findings, (9) providing material ideas for State fairs, and (10) using the interdisciplinary approach to solving problems.

County housing committee

In early 1962 more attention was given to involving lay people in county housing programs. Wayne County, located in the coastal plains of North Carolina, had about a 25 percent increase in population during the Fifties, while the total coastal plain increased only 11 percent. Seymour Johnson Air Field had been activated at Goldsboro, the county seat. Wayne County is progressive in both agriculture and industry. Extension in the county was doing some effective work on housing, especially with the Farm and Home Development program. Requests for specialist help indicated a need for a dynamic housing program in the county.

A conference was held with the home economics agent concerning formation of a housing committee. She accepted the idea, and plans were made for a later discussion with entire county staff. The social action process was underway as the concept of the committee spread.

The entire county Extension staff met with the rural housing specialist and a specialist from housing and house furnishings. A discussion of past work in housing pointed up the need for more planning, and it was agreed by the staff that the committee concept was good. A dairy committee was already functioning effectively in the county. The staff agreed that the home economics agent would be the leader in planning. The appointment of persons with appropriate qualifications for membership on the committee was discussed at this staff meeting.

A group of about 18 people already involved in the homebuilding industry, related industry, civic organizations, and the County Home Demonstration Council, was appointed to the committee. For those who earn

This Nash County farm wife enjoys the kitchen in her demonstration home.

This 1961 demonstration home was the subject of TV and radio programs.

their living mainly through service to the building industry, an assignment such as this was quite interesting. Here was an opportunity to promote community improvement along with improved business.

Louis P. Lundborg, Vice President of the Bank of America, in his book, *Public Relations in the Local Community*, says: "The most effective public service is often based on enlightened self-interest. Nowhere is that more true than in the community field. Community relations undertaken solely for selfish purposes may backfire but where the enlightenment is at least as great as the self-interest, both community and self may profit."

The committee was called to meet in January 1963. First there was an introduction of those present, and the purpose of the meeting was stated. The role of Extension and the role expected of group members were explained. After this, data from the census on housing conditions in the county were presented by the home economics agent.

The group analyzed the data and pointed out some areas of problems. At this meeting the specialist mentioned ways that those present might contribute to housing improvment. Expression was made of the real service this group could render in promoting better housing.

The group committed itself at this meeting to work with Extension in a county housing program. Plans were made for a subsequent meeting, and a subcommittee was appointed to set some tentative objectives for presentation to the group at that meeting.

At the next meeting the group organized and elected as chairman a former Extension agent who was then working with a bank. This choice for chairman has proved to be very fortunate.

A constitution and bylaws were adopted by the committee. These delineated the objectives of the committee, its authority, tenure, and replacement of members. The specialist and Extension agents have worked closely with the committee in training them to plan and conduct activities that would be directed toward bringing about better housing in Wayne County.

Activities planned and conducted by the committee have been gratifying. In 1963 one of the outstanding activities was a home show. At this there were building materials and furnishings exhibits, plus some accompanying classes in an adjacent building on housing subjects.

Participation was good enough to warrant using a tobacco warehouse for the home show in 1964. This show was sponsored in cooperation with the Junior Chamber of Commerce, thus involving more people. More than 9,100 people visited the 50 exhibits. Needless to say, the committee has already begun thinking about greater things for 1965.

With the enthusiasm of this group, continuing housing progress can be accomplished in Wayne County in housing. The specialist and agents will direct and coordinate activities of this committee toward accomplishing the objective set by the committee. They will help identify clientele, analyze problems, symptoms, and causes so that available resources can be employed to eliminate the problem.

Several other counties in North Carolina are beginning to form housing committees. These committees vary in the characteristics of the members and in methods.

It has been demonstrated clearly that the committee concept is a salient feature of effective Extension teaching. Surely subject matter is important, particularly to specialists but it is worthless unless an environment is created for its acceptance.

A well-planned utility room is one of the main features of this home.

House plan service

The North Carolina Cooperative Extension Service maintains a free house plan service to residents of the State. This service consists of USDA plans and plans developed by the North Carolina Cooperative Extension Service.

Plans have been selected and developed that meet North Carolina family needs and wants. Many are consistent with Farmers Home Administration standards. During fiscal 1963 Farmers Home Administration made 1,439 housing loans in North Carolina. Of these, 259 were made on Extension plans.

Extension and Farmers Home Administration cooperate closely on plans, and many demonstration houses have been financed by Farmers Home Administration. ■

House Plan Service Can Be A Valuable Educational Tool

by WAYNE B. RINGER, *Extension Agricultural Engineer, Utah*

FOR MOST people the home represents the largest single nonbusiness investment they make in a lifetime. When this home is also the operations center of a farmstead, the family likely will have only one opportunity to realize the fulfillment of their housing dream.

Homes can and are being remodeled to satisfy family needs, and often there is no other alternative for the farm family. Still the economic benefits of thoroughly planning a home prior to ground-breaking cannot be overemphasized. Remodeling the old home often requires one to compromise on plans in relation to family needs, efficiency in use, and architectural design.

The Cooperative Plan Exchange and the State Plan Services have provided working drawings as valuable guides to prospective homebuilders. Current research data, directed toward stretching the housing dollar to get the maximum in comfort, efficiency, and style, are incorporated in the drawings.

Ideally, each home buyer develops a plan around his personal family needs. It is not economically possible for all to employ professional services nor is this assistance always readily available. So many are solving their problem in the next best way.

From the house plans offered through the Extension Plan Service or other sources, some select a design which most nearly satisfies their housing requirements. Unfortunately, the big majority of homeowners were not involved in selecting their dwelling plans; they generally made a choice from homes already built.

If people are to benefit from the plan service and accompanying research data, they must be aware of its existence. An illustrated catalog of house plans has been prepared in Utah and circulated to county agents, Farmers Home Administration offices, private lending agencies, building suppliers, and rural builders. These are likely to be the first contacts made by those in the market for new dwellings.

House plans are featured in ewspapers and on the radio and television. Even though we have made persistent efforts to publicize these plans, many people are still unaware of this help. Our information campaign is effective only as people have a need for that which is offered. This emphasizes the need for a continuing information program.

Orders for plans are normally handled through the county agent's office; however, some orders are made directly to the State office. We encourage people to work through the county offices so that they may benefit from other educational services offered.

Working drawings from the plan service are used as a tool to help people develop their own house design. Their own design may require only a few modifications from the original plan. With the ozalid prints, home planners are able to study such principles as: plan layout, plot orientation, room arrangement or relationships, traffic patterns, storage requirements, kitchen cabinet and bathroom arrangements, and space requirements.

In some situations they use the drawings as a pattern for drafting their own plans. The plans also can be used as a visual aid in working with people on remodeling problems. The plan service offers a variety of alternatives which can be utilized when solving these problems.

The graphic presentation of a house does not give all people the same picture. For some a plan is little more than a maze of lines and figures which has little meaning in terms of the house they visualize. The working drawings of good house designs can be used to teach blueprint reading. Specifications for construction can also be taken from the plans as a training exercise.

A potential homeowner who goes through this type of training is better prepared to direct and follow the construction of his house. This training gives him a common language with the contractor.

The plan service is more effective when county and home agents take an active interest in the housing program. The agents who contribute most to housing education are those who have worked with families to solve their housing problems and have shared the satisfaction that these people gained in developing or selecting house plans based on their personal needs as a family.

Some of our agents have had the opportunity to choose plans and direct the construction of their own homes. This has given the agent motivation to learn and has provided the opportunity to train some of the staff. These agents are better prepared to help others evaluate plans and make wise decisions on choice of building materials, construction methods, finance, and other problems as the planning progresses.

The plan service drawings have also been used in training schools for the Farmers Home Administration staff. Their field personnel and State staff have participated in Extension workshop sessions on blueprint reading, development of specifications, and criteria for home inspections.

We must continue to work closely with agencies, organizations, and groups in a program to help low-income families with their housing problems. The Cooperative Plan Exchange is responding to their needs by developing house plans for those with limited income. We can help these people to throw aside resignation and strive for a better share of the good things life has to offer.

These families must be trained to care for their new homes as they are acquired and to maintain a standard of living which will give them hope for the future. This is a challenge not only to the plan service but to the entire Extension organization. ■

The E. M. Antonsons of Pierce County were cooperators in the Extension housing project and in the "farm unit approach." It is also known as farm and home planning.

Allocating Resources to State Extension Housing Programs

by C. A. SVINTH, *Extension Director, Washington*

WASHINGTON State's Extension housing project, in operation since 1946, is being adapted to meet changing audience needs and to adjust to available personnel resources.

However, the core of the program remains substantially the same: To teach basic principles that will help families make decisions about house planning in relation to the farmstead, family activities, efficiency within the home, and cost in relation to income.

Ten key steps have been carried out in the historical development of the program which demonstrate the interdependence of Extension personnel and their audience. These include:

(1) Trained specialists dedicated to their work and willing to cooperate with each other.

(2) Administrative support for the development of the program.

(3) A committee of supervisors, specialists, and agents who set up objectives, goals, and a program of work based on problem analysis.

(4) Creation of awareness by State and county staffs including both men and women agents of the needs within the State and how these might be met by an educational program.

(5) Intensive training of a team of one man and one woman in each county who could approach the problem of farm buildings and houses from the viewpoint of the farm family and their agricultural production.

(6) The use of real situations in agent training. Farm families who attended training sessions were used as examples of the effect of the use of teaching principles to stimulate decision making.

(7) A constant flow of publications and mass media information for use by agents.

(8) Development of understanding by industry and by government agencies of an educational approach to a family's problems in homebuilding or remodeling.

(9) The use of visuals and other teaching techniques. These were adapted by agents based on our faith in the ability of people to make their own decisions if they are given the basic principles.

(10) Support by agents who felt they had someone to turn to for help if they needed it.

No figures are available of the number of homes that have been built or remodeled as result of this program because an unknown number of families have been influenced by builders or by families who have participated in Extension workshops.

Examples from participating counties will indicate the scope and value of the project. But before citing the examples a little background may be necessary to explain the reasons for the educational program in housing.

For one thing, at the end of World War II, materials for housing became available to enable families to act on needs for better housing which they had previously been unable to undertake.

For another reason, increased population in the State and an increased desire for people to move to the country had created a demand for more rural housing. This demand is still with us. Between 1940 and 1950 Washington had a 37 percent increase in population and between 1950 and 1960 a 20 percent increase.

And still a third reason, and perhaps the most pressing, is the fact that the Columbia Basin of central Washington was being developed as an irrigated farming area of about a million acres. This land was raw sagebrush, range, or dryland wheat. When it was changed to an intensive irrigation-type agriculture, farm sites had to be developed from scratch.

One of these counties was Grant. Development is still going on. Their county report for 1960-61 shows that an experienced team of the county chairman and a home agent, without specialist help, assisted 53 different families. Twenty three families attended 14 small group meetings, 25 families talked with agents in the office, and agents visited the homes of 5 others.

Ten families brought in house plans to be checked by agents. Employees of the Farmers Home Administration referred several families to the agents, and through a meeting arranged by Farmers Home Administration, seven builders and contractors learned of the Extension housing program.

The 1962 annual report shows that some phase of

housing work was reported by 24 of Washington's 39 counties. Housing workshops were held in six counties with specialist assistance.

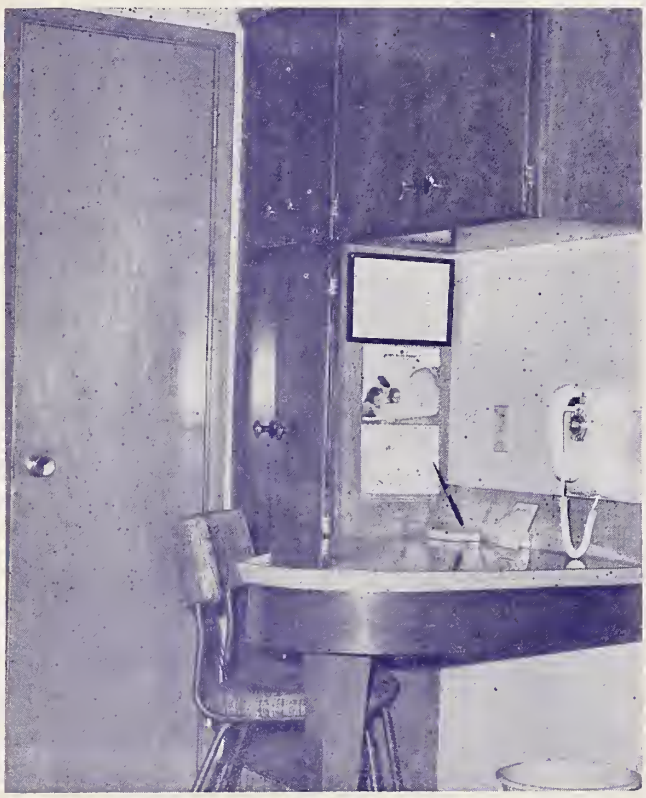
To cite one of these in Kittitas County, four building supply dealers participated and held open house; newspaper coverage included two front page stories with pictures; 19 families were directly helped with building or remodeling plans.

During the same year a rather extensive exhibit *"Plan a Home in the Country"* was displayed at two home shows in two of the larger cities in eastern Washington.

About 45 community leaders were trained to man this exhibit. The same method and exhibit had been used during the previous year in western Washington. This was the third exhibit on home planning that had been used during the history of the housing program. In each of them, a key element was the training and use of local leaders to man the exhibit as guides and to answer questions.

The program shaped up and progressed under the leadership of a team of two; the late H. E. Wichers, rural architect and Miss Helen Noyes, at that time home management specialist. She recently retired as county agent supervisor. The basic method for teaching home planning is described in the May 1963 issue of the *Extension Service Review*.

It involves a process by which a family first lays out in rough "goose egg" circles the number and general arrangement of the various rooms in their proposed house.



At one end of the kitchen is handy desk and phone area.

Various factors such as slope, wind direction, and view are also laid out on this initial rough plan. Details are developed from it and frequently an architect or builder is called in during later stages to prepare detailed working drawings.

From the viewpoint of broad Extension objectives the Washington housing project has been more than a device to improve rural housing. It has been a method of teaching people the principles and use of the decision-making process. That is why we have felt it was worth the cost to devote the time necessary to make it a success. In the beginning, of course, agents were unsure of themselves as teachers in this phase because they were not trained in architectural subject matter.

The early training sessions with agents and the experience that agents gained in workshops, however, overcame this natural caution. Now teams in several counties are able to assist individual families or groups with little or no specialist assistance.

In addition to the broad educational objectives and the "practical" instruction in home planning, a major plus turned out to be education of builders in the peculiar requirements for farm homes as distinct from town homes. As indicated earlier, architects and builders were brought into the program early, were informed of the objectives, and even participated in some of the sessions. One lumberman's group bought and distributed quantities of one of the publications to its members and dealers.

The Washington State housing program is continuing because the need still exists but changes are being made in its procedures as new personnel and new facets of the general problem appear.

We are endeavoring to introduce more information about the interior arrangements within the home and about the "unseen" but important elements such as heating, electrification, and plumbing. And we are integrating our program with the University Institute of Agricultural Sciences continuing education program.

We have gone so far as to set up a schedule of evening seminars in four western Washington counties for this coming late winter and early spring. A fee of $5 will be charged to participating families. A series of six evening seminars will be held a week apart in the county seat of each of these counties.

And because these are counties in which the cities are moving outward, and because people are interested in what to look for in buying a home as well as in building, stress will be placed on buying as well as building.

We are planning to employ on a consulting basis non-Extension personnel from Washington State University as well as our own people. Agents in the counties will arrange and manage the seminars.

Topics to be discussed include: What makes a good house plan, principles of plan organization. How to plan kitchen and dining areas, how to apply space requirements, appliances, and cabinets. Family workroom for laundry and other activities and adequate household storage. Mechanics of the house plan; heating, insulation, plumbing, and electricity. Mortgage, interest rates, legal aspects, costs of buying and selling. Planning for furnishings, color, etc. for living room and bedrooms. ■

Sample windows provide convenient demonstration items for Extension Housing Meetings.

Housing Dollar Series Provides Learning Experience for Home Buyers

by EDWARD K. KNAPP, *Extension Analyst, Massachusetts*

THE difficulties encountered by the family in their search for satisfactory housing are compounded by a National phenomenon, mobility. Today, people are on the move. Twenty-six percent of the people of the United States no longer live in the State where they were born. This greatly increased mobility carries with it the possibility that each family will use poor house-buying judgment several times during a lifetime. For some people, the result is simply unsuitable housing from a social viewpoint; for others, however, the result is an economic disadvantage involving many thousands of dollars.

Some home buyers and educators are aware of these conditions, but the effects are subtle. The inflationary trend of the economy and our extremely long-term mortgage contracts tend to hide the ill effects. If the purchase price of a home is unreasonably high, the monthly payments can still be held to a comfortably low level through the "long-long" term mortgage. When the residence is finally sold, the increased value due to inflation alone returns sufficient capital to offset apparently the initial disadvantage, and the seller is happy. Should economic conditions change or *home buyers develop more acumen,* we will see fewer housing purchase mistakes. We as educators in the field of residential housing should direct our efforts to increasing the abilities of home buyers.

The personal work assignment of educators in this field might be described as that of helping people become *more intelligent consumers of housing.* In meeting this challenge it is, of course, necessary to discuss individually the many aspects of home purchase. In addition, and most important, these items must be put together and the situation considered as a whole, in order to give the prospective homeowner a well-rounded housing educational experience. It is here we fail somewhat in our present Extension approach. This deficiency has two aspects. Our Extension teaching efforts in the housing area are piecemeal, i.e. we offer information regarding kitchen planning, home grounds, interior decoration, and financing, to name a few.

Our material is well prepared and helpful, but our audience must consider it as a unit. In placing all these

items together, they must relate such unlike things as kitchen cabinets and shrubs. This is very difficult but also very necessary.

The second aspect is our aversion to a specific discussion of costs—costs involved for labor, materials, and the entire housing unit. The buyer deals in dollars in making a purchase. To be of genuine assistance we must provide him with the skills needed to determine reasonable prices.

Successful housing meetings

The "Housing Dollar Series" of six meetings conducted throughout Massachusetts consistently yields successful results. The outline for the series indicates that "the economics of house construction details" dominates the course. The details referred to are the costs of labor and materials for a specific house. Each student develops these itemized figures on a mimeographed worksheet.

The participants, and these are largely young married couples, are asked to provide a floor plan or a complete set of working drawings and use these as their reference house throughout the course. If they do not have such a plan available, they select one from one of the standard plan service booklets.

Price information is derived from several sources: (1) course lectures; (2) contact with local contractors and building supply dealers; (3) general mail-order catalogs; (4) building supply catalogs; and (5) personal experience of class members. The result is a precise cost picture for a particular residence. The student then has detailed material and labor costs and class notes regarding desirable qualities. This information enables him to judge intelligently the merits of a new home and an older home. Obviously, the new residence lends itself to this treatment better than the old.

In the "Housing Dollar Series" the first hurdle for the student is the language. A careful review of pertinent building terms will reveal only about 35 unusual words. The first hurdle for the instructor, however, is more difficult and this is the assembling of formal research data for each topic to be covered. The Small Homes Council short course publications provide some of this.

Professor Glenn H. Beyer, New York State College of Home Economics, has made a study in personal values and housing which is extremely helpful in providing an authoritative source in the sociological area. In relation to the need for acceptable discussion material, an opinion survey was recently conducted among assessors and building inspectors throughout Massachusetts. Current data from a survey among 962 graduates of the School of Home-Economics at the University of Massachusetts have been sent to the University Computer Center.

This information is helpful, as the more our presentation *as specialists* is based on research findings, the more genuinely helpful we can be.

Extension has unlimited opportunity

With adequate research backing and an ability to assemble this information into a usable whole, the Extension housing specialist has an exciting opportunity. His topic is creative and his audience responds with enthusiasm. There is no shortage of audience numbers as this is one of the biggest housing booms in history.

We must remember, however, that the money which is creating this great housing market is coming from young married couples and others who have earned it over a long period of time or are planning to earn it during the next 20 mortgage years.

As one of the few, and usually the only, purely educational sources available to home buyers we have a great responsibility. It is to provide learning experiences that will help our Extension clientele more intelligently spend their housing dollars. ■

Computers are utilized for the Housing Survey Analysis.

Northhampton couple confers with Knapp on expansion.

National Housing Workshop

by ARTHUR H. SCHULZ, *Director of Extension, North Dakota*

DEVELOPMENT of a plan, and the construction of a new home or major remodeling of an old home, are among the greatest challenges a family faces during its lifetime. It also is one of its greatest joys if completed successfully. For most families, this planning and construction are experiences which come only once.

To assist with the problems families have in home planning and construction, the Extension Services in most States have maintained a housing program. The need to strengthen this area of Extension programing was the basic theme and objective of the National Housing Workshop held at the University of Nebraska last April. The registration list of 65 people from 36 States represented the leadership in Extension housing education in States having an active housing program.

The first objective of this workshop was to define the position which housing plays in the total Extension program. Participants felt that housing considerations should be an integral part of all areas of programing that deal with the home, and that the housing program should have properly defined leadership and identifiable administrative support.

For success, many different groups must be involved in an educational program that will help a family to express its wants and desires and to organize its resources into a home plan.

The second objective of the workshop was to develop improved methods of working with the various individuals involved in housing educational activities. The workshop reviewed successful methods of organizing the combined knowledge and abilities of the architect, builder, material supplier, Extension specialists, and others into a coordinated force to improve the quality of the family's new or remodeled home.

The Extension Service as an educational agency has both the responsibility and potential to coordinate the competencies of these clientele groups in developing and carrying out this educational program. Many methods were reviewed and explored for involving these clientele groups successfully. All participants agreed that the most productive Extension program was that which involved all clientele groups interested in housing.

The successful Extension program is the one that designs or adapts Extension methods to the accomplishment of a specific goal. Therefore, a review of successful methods and the development of improved new methods of doing the Extension housing job was a third objective of the workshop. This area of the program probably was the most productive, in that it provided the participants excellent opportunity to review the wide range of selected methods used by States in carrying out successful housing educational programs.

Conducting a housing educational program frequently involves attacking simultaneously many single problems. This educational assignment requires not only technical competence of the staff but also competence to communicate with Extension's publics, and among Extension staff members. This workshop did not devote a major portion of its time to improving technical competence.

The planning committee was of the opinion that developing and maintaining this competence are major responsibilities of professional groups. However, the workshop had as a final objective the improvement of the competency of staff members involved in housing, to prepare them to do a better job of solving selected problems in housing design.

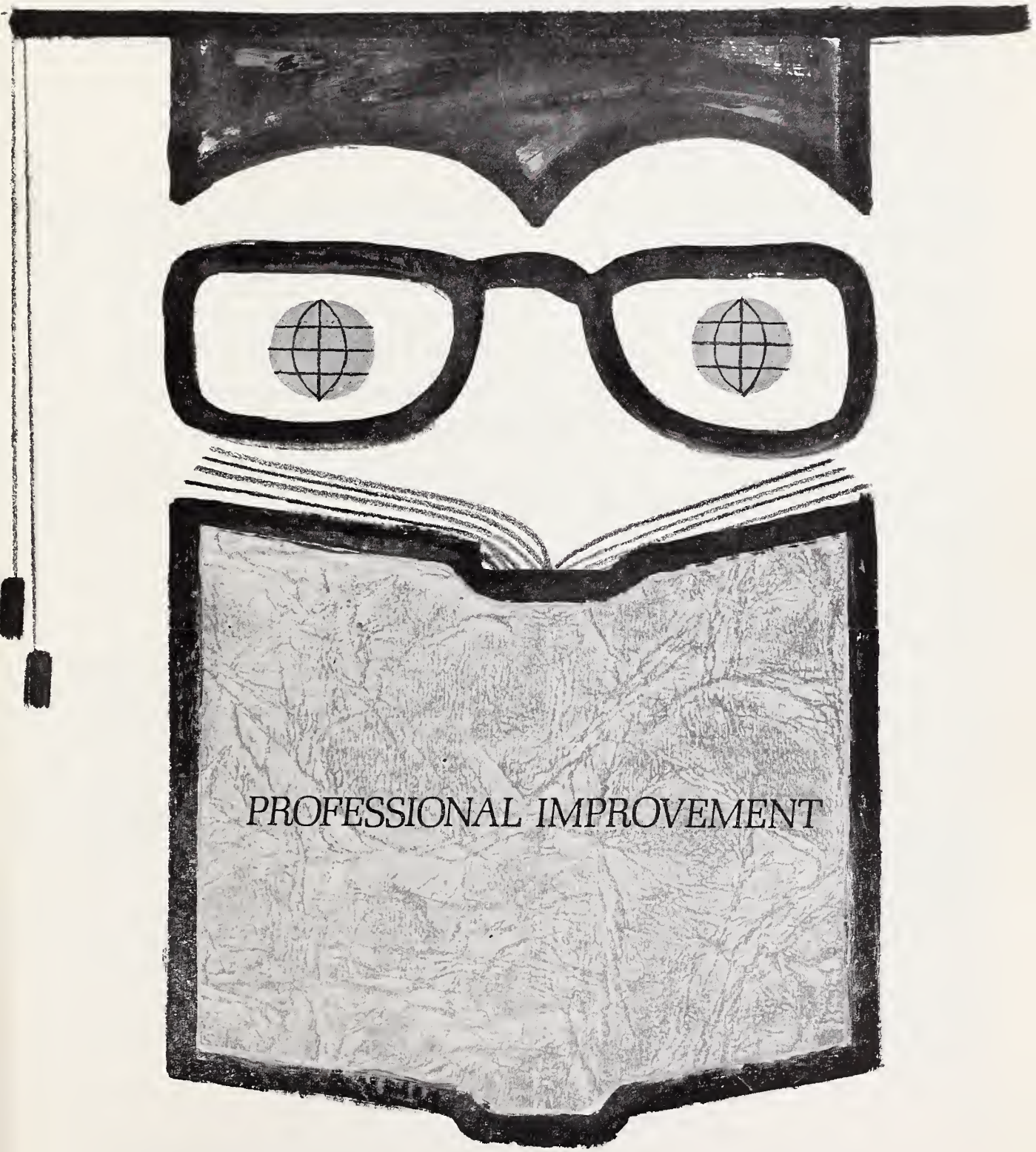
There are both social and economic aspects in housing design that must be considered by the planner, by the builder, and by the family that will live in the home. Orientation with respect to the surroundings involves the knowledge of some basic concepts, and these can be taught. The aesthetic consideration of house design must be considered along with the functional and structural. Methods of teaching solutions to these problems are being taught successfully as a part of the Extension program.

The Land-Grant University through its Extension program, utilizing both the on-campus and off-campus competencies of both public and private groups, can aid in improving the housing for America's families at all income levels. The National Housing Workshop provided many additional tools for accomplishing this. Whether or not this area of education will be expanded, and the manner in which it is executed, remain individual State decisions. ■

EXTENSION SERVICE

REVIEW

U S DEPARTMENT OF AGRICULTURE ✲ DECEMBER 1964



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The Extension Service Review is for Extension educators—in County, State, and Federal Extension agencies—who work directly or indirectly to help people learn how to use the newest findings in agriculture and home economics research to bring about a more abundant life for themselves and their communities.

The Review offers the Extension worker, in his role of educational leader, professional guideposts, new routes and tools for speedier, more successful endeavor. Through this exchange of methods, tried and found successful by Extension agents, the Review serves as a source of ideas and useful information on how to reach people and thus help them utilize more fully their own resources, to farm more efficently, and to make the home and community a better place to live.

ORVILLE L. FREEMAN
Secretary of Agriculture

LLOYD H. DAVIS, *Administrator*
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EXTENSION SERVICE
REVIEW

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CONTENTS

EDITORIAL

In response to requests from county agents and others, the annual professional improvement issue of the *Extension Service Review* is shifted from January to December. Those who wrote in indicated that they wanted more time to consider what courses they might want to take and what scholarships to apply for.

Due to the splendid cooperation of all concerned, here is your annual professional improvement issue one month ahead of what it has been previously. Hope you like it. And that it helps you to better plan your improvement goals for 1965, be it a course for credit or sharpening up your knowledge on your own.

Education is "busting out all over" these days. And so is the flow of new knowledge. Those who teach have to run harder than ever to keep their teaching and their learning ahead of demands.—WAL

by MARY L. COLLINGS
Staff Development Specialist
and LINNEA B. HOLLAND
Extension Educationist
Federal Extension Service

Trends in Extension Training And Professional Improvement

GRADUATE STUDY in this country dates back to 1850. Before then, professional education was available only in law, medicine, and theology. By 1870, there were 44 students pursuing graduate study in other fields and by 1955 the total number had grown to 250,000. According to statistics from the U. S. Office of Education, by the fall of 1962 graduate students in all fields numbered 374,000—an increase of almost 125,000 or 50 percent in 7 years.

Nationally there was a 12.9 percent increase in the number of graduate students in 1962 over 1961. Concerted efforts to provide appropriate graduate study for Extension personnel started about 1948.

In comparison with its own past record, the Cooperative Extension Service today is making commendable strides toward advanced professional education. In comparison with other divisions of the Land-Grant College staff, however, Cooperative Extension Service personnel have lagged in graduate study.

For example, a survey made in 1962 by President H. R. Albrecht of North Dakota State University, indicated that the percentage of Extension agronomists having doctorates was less than half that of agronomists in other divisions of the Land-Grant Universities. While Extension workers are coming late to advanced study, they are making a commendable effort to catch up.

A cursory study of available Extension statistics indicates that considerable progress has been made over the past 8 years, and that an ever-increasing number of Extension workers are availing themselves of opportunities for graduate study.

Degree status

Graduate degree status has changed considerably since 1956. The number of Extension workers holding doctorates grew from 395 in 1956 to 678 in 1962, an increase of almost 72 percent in 6 years. During the same period, Extension workers holding Master's degrees increased from 2,114 to 3,441, an increase of almost 63 percent.

The percentage of increase in each case seems remarkable until it is realized that the actual numbers involved are quite small. In comparison with total number of Extension personnel, the numbers now holding Master's and Doctor's degrees are modest indeed. (*See Chart 1.*)

Since 1958, less than 300 Extension workers per year have earned Master's degrees and less than 50 per year have earned Doctor's degrees. (*See Chart 2.*)

The degree status of various segments of the Extension staff reported in 1962 was as follows:

Title	Master's	Doctor's
	Percent	*Percent*
County ag. agents	19	0.18
County H.E. agents	11	0.03
State ag. super.	45	4
State H.E. super.	59	2
Ag. specialists	47	25
H.E. specialists	74	3

Enrollment in graduate courses

The increased number of Extension workers enrolled in full-time graduate study is encouraging. This figure has jumped from 297 in 1958 to 467 in 1963, an increase of 57 percent. (*See Chart 4.*)

Chart 4 represents only those who have taken leave from their jobs in order to devote full time to study. In order to get a more accurate picture of the number of Extension workers engaged in graduate study at any one time, it is necessary to include those who are enrolled in college credit courses while on the job. In 1963, there were 1,110 enrolled in on-the-job courses, as compared with 467 away on study leave, almost 2½ times more. (*See Chart* 3.)

If we add the enrollment in both on-the-job and study leave categories, for 1961 and 1962, we arrive at a total figure of 1,532 students enrolled for 1961 and 2,196 enrolled in 1962, in some type of graduate study. (There is no way of knowing how many of these are different individuals for the 2 years.)

This is an increase of 43.3 percent for that time span, as compared with the National increase of 12.9 percent enrollment in all graduate study programs for the same year, mentioned earlier.

Considered one way, the increased enrollment in college credit courses while on the job shows progress. But those who value full-time study as a much more enriching experience than the combination work-study program, will view the increase of the latter with alarm.

The year 1962 seems to have been the occasion for a major breakthrough as far as training is concerned. For when we examine attend-

ance at inservice training events, the peak participation in this form of staff development also occurred that year.

Attendance at workshops in the behavioral science areas increased from 6,847 in 1961 to 14,233 in 1962, and decreased again in 1963, to 11,-616. (There is some duplication in these figures since they represent "exposures" rather than individuals, and many Extension workers participated in training sessions in more than one content area.)

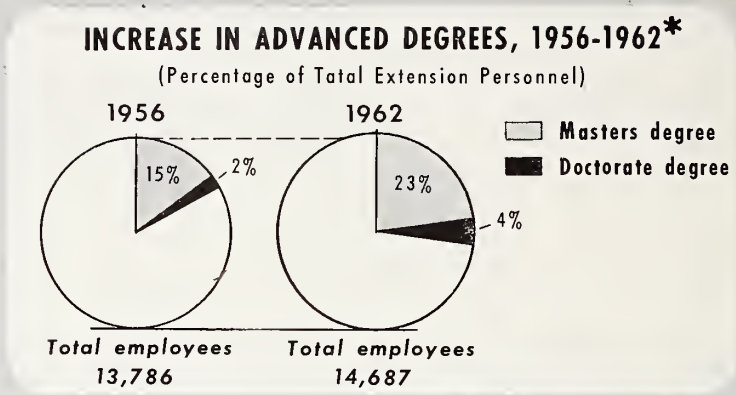
Inservice education

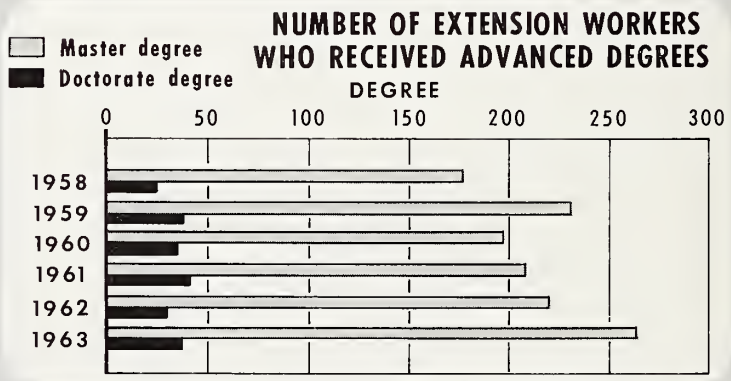
The number of States which utilize inservice training as a means of filling the gap in undergraduate preparation in the behavioral science fields is distressingly small. A majority of States provided inservice training in only two of the eight applied behavioral science areas for which figures are available over the past 3 years. These areas are program development and communications. Considering the volume of new research findings in the behavioral science fields, the dearth of training in these fields is deplorable.

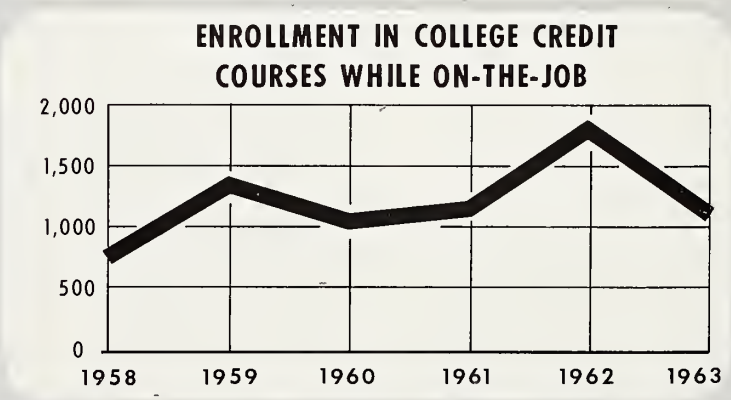
States offering inservice education in applied behavioral science fields

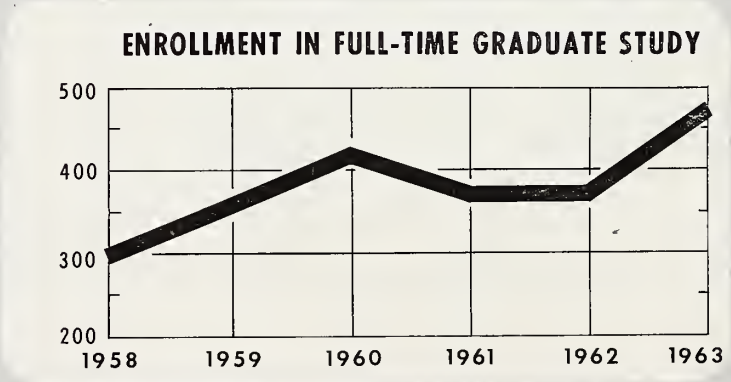
Content Area	1961	1962	1963
	No. of States		
Extension history, organization, and philosophy	15	16	15
Human development, human relations	15	17	17
Program development	38	38	34
Educational process, principles of learning	11	18	13
Communications	31	27	28
Philosophy and values	6	8	13
Research and evaluation	12	9	11
Social systems	7	3	7

While Extension's recent record on training beyond the bachelor's degree is good, it is not good enough. The lag in getting graduate study underway can only be overcome by "crash" programs of considerable magnitude.









*DOES NOT INCLUDE DIRECTORS OR ASSISTANT DIRECTORS

West Virginia Trains for Resource Development

by HOMER C. EVANS, *Professor and Chairman*
Agricultural Economics and Rural Sociology
West Virginia University
and LEIGHTON G. WATSON, *Head*
Communications and Visual Aids and Extension Editor
West Virginia University

WITH the founding on May 1, 1963, of the West Virginia University Center for Applachian Studies and Development, there evolved a new and expanded role for the Cooperative Extension Service. As a program unit in the Appalachian Center, and the only one with field offices in each county, the Cooperative Extension Service is destined to play an important role in economic, social, and human development in West Virginia.

The Cooperative Extension Service is responsible for Appalachian Center programs of informal education as related to youth development, agricultural production and marketing, consumer education, family-oriented projects, community improvement, resource development and conservation, public affairs, and rural and urban county Extension programs through the Area Appalachian Centers. The county Extension programs stress basic factors for generating income and improving family living, and for the development of the individual.

Dr. Ernest J. Nesius, Vice President of the Appalachian Center and Director of the Cooperative Extension Service, recognized the need to retrain Extension workers to cope with this expanded development opportunity. Plans were made, and for the past year Extension workers have been through a varied training program that has emphasized many phases of resource development.

The primary objective of resource development is to increase the real per capita income of people. Therefore, a training program in resource development should deal with the fundamentals of economic growth and development. This has been the guiding principle in the training program in resource development for West Virginia Extension workers. Emphasis has been placed on five areas.

1. Principles of production economics.
2. Principles of marketing.
3. Principles of economic development.
4. Principles of social action.
5. Communications.

For professional workers to be effective in resource development work they must have an understanding of the processes involved, including economic principles and how and why communication succeeds or fails.

Because increased productivity or output of goods and services per person is necessary for increased real per capita income, training emphasis was first given to the principles of production economics. This included the role of specialization and how alternative production methods may increase productivity. One training approach was a 1-week intensive program dealing with fundamental principles of production economics.

Specialization, the division of labor, and increased production require an elaborate marketing system. To work in this area necessitates an understanding of how the forces of supply and demand (operating through price) provide a system for the allocation of production and consumption and the distribution of incomes. Again the approach was to develop a 1-week intensive program in the principles of marketing and prices.

The third phase of the training program was to devise a course in economic development with 3 hours graduate credit which was taught during a 3-week period. Here emphasis was given to the development or study of guidelines or principles which would aid a "depressed area" in an affluent society. This course was devoted to the theories of economic development and how they applied to the economy of West Virginia.

Of course, action on the part of people is necessary for economic development. This brought us to the fourth part of our training program. This involved another 3-hour graduate credit course taught in a 3-week period dealing with the social action process as related to economic development in West Virginia.

And unless we understand others, can make ourselves understood, and are familiar with the basic principles of communication it is difficult to make headway with our resource development programs. So, all Extension workers attended a 1-week training program in basic and oral communications. This has been followed up with training in written communications.

In addition to these formal training programs, several 1- to 3-day training sessions have been held on a regional or State basis on various phases of the same five major training areas. This approach has been effective in training professional workers in some of the fundamental principles of resource development.

With County Extension offices in all 55 counties, the resources of the University are available through coordination by the Appalachian Center to all groups, organizations, businesses, and institutions—both public and private—who wish to determine facts, gather information, make decisions, and move in a concerted attack on the State's economic and social problems. ■

Training for Work with LOW-INCOME GROUPS

by BETTY JEAN BRANNAN
Field Studies and Training Specialist
Oklahoma

Extension agent helps the homemaker with meal plans.

MOST of us are shocked to discover the extent of poverty in the United States. Though we have heard of the dramatic rise in the standard of living since the end of World War II, a vast amount of poverty still exists.

The impoverished are not a distinct social group. They are found in many geographic areas and in all ages, ethnic groups, and races. Poverty-stricken families are found in some of our most affluent rural and urban areas.

Recently we have often heard words such as *low-income, poverty, limited-income, low-socioeconomic status,* and *disadvantaged families.* Extension personnel at all levels—county, State, and National—are becoming increasingly aware of the low-income situation. They are making concerted efforts to develop educational programs which will help these families learn to help themselves.

Who is the low-income audience for which the Cooperative Extension Service has responsibility? What are some of the social, economic, and psychological characteristics of these families? What are some problems or needs of low-income families that home economics subject-matter authorities recognize?

What agencies and organizations besides Extension are concerned with the problems of this audience? What resources are available? How can principles of teaching and learning be applied effectively in educational programs for low-income families? How can Extension workers adapt to low-income families, materials (bulletins, leaflets), teaching techniques, and learning experiences used with other groups?

These and other questions were explored by 34 Extension home economists at a 2-week workshop at Oklahoma State University, June 8-19, 1964.

Dr. Irene Beavers, Home Economics Program Leader, from the Federal Extension Service, was resource person for the workshop and taught the class during the first week. Workshop participants were from Kansas, Texas, Arkansas, Virginia, Mississippi, Indiana, Oklahoma, and Honduras. They included county staff members, specialists, supervisors, and administrative Extension personnel.

To help the workshop group get a "feel" for the low-income audience, a film, *The Captive,* was shown. This film—the story of an Appalachian family struggling to escape from the crushing bonds of poverty—represents some of the feelings, hopes, fears, and frustrations of people who know what it is to be poor.

As the first step in developing effective educational programs for low-income families, one must understand their social, economic, psychological, and cultural characteristics. An Extension worker often thinks, acts, and feels differently from people in the low-socioeconomic audience. As an educator, the Extension home economist must be concerned with values, attitudes, beliefs, and goals of these people.

Dr. Solomon Sutker and Dr. Sara Sutker, Oklahoma State University sociologists, pointed out that low standards of income, education, living, values, and aspirations usually go hand-in-hand. People in a low-socioeconomic situation have feelings of dependency, helplessness, marginality, and of not belonging. They usually live in a close-knit group of kin and friends and do not take part in the larger community. Many feel insecure outside their environment. Often they are resigned to a feeling of hopelessness because they are unable to cope with modern technological demands and societal changes.

The workshop group was divided into seven "Listening Teams" or work groups. Subjects covered were: cooperation with other agencies and organizations; program needs; motivating factors; materials; methodology; administrative and organizational problems; and evaluation. Each team explored its respective topic and summarized readings, class discussions, and experiences.

Heads of subject-matter departments of the OSU College of Home Economics participated in selected class sessions. They helped workshop students to understand some family living problems or needs of low-income families.

Dr. Ilse Wolf (Department of Home Management, Equipment, and Family Economics) discussed home management and family economics problems of low-income

families. She stated that effective home management helps promote development of each family member to his fullest potential. This brings satisfying family relationships and intelligent participation in community affairs. She pointed out that management can best be interpreted and taught through homemaking problems that the disadvantaged families can see or sense.

Low-income families have limited command over resources. They do not have the necessary economic power to make somewhat risky decisions. Most of them have limited knowledge of their legal rights or professional services that are available when they encounter difficulties.

Dr. Stanley Fowler (Family Relations and Child Development Department) outlined family relationship and child-rearing practices of low-socioeconomic families. Personality characteristics of insecurity, lack of initiative, low self-concept and morale, and fatalistic attitudes affect relationships within these families. In higher socioeconomic families, the ability to talk things over is an essential part of family life. In disadvantaged families, verbal communication is quite limited.

Dr. Helen Barbour (Department of Food, Nutrition, and Institutional Administration) stated "research shows that this audience needs nutrition information and education in meal management." She illustrated ways a nutrition education program could be developed for this audience. She told how Extension home economists could help families with meal management and consumer practices.

Dr. Juanita Noel (Clothing, Textiles, and Merchandising Department) and Mrs. Dora Howell a graduate student, discussed clothing of low-income families. They indicated that research on the clothing needs of low-income families is limited, but stated that apparel choices in these families are emotionally based.

Dr. Maie Nygren (Department of Housing and Interior Design) emphasized the lack of plumbing facilities, deterioration, poor walls and floors, inadequate lighting, and poor environmental surroundings in housing of low-income families. Low-income housing problems are much different in urban than in rural areas. With limited resources, these families have difficulty purchasing a house, furnishings, and equipment or improving their present housing.

"There is urgent need for educational programs regarding housing for all segments of the population, and more particularly the housing needs of low-income families," stated Dr. Nygren. This audience needs to be shown how to obtain and improve housing and furnishings with a minimum of resources.

Subject matter must be tailored to fit abilities and needs of different audiences. Though the principles are the same, the approach in working with low-income families is different. County Extension personnel report they desperately need basic subject matter from all areas of home economics, adapted to the low-income situation.

To show how printed publications could be adapted for the low-income audience, workshop members examined a forthcoming brochure explaining the Oklahoma Extension Family Living program. Suggestions for adapting the publication to the low-income audience were made on content, arrangement, and appearance.

Slides developed by the Division of Health Education of the Florida State Department of Health, showed application of educational methods to program development with low-income families. Workshop participants also saw application of subject-matter principles in housing through slides of work done with migrant farm families in California.

Extension is not alone in attacking problems of low-income families. Many private and public agencies and organizations are also involved. The Listening Team working on the topic, "work with other agencies and organizations" concluded: "We in Extension need to cooperate with other agencies for efficiency in efforts to help low-income families. However, it will take good planning to use all resources to best advantage." The Cooperative Extension Service and its purpose as an educational agency was emphasized.

Participants shared experiences in working with low-income groups and of cooperating with other agencies and organizations. Problems of working with the low-income audience are similar from one State to another.

Evaluation makes its most significant contribution to a program or activity when it is planned or built-in throughout the entire process, from beginning to end. Extension's interest in evaluating results is in terms of the individual and what changes take place in the knowledge, understandings, attitudes, and skills as a result of an educational activity.

The Listening Team working on evaluation stated: "Evaluation of educational programs for low-socioeconomic audiences is more complex because of certain cultural, educational, and psychological characteristics which differ sharply from those of middle and upper-socioeconomic audiences. There is, perhaps, a greater need to establish benchmarks for this group prior to teaching to know *how* and *where* to lead it in an educational program."

Research indicates that commonly-used methods may not be adequate in evaluating programs for low-socioeconomic groups. Accordingly, techniques and methods of evaluating effectiveness of educational programs may need to be adapted or developed for this particular audience.

During the workshop, each participant selected an area of concern in her respective situation and developed a plan for attacking the problem of working with low-income families. Plans dealt with action programs at the county level in a subject-matter area, procedures for cooperating with other agencies and organizations in coordinating efforts, inservice training for helping Extension personnel develop competence, and procedures for organizing a central office Extension home economics staff to develop subject-matter materials and suitable teaching aids.

Throughout the workshop we had no definite solutions to developing educational programs for low-income families. Instead, we attempted to provide a climate in which participants could gain information and develop understandings, attitudes, and abilities to develop educational programs for persons of all ages in the low-income audience. ■

SCHOLARSHIPS-FELLOWSHIPS

National Home Demonstration Agents' Association Fellowships

Two fellowships have been established for home demonstration agents by the National Home Demonstration Agents' Association. These fellowships are for the purpose of professional improvement through advanced study.

The fellowships are $500 each and each State may nominate one candidate. Nominations are due May 1. Selections will be made by the Association.

Applications are handled by the State home demonstration leaders. Forms can be secured from your State Chairman or the National Chairman, Mrs. Mary H. Bennett, Home Demonstration Agent, P.O. Box 649, Marianna, Florida 32446.

Rockford Map Publishers Graduate Scholarship

Extension youth agents working in Illinois, Wisconsin, Michigan, Pennsylvania, or the lower half of Minnesota are eligible for the $100 graduate scholarship offered by the Rockford Map Publishing Co.

For further information and applications contact John A. Hassert, NACCA Professional Improvement Committee, 246 Bloomfield Avenue, Caldwell, N.J.

Farm Foundation Extension Fellowships

This foundation offers fellowships to agricultural Extension workers, giving priority to administrators including directors; assistant directors; and supervisors of county agents, home demonstration agents, and 4-H Club workers. Individuals being trained to assume administrative responsibility will be considered if the quota is not filled from supervisory staff. Fellowships will apply to staff members of the State Extension Services and USDA.

Courses of study may be pursued for 1 quarter, 1 semester, or 9 months. The amount will be determined individually on the basis of period of study and need for financial assistance. Maximum grant will be $4,000 for 9 months' training.

It is suggested that study center in the social sciences and in courses dealing with educational administration and methodology. Emphasis should be on agricultural economics, rural sociology, psychology, political science, and agricultural geography.

The fellowships apply in the following universities and colleges: California, Chicago, Cornell, Harvard, Illinois, Iowa State, Michigan State, Minnesota, North Carolina State, Purdue, and Wisconsin.

Applications are made through State Directors of Extension to Dr. Joseph Ackerman, Managing Director, Farm Foundation, 600 South Michigan Avenue, Chicago, Illinois 60605.

Forms are available from State Extension Directors. Applications must reach the Farm Foundation by March 1.

University of Maryland

Two graduate assistantships in the Department of Agricultural and Extension Education are available to Extension workers interested in pursuing the Master of Science degree in Extension Education. Additional assistantships may become available. Assistantships are for 12 months and pay $220 per month or $2,640 for the 12-month period, plus remission of fees which amount to approximately $500. Application deadline is April 1.

Contact Dr. V. R. Cardozier, Head, Department of Agricultural and Extension Education, University of Maryland, College Park, Maryland.

NACCA-Sears Roebuck Foundation Scholarship

Members of the National Association of County Club Agents are eligible for four $100 graduate scholarships sponsored by Sears Roebuck Foundation. These scholarships are to be used only for Extension winter and summer schools. Deadline for winter school applications is December 1.

For further information and applications contact John A. Hassert, NACCA Professional Improvement Committee, 246 Bloomfield Avenue, Caldwell, N. J.

University of Florida

One fellowship of $1,650 and one teaching and research assistantship of $2,000. Contact Dr. S.E. Grigsby, College of Agriculture, University of Florida, Gainesville, Florida 32603. Application deadline is February 1.

Farm Foundation Scholarships in Public Agricultural Policy

The Farm Foundation is offering 100 scholarships (25 to each Extension Region) for county agricultural and home agents attending the Regional Extension School courses in public agricultural policy.

The Foundation will pay $100 of the expenses of the agents selected by directors.

Applications should be made by January 1 for winter school and by March 1 for summer school. They should be sent through the State Director of Extension to Dr. Joseph Ackerman, Managing Director, Farm Foundation, 600 South Michigan Avenue, Chicago, Illinois 60605.

National Agricultural Extension Center for Advanced Study

Fellowships are awarded annually on a competitive basis to degree candidates or special students. They are limited to Extension workers in administrative, supervisory, or training positions within the 50 States and Puerto Rico. Others may be considered if their administration strongly recommends them as potential candidates for administrative, supervisory, or Statewide training respon-

sibilities in the near future. Extension administrators in developing countries may also be considered.

The individual and his institution are expected to contribute financially to the maximum of their resources. Fellowships will be granted to assist in completing the second year requirements for the Ph.D. degree, for out-of-State fee exemption, and for pursuing fundamental research projects in Extension.

Applications for admission to the graduate training program in the Center, including applications for admission to the University of Wisconsin Graduate School for either summer or fall semester of 1965, must be received by March 1.

The Center for Advanced Study is sponsored cooperatively by the Association of State Universities and Land-Grant Colleges, the W.K. Kellogg Foundation, and the University of Wisconsin.

For information write to Dr. R.C. Clark, Director, National Agricultural Extension Center for Advanced Study, University of Wisconsin, Madison, Wisconsin 53706.

Washington State University

Edward E. Graff educational grant of $900 for study in 4-H Club work. Applications due April 1. Contact E.J. Kreizinger, Professor of Agriculture, 5 Wilson Hall, Washington State University, Pullman, Washington 99163.

Grace Frysinger Fellowships

Two Grace Frysinger Fellowships have been established by the National Home Demonstration Agents' Association to give home agents an opportunity to study and observe home demonstration work in other States.

The fellowships are $500 each to cover expenses of 1 month's study. Each State may nominate one candidate. Nominations are due May 1. Selections will be made by the Association.

Applications are handled by the State Association Professional Improvement and Fellowship Chairman in cooperation with State home demonstration leaders. Forms can be secured from the State Chairman or the National Chairman, Mrs. Mary H. Bennett, Home Demonstration Agent, P. O. Box 649, Marianna, Florida 32446.

Sears-Roebuck Foundation and National 4-H Club Foundation

Fifty scholarships are available to Extension workers for training in the National Workshop in Human Development and Human Relations. These scholarships are provided through the National 4-H Club Foundation by a grant from the Sears-Roebuck Foundation.

The 1965 Workshop will be held at Colorado State University, Fort Collins, in June and July (dates to be announced). Six hours graduate credit will be given.

Scholarships from $180 to $220 will be available to men and women from each State and Puerto Rico. States are encouraged to nominate teams of two or more staff members who have not received this scholarship before.

Special consideration will be given to Extension supervisors, State leaders of training, State 4-H Club personnel, family life specialists, and others having responsibility for this training.

Applications may be obtained from the State Director of Extension. Approved applications are to be sent by him before March 1, to Linnea B. Holland, Division of Extension Research and Training, FES, USDA, Washington, D. C. 20250.

University of Chicago Fellowships-Internships in Continuing Education

Five fellowship-internships of $5,000 each will be available for the 1965-66 academic year for graduate study in continuing education at the University of Chicago.

These awards have been established under a grant from the W. K. Kellogg Foundation and will consist of a fellowship phase and an internship phase, which in combination will cover a period of 4 consecutive quarters of graduate study and intern training. The period of study may begin in either the summer or the autumn quarter of 1965.

The awards are open to those with a sincere interest and desire for a professional career in continuing education and the capacity to undertake advanced graduate study. They are ideally suited to Cooperative Extension personnel and other agencies and organizations which are concerned with continuing education for adults. Persons receiving the awards will normally work toward the Ph.D. in adult education but in exceptional cases the award may be applied toward the M.A. degree.

Closing date for submission of application is February 15. Persons receiving the awards will be notified in early April. For further information and application blanks, write: George F. Aker, Chairman, Fellowship-Internship Committee on Continuing Education, Department of Education, University of Chicago, 5835 South Kimbark Avenue, Chicago Illinois 60637.

The Ohio State University

One research assistantship of $2,400. A limited number of out-of-State tuition scholarships on a competitive basis—about $600 each. Application deadline is February 1. Contact Dr. R.W. McCormick, Assistant Director, Ohio Extension Service, 2120 Fyffe Road, The Ohio State University, Columbus, Ohio 43210.

National 4-H Service Committee and Massey-Ferguson Inc. Cooperating with the Federal Extension Service

Six National 4-H Fellowships of $3,000 each are available to young Extension workers who are former 4-H members. These are for 12 months of study in the USDA under the guidance of FES.

Two of these fellowships are provided by the National 4-H Service Committee, and four by Massey-Ferguson Inc.

Fellows may study at a Washington, D.C. area institution of higher learning or may organize an out-of-school study program.

Fellowships are awarded to young men and women selected from nominations made by State Extension

Directors or State 4-H Club leaders, to the Division of Extension Research and Training, FES, USDA, Washington, D.C. 20250. Applications may be obtained from the State Director of Extension.

The applicant shall not have passed his 32nd birthday on June 1, 1965. Deadline for applications is March 1.

National Science Foundation

The National Science Foundation Act of 1950 authorizes and directs the Foundation to award scholarships and graduate fellowships in the mathematical, physical, medical, biological, engineering, and other sciences. The fellowship programs provide support to scientists in programs of study or scientific work designed to meet their individual needs.

For information write to the Fellowships Section, National Science Foundation, Washington, D.C. 20550.

Cornell University

The Department of Rural Sociology has available extension, research, and teaching assistantships paying from $2,678 to $3,296 annually plus full waiver of the $400 tuition (but not waiver of fees). Available only to graduate students majoring in Rural Sociology who are full candidates for a degree.

Contact Dr. Olaf F. Larson, Head, Department of Rural Sociology, New York State College of Agriculture, Cornell University, Ithaca, New York 14850.

Scholarships for Communications Training

International Minerals and Chemical Corporation, Old Orchard Road, Skokie, Illinois, will award scholarships of $200 each to 15 agents in 15 States taking communications courses at regional summer or winter schools in 1966.

States eligible for this award in 1965, which are on a rotation basis set up by the Professional Training Committee, NACAA, are as follows: West Virginia, New York, Pennsylvania, Alabama, Arkansas, Oklahoma, Tennessee, Iowa, Kansas, Minnesota, Nebraska, Idaho, Hawaii, Nevada, and Wyoming.

Announcements will be sent to all men agents in the States designated in early 1965. Applications will be made to the State representative on the Professional Training Committee.

The program is under the supervision of the Professional Training Committee, NACAA. Complete information may be obtained from the chairman, Raymond H. Eilers, County Agricultural Agent, Winner, South Dakota.

County Agent Study Tour

The Agricultural Chemicals Division of the Dow Chemical Company, Midland, Michigan, is offering 50 Study Tour Scholarships to county agricultural agents. Recipients will be selected on the basis of one per State with minor adjustments being made for NACAA membership in various States.

Scholarships consist of $300 to each agent, to help cover expenses of a planned 3-week travel tour. Separate tours are planned in June for agents in each Extension Region.

This program is a unique professional training opportunity especially designed to help county agents keep abreast of changes in our dynamic agriculture and find new ideas for use in their own county program. Recipients will take part in a group tour of marketing enterprises, farm operations, agribusiness, successful Extension Service programs, and rural development and research projects.

It is an activity of the Professional Training Committee of the NACAA. Applications should be made through the State member of the NACAA Professional Training Committee by March 1. Raymond H. Eilers, County Agricultural Agent, Winner, South Dakota, is National Chairman.

Michigan State University Graduate Assistantships in Resource Development

The Department of Resource Development, Michigan State University, offers four graduate assistantships to students working on master's degrees. Three research assistantships of $2,100 and one teaching assistantship of $2,100 are available. Students devote half their time to departmental teaching or research assignments for 9 months. A maximum of 12 credits (teaching) or 16 credits (research) may be taken each term.

Applications should be submitted before March 1 to the Department of Resource Development, Unit "E" Wells Hall, Michigan State University, East Lansing, Michigan 48823.

Sarah Bradley Tyson Memorial Fellowships

The Woman's National Farm and Garden Association offers two $500 Sarah Bradley Tyson Memorial Fellowships. These fellowships for women are for advanced study in agriculture, horticulture, and "related professions." The term "related professions" is interpreted to include home economics.

Applications should be made by April 15 to Miss Violet Higbee, Kingston, Rhode Island 02881.

University of Wisconsin

A limited number of research assistantships—$230 per month (for 12 months) plus a waiver of out-of-State tuition. Contact W.T. Bjoraker, Chairman, Department of Agricultural and Extension Education, University of Wisconsin, Madison, Wisconsin 53706.

Supervision Course at Wisconsin Summer Session

A four weeks' course in Supervision of Extension Programs will be offered at the National Agricultural Extension Center for Advanced Study at the University of Wisconsin during the regular summer school session. The dates will be June 21-July 16, 1965.

The availability of scholarships for attendance at this course will be announced at a future date. For further information, contact Dr. R. C. Clark, Director, National Agricultural Extension Center, University of Wisconsin, Madison, Wisconsin 53706.

SUMMER SCHOOLS

National Summer School for Extension Workers
(formerly Western Regional Extension Summer School)
Colorado State University
Fort Collins, Colorado
June 14—July 2, 1965

Urban Extension Seminar
Principles in the Development of Youth Programs
Advanced Studies of Low Socioeconomic Groups
Developing Human, Natural, and Manmade Resources
Public Relations in Extension Education
Extension Communication
Human Behavior in Extension work
Organization and Development of Extension Programs
Principles in the Development of Agricultural Policy

University of Arizona
Tucson, Arizona
February 1-9, 1965

Agricultural Policy (Dr. Wallace Barr, Ohio)
Psychological Aspects of Communication in Groups (Louis A. Zurcher, Jr., Arizona)
Procedures and Techniques for Working with Groups (Dr. Ronald C. Powers, Iowa)
Agricultural Communications (Ralph R. Reeder, Indiana)
Philosophy and Principles of Extension Education (Dr. Marden Broadbent, Utah)
Agricultural Marketing (Dr. Raymond O. P. Farrish, Arizona)

Economic Problems of the South

by LLOYD BENDER, *Associate Professor*
Department of Agricultural Economics and Rural Sociology
University of Arkansas
and KENNETH S. BATES, *Assistant Director*
Arkansas Agricultural Extension Service

THE EXTENSION SERVICE is a public educational service for all the people of this Nation. It has always been flexible enough to develop its programs around the expressed and latent needs of the people. In meeting these needs the Extension Service has remained close to the people and believes that the peoples' problems provide the areas toward which Extension's efforts should be directed in meeting the responsibilities assigned by the passage of the Smith-Lever Act of 1914.

Arkansas like many other Southern States has not had adequate opportunity, for various reasons, for economic development. The Arkansas Extension Service has long recognized that to fully realize the potential benefits of more technology requires shifts in manpower and capital—between industries as well as between localities. Such transfers cannot be made advantageously without a tremendous educational job. This job placed new responsibilities on the Cooperative Extension Service.

While much of the groundwork for economic and social development programs was laid by several agencies in the State independent of one another and by several acts of the Arkansas General Assembly over the past 10 to 15 years, there still remained an educational job among the citizenry. Extension seemed to be the logical organization to undertake this responsibility.

In 1947 we began an intensive effort in developing county agricultural programs. In 1956 five pilot counties were selected in connection with the rural development program. As a result of our experiences in working with leadership in rural development and with guidance from the Scope Report, we realized that Extension had a challenge to work with people in a broader educational endeavor than ever before.

Therefore, in 1960 we began developing plans for a statewide effort to be known as county and area development. Our pilot work in rural development showed that the Arkansas Extension staff was not adequately prepared for these new dimensions—a task requiring education of an audience far broader than our traditional groups.

With this knowledge and realizing the complexities and interdependency

of one sector of the economy on another, we asked the Department of Agricultural Economics and Rural Sociology at the University of Arkansas to set up a course in resource development for graduate credit. In the same year the Annual Extension Conference program was built around resource development for economic growth, with the keynote address laying out essentially the same outline used in the course.

To give further training to the staff and information to the general public on the economic and social conditions existing in the State, we developed a series of discussion leaflets and included questionnaires to be filled in on an optional basis.

The series, known as the Arkansas Future Series, was discussed by more than 50,000 persons throughout the State. The objective of the effort was education—to inform the public, to develop an understanding of problems, opportunities, and potentials of Arkansas, and to encourage further study.

The purpose of county development is the creation of more job opportunities, learning how to make the people in these jobs more productive in terms of what society wants, and teaching them how to live better with what is produced. The ultimate goal, then, is to improve employment, income opportunities, and living conditions. This purpose implies several secondary objectives, such as changes in peoples' capabilities and changes in the quality and quantity of nonhuman resources—soil, water, forest, and both public and private capital.

The University's Cooperative Extension Service, accepting its responsibility to the people of Arkansas and operating as the educational arm of the U.S. Department of Agriculture, has assisted with the organizational and educational work of county and area development councils and committees.

Extension has provided councils with basic educational materials and suggestions for making a study of their area to determine resources available; present status of development; and potentials for increasing jobs, income, and better living. In this respect Extension has served in a liaison role by calling upon and suggesting to the councils that they secure the services of other agency and organizational personnel when they have information desired by the council.

As we got into the organizational and educational work, our staff recognized the need for further training and education in order to work with a program of total resource development. The course, *Economic Problems of the South*, was designed especially to prepare Extension workers for the job in the field.

The objectives of the course were to identify the sources and processes of economic growth and development and to identify those aspects which are amenable to area action and those appropriate at other levels. The course content is oriented toward regional analysis and those aspects of aggregate growth which are appropriate. Where many development courses are oriented toward underdeveloped foreign economies, this course is concerned with the underdeveloped areas within the affluent democracy.

The purpose of the course is to provide training in broad areas of economic development so that Extension personnel will have knowledge of the principles involved in economic growth and will be able to make application of them as they work with county and area development councils. The course content has been as follows.

I. *Introduction*—Interest in economic development; the meaning of economic development as a science.

II. *Measurement of Economic Growth*—Measuring aggregate income; money flows and income accounts; problems in value measurement; regional income performance.

III. *Sources of Economic Growth*—Factors associated with economic growth; identities between sources of growth; usefulness of the identities; some alternative theories; priorities assigned to the various sources of growth.

IV. *Aggregate Demand for Goods and Services*—Definitions and identities; aggregate income determination; relationship of monetary and fiscal policies to aggregate economic growth; maintaining full employment, stable prices, and high rates of aggregate investment.

V. *Capital*—Definition of capital; the effect of investment; criteria limiting investment; optimum investment levels; actual investment levels.

VI. *Natural Resources*—Types and stocks of natural resources; interaction of natural resources and technology; principle of comparative advantage; the determinateness of natural resources.

VII. *Invention, Innovation, Entrepreneurship, and Technological Change*—Sources of technical change; social forces influencing supply and quality of entrepreneurs; the process of innovation; principles of action.

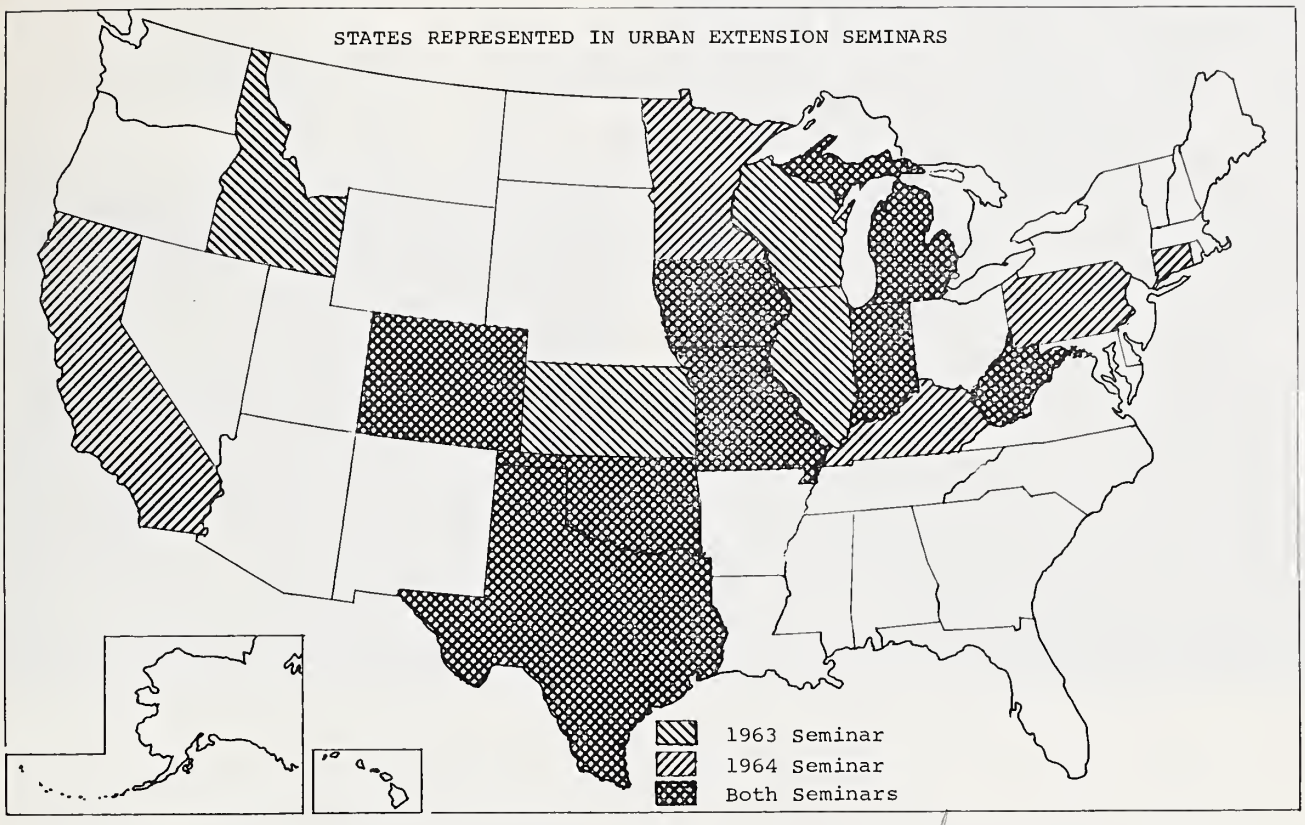
VIII. *Social and Political Forces Influencing Growth Development*—Agrarian values and attitudes; rigidity of the social structure; the political structure; social responsibility; innovating thought and behavior.

IX. *Regional Location Economics*—Single production and consumption areas; two or more sources of immobile resources; two or more markets; requirements for resource, market, and footloose industries; economies of scale and location; criteria for local industry effort; evaluation of local potential; the effect of area size on the local potential.

The course was designed and taught by Dr. Lee R. Martin until he accepted other responsibilities and has since been taught by Dr. Bender. To date, 152 Extension workers have completed the course. Agents from 62 of the 75 counties and several State staff have participated.

This course has strengthened personnel in their knowledge and has given them confidence in their ability to work with and develop leadership in a program of total resource development. Extension's belief in its philosophy of leadership training has been strengthened as we have worked with the larger clientele.

Our experiences have been extended far beyond the rural area. Leaders in business, industry, education, health, community services, and others are coming together to study how to improve their total situation. Although Extension's primary responsibility is with rural people, we feel the best way to help them is to work in a program of total economic development and social improvement. ■



a new learning opportunity—

The Urban Extension Seminar

by WILLIAM J. KIMBALL
Urban Extension Seminar Coordinator
Western Regional Extension Summer School
Colorado State University
and Extension Leader, Resource Development
Michigan State University

"HOW CAN WE DO A BETTER JOB of serving urban people?" This is one of the most frequently asked questions whenever and wherever Extension workers meet.

Specifically, the workers express their concerns in urban Extension work like this:

"Our problems are different now. In my county the big issues are schools, taxes, water, zoning, etc. These aren't rural or urban problems. They concern all the people and this means that I'm working with more and more city people instead of mostly farmers. I've got to be better prepared to meet the change."

"There is no choice. People learned to get information from the Extension office when they lived in the country and they still expect to get it now that they live in the city or suburbs. I must do a better job of answering their requests."

"We've always worked with urban residents, especially in home economics and 4-H, but we've never made a real effort to serve them. The proportion of urban requests is constantly increasing—so is the proportion of urban board members. We've got to design better programs to meet these new demands."

In recognition of these interests, an Urban Extension Seminar was established at the Western Regional Summer School at Colorado State University. The original seminar, conducted during the summer of 1963, had 21 participants representing 12 States; 29 participated in the 1964 sessions representing 13 States. Home demonstration agents, 4-H agents, agricultural agents, county Extension directors, district agents, Extension specialists, and State leaders (or equivalent titles) participated.

It was intended that the Urban Extension Seminar would provide an opportunity for Extension workers to do the following.

Left, a class participant makes a brief statement on the approach to urban Extension in her State. Below, the author comments on the presentation.

1. Exchange information and experiences on urban Extension work with others having urban Extension demands and responsibilities.

2. Become better acquainted with pertinent materials related to urban Extension work to be assembled by the coordinator and seminar participants.

3. Prepare for anticipated increased Extension work in urban areas.

4. Explore (in depth) an aspect of urban Extension work according to the participant's choice.

A committee made up of seminar members worked with the coordinator each year to be sure the interests and needs of the members were met.

The 3-week seminar had 4 distinct phases. For at least 1 hour each day the total group met and joined in a discussion of some component of urban Extension work. The great variation in background and opinions led to very interesting and enlightening exploration.

During a second hour of each day, participants made brief presentations on unique approaches to urban Extension work in their respective States. Again the diversities proved useful in suggesting new considerations for urban Extension work.

For the third phase each participant was a member of a committee which met independently of the class and prepared a class report on one of the following subjects.

(1) The Identification of Urban Society, its Features and Differences from Rural Society.

(2) Advisory Councils for Urban Extension Work.

(3) Appropriate Mass Media for Urban Extension Work.

(4) Appropriate Methodology for Urban Extension Work.

(5) Community Resource Development in Urban Areas.

The reports were duplicated so that each participant had such material for use when returning to his job.

Finally, each participant prepared a similar paper on a special interest subject concerning urban Extension work. Some of the papers were actually sent to County Boards and the interest was so great that the enthusiastic responses which came back immediately were shared at the seminar.

At the conclusion of the seminar each participant submitted an unsigned critique. It is interesting to note that again there was great variation in what benefited each most.

One said, "Learning programs of other States was most useful to me."

A second participant answered, "Learning about available literature related to urban work was most helpful."

Another replied, "Discussion of the various authorizations for urban Extension work helped me most."

The "Special Reports" were most useful to a fourth participant.

A fifth summarized his feelings this way. "The number of people in the various positions in Extension had a tendency to broaden our knowledge of the total Extension program."

All 50 seminar participants urged that such seminars be continued—a good indication of interest and potential growth of urban Extension work. ■

Laboratory Training Opens Insights To New Extension Roles

by STEPHEN L. BROWER
Economic and Social Development Leader
Utah

PICTURE YOURSELF as a new Extension staff member with an intense desire to make good in your new role. But for some mystifying reason, the harder you work at it the less your efforts seem to be appreciated by your fellow workers and your administrators.

This situation is not fiction. It is one of many realities that came to light as the entire Maine Cooperative Extension Staff, including the Dean of Agriculture, confronted one another in informal diagnostic ("D") groups during a 3-day staff training experience conducted by the National Training Laboratories.

The staff was divided in cross-section groups of approximately 13. Each group was a miniature staff including administrators, program supervisors, State specialists, area specialists, county agents, home demonstration agents, and 4-H club agents. The entire staff participated throughout the 3 days—there was no dipping in and out, as is so often the case.

The staff members got a unique chance to be exposed to one another and experience what other members in the organization were thinking and feeling. To his surprise, the new staff member in this true experience discovered that in his anxiety to do a good job he had given the impression up the line that he was building his own empire independent of the organization. Down the line he was seen as one who thought he was too good to work with field staff.

While trying to do his statewide job as he understood it, he had been identifying himself with influential people and groups without involving other staff members who had already established such contacts on similar programs. His "D" group members were surprised to find that he was not aware of the fact that the other members of the Extension organization were interested and concerned with his program area.

As the full impact of this discovery dawned on him and other "D" group members, he dispaired of ever undoing this image. However, his "D" group members now with new understanding and insight into his situation, were able to be helpful and genuinely support him.

The "D" group experience was mutually enlightening; it helped others see why this new staff member acted as he did, and it helped him get a view of the total organization and his role in it. Each "D" group was structured informally to allow individuals to deal with their concerns and get feedback from others to see if their perceptions were the same as those of other people. Each individual could test how he had functioned in the past and gain some new insights about his impact on other people, especially within a group context.

In addition to the "D" group experience, the training conference schedule included lectures and discussions on social science theory related to small group functioning, leadership development, processes of change; and skill exercises on cooperation, giving and receiving help (the consultant role), group observation, and feedback.

In a protected kind of atmosphere, experiences were designed by the training consultants whereby participants could begin to establish new, more effective ways of communicating with each other within the Extension organization. This was particularly significant since a basic objective of the training was to increase the staff's understanding of the total change processes taking place in society and its significance to Extension operations and functions.

Through this type of laboratory training experience using issues current and vital to them at the time, staff members experienced processes involved in bringing people together to deal with their problems. By actually experiencing the problems of planned change themselves they could better appreciate their own impact on a community when they attempt to help people adjust to their changing situation.

Just prior to this conference, the Maine Extension Staff had experienced some substantial intraorganizational change. County agents' functions had changed. They were, in effect, now expected to put on business suits and work with business people and community leaders. Area specialists were to do much of the work county agents used to do with individual farmers.

Seven applied behavioral scientists were brought in by National Training Laboratory as the training consultants to design and conduct this training conference in consultation with the Maine Extension Administrative Staff. They were:

Robert Ayling—Lecturer in Sociology, Northeastern University, affiliate of Boston University Human Relations Center.

Assisted by Donald Ehat, Coordinator of Student Leadership Development Programs, Boston University, and Cleon Kotter, Utah Extension Information Specialist.

Stephen L. Brower—Professor of Sociology, and Social and Economic Development Leader, Utah State University Extension Services.

Donald C. Klein—Director, Human Relations Center, Boston University.

Malcom S. Knowles—Professor of Education and General Consultant in Adult Education, Boston University.

Dorothy Mial—Director for Programs in Education, National Training Laboratories, Washington, D. C.

Curtis Mial—Associate Director and Coordinator for Community Programs, National Training Laboratories, Washington, D. C.

Oron P. South—Professor of Recent American History, Aerospace Studies Institute, Air University, Maxwell Field, Alabama.

It was decided not to include as one of the training objectives, the clarification of the newly-defined roles of the various Extension staff members. However, new communication channels opened up during the training session revealed that these dramatic role changes had produced all kinds of personal concerns among the Extension staff as they struggled with the new roles and relationships in the organization.

The evaluation data gathered at the end of the training session suggests that these roles and relations concerns were still strong and needed much additional attention in the future. By opening more channels of communication this training conference helped set the stage for working on these problems in the future.

The different levels of the Maine Staff seemed to abstract learning from the training relative to their unique needs. County agents said they deepened most their understanding of how to involve groups in problem solving and maintaining working relations with groups and lay leaders.

Specialists felt that they gained much in the analytic skills dealing with helping groups with the problem-solving process and in identifying factors that influence the way groups make decisions.

Administrators felt that they gained most from their experience in a combination of the areas dealing with analysis of group situations as well as insights on how to work most effectively with groups—especially in establishing relationships with new groups.

The specialists were the most emphatic in their rating of the amount of insights and understandings gained from the total training experience in each of the areas evaluated. Apparently the training design most nearly dealt with their concerns and unique problems.

The evaluation included the question "What skills would you like to develop to enable you to function most effectively in your present Extension assignment?" Most frequently mentioned were comments dealing with:

. . . understanding group structure and processes.

. . . increased effectiveness in working with groups.

. . . helping groups identify problems.

. . . increased ability to listen, to identify, and to diagnose situations.

. . . effective inter-personal communications.

Areas of Personal Gain Resulting from the Training as Ranked by the Participants

	Administrators	*Specialists*	*Agents*
Increased ability to:			
Identify factors that influence the way groups make decisions.	1	3	8
Involve groups in organizing effective action.	6	1	5
Involve groups in the problem-solving process	2	5	1
Maintain effective working relationships with groups.	4	2	3
Maintain effective working relationships with lay leaders.	10	9	2
Establish new relations with groups and organizations with which Extension has not traditionally worked.	3	7	6
Communication with colleagues.	7	4	7
Train various kinds of leaders	5	8	4
Help groups assess a problem situation.	9	6	9
Communicate with administration	8	10	11
Understand my role in Maine Cooperative Extension*	11	11	10

*Specifically excluded from the training objectives.

Austin Bennett, State Program Coordinator, served as liaison for the Maine Cooperative Extension Services with the training consultant staff. A few days after this experiment in laboratory-type training with the Maine Staff, he wrote, "Although I was aware of my own deep satisfactions with the training conference, the general hearty approval among our staff is just beginning to be clear to me. Several individuals have expressed the depth of involvement that they experienced and observed in fellow "D" groups members . . . an outstanding job in providing the Maine Extension Services with a really significant learning situation . . ." ■