EXTENSION SERVICE
REVIEW
S DEPARTMENT OF AGRICULTURE ✻ JANUARY 1965

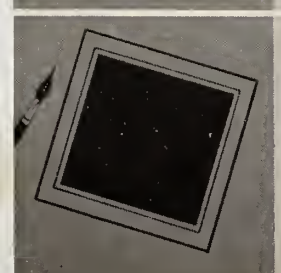
National Summer School for Extension Workers

Giving Underprivileged Children A Better Break

Working Together Toward A Common Goal

A Bull in a China Shop

Demonstration Farms in a Dairy Extension Program



Tinting Photographs for a Better Exhibit

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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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REVIEW

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EDITORIAL

U.S. farmers don't export acres. But they do produce crops for export on 1 out of every 4 acres harvested. That's the estimate for 1964.

For those of you who like big figures, here is the same information stated another way: It's estimated that 80 million acres were used in 1964 to produce crops for export.

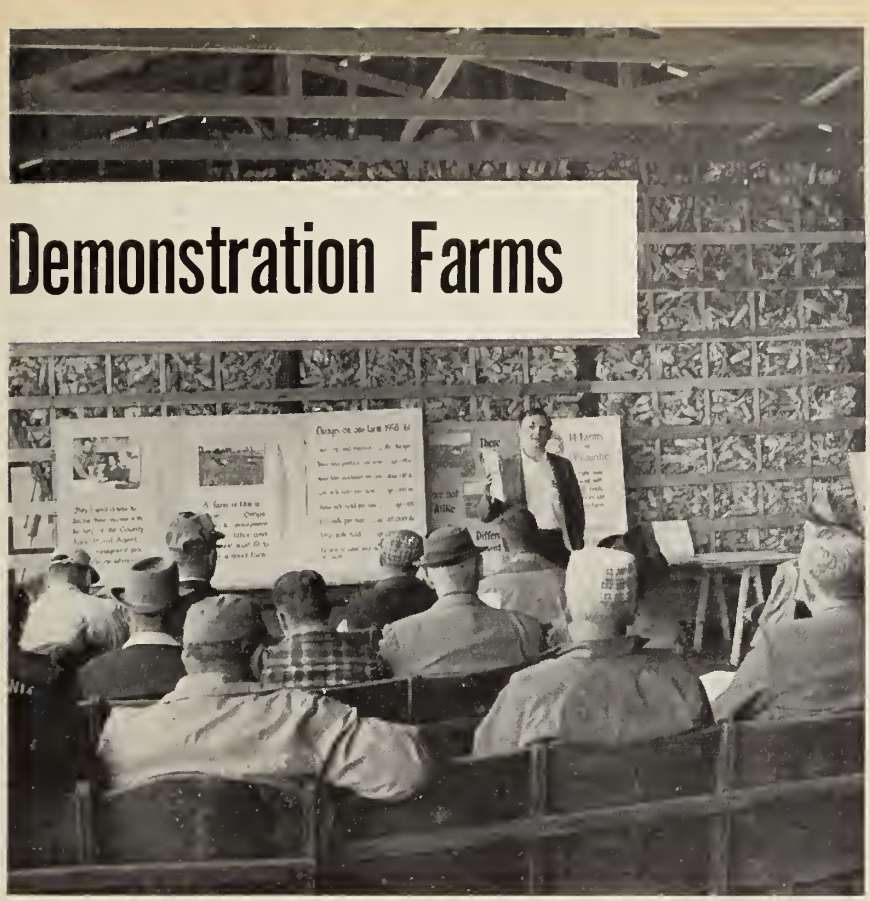
USDA's Foreign Agricultural Service Administrator, Raymond A. Ioanes in a talk at the Annual Agricultural Outlook Conference here in Washington last fall had this to say:

"Our agricultural exports seem to go in a series of plateaus. I recall a few years ago when we got onto a $3 billion plateau—then up to a $5 billion plateau. Now I think we're more or less on a new $6 billion plateau and will be there for the next several years.

"By 1970, I fully expect we will move on to a new $7 billion export plateau. We have the supplies and the export market will be needing them."—WAL

* * * * * *

Beginning this month, pagination will be complete with each issue rather than the previous style of numbering pages consecutively from January through December.



Demonstration Farms

an overall approach to the farm business

by R. S. ADAMS, J. S. TAYLOR, *and* L. W. SPECHT, *Dairy Science Extension Specialists, Pennsylvania*

THE complexity of farm business today and trends toward specialization call for a specific type of demonstration: the "Unit Demonstration Farm."

Dairy specialists in 1956-57 started four demonstration dairy farms in an attempt to show the value of using recommended dairy, agronomic, and farm business practices. Net farm income was the principle criterion for measuring the value of the demonstration to an individual cooperator. Agronomy specialists followed a similar approach on other demonstration farms. The success of these initial farms and the need for increased coordination among the disciplines involved, resulted in the formation of the unit demonstration farm (UDF) program as it now exists in Pennsylvania.

Scope of Present Program

At present there are 42 dairy farms and 9 livestock farms included in the UDF program. Dairy specialists are directly involved on 25 of the unit demonstration farms. The remainder of the dairy farms utilize dairy Extension programs, but are basically agronomy demonstration farms. A major objective of the UDF program is to consider the operation of a dairy farm as a unit by an interdisciplinary team which is made up of specialists and county personnel.

Basic participants in the UDF program are the farmer, the county agent, and the specialist team from the University. Cooperating farmers receive no compensation other than reduced rates for soil and forage testing.

Coordination is the responsibility of a 3-member UDF committee which is chaired by a farm management specialist. The specialist team assigned to each farm consists of an agricultural engineer, agronomist, dairyman, and a farm management specialist. Other specialists, as needed, may contribute from time to time. Most of the dairy specialists on our staff work with two to six unit demonstration farms.

Primary responsibility for overall policies rests with a program development committee made up of four specialists and six county representatives. The Associate Director in charge of program development acts as chairman. The responsibilities of the farmer, county agent, and specialist appear in a handbook.

Advantages of Demonstration Farms

Need for such a program in Pennsylvania has been particularly pressing since many of our current recommendations conflict with previous ones or with popular

Demonstration farms have helped expand participation in farm business analysis and soil and forage testing. A group of farmers observes a crop demonstration (above) and a soil profile (below) at a UDF field day.

opinion. Also, there are no branch station herds to provide more localized data. Our major concern is to provide the farmer with advanced technological information in a reasonably compact package which will encourage its use in his everyday operations. While our demonstration farm program as presently conducted could be improved, we feel that it has served admirably in the following respects.

As a teaching aid. Adoption of recommended practices has been greatly increased by the use of data obtained on demonstration farms. Demonstration farms particularly have helped to expand participation in farm business analysis, as well as soil and forage testing.

Data obtained from unit demonstration farms are useful for comparison purposes in materials for Farm Business Analysis workshops and television schools. They also provide good background information for planning programs with various commodity groups and trade associations.

An example of the impact of the demonstration farm program relates to grain feeding. In one county, specialists had been asked by the agent to refrain from discussing home or custom-mixed feeds, since it was traditionally a complete feed area. One year after establishing a unit demonstration farm in this county, this agent and numerous dairymen in the county became firm believers in home or custom-mixed feeds costing $12-$15 per ton less than most complete feeds in the area.

The data presented in the tabulation partially indicate how demonstration farms were used in Extension teach-

ing during the past year. One or more demonstration farmers appeared on programs for five regional or statewide meetings during the year.

Activities related to unit demonstration dairy farms in 1964

Activity	*Number*
Tours	8
Field days	6
Meetings	5
Newspaper stories	26
Magazine Stories	6
Television programs	7
Result demonstrations*	41

*Regular varietal, weed, and insect control demonstrations which were located on unit demonstration farms.

As a method of in-service training. Working on demonstration farms helps county Extension personnel keep abreast of various Extension programs and recommendations. Similarly the demonstration farm program helps to keep specialists close to farm problems. Further, it aids in broadening the competence of the "specialized" specialist in dairying and related subject-matter areas.

In fostering a unified, interdisciplinary approach. The unit demonstration farm program is nurturing an "overall approach" to the farm business. Information provided to an individual farmer must be in terms of what is best for his whole operation. The UDF program has contributed greatly toward increasing cooperation among the various disciplines on both Extension and Research staffs.

In strengthening Extension programs. The use of demonstration farms has strengthened our Extension program in many ways. Our forage testing and DHIA-FT programs were developed and tested with the cooperation of UDF farmers. Many recommendations relating to feeding, fertilization, and forage-making have been farm-tested on demonstration farms prior to general release.

Our demonstration farms have provided us with local facts and third-party success stories which hasten adoption of new recommendations. Information obtained from demonstration farms also provides us with a better estimate of the value of Extension programs to our farmers.

Demonstration farm programs are improving our image. Data from a group of individual farms may be carefully extended to show potential benefits to agriculture and the economy as a whole. Increased support for Extension needs has been generated. The results obtained on demonstration farms also have been instrumental in improving relations with other governmental agencies, industry, bankers, and veterinarians.

In strengthening research programs. Problems uncovered on demonstration farms have received the attention of Research as well as Extension personnel. Results obtained under farm conditions have encouraged changes in research approaches to numerous areas involved in forage, milk, or livestock production. Linear programing and budgeting of the farm business on unit demonstration farms has provided graduate students with research projects.

Farm Results

Here are some of the noteworthy achievements made by cooperating farmers: (1) milk production increased as much as 3,300 pounds per cow in 1 year; (2) estimated TDN content of forage ration increased by as much as 9 percent in 1 year; and (3) net farm income increased by as much as $7,500 in 3 years. Average changes for a group of farms in the UDF program are found below.

Changes occurring over a period of 2 years on 14 unit demonstration dairy farms

Item	*Unit*	*Change*
Corn per acre	Bushels	+38
Milk sold per acre	Pounds	+524
Feed produced per acre	Value	+525
Milk sold per cow	Pounds	+897
Milk sold per man	Pounds	+37,304
Crop and pasture used	Acres	−9
Net cash income	Dollars	+2,050

Unit demonstration farms are providing us with an effective teaching method, a framework for improving Extension programs, and additional criteria for program evaluation. The program has been especially rewarding from the standpoint of personal satisfaction for those involved.

Organizations sponsor tours of the unit demonstration farms. These men are plant food industry delegates.

for a more effective exhibit . . .

Tint Your Photographs

by JOSE A. GONZALEZ, *Extension Editor-Leader, Puerto Rico*

YOU can make your photographs for exhibits more attractive by tinting them. With a little practice and the proper materials and equipment you can master the art of enlivening your visuals.

First you must have a good contrast, black and white photograph of the desired size. Keep in mind that minute details are very hard to tint and do not show at a distance. Antonio Atiles, Puerto Rico's Visual Aids Editor in charge of photographic work says it doesn't pay to tint photographs smaller than 11"x14".

Any good matte paper can be used for this purpose. Since most of the photographs are to be mounted either on plywood, masonite and similar materials, or mat cardboard, the paper should be single weight. Mounting helps to preserve your pictures.

When mounting photographs 16" x20" and larger, paste or glue a piece of paper on the back of the masonite, plywood, or mat board. This will prevent the picture from bending when it dries. Photographs should be mounted before tinting.

Other materials include: (1) a set of Photo-Oil Colors, (2) a piece of glass about 8"x10" for blending the paints (you can use a palette but glass is easier to clean), (3) kerosene for precoating the picture, (4) absorbent cotton, (5) kneaded rubber for erasing, and (6) non-yellowing, water-white, clear matte lacquer.

Procedure

When you have your photograph ready for painting, cover it with a light coat of kerosene. Let it dry for 5 to 10 minutes. Too much kerosene may dilute your shades and retard drying. Too little will make tinting more difficult. For very dense, dark colors use less kerosense.

If you are in a hurry to finish your tinting, you may wipe off some of the kerosene with a piece of cloth, like baize or flannel.

Tint the background first. Using a cotton wad, try your color on part of the surface of your picture. Then spread it slowly with a circular motion to cover the background. If the color is too strong you may use the solution that comes with the kit, or extender, to dilute the color. If it is too light, add more color.

Roger Bartolomei, our Visual Aids Editor in charge of Layout and Design, recommends the purchase of additional colors not found in the kit, such as Sky-blue for sky background; and Viridian for blending to produce other colors.

You will probably have to experiment for a while until you get the "feel" for blending your colors.

If you are not satisfied with the color that has come out on your photograph, you may remove it with the solution, but don't let the color dry too much before doing so. The same is true about intensifying or diluting a color.

After you have covered the background you may proceed to tint smaller areas. Sometimes if the whole background is gray or green, you can smear green all over the picture and remove the paint from small areas that should be tinted with other colors. This saves time.

On places where paints overlap and you want to remove the color you may wipe the paint off with a piece of cloth and then erase it with kneaded rubber (art gum). This is especially useful with white clouds and details of light flowers over a darker background.

Once your photograph is tinted, let it dry for 2 or 3 days away from the sunlight and where the humidity is low. Then coat it with non-yellowing matte lacquer. You may have to give it from two to four coats of matte lacquer, depending on the pressure tank of your paint sprayer. A powerful sprayer which can take thick lacquer will save time and money by requiring only two coats. With less expensive equipment you may have to dilute the lacquer and give four or five coats, letting each one dry before the next.

This will make your picture waterproof and you can wash it with soap or detergent and water.

A third dimensional effect can be obtained by light streaks or spots in the foreground over darker background of your picture, given with a very small pointed cotton wad. For shadows you may use a little gray or brown with the color, depending on the tint you are using. This will take a little experimenting to get the right contrast.

Mounting for Exhibit

To attain a third dimensional effect, mount your pictures with 1"x1" pieces of wood of appropriate length, depending on the size of the picture, to "lift" them from the panels. One side of the piece of wood should be rough to make it adhere better to the back of your photograph. With 16"x20" pictures, two 1"x1"x12" sticks will do. Glue one about 2 inches from the top and the other about 4 inches from the bottom.

A piece of wood of about the same size can be glued, nailed, or screwed to the panel to hold your picture. When using thicker wood—1½" or 1¾"—two pieces about 4" long are used, to make the picture less heavy. Drill one or two holes on the upper stick coinciding with holes on the stick on the panel. Drive two pegs through these holes; your picture will be held securely.

In some instances shadow boxes or dioramas may be used for different effects.

If you want to become a real expert there are several books on the photo coloring process. However, some of the techniques and variations offered in the beginning of this article are the product of the experience of Roger Bartolomei. You may come up with some other material or labor-saving modifications if you try.■

A Bull in a China Shop

by DAMARIS BRADISH, *Assistant Home Agent*
Las Vegas, Clark County, Nevada

THE way people talk you'd think 4-H in the city was synonomous with the proverbial bull. Listen.

"Sure, 4-H is great! I was a 4-H member once and know it's a fine program. Too bad my kids can't belong—but we live in the city."

"Of course, I'd like my boy and girl to join 4-H but I can't have a calf in my back yard."

"I raised chickens in a 4-H project back in Texas . . . must have been 20 years ago. I wish we could live out in the country so my kids could be in 4-H."

Any Extension worker assigned to an urban area has heard these statements repeatedly. Sometimes they are heard immediately following an agent's talk on 4-H. A talk in which that hard-working agent stated quite clearly that 4-H is available to *every* boy and girl.

Why does the public still link 4-H to a calf? It's not that the PA system wasn't working—we've sold ourselves short, folks. We've been much too humble about our past successes. We've defeated ourselves in this effort to build an urban 4-H image by being too conservative.

Part of the problem comes when we don't take heed to what is said to us. The rest of the problem lies in the fact that we are either unskilled in modern communications techniques or deathly afraid of them.

We can be assured that 4-H has been a most successful, satisfying, and meaningful program in the past. If you have a doubt, listen to the statements (might they be called testimonies?) of our millions of alumni. Answer the hidden request in each of the statements made by parents seeking the program they helped build.

But learn to attack first. In other words, FIND YOUR ALUMNI! Where do you suppose all these urban and suburban dwellers come from? All studies prove the mass migration from rural to urban areas.

Alumni know the program. Training necessities are redueed—so they can beeome qualified leaders overnight, in faet, the minute they volunteer. And they will volunteer if they know you exist in the eity.

Start an alumni search. Get all leaders and members to help. Call them on the phone or have some leader or senior club member call to let them know 4-H is still interested in them. *Don't ask them to lead a club* but *do* invite them to attend certain county events.

Ask if they'd like to receive a newsletter. Ask about their family, where they were in 4-H, what projects they took, what awards they might have won (this they usually tell without being asked).

Keep them informed about your program. They will volunteer to serve as leaders and will serve as unofficial public relations personnel. They will help get loeal support for your program *if* they are informed.

Remember . . . they do care about 4-H and they do need to be assured that 4-H cares enough about them to let them know what's going on.

This brings us to our second problem—that of communications. Try some new tricks. Take some lessons from business and industry and don't be afraid to admit what you are doing. Advertising too, is an educational process and a mighty effective one.

Press, radio, and television all offer opportunity to help get across your message. There is time and space available if you'll use it. Here are three ways TV can work for you—and without much effort.

Get yourself or your 4-H'ers invited to appear as guests on one of those multitudinous, rambling shows featuring people of the eommunity. Just call the studio and ask to be on. This type of appearanee doesn't cost a cent and requires a minimum of preparation.

The second TV trick is to use the evening news report to tell any big stories. If you have a winner or if you are having a countywide exhibit, or a dog show, or a gymkhana—send in the news, or call the station with the facts. You don't need to appear and you shouldn't unless you are the most charming home agent or farm advisor in the land.

The news reporter and the sportscaster are skilled in stating facts clearly and distinctly. Stay home for dinner with your family and watch television work for you. By the way, some studios will send a mobile unit to your big 4-H events.

The third TV trick is spot advertising which is available as public service time—it is free. If you are blessed with some artistic talent, draw some ads and write some copy —it'll make you feel like one of the Madison Avenue boys.

If you are not so blessed, get someone to make a simple poster with the 4-H emblem and your phone number. With the new, instant lettering that is available, anyone with a ruler can make a beautiful sign. Write copy that tells about your program (keep it to 20 seconds).

Armed with these goodies take a spin out to the television studio and explain what you have in mind. Leave your sign and your eopy and go baek to the office to answer the phone. The TV studio will do your talking for you as they flash the picture on the screen. Who ean turn you off if you're only on for 20 seeonds!

Sure it can be done—we tried it in Las Vegas. Look what happened to our enrollment.

1962—304 members
1963—501 members
1964—1,002 members
. . . and they are still rolling in! ■

they give underprivileged children a better break

Many children are able to attend school and do better in their studies because of a community service project of the Rosedale Home Demonstration Club

A community service project of the Rosedale Home Demonstration Club provides clothing and shoes, workbooks and other supplies, dental care, and school lunches in excess of what the school system can give free to those in need. It has been conducted for 3 school years for grades one through six.

School officials and others in the community cooperate with this effort and praise it.

"Children are passing who would not have otherwise because they have workbooks," said the principal of the Rosedale Elementary School. "They have clothed children and made it possible for some to come to school who could not have done so without this help. The morale and attitudes of the underprivileged have been much better."

The county superintendent of schools said that his teachers were contributing funds to feed and clothe needy children, but that more was needed. "What these Home Demonstration Club women are doing is so important that I hope the parents appreciate it as well as all who are concerned with the future citizenry of this community," he stated. "The growth and development of the children who are affected by this program is of tremendous value. A hungry child cannot do an acceptable job of school work."

The project also encourages children to attend the Sunday School and church of their choice.

by DUANE B. ROSENKRANS, JR., *Extension Information Leader, Mississippi*

Club records show that 110 children have been clothed in 3 years. The club maintains a clothes closet at the school. It contains a good supply of most items of clothing and shoes for both boys and girls of elementary school age. All items are in good condition: this year the club bought $75 worth of new clothing.

A club member who lives near the school works closely with the teachers in fitting clothing on children who need it. The women have also provided workbooks for 30 children. Such workbooks can be used only once.

During the past school year $75 was donated by the Rosedale Club, the Riverside Home Demonstration Club (which it helped to organize), and the local Lions Club. Any school that feeds 10 to 15 percent of its children free needs the help of civic clubs and others, according to the State Department of Education.

In 1963, the Rosedale Home Demonstration Club paid $236 for dental care of 17 needy children, including an expensive brace for one. A local dentist charged half his usual fee for these cases.

The Riverside Home Demonstration Club financed art materials beyond what the school's budget could provide. The members of this club are 9 women who have full-time employment away from home and meet at night.

All 13 Home Demonstration Clubs in Bolivar County have community service projects along with their educational programs, stated Joyce Cleveland, county home demonstration agent. An aim of Home Demonstration Club work is to develop leadership while keeping up with the latest scientific home economics information, she explained.

This project at Rosedale grew partly out of competition among the Home Demonstration Clubs of the county. It moved ahead after one of the members attended a National Home Demonstration meeting at which local action was urged to help solve the school dropout problem.

"We soon forgot about winning awards, as the needs became more and more apparent," said the president of the club.

The 20 members found several ways to raise money for their project. They combined education for the public with fund-raising at such events as a homes tour and a "Fun, Flowers, and Fashion Show." They sold candy, nuts, and baked products. Other sources of money included the Lions Club and the discontinued Parent-Teachers Association.

Both Home Demonstration Clubs have a "Pennies for Milk" donation at each monthly meeting.

Plans for the future include expanding Home Demonstration Club work in the community and developing more organized recreation for boys and girls.

Advisor to the club in this project was Mrs. Fontaine Goza, retired child welfare worker with the Bolivar County Department of Public Welfare. Mrs. Goza also helped by explaining the project in her regular writing for the local paper.

"The problem in the area is associated with a large number of agricultural day laborers whose children change schools often," Mrs. Goza pointed out. "Helping these parents to understand the importance of their children getting an education is a part of the solution, and cannot be done quickly," she said.

A member perhaps summed up the feelings of all associated with the project when she observed, "The pleased expression on the face of a happy child can hardly be forgotten by anyone." ■

by DAN HILLEMAN, *Extension Editor, Colorado*

more than just a change of name

National Summer School for Extension Workers

Students are shown new techniques in ground water research developed by the Colorado Experiment Station.

A National Summer School for Extension Workers on the Colorado State University campus will be held this year. This is an additional step in the development of what has been known previously as the Western Regional Extension Summer School.

The change in name is significant, but the real impact involves changes in the educational program itself.

These planned changes anticipate the additional demands which will be placed on the new summer education program as it moves from regional to National stature, explains Lowell H. Watts, Director of the Colorado Cooperative Extension Service.

Extension's National Summer School has an international reputation and representation. Here an African student presents a plaque to Avery Bice, associate director of CSU Extension, acknowledging their appreciation of the quality of instruction and the reception they were given.

Additions to the education program recognize areas of new subject-matter interest in Extension, according to Dr. Carl J. Hoffman, CSU Extension education and training officer and summer school director. Curriculum additions will include courses in "Advanced Studies of Low Socioeconomic Groups" and "Developing Human, Natural, and Manmade Resources."

Other summer school courses include urban Extension, development of youth programs, public relations, communications, human behavior, organization and development of Extension programs, and development of agricultural policy.

The National Extension Summer School program also offers Extension personnel an educational climate or environment that is not duplicated in single-state instruction.

Last year, for example, the summer school program on

the Colorado State University campus drew Extension workers from 32 States and 19 foreign countries. The cross-fertilization of ideas from the varied backgrounds of these individuals added additional depth and scope to classroom instruction, Dr. Hoffman notes. The combining of practical working experience in Extension around the Nation with classroom instruction has proved an effective educational combination.

Naturally, this exchange of practical and theoretical Extension ideas between people from all corners of the Nation and the world, is not limited to classroom instruction. The exchange continues in informal discussions as students seek to make the most of the summer educational opportunity.

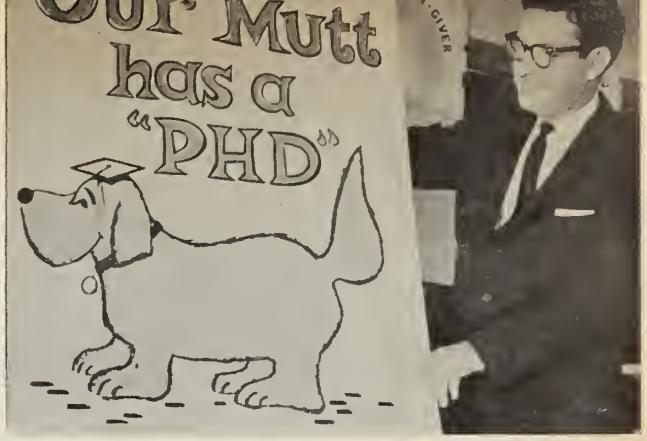
The international segment of the summer training program is directed in cooperation with the Agency for International Development (AID). Recognizing that many of the educational needs of these students differ from established National programs, special courses and subject-matter areas have been designed for their use. Last year nearly 50 foreign students participated in this portion of the summer school program. International participation is not limited to this segment of the training program, however. Foreign students also play a definite part in the total academic and social activities of the summer session.

Faculty selection for the new National Extension Summer School program will follow the same criterion used in the past for CSU's Western Regional summer training sessions. This criterion is to obtain Nationally outstanding experts in each of the subject-matter fields. Last year the faculty represented six of the Nation's top universities and several governmental agencies. This coming summer the representation of subject-matter experts will be increased to include educators from seven outstanding institutions. Their names and the courses they will teach in 1965 are outlined at the end of this article.

Formal classroom training sessions are also supplemented with on- and off-campus tours. Last summer these tours included visits to several of the major agricultural and business complexes located on Colorado's rapidly expanding eastern slope. More tours are planned for the upcoming session.

The value of continued education for Extension personnel is becoming increasingly apparent each year, Dr. Hoffman states. Recently developed statistics indicate that three out of four college graduates will take advanced training.

The National Summer School for Extension Workers offers those in the Extension profession an excellent op-



Top, *in his course in Human Behavior, Reagan Brown often uses humorous but always effective visuals.* Center, *CSU's location at the foot of the Rockies offers varied recreational opportunities which include the annual summer session fish fry.* Below, *Dr. Tyrus Timm of Texas A&M is representative of the subject-matter experts recruited each year for the summer school program.*

The course in Extension Communication will be led by Dr. Maurice White, professor of agricultural information at the University of Wisconsin. He is shown here in a radio training session with a 1964 summer student.

portunity to initiate or supplement advanced training. The informal environment of the summer training program makes it a good introduction to graduate study, Extension educators feel. The synthesis of ideas brought to the summer school campus by Extension students from across the Nation and throughout the world is also testimony to its importance as a center for supplemental education.

A tentative list of instructors and course work scheduled for the 1965 summer session is as follows.

(Ex 280) *Advanced Studies of Low Socioeconomic Groups*—Dr. Irene Beavers, Program Leader, Division of Home Economics, Federal Extension Service, Washington, D.C.

(Ex 294) *Human Behavior in Extension Work*—Reagan Brown, Extension Sociologist, Texas A & M University.

(Ex 283) *Developing Human, Natural, and Manmade Resources*—Dr. Eber Eldridge, Professor of Economics, Iowa State University, and Dr. Daryl Hobbs, Associate Professor of Rural Sociology, University of Missouri.

(Ex 296 International Section) *Organization and Development of Extension Programs*—Lincoln Kelsey, Professor Emeritus in Extension, Cornell University.

(Ex 176) *Urban Extension Seminar*—Dr. William Kimball, Associate Professor, Department of Resource Development, Michigan State University.

(Ex 296) *Organization and Development of Extension Programs*—Dr. Roger Lawrence, Extension Training Specialist, Iowa State University.

(Ex 177) *4-H and Youth Development* — Dr. Rudolph Monosmith, State 4-H Club Leader, University of California, Berkeley.

(Ex 290) *Public Relations in Extension Education* — William Nunn, Director of University Relations, University of Minnesota.

(Ex 297) *Principles in the Development of Agricultural Policy*—Dr. Tyrus Timm, Head, Department of Agricultural Economics and Sociology, Texas A & M University.

(Ex 292) *Extension Communications* — Dr. Maurice White, Professor of Agricultural Journalism, University of Wisconsin. ■

WORKING TOGETHER
toward a common goal

by JAMES R. HOFFBECK
Agricultural Extension Agent Aitkin County, Minnesota

■ OESDP.

Those five letters have become familiar to many people in Aitkin County, Minnesota, during the course of the past two years. In that time an Overall Economic and Social Development Plan, a 120-page document of county facts and analysis, was prepared.

Situation analyzed

The Aitkin County Area Development Association, the county's RAD organization, took on the task of researching the economic and social past of the county. In addition, they were given the job of describing and analyzing the present situation along with making some projections into the future.

Responsibilities for carrying out the assignment were delegated to standing committees within the Association: Agriculture; Business and Industry; Forestry and Natural Resources; Tourist and Recreation; and Health, Education, and Welfare (Family Living). Persons from all walks of life made up the membership of these committees. But they all had one aim in common—the future economic and social development of their county.

The first step was to research past trends, facilities, and services provided to find out how these have been changing. The four high schools in the area were surveyed to see if the rate of change in their curriculums was going to be fast enough to meet the challenge of the future for the county's youth. Findings showed that more vocational training is available as well as courses in the arts.

Many groups involved

Many Federal and State Governmental agencies provided useful information for the OESDP. In addition to the governmental units, individuals, firms, and community groups were involved. Some of these included the banks and the Production Credit Association which provided information on present lending policies in the fields of agriculture, business, and recreation. County pastors presented facts about church and community structures and their interaction.

Specialists at the University of Minnesota Agricultural Extension Service condensed statistics pertinent to the county situation. Much of this information was included in the plan.

Progress slowed as spring approached because Aitkin County, being in Northern Minnesota, is blessed with a very fine (but often short) summer season. During this time all efforts are devoted to making a living during the spring and summer months whether it be in agriculture, tourism, or another type of business.

The committees resumed their work in the fall of 1963, reviewing the past and present situations in the county. The Extension office provided copies of the materials that had been developed the winter before. With this basis the committees made projections into the future of the county and recommended how these projections could be realized.

Extension took the responsibility for publishing the report of the committees. In order to facilitate this, the county board of commissioners made an appropriation based on a provision in the law which provides 5¢ per capita for the promotion of agriculture and related programs.

The report was published in two forms. Each area of study was developed separately for use by special interest groups. But those concerned with the total county picture would receive a single volume containing all sections. The Overall Economic and Social Development Plan was completed March 1, 1964. It is a plan that truly was developed by the people for all of the people of Aitkin County.

Report distributed

The first step in putting this collection of facts, projections, and recommendations to work was distribution of the complete volumes to schools, churches, business groups, community organizations, farm organizations, and other interested persons and groups.

The Extension office uses the OESDP with many groups throughout the county. Often people are curious about some of the facts in the report and ask how they were developed. Through this type of discussion, people are able to dig deeper into the problems of the county. Thus, the OESDP aids in developing county programs.

A series of meetings was held in five locations through-

out the county, for developing a program of work. To begin these meetings, the Extension agents used a questionnaire with 20 multiple-choice questions which were taken from the OESDP. These questions were designed to stimulate the curiosity of the persons taking part in the meetings. They were based on the various sections of the report and at the same time served as a basis for discussion.

It was felt that the questionnaire accomplished its purpose and, as a result, a new program of work has been developed which has broader aspects than the program which has been carried on in the county over the past few years. One of the expanded areas is the development in depth of a public affairs series. This will involve various county offices and agencies with a discussion of their duties and responsibilities.

There were requests for information on methods of assessment as well as a breakdown of where the tax dollar goes. A topic that was discussed at each session was the scope and responsibility of the Welfare Department. So a session with this agency is planned as well as others. Possibly through a series of this type, the people of the county will develop a better understanding of *their* government.

Impact felt early

Even before the report was completed, the agent was asked to appear before the board of directors of a local bank to discuss trends which had been found through the research of materials concerning the county. This information was to be considered in future bank planning.

A request by a local high school social teacher for 125 copies of three sections of the report; Agriculture, Business and Industry, and Forestry and Natural Resources has been filled. We have received requests for materials from other schools in the county that plan to use the material in their social classes during the coming school year.

Before these requests and others can be filled, more copies will have to be printed. The first printing of 600 copies is nearly exhausted.

The development of the Overall Economic and Social Development Plan for Aitkin County showed how many people from various walks of life could and would work together toward a common goal—the improvement of conditions for today and tomorrow. ■

A New Approach to Leader Recruitment in 4-H

by JAMES R. HUBER, *Extension 4-H Agent, Union County, Oregon*

USE of community leaders and pretraining of prospective 4-H leaders has provided an efficient and modern approach to 4-H club organization in Union County, Oregon.

Previously, the Extension agent organized all clubs in the county, with an October-through-January organizational "spree" among the various communities until all the clubs were organized. Now the task is done by community leaders, who complete the job within a month's time. As a result, the 4-H club program in Union County has expanded and the community leaders have found an adequate supply of club leaders for their areas.

The community leader approach to 4-H club organization began in the fall of 1961, after the agricultural planning council had rejected a request for an additional 4-H club Extension agent. At a regional agents' conference, the State 4-H staff suggested that we turn to the community itself to solve our problems in securing new leaders and organizing clubs.

We were eager to try this new approach. Within a few days we had carefully selected, visited, and asked new leaders to accept a more responsible role. We set a date for a training school for community leaders, at which time we reviewed the status of the 4-H program, explained the need for community leaders and studied the qualities needed in 4-H leaders. Community leaders were also instructed on how to gain confidence of school administrators, importance of visiting classrooms with a

minimum of disturbance, and presenting well-organized talks to each class.

They were also briefed on how to conduct a survey in 3 days. On the survey blank was included a place for students to list names of prospective leaders. Before the meeting ended, we agreed that a training session for prospective leaders should be held within a 2-week period.

Each community leader was to survey his or her area and ask prospective leaders to attend a training session to be held in November. Names of prospective leaders were sent to the Extension office so we could mail them a personal invitation to attend the training session.

In preparing for the training meeting, we agreed that meetings should begin and end on time. Each presentation was timed and the entire meeting lasted 1½ hours.

Fifty enthusiastic persons attended afternoon and evening sessions for the new leaders. Guest speaker was Cal Monroe, State 4-H Club Agent. The meeting was also attended by Manop Sivilai, county agent from Thailand, who observed Extension methods and praised the volunteer leaders for their initiative, "know-how," and service.

Monroe outlined the origin of club work and explained the relationship between Union County Court, Oregon State University, and the U.S. Department of Agriculture. The role of the County Extension Service was explained by the use of visuals, including a flannelgraph showing each Extension Agent and his responsiblity to the club program.

The new leaders received tips on relationships of club members, parents, and leaders; how to work with youngsters; and how to organize clubs. For reference we used *Parents and 4-H Club Work* — USDA PA-95, *The Club Leader and the Parents*—Club Series A-55, *Club Members Together*—Club Series A-57, and *The Club Member and the Leader*—Club Series A-58. Testimonials from community leaders indicating the satisfactions of 4-H work, with a question-and-answer period concluded the session.

The response from the pretraining of new leaders was noteworthy. In addition to the 50 who attended, there were 25 more who indicated they would be willing to lead 4-H clubs, but were unable to attend this meeting. These 75 leaders were secured by 14 community leaders within a 2-week period.

The community leader approach and the method of pretraining new leaders resulted in the expansion of the 4-H club program from 913 to 1,020 members that year. Our project enrollment grew to 1,461 and was well balanced, with 617 projects in home economics, 356 in agriculture, and 488 in other projects. We are now reaching one out of every three youngsters from the fourth grade through high school with 4-H club work.

Involvement of community leaders indicates that there are many talented people in the community who are willing to serve as community leaders. They are respected, well acquainted with the parents and children in a given area, and can often get more response in securing club leaders than can the Extension agent. They also assist in organizing clubs, securing leaders, developing leader

The training session for prospective leaders was led by Cal Monroe, State 4-H agent and community leaders.

training and serving as a liaison between the Extension office and the local 4-H club leaders.

A systematic and timely method of organizing 4-H clubs in the fall is a "must" for a successful 4-H program. The old saying, "Planning makes it happen" proved to be true. Within a month we were able to recruit and train 14 community leaders and have them complete a survey in each of their communities. They secured 75 prospective club leaders whom we also trained. Ninety percent of the clubs were organized within this period.

We provided a systematic and definite approach in training new and prospective leaders. We helped them understand the organization of the Extension Service and how the Land-Grant Universities and U.S. Department of Agriculture are backing their program. Our records show that out of 61 leaders recruited in the fall of 1961, 26 are still leading clubs, 19 have moved away or were ill, and we lost only 16 because of other reasons.

The community leader approach provides more efficiency in the overall 4-H operation at less cost to taxpayers, and key leaders are a source of continuous strength throughout the year.

Other values derived from this program include personal growth of the Extension agent. Preparing outlines and visual aids and presenting subject matter for community and prospective leaders is challenging. A concerted effort toward club organization on the part of community leaders resulted in getting most of the clubs organized in a 4-6 week period; provided peace of mind for the Extension agent; and gave him time to hold a *Know Your County Government* conference for older 4-H youth; and to develop leader training programs. ■

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From the Administrator's Desk

A new feature of the Extension Service Review

We are constantly striving to make the *Extension Service Review* more useful to you, just as we are working in FES in many ways to help you do your job, to constantly strengthen the service Extension performs for the American people.

It has been suggested that the readers of the *Review* would appreciate a few personal ideas from the office of the Administrator. Beginning with this issue, I shall take pen in hand each month—to do a bit more to serve you through this page.

I expect to write a little about a variety of things. Our goal will be to comment from this point of view on a variety of subjects of current and timely interest to Extension workers. We would hope to communicate something of the National point of view with respect to our programs and the needs they serve. We would hope to communicate some sense of National purpose, and the relation of this to your programs and the local needs. We would hope this page might challenge and stimulate your thinking and keep you informed as to the immediate items occupying the Administrator's desk.

One constant challenge faced by the *Extension Service Review* editorial staff is to maintain a publication useful to all Extension workers. This is not easy in light of the great variety and diversity of local situations in which we work, the great variety of different and specialized assignments we have. No one article, no one issue is of equal significance to all Extension workers. We hope you frequently find an article of special significance to you.

While we have many and varied interests we have much in common—a common heritage, a loyalty to our organization, a dedication to helping people improve the world in which they live and their lot in it, a reliance on common educational philosophy and technique, our cooperative ties to the Land-Grant Universities and the USDA, and a constant need to build our own knowledge and skills. The *Extension Service Review* can serve these common interests along with individual specialized interests—and we hope this page may strengthen the *Review* in doing this.

The *Extension Service Review* can be useful only to the extent that Extension workers are willing to devote the time necessary to make it so—by writing articles, by making constructive suggestions to the editor, by carefully reading each issue. The editor appreciates the help your suggestions give him.

Similarly I expect this page may be useful only as long as we receive reactions and suggestions from Extension workers. At any rate, if after a time of trial we feel such a monthly note from the Administrator's Office is not the most productive use of this space, the editor will use the space for some other purpose.

In this first note I want to say just a word about the past year, our 50th Anniversary year. We have seen much editorial comment from the four corners of the country and many publications commending Extension for its 50 years of distinguished service. This has been a most gratifying tribute to the thousands of dedicated Extension workers. All of us who have witnessed these expressions have felt great pride in our associates.

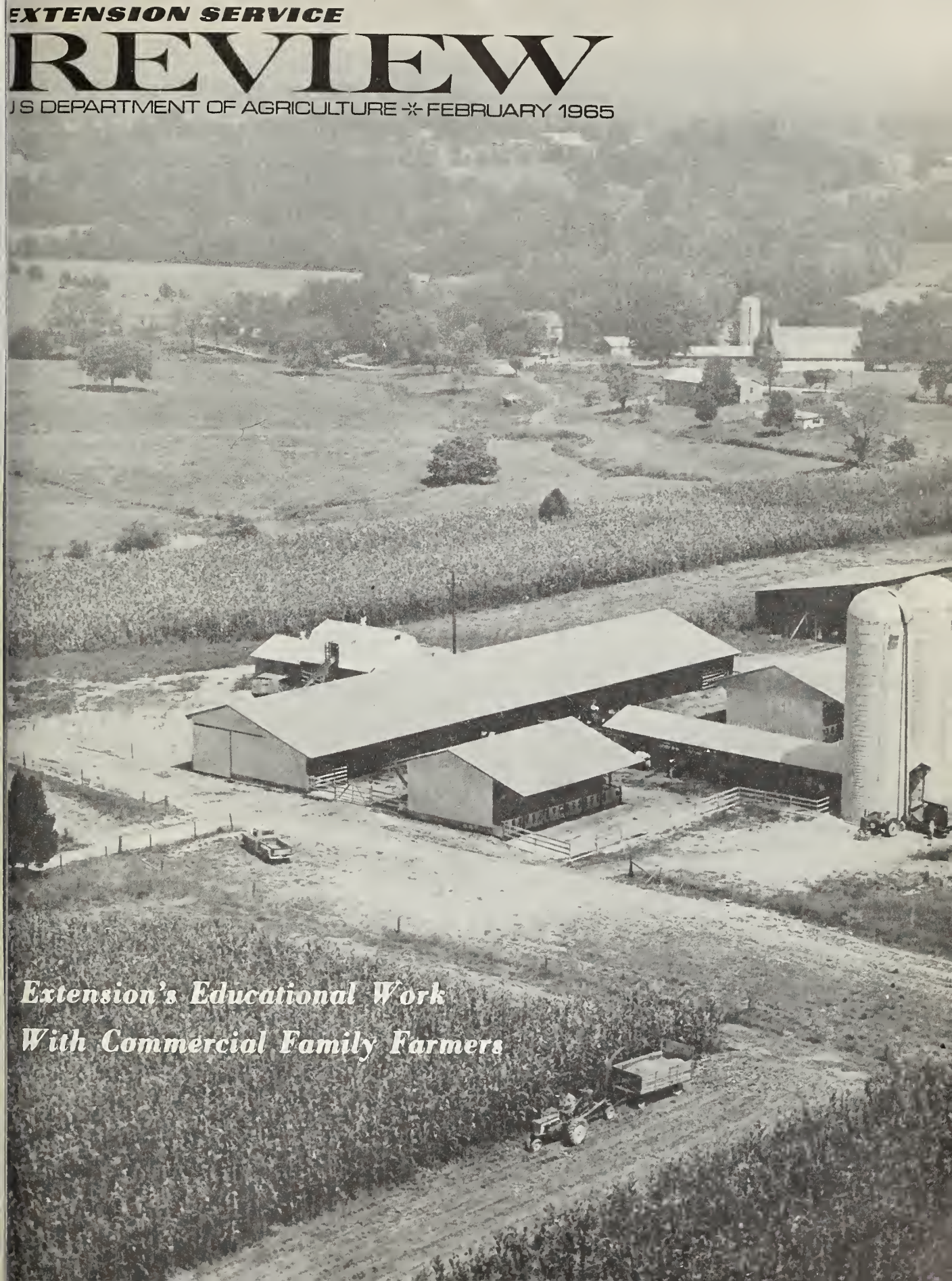
We, all of us, carry the responsibility of moving this organization into the second half century—a period of more rapid change, a period of greater need for informai education than we have ever known in the past, and a period of accelerated activity of numerous agencies and organizations who need our cooperation. We can together face the uncertain future knowing that we are needed, confident that we can make the changes in our work that changing times will call for, and determined that each of us will perform an educational service essential to the people we serve.

In this spirit each of us in FES wishes each of you a happy and successful new year—and the organization a glorious second half to its first century.—*Lloyd H. Davis*

EXTENSION SERVICE

REVIEW

U S DEPARTMENT OF AGRICULTURE ✳ FEBRUARY 1965



Extension's Educational Work With Commercial Family Farmers

VOL. 36 • NO. 2 • FEBRUARY 1965

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

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EDITORIAL

This issue of the *Review* takes up some phases of Extension's educational work with commercial family farmers and others engaged in commercial farming.

Over the past few years we have had a number of special issues dealing with commercial farming and agri-business. In addition, most of the general issues have had one or more articles dealing with commercial farming. Here is a list (by subject and date) of some of the special issues you may want to refer to again after reading this month's *Review*.

Marketing and Utilization—*November 1963*

Farm Records—A Management Tool—*December 1963*

Environmental Control/Materials Handling—*June 1964*

Marketing Facility Feasibility—*September 1964.*

—WAL

Extension's Future With Agriculture

by CHARLES E. BELL, JR., *Director*
Division of Agricultural Science, Technology, and Management
Federal Extension Service

One only needs to witness the plight of farmers in many of the less developed areas of the world to realize how far American agriculture has advanced. Handicapped by lack of technology and haunted by a feeling of insecurity, millions of farm families in these countries find little reward for their endless toil. We are reminded that our forefathers once tended their herds and plowed the virgin wilderness with guns and eyes alert for sudden emergency. Out of this battle with raw nature the American farmer, with the help of Research and Extension, has created the world's most efficient agricultural industry.

We should be thankful that our agricultural problems are problems of managing our abundance rather than those of scarcity, fear, and ignorance. The plentiful and dependable supply of high-quality food we enjoy has become so commonplace that we perhaps fail to appreciate what makes it possible. The miracle of commercial agriculture and its impact on the total economy of our Nation is a story that deserves wider recognition by all Americans.

The agricultural revolution was not a spontaneous development. It was a vision in the minds of dedicated men long before it began to materialize. With missionary zeal, pioneer Extension workers preached the gospel of *better living through better farming.* They helped farm families lay the groundwork for rural progress with demonstrations, group teaching, and individual counsel.

Like all great movements, it started slowly. As knowledge and understanding increased, the evolutionary process gained speed. Today the word "agriculture" has taken on new meaning. It embraces all of the operations involved in producing, assembling, processing, transporting, and distributing food and fiber.

The commercial farm is one link in the agri-business chain, and has become a competitive business institution involving large capital investment and difficult management decisions.

The changing character of rural America and broadening of relationships continue to widen the scope of Extension concern. *This does NOT mean that Extension is phasing out of work with the farmer.* The commercial family farm has always been and continues to be a primary audience for Extension. However, the farmer's problems are now so complex and closely interrelated with the other segments of our economy that their solution requires cooperation with all interests involved. This calls for closer teamwork within Extension and with other agencies and groups.

Technological advances are solving many of our problems, but as drastic changes are made in environmental conditions and management practices, new problems emerge to replace the old ones. These raise new questions for research and usually have far-reaching economic implications. Consequently, Extension workers are having to broaden their perspective, and teach production technology in an economic context.

Extension is rapidly adjusting its program with commercial agriculture to meet high priority needs. We must continue to exhibit the zeal, imagination, and flexibility to adjust to new situations which has traditionally characterized the Extension Service.

A dynamic commercial agriculture continues to unfold new and expanding opportunities for Extension educational leadership.

Production Technology

New production technology is being adopted at a rapid pace only to be made obsolete by still greater achievements of science. The technical know-how required to compete in an age of specialization has become exceedingly complex. In such a setting, mere dissemination of information is not sufficient. Research findings must be evaluated and interpreted in terms of adaptation to individual situations, economic feasibility, and implication as to alternatives available to the producer. This calls for highly competent specialists and teaching techniques tailored to the needs of modern commercial farmers.

Some of the major steps Extension is taking to meet these needs are: (1) Giving increased emphasis to advanced training of staff to upgrade professional competencies, (2) appointing specialists for intensive work in limited geographic areas, (3) developing short courses which deal with highly technical subjects in depth to meet needs of advanced commercial farmers, (4) making wider use of field trials and studies as teaching tools by Extension specialists in cooperation with Research staffs, and (5) developing package programs which embrace all aspects of efficient and economical application of technology in a given enterprise.

Management Technology

Farm and ranch operations today involve large amounts of capital and high degrees of risk. The com-

plexity of technology required and the economic environment in which farmers operate complicates decision making. Economic problems intensify pressures on farm people and are reflected in their demand for more economic information and assistance in developing management skills.

Extension is strengthening its educational work with commercial farmers to help them cope with these problems by: (1) Wider use of management-production teams of specialists, (2) increased emphasis on short courses dealing with the economics and technology of sound management and the proper combination of production technology into a profitable farm unit, (3) practical application of electronic data processing to everyday management decisions as well as long range organizational problems, (4) increased attention to individual technological developments as they fit into the total farm operation, and (5) intensive training with lending agencies and farmers on proper acquisition, use, and control of capital resources.

Livestock and Crop Health

Diseases and pests continue to exact a heavy toll from agriculture. Rapid progress in developing effective tools for reducing these losses has been accompanied by creation of new problems. Problems such as toxic residues, build-up of resistance by pests against specific chemicals, and rising costs of control measures. The situation is further complicated by the increasing mobility and concentration of animals and people. Diseases transmissible between man and animals will require increasing attention. Extension has a tremendous challenge to exert dynamic educational leadership in this area.

The techniques and economics of producing food and fiber and delivering these items in acceptable form to the consumer are constantly changing. Production of commodities tends to become concentrated in those areas that have a comparative advantage. Interregional competition is expected to intensify in the years ahead, accompanied by serious enterprise adjustment problems for many farmers. Extension has a major responsibility to help farmers analyze their situation, evaluate alternatives available to them, and make sound adjustment decisions to improve their competitive position.

Resource Development

Mounting pressures from an expanding urban population and industrial economy for use of natural resources create problems of increasing concern to farmers and ranchers. Some of the problems already confronting many producers are: (1) Rezoning of farming areas for nonagricultural uses, (2) reduction of grazing permits on public lands, (3) condemnation of farm land for public acquisition, and (4) acceleration of land values and taxes above economic levels for agricultural use.

Agriculture faces increasing competition for use of water as industrial and residential needs accelerate. Underground water reserves are being depleted at an alarming rate in many areas. Salinity problems already plague some irrigated operations. Pollution reduces the value of many streams as sources of water. As water problems become more critical, additional laws governing use of water resources may be expected. Greater attention will need to be focused on multiple uses of land and water.

Extension will have a broadening responsibility to help farmers develop an understanding of the issues involved, the contributions they can make to the solution of these problems, and the alternatives available to them for adjusting to the situation.

Adoption of new technology creates additional need for a wide range of commercial services. Incomes of farmers are directly affected by the quality and costs of services provided by suppliers and contractors. Extension educational work with these firms and agencies complements their work and helps to improve the quality and the efficiency of their services.

In the final analysis, the results of Extension's educational work in the foregoing areas will be dependent on the development of competent lay leadership to transform these programs into effective community action. Extension has a continuing responsibility for training this leadership so they will recognize their opportunities, implement the appropriate action, and carry it through to completion. ■

The Team Approach

by M. R. GLASSCOCK
Extension Fruit and Vegetable Marketing Specialist
Alabama

FRESH vegetable growers in the Chandler Mountain community have come a long way since they organized in 1943. They have overcome setbacks and now operate a model marketing facility which benefits all concerned.

Chandler Mountain community consists of 70 small farms located atop the mountain in St. Clair County, Alabama. The area is a plateau about 1,000 feet above the surrounding valleys and is about 7 miles long and 3 miles wide. It has long been a center of fresh vegetable production and tomatoes account for 85 to 90 percent of the vegetable acreage. Due to its topography, the mountain produces tomatoes from midsummer until a killing freeze which usually comes in November.

In 1943, the Chandler Mountain Tomato Growers Association was formed to provide a central market facility where producers could market tomatoes to repackers. A 4,500-square-foot packing shed was built at Steel community, located at the foot of the mountain, for the convenience of trailer trucks. There was no all-weather road extending to the mountain-top production area.

Quality production plus this new, improved marketing facility are giving Chandler Mountain Tomato Association members a stronger position in the marketplace.

During the late 1940's and into the mid-1950's, the area's vegetable producers were faced with insect and disease problems. They were lax in using good management. The result—low yields, poor quality, and waning buyer interest.

Community leaders, prompted by H. L. Eubanks, St. Clair Extension County Agent, held numerous meetings to discuss problems and plan improvement programs. The basic problems—low yields and poor quality—were attacked first. State staff specialists helped county personnel and farmers to develop demonstrations. These were observed by growers and resulted in changed production practices.

By 1960, nearly all vegetable producers in the area were using adequate plant food (usually based on a soil test). They acquired spray equipment and applied insect-, nematode-, and disease-control materials—and they improved harvesting practices. Better management effectively increased yield and quality. The area's production volume rose and buyer interest was renewed.

The renewed interest in marketing production created a need for expansion and improvement in marketing.

About 2 years ago, association members realized the need for an improved marketing facility. The old one was inadequate in many respects—it was not large enough to meet new demands, loading space was short, utilities were not available, and the building was dilapidated. But more important, members realized the need for new marketing procedures—ones that would give producers a greater share of the market price and at the same time, meet changes in market demand.

The present production and marketing program was worked out in community meetings of local leaders, producers, county RAD leaders, county government officials, agricultural industry leaders, produce company representatives, local bank representatives, county Extension staff, State Extension specialists, and others. Principal leadership was from the county agent's office.

The Chandler Mountain Tomato Growers Association moved their sales activities to a new, 19,336-square foot grading and packing shed during mid-August of 1964. A modern facility conveniently located in the production area is serving as a sales center for mountain area growers. An estimated 80 percent of this year's 1,000-acre tomato crop is being marketed through the farmer-owned, locally-financed facility. Sales are approaching 4,000 40-pound fiber cartons of U.S. inspected tomatoes daily.

St. Clair food crop growers plan to use the new marketing facility as concentration and sales point for beans, squash, melons, and other food crops as well as tomatoes. They are also equipped to serve as the sales center for growers in the surrounding area. The conveniently located, modern facility allows producers to market produce near the point of production.

The nearby market permits operators to devote more time to production details and to harvest labor supervision. It reduces marketing cost and thus far, demand has equaled or exceeded supplies. Prices received have been encouragingly satisfactory.

Chandler Mountain growers are optimistic about their ability to expand volume. They are devoting more thought and energy to improved production practices.

A brief review of major factors responsible for the new St. Clair County facility should be of value to other areas.

First, growers recognized the necessity for producing high-quality produce in sufficient volume to attract wholesale buyers. With the able leadership of County Agent Eubanks and others, they effectively applied recommended cultural and pest control practices in production programs. U.S. No. 1 quality harvests are now a reality.

Communication between professional leaders and grower groups has been well maintained. The grower group has studied market needs, alternative procedures, and has accepted the financial responsibility involved in creation of the new market. They elected to use local bank financing. A service charge against each package that moves through the market is a means of liquidating the bank obligation.

Producer groups are now devoting packaging time to a study of most desirable and profitable packaging of mature tomatoes. After a trial period, they will no doubt offer "retail ready" packages of vine-ripe St. Clair County tomatoes to Alabama and other southeastern food vendors. This is another part of the Chandler Mountain Cooperative's effort to return the largest possible portion of the consumer's food crop dollar to St. Clair County growers. ■

Serving the Integrated Broiler Industry

by WILLIAM H. HENDERSON, *Sussex County Agent, Georgetown, Delaware*

BROILERS have been good to Delaware. They have been largely responsible for lifting the rural economy from a near-subsistence level in the 1930's to a rank of sixth in the Nation in realized net income per farm in 1963.

Broilers are the backbone of Delaware's agriculture and account for over 50 percent of the gross farm income. Keeping our broiler industry prosperous and growing is most important when the rural economy depends so heavily on this one commodity.

Almost since the day the broiler industry was born in Delaware, someone has been cautioning us about over expansion or losing the industry to another production area that has lower costs. When the industry was only a few years old, Delaware's Extension poultryman wrote in his Annual Report of 1934, "The entire broiler industry needs a genuine economic debunking. Poultry raising in Delaware is being promoted . . . by feed manufacturers, incubator companies, poultry journals, hatchery men, lumber dealers, real estate dealers, and others who have things to sell. City people who have lost their jobs are induced to take their savings and invest in poultry plants. A flyer distributed by the International Baby Chick Association urged farmers to grow two crops of broilers this season instead of one. This is in face of the fact that cold storage holding is 23 percent greater than a year ago with the greatest increases being in broilers and fryers."

In spite of such warnings, broiler production caught on. The growth of the industry has been phenomenal. Even in its infancy, the broiler industry was plagued with unstable prices. The danger of financial loss was so great that conventional lenders wanted nothing to do with broilers. Growers who tried to finance their own production gave up after a couple of back-to-back losses from poor flocks threatened to take their life savings and their farms.

But, "persons that had things to sell" saw the market potential of broilers and provided the financing. As a rule, they risked the margin on the items they sold against a share of the profit on the broiler flocks they financed. This is the way broiler contracting got started—it has been a part of the industry almost from the beginning.

Up until the early 1950's, broiler growing contracts usually provided for the grower to get two-thirds to three-fourths of the return over cash costs as payment for use of house and equipment and for the grower's labor. The contractor assumed all the financial risk.

As production expanded in Delaware and even much more rapidly in the Southern area, farm prices fell from 26 cents a pound in 1955, to 17 cents in 1959, and 15 cents in 1961. While costs also declined as feed efficiency improved, the profit margin became very small. The usual share of the profit was not enough to encourage growers to continue to grow broilers. In order to maintain production, the contractors (in Delaware usually feed manufacturers) were forced to offer contracts that provided a guaranteed minimum payment plus a bonus for superior performance. This is the type of contract arrangement in use at present.

Having assumed all of the financial risk of production, the contractor must also be in a position to make all of the production and management decisions connected with growing and selling. Thus, the management decision-making center has shifted from a shared position between grower and contractor, to the contractor. While this situation is decried by many farm observers, it has provided the broiler industry with the necessary capital and management to keep the industry growing in spite of serious financial setbacks.

It is necessary to understand the structure of the industry in order to service it with educational programs. In Delaware our Extension program on broilers is mostly with the companies that produce and market the broilers. These companies along with other allied firms, have formed an organization known as the Delmarva Poultry

Industry, Inc. This organization of broiler businesses, commonly known as DPI, raises over $150,000 annually to be used to promote the welfare of the broiler industry on the Delmarva Peninsula.

Their program of work covers all segments of the broiler business varying from research on the most efficient type of broiler house to merchandising aids for retailers. The real work of DPI is done by hard-working committees that are organized on a functional basis, i.e., feed manufacturing, hatchery, processing, marketing, and legislative. These committees ferret out industry problems, and along with Extension agents and specialists, design action programs to deal with the problems.

The value to Extension of having an industry organization like DPI working with you cannot be overemphasized. Not only do they provide financial assistance for projects and programs that would be difficult for Extension to operate wholly, but more important, they help pinpoint the problems. These are real, matter-of-fact problems—right from the executive's desk. These are the problems that industry people believe will directly effect the profits of these firms. These are the problems on which they want help and they want it immediately.

Not only does DPI help to identify problems, it actively participates in the work toward their solution. It calls upon the Extension Services in both Delaware and Maryland for assistance in gathering data in providing educational programs, and as consultants.

A close look at a list of educational programs reveals a change in Extension's approach from past years. The audience is a specific group that wants assistance in their particular field of work. There were only 15 enrolled in a Feed Microscopy School, but these were the quality control men from the major feed manufacturers in the area. They spent 2 days peering through microscopes under the guidance of professional Feed Microscopists.

Sixty people attended the Maintenance and Plant Engineers Workshop where they learned about "Hydraulic Systems," "Selecting the Best Lubricant for the Job," and "Preventive Maintenance Before the Broiler Explodes."

Another observation about educational programs for specific groups is that you reach people who never before attended a training meeting outside of their company. Many of those attending the Feed Mill Operator's Workshop had never heard of the Cooperative Extension Service before and thought of the county agent as someone who was interested only in farmer activities.

Extension still works with broiler growers, too. No so much on the care and management of broilers, because each contractor has his own carefully supervised "grow-out program" conducted by a serviceman who regularly attends University-sponsored Short Courses. Instead, the agent and specialists assist with such problems as house construction and equipment, comparing broiler growing with other alternatives for profitable use of labor and capital, and manure removal and disposal.

For example, low prices and other unfavorable publicity given the broiler industry in recent years has caused banks and other lenders to question whether loaning money for broiler house construction or improvement is a good investment. Seminars have been held where credit agencies and industry people discussed: The competitive position of broilers on the Delmarva Peninsula; needs of the broiler industry for new houses for replacement and growth; and how the contractor, the broiler grower, and the lender can work together to keep a healthy poultry industry in the area.

The Extension specialist is finding that his role is changing, too. Giving technical information at meetings, in newsletters, and on radio still takes a considerable portion of his time. However, more and more he is being asked to serve as a consultant on a request basis. He is being called into the office of the company president for expert advice on when and how to reorganize, staff, or merge the firm.

A disease outbreak, excessive blisters, a faulty ventilation system, or the installation of a new processing method is likely to result in a phone call to a specialist and a personal visit for consultation. Farm visits by county agents and specialists have been the backbone of Extension programs. The same can be true with business firms.

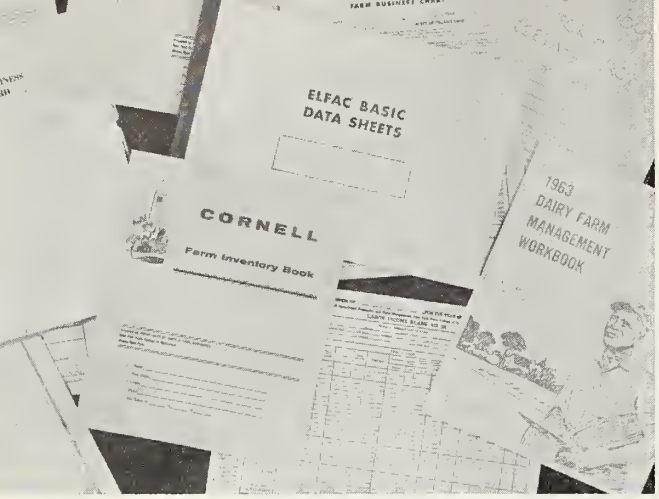
The problems of a business firm may be somewhat different from those of a farm in size, scope, ability to adjust, and objectives, but Extension has no choice but to offer to assist to the limit of its time and ability. In working with businesses, it is important to remember that you are not expected to have all the answers to all the problems. It is your job to provide technical information, educational programs, personal ideas and observations. But only the officers of the firm can make the final decision.

Serving business firms such as integrated broiler companies puts new educational demands on the county agent. He needs to broaden his reading matter to include business and trade publications. He will need to enlarge his contacts with the specialist corps that backs him up to include business analysts, financial advisors, industrial psychologists, engineers, and labor economists.

In Delaware, Extension's budget does not permit the development of this type of a specialist corps. Thus, one of the major jobs of the agent is to find someone who can provide the necessary technical advice. There are many sources of these specialists such as university staff, borrowing from other industries, and using private consultants. In Delaware with our very small staff, we believe it is better use of our time and money to hire the services of good technical people rather than trying to handle all the problems with our specialist staff.

County agents and production specialists should not fear that integration similiar to what has occurred in the broiler industry will jeopardize their jobs. Instead, it can make them more productive and their work more rewarding because results are more dramatic and the work is more challenging.

As in the past, Extension programs will be carried on with both full- and part-time farmers. At the same time, more emphasis must be given to the importance of firms and agencies supplying, servicing, and financing production activities. In the future, it is quite certain that we will see even closer relationships among farmers, businessmen, technologists, nutritionists, and marketing experts. ■



Records Play Key Role In Farm Management Program

by C. A. BRATTON
Farm Management Extension Leader, New York

"Every farm is an experiment station and every farmer the director thereof." This was the opening statement of Dr. G. F. Warren's first farm management bulletin written around 1907. He went on to say that the job of the farm management worker was to collect information on farmers' experiences and from these data to determine why some farms paid better than others and which enterprises were most profitable.

This approach to farm management has continued over the years. Researchers have been challenged to find the best possible method for getting a record of the farm business and the way the farmer operates.

With the shift to larger, commercialized family farms, more emphasis has been placed on educational programs in management. The work has been expanded and new methods added. The focus, however, is still on what farmers are doing. This must come from records.

Kinds of Records

Several kinds of records have been developed over the years. Most of them serve both Extension and Research purposes. We are continually trying to improve the records and find ways to make them more useful to farmers.

Labor Income Blank 40 is a form used in obtaining business information from a farmer through the survey method. The Cornell Farm Inventory and Farm Account Books are widely used in the State and for specialized businesses, our looseleaf Farm Business Record is available.

Among our oldest records is Cost Accounts which includes detailed labor records. ELFAC (Electronic Farm Accounts) is the newest general record in our "Extension Record Family." Special crop and livestock records have been developed from time to time for specific purposes.

These records are made available to farmers through the county Extension programs. Records play a key part in most of our farm management programs for commercial farmers.

Extension Objectives

In recent years, we have had two broad teaching objectives in our farm management Extension program. These are: (1) to develop the managerial skills of the farm family, and (2) to provide facts for families to use in making their management decisions. An "intensive" educational program has been organized for reaching the first objective, and a "general" program for the second. Individual farm records play a key role in both.

Farm Business Management Projects. In 1954, when the National emphasis in Extension was on the whole-farm approach, we developed "farm business management projects." These were a modification of the "farm account clubs" organized in the 1930's. There was a shift in emphasis from keeping accounts to the use of records in making management decisions.

Farm families enroll in a county farm business management project. They agree to keep farm records and to have them included in a group summary. The project is organized on a 3-year basis. In recent years, we have had about 1,200 families participating each year in these projects.

Participants in the management projects are introduced to the management process. Using the summary of their records, they are taken through the steps in making a management decision. These families are helped to develop a systematic approach to management problems. We sometimes refer to this approach as the "scientific method" for businessmen.

The summary and analysis of the records provides a basis for study at the project meetings and for use by the agent in counseling with the family. In these projects, the family develops their managerial skills along with making improvements in their business. The group summary is used in discussing management problems with farmers not in the project, agri-businessmen, and policymakers.

Cost Accounts. This research project has been in operation for 50 years. Detailed records are kept on a limited number of typical commercial farms. From these records, costs and returns are calculated by enterprises.

Cost Accounts are the source of many facts used by farmers making management decisions. These include comparative cost and return data for enterprises and physical measures of inputs and outputs. These data are used in various kinds of budgeting, including linear programing. The 50 years of records also provide many figures which are used in tracing trends in New York farming.

Farm Management Surveys. The survey method of obtaining business information from farmers has been used a great deal since 1907. It is probably the best

method for studying a cross section of farm businesses. At one time, surveys were used as an Extension technique for getting farmers in an area to study their farm management. Today surveys are being used to provide a cross section picture of what is occurring. They provide much information for teaching as well as for use in budgeting. Survey results also have been used in working with the agri-businessmen who advise farmers on management problems.

Enterprise Cost and Return Studies. Farmers, farm organization leaders, and others often have farm management questions for which they would like answers. To do this, sometimes one enterprise is selected for study. Here our information is obtained either by survey schedules or record books. Generally, the studies made have been for enterprises not included in cost accounts. Recent studies have included potatoes, peaches, Christmas trees, green beans, onions, and dairy heifers.

Cost and Experience Studies. Each new technological development presents a new management problem. The farm family must decide whether or not the newest item has a place in their operation. To make this decision, facts are needed on the original cost, operating costs, and how the change will affect the overall management of the farm.

Our point of view is that it is more realistic to study the actual experiences of the farmers than to simply develop budgets by the armchair research method. Surveys and account records have been used for this purpose. To be most helpful, these studies must be made during the early stages of introduction of the new development. For example, we studied experiences with hay conditioners when there were only a few in use. However, the data obtained were timely and used by many families in deciding whether a conditioner had a place on their farm.

A recent study of experiences with a new practice was that of free-stall housing. The results published last year have been in great demand.

This Tompkins County farmer says farm account records are invaluable in completing his income tax return.

Farm Families Use Records

Families use their records in many different ways in making management decisions. Some study their summaries to find where small leaks exist. Then by minor adjustments, they "tighten" up on the leaks and thereby improve their incomes. Others use the records in making major decisions on the organization of the business.

The Delaney's of Cayuga County are an example of a family who used their records in both ways. A study of their summary showed weaknesses in rates of production. This led to changes in some crop and livestock practices.

Next came a major decision. A problem pinpointed from the study of their records was that of size. Several alternatives for expanding were considered including a move to a larger farm in another area. Marjorie White and G.E. Monroe, the Extension agents handling management work in Cayuga County worked with the Delaney's in considering alternatives and budgeting the expected results of proposed changes. The decision was made to stay on the same farm but to enlarge the barn and the dairy. This has now been done. They will continue to use their ELFAC records to evaluate the results of their decision.

Ralph Winsor of Broome County is a Cost Account cooperator as well as a member of the farm business management project. He reports that his records have been used extensively in building his business from 29 cows in 1958 to 90 cows in 1964. Winsor, like the Delaney's, makes extensive use of his DHIA records in deciding which cows to cull and which heifer calves to raise.

Harold Shepherd of Genesee County has been a Cost Account cooperator since 1950. The Shepherd farm is a diversified dairy-cash crop operation. In making plans for the future, Shepherd turned to linear programing. With the assistance of Farm Management Specialist Randolph Barker and the Cost Account records, several alternatives were programed. This served as a basis for some major decisions on expansion plans for the future.

Records Serve Dual Role

In our New York farm management Extension work, records have two important uses. First, they serve as a tool in teaching management skills. Secondly, the records provide many facts needed in making management decisions.

Our farm business management projects are centered around the keeping of records. This provides the core around which we build the educational program designed to develop managerial skills. At the same time, the records provide to the family the information they need to keep check on where they are.

Management experiments are conducted by farmers. Records help the researchers to measure and evaluate the results of these experiments. They also serve the important role of providing facts which are made available to farmers through our general farm management Extension program. ■

Farm Management Education

by LESLIE G. KRAL, *District Extension Economist,*
and GARY L. VACIN, *Assistant Extension Editor, Iowa*

WAYNE KRABBENHOFT was a young farmer who rented 160 acres in Jackson County, Iowa. He had done reasonably well. The land was productive, and through modern farming methods and judicious management, Krabbenhoft has made a respectable living for his family.

After renting for several years, he was given the opportunity to buy the farm. The asking price seemed reasonable enough, but the owner required cash payment at the time of purchase. Krabbenhoft would have to borrow a substantial sum of money to complete the deal. He and his wife were hesitant to take on such a debt: the couple face the most important decision of their lives.

The Krabbenhofts had recently enrolled in the Farm and Home Development Program. When John Henderson, the Jackson County Extension director made a spring farm visit to the Krabbenhoft farm, the advisability of purchasing the farm was the chief topic of discussion. There also arose the question of what the family might do if the farm were sold to another.

After walking over the land and examining the buildings, Henderson concluded that the asking price was considerably less than that for comparable farms in the neighborhood. He helped the couple establish a budget to estimate and project the future yield and income potential of the farm. The Krabbenhofts considered assistance their 15-year-old son might provide in making the purchase a family partnership.

The couple decided to purchase the farm, but only after a thorough evaluation of the many factors involved. A loan from the Farmers Home Administration provided the capital to complete the transaction. Today much of the loan has been repaid, and the Krabbenhofts have prospered as farmowners.

Vernon Owens, another Iowa farmer, planned to invest $12,000 in a cattle shelter. He reasoned that he could save $600 (the annual interest on $12,000 at 5 percent) in feed costs by protecting his feeding cattle during the winter. Owens asked Eldon Hans, the county Extension director, to help select a site for the proposed shelter.

Hans questioned the value of the building. He revealed that the $600 interest charge would represent only about half the fixed cost that would be assessed annually against profits of the cattle-feeding operation. Hans suggested that the proposed shelter might be more valuable as shade in the summer than protection during the winter.

Motivated by his conversation with Hans, Owens began to consider other alternatives. He decided to erect several inexpensive shades for his cattle and invest the balance of the $12,000 where it would earn a better return.

Wayne Krabbenhoft and Vernon Owens faced decisions involving substantial amounts of capital. Countless similar situations arise each year, situations in which farm management education can be vital to the success or failure of a farm operation. As the number of farms declines, management requirements of each unit increase proportionately.

Advancing technology is continually transferring farm jobs from the specialized skill class into the management area. Farmers once needed to know how to select and care for seed corn; today they must appraise the performance of different varieties and buy those that rate well in tests. The ability to husk 100 bushels of corn per day is unnecessary. Needed now is the capability of selecting the right harvesting equipment and other capital inputs that determine profits. As each farm operator combines labor with more and more capital, the management function increases in importance.

For Wayne Krabbenhoft, the alternatives were to continue paying rent with the insecurity of tenure, or seek farm ownership with the uncertainty of being able to meet interest and principal payments. Vern Owens faced

County Agent Henderson and Krabbenhoft discuss a budget and estimate the income potential of the farm.

the decision of where to invest a substantial amount of capital for the greatest return. Both men were assisted by Extension workers in exploring various alternatives. In each case, a decision was reached only after the situation had been completely appraised and all alternatives considered.

Extension workers, if alert to their responsibility of helping farmers use the decision-making process, can provide management education in a wide variety of situations. Accepting the challenge of providing management education, however, does not come easily. First and perhaps most important is a recognition of the need for management education. In many instances, motivation (very often self-motivation) is the key to this recognition.

The proficient Extension worker motivates himself to accept the challenge of providing management education. He is convinced there is a need for management education, and that he can make a genuine contribution in this area. Motivation may stem from experience, training, personal observation, or from administrative persuasion.

Self-discipline plays an important role in the successful Extension program. Because time is always a chief consideration, a well prepared plan of action is the Extension worker's chief means of self-discipline. Essential programs must be given priority; less important activities will have to be de-emphasized or eliminated entirely to allow more time for vital programs.

If management education is accepted as vital, the schedule may include a series of group meetings where participating farm couples are acquainted with the decision-making process in relation to farm and home management. Extension workers help them analyze farm and family resources, chart progress, and create an awareness of alternative opportunities for improvement. The couples become familiar with the use of budgets in estimating future income potential. They receive assistance in preparing an inventory and an adequate system of records so that the farm operation may be analyzed.

Farm visits are a vital part of the Extension management program. The importance of these meetings between Extension workers and individual families is often overlooked.

Vernon Owens faced the decision of where to invest a substantial amount of capital for the greatest return. His county Extension director suggested a cattle shade and helped him select a site for the proposed shelter.

During these visits, material covered in group meetings is applied to the family's situation.

As was the case with Wayne Krabbenhoft and Vernon Owens, decisions based on evaluations made during farm visits often determine the future success of a farm operation. The management educational program has been most successful in Iowa counties where farm visits were made in conjunction with group meetings.

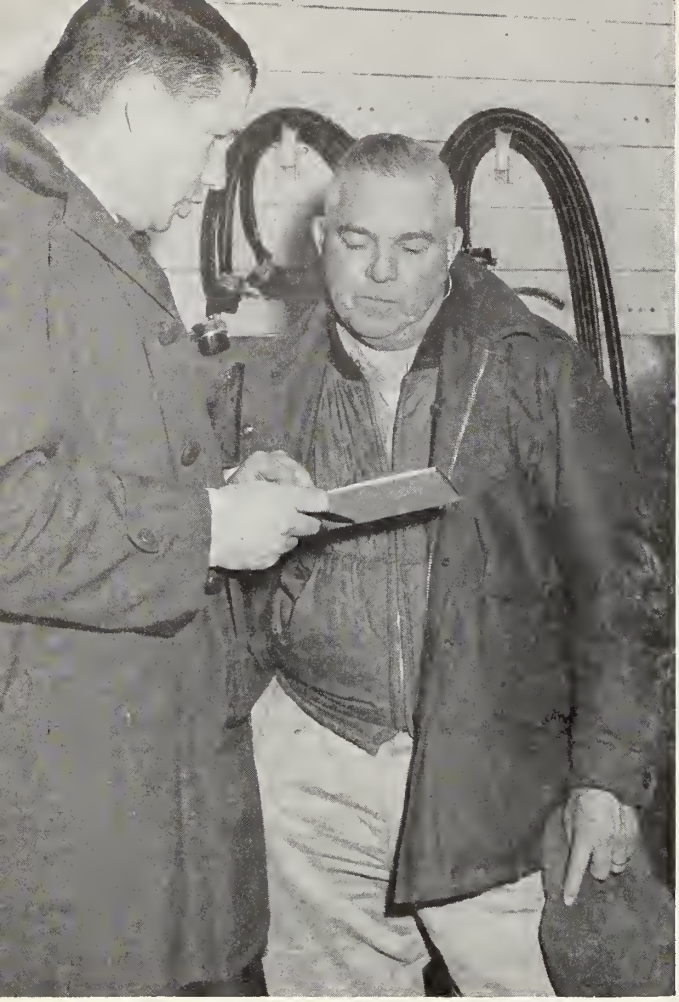
Confidence is another important ingredient in the successful Extension program. The proficient Extension worker has confidence in his ability to converse with farm families and provide the services in which he has been schooled.

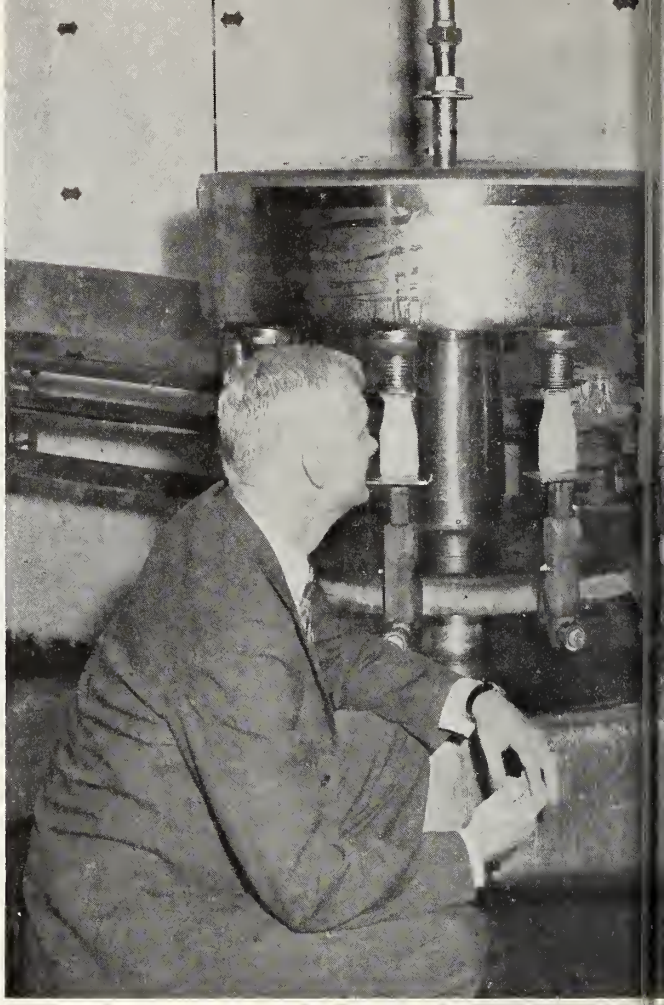
Experience breeds self-confidence —particularly the satisfying experience of seeing the results of one's own program materialize. The Extension worker's lack of self-confidence may be the greatest deterrent to more extensive participation in the management teaching area. He can gain self-confidence through participation and in-service training.

Confidence may also be evident in the relationship between the Extension worker and the family he serves. While most management problems are of an economic nature, all are personal when considered in the framework of the farm family. In dealing with individuals and their problems, a satisfying solution can be arrived at only if a feeling of trust exists between the parties. The ideal relationship between an Extension worker and the farm family parallels that between a lawyer and his clients—all conversations are held in the strictest confidence.

The elements of an Extension farm management educational program should provide for a plan of learning for farm operators and a plan of instruction for Extension workers. The Extension worker's role is to assist the farm family in broadening its horizon of alternatives and improve its tools for choosing the best plan. *However, the farm family must always be responsible for the final decision.*

Advanced technology is providing a tremendous opportunity to enlighten farm families on proper approaches to organizing their resources and maximizing their incomes. It remains only for Extension workers to accept the challenge of providing this service. ■





Regionalization Revamps Program for Commercial g

by WALTER MELNICK, *Regional Crops Specialist*
and O. LEWIS WYMAN, *Regional Dairy Specialist*
Pioneer Valley-Berkshire Extension Region, Massachusetts

COMMERCIAL farmers in Massachusetts aren't by-passing their county agents as they did a few years ago. Farmers who fought shy of the generalist agent now welcome the specialist type of agent who operates in a multi-county region. These agents, with their competencies increased through graduate work, are helping commercial farmers who are facing problems of a highly technical nature.

Need for Regionalization

The regionalization of the Massachusetts Cooperative Extension Service program for commercial agriculture resulted from the recognition that the old ways of the generalist did not measure up to the requirements of the highly technical farming operation of the present. This regional plan is now in effect in two-thirds of the State.

Agents spread too thinly over four or five commodity areas could not keep up to date in any one, nor could they attack problems which involved many aspects of the commodity industry.

The transformation from that situation of 4 years ago to the upgraded, specialized Extension educational program for commercial agriculture of today, has produced much commendation from farmers and farm organizations of the State. It has also provided some new, solid support for Extension.

Program Studied

In the beginning there was a complete reappraisal of

Regional agents cover a wider geographical area. More time is spent outside the office and they rely on personal visits rather heavily. They know who the commercial men are, where they are, and how to reach them.

riculture

the Massachusetts Cooperative Extension program for commercial agriculture. This included a review of the state of agriculture itself and its needs and demands for educational assistance, and a review of the locations and abilities of county agricultural staff to meet these requirements.

Studies were conducted to find out the current location, size of operation, and other information about commercial farmers in the important farming areas of Massachusetts. Another study of the actual workloads of agents showed great disparity between counties. Decisions were made on what should be realistic workloads for the staff and on regional boundaries.

Another part of the proposed program was the development of graduate training to increase the competency of agents who were to be assigned as regional specialists. Major emphasis in graduate work was placed on management and marketing so the specialists would be better equipped to assist individual farmers with management problems, and to deal with each agricultural industry as a whole. Some original research was also involved.

Cooperation from Industry

It was necessary to meet with many groups and organizations to gain support for the proposed changes. Leading commercial farmers recognized the need for the changes and were willing to indicate this need to boards of trustees, county commissioners, and others concerned with the county Extension program.

The more efficient arrangement of workloads and the increased competencies of the staff indicated the need for fewer agents and made it possible to provide higher salaries for those who qualified for regional assignments. The supervisory time was reduced also.

Working Arrangements

The regionalization plan went into effect in one area of the State on July 1, 1961. Three western counties were selected—Franklin, Hampden, and Hampshire. Berkshire County was added later to make the present four-county region.

A regional executive committee was established to determine policy and oversee the operation of the program. It is made up of the chairmen of the boards of county Extension trustees in each county. One of the county administrators was designated as the regional administrator and the others became regional specialists and agents.

Accomplishments under the regional program have been many and varied. Workloads are more realistic and more nearly equalized between workers in different parts of the State. Eighty-five percent of the regional staff have master's degrees or have completed the course work for the degree. The number of positions has been reduced by not filling vacancies where these positions were no longer necessary. The regional specialists are taking over some of the work of the State specialists, allowing the State specialists more time for applied research and development of a more specialized program in support of the work in the counties.

Regional Agents More Confident

We who are on regional assignments now feel more adequate for the job. By concentrating on a particular area of farming, we keep abreast of trends affecting the industry, are better informed on technological advances, and can focus our efforts on special problems and special opportunities.

Regionalization has provided us the opportunity to

Demand for sized potatoes is greater. They are promoted as "All-Purpose" to coincide with most people's desire for potatoes which can be prepared several ways.

concentrate on special problems instead of spreading ourselves thinly over everything. The combination of completing a master's degree program and the opportunity to travel about to acquire information, has strengthened our program with all segments of the agricultural industry.

Another advantage has been the ability to concentrate on the whole range of the commodity industry. Many of the problems which face commercial vegetable growers are off-the-farm problems—in the area of marketing, especially.

The development of new market outlets for Connecticut Valley potatoes owes much to regionalization. Concentration of effort has resulted in expansion of the potato chip market and wider acceptance of table stock.

Changes in the agent's routine have been numerous. There is a wider geographical area covered; use of mass communications has been reduced. More time is spent outside the office, and we rely on personal visits and circular letters rather heavily.

We use two-way radio to keep in touch with the office. There is dictating equipment in the cars so reports and correspondence can be taken care of without delay. We now spend about a half-day a week in the office instead of the previous 3 days.

Clientele Change

One change that impresses us is that we are working with a more selected clientele. There are indications that the regional Extension specialist should be working even more intensively with the innovators and early adopters who serve as demonstrators for the others. With this approach, returns per dollar invested in the Extension program have increased markedly.

The administrator of the western region is Albert H. Fuller. He is able to do a great deal of the administrative work by telephone but visits each county once a week.

Fuller feels that the administrator should function primarily to pave the way and make it easier for the regional specialists to conduct their jobs most efficiently, to help them get needed resources, to help them get training which will increase their competency, and to do whatever else is necessary to keep the educational programs for the commercial agricultural industry on a highly efficient basis. He says that the regional specialists are competent to determine the program they are conducting and they are given a great deal of leeway to make their own decisions. They are, however, held responsible for accomplishing what needs to be done. The reports are presented to the executive board of trustees for the region and the specialists are accountable to them for the quality of work they do.

This type of function for the regional specialist is paying off in Massachusetts' regionalized areas which include a similar three-county region of Worcester, Essex, and Middlesex counties. Discussions are being held on a proposed regionalization plan for the Southeast region involving four counties. With the formation of this region, the commercial agriculture Extension program will be completely regionalized.

Regionalization has been welcomed by staff, public officials, farm organizations, and the farmers themselves. It has revamped the structure of the Cooperative Extension Service, given new life to Extension, and most important of all, it has brought to Bay State farmers and related industries, the educational assistance they need and have sought which enables them to operate more effectively their modern, complex businesses. ■

Green Gold

(Continued from page 15)

values went up, new jobs were created, experienced plantsmen and equipment operators were needed and additional services and suppliers were required.

To accommodate the salesmen, harvest foremen, buyers, inspectors, truckers, cooler operators, and others who follow the lettuce crop, new motels were built and restaurants were enlarged. In 1958 building permits increased threefold over previous years. When looking for a motel room or eating in a crowded restaurant during lettuce harvest, no one would doubt the value of the lettuce industry to the economy of Willcox and the area.

The Willcox lettuce deal has had its ups and downs. The acreage has leveled off now to about 5,000 acres annually. The annual value of the crop produced is usually over $4 million.

The University of Arizona is continuing to test and demonstrate lettuce varieties in Cochise County with the hope that other problems of the area will be solved. Work is also being carried on in the areas of lettuce packaging and mechanical harvesting. ■

The rush for green gold

County Agricultural Agent Carmy Page examines test plants in a commercial field near Kansas Settlement.

by NORMAN F. OEBKER
Extension Vegetable Crops Specialist, Arizona

WILLCOX is an important shipping point for Western Iceberg lettuce. Up to 100 carloads of lettuce per day are shipped during peak harvest periods from this Arizona town in Cochise County. The town of Willcox is a thriving community, especially during the spring and fall lettuce-harvest periods.

But Willcox was not always this way. Before 1957 the lettuce plant was almost unknown to the farmers in the area and the benefits from a several-million-dollar crop were not flowing into the community.

Then, in 1957 and 1958 came the rush—the rush for green gold. That first year about 800 acres of lettuce were tried commercially near Willcox. Results were good enough to encourage growers and shippers to plant over 12,000 acres in 1958. Fields in nearby areas of Stewart and Kansas Settlement virtually turned green overnight. Lettuce produced on redeveloped ranch land in the shadows of windmills once built by Kansas settlers proved to be competitive with the lettuce from other areas on the Nation's market. The influx of people and subsequent business brought in by this new industry made Willcox a booming town.

Of course this development did not come without problems. Outside interests came in to grow and handle the crop. Although these grower-shippers were experienced in other areas of Arizona and California, they did not know all the answers in Cochise County.

The first plantings showed that lettuce could be grown and that the product would fit a market slot in the spring and fall seasons. But since lettuce was new to the area, much information regarding production of this crop was lacking. Big questions asked were, "What varieties to plant and when to plant them?" Lettuce planted too late in the spring would develop tip-burn and lettuce planted too early in the fall would go to seed. Early in the game, because of lack of experience and information, some growers "lost their shirts" on Willcox lettuce.

Cochise County Agricultural Agent Carmy Page, quickly saw the dilemma in 1957 and called for help from the University of Arizona. Harvey Tate, Extension Horticulturist, responded by calling together vegetable researchers for a briefing on the Willcox situation.

Dr. Robert Foster, vegetable breeder; Dr. W. D. Pew, vegetable physiologist; and Dr. Paul Bessey, vegetable postharvest physiologist offered assistance and ideas. The problems of the area were reviewed, a plan was agreed upon and the Extension-Research team approach was put into action.

Variety test plots were planned for the spring of 1958. Some 26 varieties were tried experimentally at four different planting dates. In the fall three planting dates were tried with these same varieties. Each year since that time similar tests have been made.

Tests were placed within commercial fields and received the same treatment as the lettuce grown for shipment. The cooperating grower-shippers furnished the land and all cultural operations up to harvest time.

Observations as to plant characteristics, yields, and quality were observed and recorded by the Arizona Research-Extension team. After harvest the lettuce was studied in storage and under simulated transit tests.

Field meetings for growers were held at the plots to demonstrate how the varieties performed. Information from the field and storage tests were relayed to the growers by circular letters, news stories, and personal contacts. Also, many growers personally kept an eye on the varieties as the plants developed.

As a result of these demonstration trials, the growers obtained accurate information about variety performances at different planting dates. Growers utilized this information by adopting the varieties that did best. Some varieties showed more resistance to the problems of the area than others and some performed much better in certain planting dates than others.

Information from these tests and studies has helped this area develop into one of the well-established lettuce areas of the United States and one with a reputation of producing high-quality lettuce during the late spring and early fall months.

With the help of the Arizona Agricultural Extension Service the industry continued to progress, rather than falter under the problems first encountered.

Not only did this lettuce deal have an important effect on the growers and shippers directly involved, but it had an impact on Willcox and Cochise County. It made important contributions to the economic development of the community and area.

Local businessmen and farmers, even if they did not grow lettuce, benefited from the new industry. Land

(Continued on page 14)

Meat Animal Improvement

In this section are three articles dealing with Extension's educational work in meat animal improvement. They are examples of the latest research and technology applied to the improvement in production efficiency of high-quality meat with consumer appeal.

Ohio Pork Improvement Program

Less Fat—More Lean

by W. H. BRUNER
Extension Animal Science Specialist, Ohio

In Ohio, the Extension Service has an important role to play in releasing pork improvement data to pork producers and other segments of the industry. Through the cooperation of the Pork Improvement Association of Ohio, additional data is released on litters certified through the Ohio Pork Improvement program.

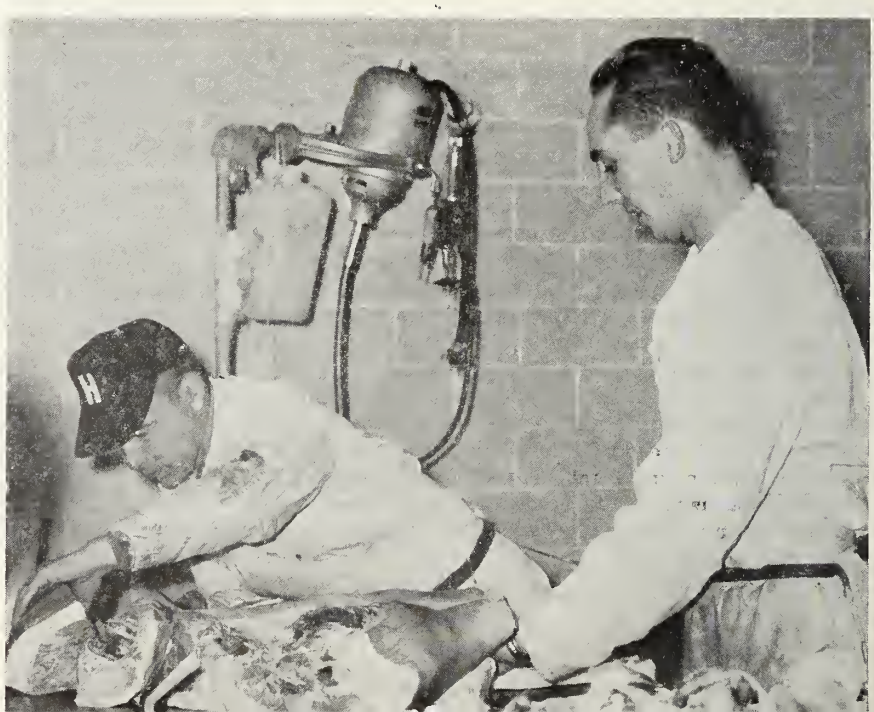
Ohio purebred breeders have made substantial progress during the past 10 years in providing commercial pork producers with meat-type seed stock. A comparison of pigs evaluated at the Ohio Swine Evaluation Station shows: Comparing the first season (fall 1954) with the 1963 fall season, backfat has been reduced 17.68 percent, loin eye area (center pork chop) increased 7.05 percent, and lean cuts of chilled carcass weight increased 5.54 percent.

The pork industry ranks third in gross income to Ohio farmers. In 1963 they marketed 4,195,000 head of hogs with a value of over $139 million. Meat packers in the State processed 4,535,000 head during 1963.

This thriving industry is supported by a unique educational pork improvement program in Ohio. It was developed in 1947 by pork producers and associated interests. It is now carried out through the facilities of The Ohio State University meat laboratory and the Swine Evaluation Station, under the supervision of the Extension Service and in cooperation with the Ohio Agricultural Experiment Station.

The Ohio program is a selection program. Its main purpose is to help locate and recognize prospective breeding stock that will increase the production efficiency of quality market hogs. The official governing body is the Pork Improvement Association of Ohio. Any pork producer who nominates a litter automatically becomes a member of the association. Selection of prospective breeding stock is made on the basis of records that indicate: Absence of inherited defects, prolificacy, nursing ability,

The Ohio State University's meat laboratory evaluates the carcasses of pigs which have previously been tested at the Swine Evaluation Station.



rapid growing ability, efficient feed utilization, superior carcass merit, and eligibility for breed registration.

Two programs are available to breeders in evaluating litters—station and field. The station has 130 pens. Spring and fall farrowed pigs are evaluated at the station. To participate in either program a breeder nominates a litter within 10 days after farrowing, weighs and qualifies the litter at 21 or 35 days of age.

In the station program, a pair of pigs (barrow and gilt if possible) is evaluated for rate of gain and feed utilization from 63 days of age until the pigs weigh about 210 pounds. Station pigs are full fed a standard ration. At the end of the test, both pigs are slaughtered at the University meat laboratory and detailed carcass data is secured.

In the field program the pigs remain on the breeder's farm until they reach about 210 pounds. Then two pigs from a litter are slaughtered at the University meat laboratory.

Litters qualifying for certification must meet certain standards. They must: (1) have 12 udder sections on sire and dam (2) have eight pigs per litter raised free from inherited defects, (3) meet 21- or 35-day litter weight standard, (4) weigh at least 200 pounds at 175 days of age, (5) require not over 340 pounds of feed per 100 pounds of gain for fall farrowed litters or not over 320 pounds of feed per 100 pounds of gain for spring farrowed litters, and (6) yield 52 percent lean cuts of chilled carcass weight and meet specified carcass measurements.

During the past 10 years, 423 breeders have nominated 5,542 litters. A total of 2,147 litters have been evaluated in the station program and 896 have been certified *Superior*. Litters evaluated in the field program numbered 553, with 268 certified *Improved*. Three hundred thirty-five litters have qualified as certified matings.

Ohio Pork Improvement performance data is made available to the various National Breed Associations for breed certification.

Boar evaluation is another phase of the Ohio program. Boars from certified mated litters are tested. Two boars from a litter are individually fed, with information obtained on rate of gain, feed efficiency, and backfat thickness; 172 boars have been evaluated.

In the past year, 185 breeders nominated 742 litters in the program. Of these, 531 litters were tested and 284 met the official standards, providing about 700 new sires for use of commercial pork producers. These boars, together with others certified in past seasons and still in service, are being used to sire at least 350,000 market hogs annually. The Ohio program has demonstrated that the net return on such hogs is increased about $2 a head through higher market prices and lower feed requirements. It is estimated that an increase in net income of about $700,000 annually is returned to Ohio farmers as a result of the educational effort and direct assistance rendered through this project.

A large amount of educational data has been assembled from this project. These data have enabled us to draw the following conclusions.

★ Meat type hogs required less feed (weaning to market) and reached 210 pounds live weight at the same age as fat hogs.

★ Barrows grew faster than littermate gilts, but gilts had leaner carcasses.

★ Boars required less feed than littermate barrows and gilts.

★ Pigs grew faster and required less feed per 100 pounds of gain when fed pelleted feed than when fed meal.

★ Pigs with heaviest post-weaning weight (63 days) reached 210 pounds at a younger age than lighter-weight pigs.

★ Pounds of skinned ham, pounds of trimmed loin, and square inches of loin eye, on both barrows and gilts, were more closely correlated with lean cuts of carcass weight than they were with carcass length, backfat, or daily gain.

★ Spring farrowed pigs required less feed per pound of gain than did fall farrowed pigs. ■

Progeny Test—Carcass Evaluation

Better California Beef

by REUBEN ALBAUGH *and* J. T. ELINGS
Extension Animal Husbandry Specialists
California

The California beef cattle progeny testing program has as its purpose the location of bulls that sire rapid gaining offspring with superior meat-producing carcasses. Carcass improvement in beef cattle will do more to increase the consumption of this commodity than any other single factor. From time immemorial those working in the field of animal husbandry have attempted to determine quality and cutability of beef carcasses by looking at the live animal.

Scientific workers in many parts of the world have been engaged in projects to determine quality of a carcass by the use of drugs or by the use of equipment such as sonar devices. Although these methods of forecasting quality and cutability of a carcass have shown some promise, none of them are yet accurate enough for use in selection. Until these or other systems are perfected to use on the live animal, breeding animals that produce superior carcasses must be located through the progeny test and carcass evaluation.

In 1961 the University of California Agricultural Extension Service (farm advisors and specialists) and the Department of Animal Husbandry

(Drs. Eric Bradford and Floyd Carroll) launched a progeny testing program for beef cattle to determine gainability, quality, and cutability of carcasses. A project was prepared setting forth the purpose, introduction of the subject, proposed tests, and individual responsibilities.

Illustrative material, supplemented by a syllabus, was prepared and presented to farm advisors by the specialists at several regional meetings. Farm advisors then organized approximately 25 meetings of cattlemen where this project was presented. In addition, maximum publicity was given to the proposed program through all news media. These techniques are paramount to the success of any applied field research program.

The first year 16 breeders representing 34 bulls were enrolled. The project was composed of four different phases: (1) selecting bulls and cows; (2) gathering data on calves from birth to weaning; (3) studying their performance during finishing period; and (4) analyzing carcasses for quality and cutability.

Two or more bulls of the same breed and age (preferably 2-year-olds) were selected on each ranch. About half of the bulls in this program had individual performance records. They were mated to 25-30 cows each. These animals were managed on the same ranch and environment. During the breeding season they were grazed separately, but after the mating season these animals were run together. All cows and bulls involved in the test were weighed and graded at the beginning of the program. The cows were randomly selected and were identified by tattooing, double-ear tagging, or hot brand numbering.

All calves in this project were tattooed shortly after birth to allow the association of calf identity with that of sire and dam. Birth dates were recorded on these calves; weaning weights and grades were taken on all calves. This included those that were selected for feedlot testing as well as the others in the herd.

Between 8 and 10 steer progeny of each bull were selected at random after weaning and full-fed in the drylot until they reached a low choice grade. This was usually after about 180 days.

This calf is being double-ear tagged for easy identification in the future.

Data were secured for each individual calf under the full-feeding program including initial weight at lot, value of live animal at lot (price/lb x wt), weaning grade (UC), final weight; final grade (live USDA slaughter), total gain per animal for feed period, and average daily gain.

The following information was obtained by ranch group average (two or more sire groups from the same ranch); feed consumption and cost for all calves; average pounds of feed consumed per day per animal; average feed cost per head daily; average cost per pound of gain; number of pounds of feed per pound of gain; other costs—hauling, brand inspection, killing charge.

Prior to slaughter, U.S. Grading Service back tags were placed on each animal. A similarly numbered USDA steel tag was attached to each carcass at slaughter. All carcasses were graded by the U.S. Grading Service using the dual grading system.

The following data on carcasses were recorded for each calf: hot and cold carcass weights; wholesale value of carcass; percent yield; percent cooler shrink; U.S. slaughter conformation and quality grades; area rib eye; thickness of fat over rib eye; estimated percent kidney and pelvic fat; percent trimmed primal cuts as determined by U. S. grading formula; carcass index (percent trimmed primal cuts adjusted for quality); and weight and value of closely trimmed, boneless retail cuts.

Eight breeders representing 16 bulls will complete the first year of this project. Data on all 16 bulls have been assembled and although this information has not been thoroughly analyzed, some of the preliminary results are interesting.

A total of 166 calves were involved in this project. When slaughtered they averaged 457 days of age; they were fed for an average of 166 days. Seventy-two percent graded *Choice* or better, 22 percent *Good+*, and 6 percent *Good*. Four of the animals graded *Prime*. Out of 138 head there were 66 with a carcass index under 50 percent, and these animals gained on the average 2.27 pounds daily. Seventy-two head in this group had a carcass index over 50 percent; their daily gain was 2.37 pounds.

This indicates, at least in this test, that fast-gaining cattle have a carcass index just as high or higher than slower-gaining animals.

There were no essential differences within herds between carcass indices of the progeny of the bulls. If future data substantiate this information it may be that the heritability of carcass index is low. On the other hand, there was a distinct difference in rate of progeny gain between sires in some herds. This resulted in as much as $18 per head difference in carcass sale value, comparing calves of two bulls on one ranch. It would seem then that rate of gain and factors for rapid growth are still highly significant in any beef cattle management program.

A complete analysis of this project is being conducted. Data presented here are preliminary to the full analysis. This project will continue through 1965 and 1966. ■

Wisconsin Sheep Improvement

by VERN L. FELTS, *Extension Livestock Geneticist, Wisconsin*

Although the art of livestock breeding has been practiced since the domestication of animals, the application of scientific knowledge in livestock improvement has been limited to the past 2 decades.

This is not to say that the breeders of years past did not possess rare abilities or that they did not enjoy outstanding success. Much to the contrary. Their keen observations led them to methods of selection and matings which revolutionized the livestock industry. However, those observations did not provide answers to how and why the results were obtained nor were they subjected to experimental tests to provide scientific knowledge as we view it today.

The development of the Wisconsin Sheep Improvement Program (WSIP) in 1950 was an attempt to apply the available genetic knowledge into a workable program for improving the sheep population. Knowledge used in formulating the applied methods includes estimates of differences of heritability of traits, the genetic association or correlation of traits, genetic variability and, if it can be included in this same category, estimates of the economic value of the traits.

Effective selection of breeding stock is the key to improvement. WSIP was developed to aid the producers in the selection of their breeding animals, using performance records as indicators of differences in genetic merit.

Present-day breeding and selection programs emphasize traits of enonomic importance.

In formula form the breeding program can be depicted as:

Profit = Income minus Cost
where:
Income = Volume of Product times Price

It follows then that traits having the greatest effect upon cost, volume, and price —as determined by quality —are the traits which should be emphasized for greatest net profit. Since wool and lamb are the two products from which most of the income is derived, increasing volume, lowering cost, and increasing quality in those traits is of primary importance.

In WSIP, fleece shearing weight, rate-of-gain as measured by 4-month weight of lamb(s), and twinning, are used in computing the performance index. Other traits, such as wool grade or lamb carcass quality, are not used because of the small variation within a flock or the difficulty in obtaining reliable measurements.

Cooperating members keep the necessary records, such as birth dates, identification, and shearing weights. When the lambs average 4 months of age a WSIP fieldman helps the producer in weighing the lambs. Performance indexes are calculated by the College of Agriculture, which the breeder can then use as a guide in selecting replacements and culling the breeding flock.

Records from a program of this kind are extremely helpful in conducting Extension animal breeding work. They provide factual data for presentation at meetings in stressing the need for performance testing as the means of selecting breeding stock. They show quite dramatically, the variation in production which exists between flocks and potential production with a proper combination of environment and breeding.

For instance, the following table giving the differences between the top one-fourth and the low one-fourth brings this out very clearly.

	4-Month weight		Pounds of lamb per ewe—4 mo.	Fleece weight
	Singles	*Twins*		
Top fourth	98	91	141	10.5
All flocks in 1964	80	74	107	8.5
Low fourth	66	60	81	6.5

The trend over the years indicates a steady increase in 4-month weight of lambs. This should not be used as evidence of the merit of the program, or as proof of genetic change, because different flocks are in the program and environmental changes have occurred during that time. However, a part of that change is un-

As an incentive to the breeding program, the Wisconsin State Fair lists a performance certified class. This ram was also champion in the open show.

doubtedly genetic as brought about through the selection program.

PERFORMANCE RECORDS OF FLOCKS IN THE WISCONSIN SHEEP IMPROVEMENT PROGRAM

Year	Percent of lambs that are twins	4-month weight		Pounds of lamb per ewe—4 mo.	Fleece weight
		Singles	*Twins*		
1950	52.0	63	58	83	8.5
1951	54.6	65	59	84	8.3
1952	54.6	62	57	76	7.9
1953	58.7	67	61	85	8.3
1954	52.5	67	60	82	8.4
1955	58.3	68	60	83	8.1
1956	57.5	67	61	85	8.2
1957	58.2	71	65	89	7.8
1958	59.9	73	68	95	7.6
1959	60.7	74	69	97	8.2
1960	63.5	74	68	99	7.9
1961	59.4	71	67	94	7.9
1962	59.5	75	71	99	8.0
1963	60.4	81	77	105	8.2

The number of participants has usually been around 100. No concerted effort has been made to increase participation because of limitations of fieldman help and processing of the records. However, with present plans by Midwest Extension Specialists, in which data processing machines will be used and breeders will do their own weighing, there will be no limit to the number of breeders who can participate.

Perhaps the single most important factor of effective Extension work in the area of animal breeding is stimulation. Patterns of recognition in the show ring have developed over a long period of time which are looked upon (in the purebred business) as being the ultimate in this field. With the differences in show ring and performance testing methods of evaluating breeding stock, it is difficult at times to enthuse purebred breeders to use performance as the guide in their breeding program.

In a partial answer to this problem, a performance certification program was started in 1962, with only the top performance animals within a flock eligible for certification.

This provides an opportunity of publicizing the program, the sheep, and the breeder, yet keeping it on a sound basis as these animals represent the tops in performance.

Through the performance testing and certification programs we hope to stimulate all purebred and commercial breeders to go all-out in breeding for performance in their breeding programs and thereby attain the maximum in genetic improvement in the sheep population. ■

Research and Extension Centers Contribute to the Efficiency of Texas Agriculture

by JOHN E. HUTCHISON, *Director, Texas Agricultural Extension Service*

AGRICULTURE today is a highly specialized and complex industry—one that has become heavily dependent for its continued vitality on the rapid implementation of research and technological advances.

Because of the phenomenal increase in specialization, technological developments, and mechanization requiring greatly increased investments, a greater need exists for having an adequate staff of well-trained technical specialists to backstop county Extension personnel.

Because of the distances involved and of the agricultural diversity in Texas, more intensive and specific assistance can be provided by subject-matter specialists when at least some of them serve on an area basis rather than statewide. By serving a more limited area, these specialists can personally conduct continuous training programs for county Extension agents and assume responsibilities for doing more of the direct teaching.

As agriculture has become more complex — and with the twofold responsibility Extension specialists have of demonstrating the applicability of new research information and for identifying the most pressing problems requiring new or further research—the need is intensified for ever-increasingly closer relationships between Research and Extension in planning and coordinating efforts.

Texas has 12 Extension districts. District agents or supervisors are headquartered and reside in the districts for which they are responsible.

Currently there are some 40 agricultural experiment substations and field laboratories located throughout the State. Upon the recommendation of the Board of Directors of Texas A&M University, the Texas Legislature recently directed Dr. R. E. Patterson, Dean of Agriculture, to reduce gradually the number of experimental substations and field laboratories and to develop, over time, "Research and Extension Centers" with at least one located in each major type of farming area of the State.

Ultimately it is anticipated that there will be one "Prime Research and Extension Education Center" located in each of the 12 districts. These will provide an opportunity for the Extension subject-matter specialists' programs to be more closely coordinated with the ongoing Research efforts and to make possible continuous dialogue between Extension and Research specialists. Dean Patterson is giving vigorous leadership to their development.

In addition to creating an environment in which Extension and Research specialists can best coordinate their efforts, the development of the "Centers" will make it possible to bring together teams of Research specialists whose work can be mutually supporting. Opportunities for increasing research output and for engaging in more basic research will be enhanced by this arrangement.

Two such centers, at Weslaco and at Lubbock, have already been established. Experiences gained at these locations have provided ample evidence that the advantages envisioned for this arrangement are being fully achieved. Commercial agriculturists have been especially enthused about the resulting strengthened programs and the greater accessibility of highly-trained experts.

Particularly significant has been the ability to bring to bear an interdisciplinary approach in dealing with problems at the local and county level. The approach offers an ideal means for incorporating management education into ongoing educational programs in agriculture. ■

The Egg Business

short courses step up extension teaching

by HUGH S. JOHNSON *and* S. F. RIDLEN
Extension Poultry Specialists, Illinois

THE egg business has become very specialized and technical. As a result, more detailed information is being demanded from both the poultry Extension specialist and the researcher. These demands come not only from producers but from feedmen, hatcherymen, farm advisers, vo-ag teachers, and other related industry personnel.

To help meet this need, and at the same time to add depth and breadth to the poultry Extension program in Illinois, a short course was conducted on a pilot basis during the winter of 1963 in the southwestern part of the State. The results were so gratifying that two schools were conducted at different locations in 1964.

Each school consisted of 6 sessions spaced over a period of 6 weeks. Each session lasted 2-2½ hours. All schools were multi-county in nature and each involved from 8 to 15 counties.

To date, 180 individuals from 34 counties have attended these three schools. Sixty percent of these people were egg producers, with a combined total of nearly 400,000 layers. Others who attended were feedmen, hatcherymen, farm advisers, poultry servicemen, State Department of Agriculture personnel, vo-ag teachers, equipment company representatives, and veterinarians.

Much of the early organizational work is done by the poultry Extension specialists. The first step involves the selection of an area in which to hold a school. Basically two factors are considered—concentration of poultry, and the amount of new activity. Next a host county is selected. The farm adviser in this county makes the necessary local arrangements, including assistance in the selection of a site, and handling registration fees.

After the area is selected and a farm adviser has agreed to serve as host, the assistant State leaders in the districts involved are contacted. There are five such leaders in Illinois. In the organizational scheme of things they are between the farm advisers and the associate director of Extension.

Through the assistant State leaders a meeting is arranged with the farm advisers in the area where the school is to be conducted. These meetings are held as early as 6 to 8 months before the school starts. This is done so that the farm advisers can include the short course and plans for related activities in their plans of work and also allow adequate time to publicize and promote the event.

At the planning session the poultry Extension specialists review egg production trends in Illinois before starting on a discussion of the short course itself. They point out why a short course is needed, subjects to be covered, dates, and locations. The farm advisers have an opportunity to make suggestions and propose changes. Also, an estimate is obtained from each farm adviser of probable attendance from his county.

About 45 days before the school starts, the poultry specialists send each farm adviser a supply of printed programs, a list of commercial egg producers they know about in his county, a news story, and a suggested enclosure letter to be sent with the printed programs. The Extension editors at the University of Illinois have the programs printed and they prepare the news story and enclosure letter.

A post card is enclosed with each printed program. If the recipient wishes to attend the short course, he fills it out and returns it to the farm adviser. Two weeks before the school starts these cards are forwarded to the poultry Extension specialists. In that way, the specialists are able to have enough supplies at the meeting.

The first 30 minutes of the initial session are for registration. Each enrollee or family is charged $5. The money is used to purchase supplies, refreshments, and to help pay for the room rent. Only farm advisers and vo-ag teachers are exempt from the fee. Each enrollee is given a 3-ring, loose-leaf notebook, several sheets of paper, and a sharpened pencil. Also, a record book is issued during the session on cost accounting. Refreshments are served.

Actually, it would be possible to reduce the fee to a nominal amount or eliminate it entirely. But the real purpose for charging is to tie the people down. Once they have invested their money they feel it is up to them to get as much as possible out of the school.

Mimeographed material is passed out at almost every session. This covers the presentation made at that particular meeting but it is not distributed until the session is over. This prevents the people from reading ahead and also encourages them to take notes.

The farm advisers who attend introduce the program and make announcements. This gives them an active part in addition to their role as student.

An evaluation sheet is passed out during the final session. The enrollees have been previously notified of this so they can prepare their answers in a more thoughtful manner. A more complete response has been obtained when time is allotted during the middle of the session for filling out the questionnaire rather than waiting until the end. Several of the suggestions have already been incorporated into the schools.

A certificate is given to those individuals or families who attend a minimum of 4 out of the 6 sessions. The certificates are sent to the various farm advisers after the school has been completed. In this way, the recognition can be given at a county agricultural banquet, or be part of a follow-up story.

In conclusion, short courses or workshops offer a real opportunity to do an effective job of Extension teaching. But they require a lot of human resources, considerable planning, and cooperation if they are to be carried out effectively. ■

Engineering the Farmstead For Greater Efficiency

by JOHN M. JOHNSON
Extension Agricultural Engineer and Leader
The University of Tennessee

FARMSTEAD planning is a relatively new farm science.

During the last decade the importance of the farmstead to the farm business increased as farms became larger, more specialized, and as labor became scarce and costly.

What is a farmstead? The farmstead is a complex farm production tool where raw materials are assembled, stored, processed, and converted into a marketable product. It is complicated by the interrelationship of the structures, equipment, space, time, climatic conditions, and constant change. The size, shape, and cost of the plant will vary with the type, size, and degree of specialization of the enterprise served. However, be it a large Grade A or small manufacturing milk operation, a cattle or market hog feeding enterprise, production of eggs or poultry, a grain farm, or even a general farm, the basic purpose of the farmstead is to lower production costs through reduction of time, energy, and waste and the promotion of better management.

Contribution to success. The engineered farmstead contributes to total management through (1) work simplification or elimination, (2) organization of work centers and workloads, (3) easier and more timely marketing and buying, (4) improved product uniformity and quality, (5) healthful environment for worker and animal, and (6) the possibility of easier and more complete record keeping.

To accomplish this, the agricultural engineer is concerned with design and use of labor-reducing equipment, functionally and structurally sound buildings, processing and storage centers, and the arrangements of these into an efficient layout that provides maximum utility with a minimum of space, equipment, and capital investment.

Systems approach. The systems approach is fundamental to the design of a well-coordinated farmstead. However, the engineer must concern himself not only with the mechanical and structural elements of the system, but with the entire farm operation from field to finished product. Field machinery, while generally not considered a part of farmsteads, is a definite factor in farmstead planning.

Flow charts and work diagrams are the tools used to clarify and evaluate the many farm operations in relationship to the farmstead. Work diagrams are useful in analyzing time, travel, and work methods.

Other factors. There are other factors that influence the design of a farmstead in the area of economics, animal science, sociology, and management that must be considered if the investment is to pass the ultimate test —will it make money and contribute to the welfare of the farm family and the community?

At this point the question may be asked: why does the Extension engineer concern himself with the broad scope of the problem? If the responsibility for the design of farmsteads, farmstead components, and equipment falls within the scope of Extension engineering, then the engineer must accept the responsibility for maximizing effectiveness through the whole-farm approach.

A well-balanced farmstead that is an integral part of the farm operation can be achieved only through a well-balanced intra- and interdisciplinary approach to the problem.

There is little room for error in the construction of farmsteads. Errors in seasonal operations involving cropping systems, varieties, fertilizer, or feeding will be costly but not necessarily fatal, because the practices can be changed and a new start made with the new season. Not so in the farmstead. The investment in buildings, silos, concrete pavements, etc., cannot be "plowed under" or disposed of to make room for a new start next year. A mistake in type, size, location, arrangement, or function of farmstead facilities will continue to drain off profits as long as the error exists. Changes necessary for correcting structural errors may be impracticable, excessively costly, and in some cases impossible.

Team approach. The Extension animal husbandmen, agronomists, and farm management specialists are vital members of the team as are the Extension engineers specializing in electrification, buildings, and machinery.

This unified procedure has a three-way advantage: (1) it makes available the best and most up-to-date research-verified information, (2) it assures that all concerned have the same information, and (3) it results in recommendations being made, understood, and supported by all staff members of the departments involved.

Tennessee's program. Tennessee has such a program, the strength of which has been in the strong unity between subject-matter specialists and the extended efforts and cooperation of county agents. The farm management commodity specialists have cooperated with the engineering specialists in the development of the basic principles for guidance in the science of farmstead planning for the major farm enterprises in the State. This approach, the program, and the methods used in the implementation of the program have strong administrative support. This, together with the Program Leader's guidance and assistance, has given the effort the necessary status to demand attention at all levels, thus contributing heavily to its success.

The program has been aptly labeled FARMSTEAD EFFICIENCY because it is not a materials-handling program,

Acknowledgement is made of the contribution to the program and this paper by many county agents and the specialists of the several departments involved.

not a farm structures program, not a building plan program, not only a program concerning itself with layout—it is a program combining all of these and more. It is a program providing not only isolated solutions to isolated problems, but a program providing basic concepts and principles of planning which will enable the operator and those advising him to solve his farmstead problems.

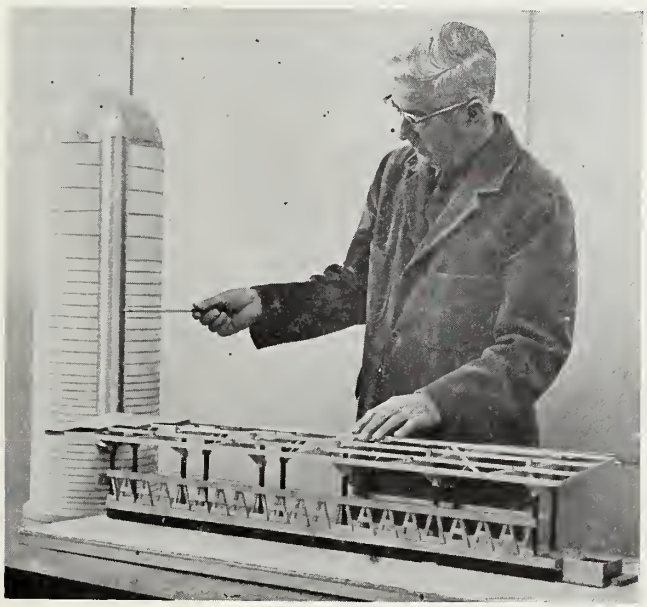
Feed and equipment salesmen, milk plant fieldmen, sanitarians, power supplier advisers, teachers, and government and private agency engineers and representatives in advisory capacities can give wide coverage through their personal contacts with the farmers. Experience has proved that time and effort spent with them is time well spent.

The ultimate success of any Extension program depends largely upon the county agent and the need for such a program in his county. In the case of the FARMSTEAD EFFICIENCY PROGRAM it is centered upon a current problem which is the concern of many farmers in each of the 95 Tennessee counties. Much of the time and effort put into the program by the engineering specialists has been in assisting the agent in understanding the recommendations, in establishing demonstrations, and in preparing visual aids and mass media information.

Methods. Since the inception of the program in 1959, 17 engineering publications and 22 special building plans have been developed for use in the program. Three sets of color slides were prepared, 102 news articles released to newspapers and magazines, and 84 radio and television programs produced in support of the program.

Scale model (¾" per foot) buildings for both beef and dairy enterprises have been used extensively by agents and specialists in farmer meetings, television programs, fairs, and other displays. As a teaching aid, effectiveness of a detailed scale model can be surpassed only by the real thing.

Scale models of buildings have been used extensively by Extension agents and specialists as a teaching aid.



Since the nature of a farmstead prohibits experimentation, testing, or trial by the individual farmer, much emphasis and importance is given to the demonstration method. In the early days of the program farmers would ask, "Where can I see a set-up like you propose?"

Farms for use as demonstrations are selected by the agent and specialist from those farms requesting assistance in planning. Individual attention is given by the agent and specialists in order to establish a practical working demonstration of various phases of the problem in effecting widespread adoption of the program recommendations.

When the program began to take form, the major interest was centered in the dairy industry. The first step in programing was to take the information to the county agents. After a training session with them on the dairy phases of farmstead planning, several agents selected farms for development as demonstrations.

The problems on these farms varied from minor rearrangements and remodeling to a completely new farmstead plan. These early demonstrations had a sizable impact on the future of the program which has grown to include demonstrations on swine, beef, and poultry farms.

The effort continues to pay dividends. One of the basic principles in planning the farmstead is to allow for expansion in size of the business. Many of the demonstrations that have been in operation for 2 or more years are proving the wisdom of the "open-ended plan."

County agents and other agency groups, including beef and dairy associations, make good use of the educational features of nearby demonstrations. The major milk producer associations and many processors through their fieldmen are making extensive use of demonstrations, and two University Experiment Stations have incorporated many of the recommended features on their production herd farms.

Evaluation. By most standards of evaluation, the program can be called a success. One of the Nation's largest farm management consulting concerns made a voluntary evaluation of a 3-year-old dairy farmstead demonstration. The report read: "these facilities have helped make possible a 20 percent cut in the cost of producing 100 pounds of milk. Labor cost has been reduced one-fourth to one-third, bedding requirements have been lowered by one-third. In addition, the use of concrete lots, plus more careful breeding and culling, have reduced udder problems and increased general health enough that cows average staying in the herd 20 to 25 percent longer than before."

The program, like the farmstead, is not static—they both must be flexible, have built-in provisions for constant change and both must have a high use factor. On the farm when efficiency results in a reasonable degree of success, expansion usually results—the EXTENSION FARMSTEAD EFFICIENCY PROGRAM having reached a reasonable degree of success will be updated and further expanded to reach a larger segment of our commercial farms. ■

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From the Administrator's Desk

This month's issue emphasizes our educational leadership in work with farmers—a responsibility at the very heart of Extension's purpose. We have the responsibility to work at the forefront of progress—with the leaders in American agriculture—developing and adopting solutions to problems and developing opportunities. We have the responsibility to work with people having very inadequate farm businesses—developing and adopting solutions to *their* problems, developing *their* opportunities, and for some of these our greatest service may be in helping them identify and prepare for opportunity off the farm. Of course we have the responsibility to work with farmers in the full range of conditions on a wide spectrum of decisions.

This includes work with them to adapt and apply science and technology to the farm. It includes work on a wide range of business and management decisions, decisions becoming more complex and more difficult in this rapidly changing and increasingly complex world. It includes work on their marketing practices, the development and use of marketing procedure and organization that enables them to sell effectively. It includes educational work to help them understand public issues affecting their farm, their community, and their family.

I believe most farmers know that their farm could not long exist as an island of prosperity and opportunity in a rural community with limited prospects for growth and development. The farm family is interested in a rural community that is a desirable place to live, to raise children, to earn a livelihood—and they want some part in its development. They look to Extension, too, to work with them and their neighbors in developing and maintaining theirs as such a community.

Similarly, the farm business is a part of a "community" of farm businesses, a community that stretches across county lines, across State lines, throughout the Nation, indeed throughout the world. The success of many individual farm businesses is affected by farming conditions and developments in distant farming areas, by National markets, by world production, and worldwide markets. Each farmer's decisions affect this agricultural community.

Most farmers, if they are to make sound decisions, need to consider developments and conditions in this larger agricultural community—and similarly we in Extension need to consider these if we are to plan and carry out the most constructive program. For example, to ignore worldwide competition for the world wheat, rice, beef, poultry, sugar, or cotton market; to ignore competition among fibers; or to ignore our agriculture's excess productive capacity as we plan and carry out our program, would be like hiding our heads in the sand.

One of the important responsibilities of county Extension workers is to work with the local leadership whose advice and help is essential in planning and carrying out programs in such a way that this leadership understands the forces in the local and the larger community. Only with this understanding can this leadership provide sound guidance in determining the emphasis of county programs—in determining which alternative program activities will produce the most valuable long run and immediate help for them and their neighbors.

The decisions we make together can be sound only if we base them on an understanding of the local and the National environment in which we are working. We believe one of the greatest challenges to agricultural agents is to maintain an educational program for this leadership that provides understanding and knowledge as a basis for them to fully use their good judgment in helping us plan our work.—*Lloyd H. Davis*

EXTENSION SERVICE
REVIEW
U.S. DEPARTMENT OF AGRICULTURE • MARCH 1965

* Money Lenders Attend Farm Management School

* Realistic Planning and Action Boost Economy

* 4-H Tractor Care and Safety Program

* Leadership Workshops

VOL. 36 • NO. 3 • MARCH 1965

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

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EDITORIAL

The old saying "a little learning is a dangerous thing" might have been true at one time. But today the flow of new knowledge is a surging torrent. If you prefer—call it information. Even keeping up with what's new in a fraction of a particular subject is becoming increasingly more difficult.

Here's some thinking on this problem by Dr. Milo Bail who recently retired as president of the University of Omaha:

"In 1800, information was doubling each 50 years. Today, it is doubling each 8 to 10 years and if I am reliably informed, by the seventies it will double each 5 years. In the physical sciences alone, there are 600,000 pages annually—two volumes every day of the year—more than can ever be read—not to count the hundreds and thousands of articles in various journals and periodicals."

Dr. Bail then goes on to say that "The data processing machine has a significant function to serve in gathering information to communicate although as someone has said in comparing the machine with man—the machine is fast, efficient, and stupid, while man is slow, slovenly, and brilliant."—WAL

The Rural Areas Development Committee has implemented projects such as this pond which is part of the vacation facilities on the Dowse Ranch.

by JACK D. TIMMONS
Public Affairs Specialist
Nebraska

Realistic Planning and Action Boost Custer County's Economy

HOW can we help develop existing resources to provide better economic conditions for the people in Custer County? This was the question a small group of people asked themselves in August of 1961. They were concerned about the population loss and the low income levels of many of their neighbors. They decided that through RAD they might be able to do something on their own about these problems.

Their problems were no worse than those of hundreds of other counties in the United States and were not as serious as those of many areas. However, this group of concerned farmers, ranchers, businessmen, and educators felt that there were potential opportunities in their county which could be developed through planning and with a judicious push in the right direction. They wanted to solve some of the problems before they got worse.

RAD Committee Formed

In this environment the Custer County Rural Area Development Committee was born. It began with about 21 members and has remained around that size although some of the faces have changed. Subcommittees were formed to discuss and study problems in agriculture; industrial and community development; and recreation, education, and youth. During the first 2 years the committee concentrated on specific action projects.

Generally, when one of the seven-man subcommittees came up with an idea and some information relative to the idea, the whole committee would concentrate its efforts on the project. This included talking to people who would have direct economic interest as well as obtaining support for the project from other organizations in the county. Once the project was well underway the committee normally would turn it over to the group immediately interested and transfer its attention to some other project. The committee has no money so its activities have been limited to providing the ideas, information on feasibility, and encouragement.

Action Projects

The committee's first project turned out to be fairly easy and most successful. This undoubtedly provided them with the needed confidence and enthusiasm that has carried through to the present.

Someone suggested that sales of Grade B bulk milk for processing might be more profitable than separating cream for some of the farmers milking just a few cows. If so, this would help some of the low-income farmers, since it is primarily members of this group who still milk a few cows for extra income.

A Co-op cheese plant in Aurora, about 100 miles away, was contacted by the committee. The plant agreed to send a truck to the county for pickup if the farmers were interested. They would also sell them the necessary equipment which would be paid for out of milk

Feeder and Breeder Association looks over a feedlot operation.

checks. The route started with six farmers but grew so rapidly the Co-op plant added another truck and then built a collection plant in Broken Bow. This added three employees to the county and a $25,000 building to the assessment rolls. But more important, there are now over 100 farmers making as much as 40 percent more net income from their dairy operations than they did when selling cream. They also say this portion of their farming operation requires less maintenance than before.

Another idea which people had been discussing for some time was the possibility of establishing a commercial feedlot in the county financed by local investment. Meetings were held to discuss this possibility and outside technical advice was sought both from the University and from companies who manage this kind of operation. The committee decided that this was not a feasible project at the time and dropped it.

Mention of this unsuccessful exploration is made to point out that a group of this kind can help redirect wasted efforts by investigating projects which look attractive but are not suited to the area.

The Custer Gameland project (see June 1963 article in *Extension Service Review*) was another highly successful effort at bringing new income into the county. Farmers were encouraged to allow hunting for a fee on their farms by those hunters who had registered with the Custer Gameland office and had bought tickets. In addition many farmers provided room, board, and hunting privileges for $10 per day further adding to their farm incomes. Considerable publicity was obtained through State and National feature articles and with printed brochures which were sent out. The project has now been turned over to a group of the participating farmers and ranchers who have formed the Custer Gameland Association.

Gameland Study

Last summer an evaluation study was initiated to evaluate the economic effects of Custer Gameland on the economy of the county. The study is being carried out by the Bureau of Business Research of the University in cooperation with the Extension Service and the Custer Gameland Association.

The study is being financed by a small grant from Extension with the following three objectives: (1) To attempt to measure the effects of the project on the Custer County economy and through this to attempt to get more effective cooperation from the businessmen in the towns of the county; (2) to bring the Bureau of Business Research into the RAD process and acquaint them with the purposes of the program and; (3) to come up with a published study which can be used to help other counties in Nebraska and the Nation understand what new economic activity can mean to their economy.

OEDP Project

During the development of the Committee's activities they became more aware of the need for a more comprehensive study of the county situation. They requested assistance from the Extension Service and in June of 1963 the University agreed to help them develop an Overall Economic Development Plan as part of an experimental project. The University Extension Service wanted to develop materials for helping counties in the State do their own planning but needed more direct experience with a county that was going through the process. Part of the time one staff member helped to gather information and organize the OEDP.

Meetings with the RAD Committee, subcommittee chairmen, and the County Extension Board were held and each subcommittee chairman was given an outline of the

This new building is a result of RAD-sponsored bulk milk route.

information he needed to complete his report. This has been followed through and the initial OEDP for the county is now completed. It was submitted for ARA approval by June 30, 1964, according to their January 1964, requirement for ARA counties.

In addition to helping the subcommittees with their inventory, the University staff member acted as consultant in discussions of the various resource areas in general committee meetings, and brought other University personnel into the discussions as advisors.

The next step in the project will be to compile the experience of the people who have been involved in the Custer County Project and to come up with detailed guidelines for use in other counties. It is felt that there must be statistical profiles compiled for various economic areas in the State since local people have a very difficult time finding much of the published information. The questionnaires and information lists must be more detailed than they have been up to now.

As soon as the OEDP has gone through the approval process, the suggestions of the various Federal agencies will be incorporated and it will be printed for use as a model OEDP in other counties which are interested in developing a plan for their areas.

Some of the most obvious problems observed at this point seem to be: (1) Difficulty in obtaining broad representation on the committee, (2) difficulty in obtaining cooperation from businessmen in the larger towns—particularly with over 2,000 population, (3) more detailed assignments need to be made in the fact-gathering process and as much published statistical information as possible should be made easily available, (4) better guidance is needed in programing committee meetings—often committees tend to meet when they have no specific program or topic to discuss, and (5) some attention should be paid to encouraging the undertaking of specific projects while the OEDP is in process to keep the action-oriented members interested.

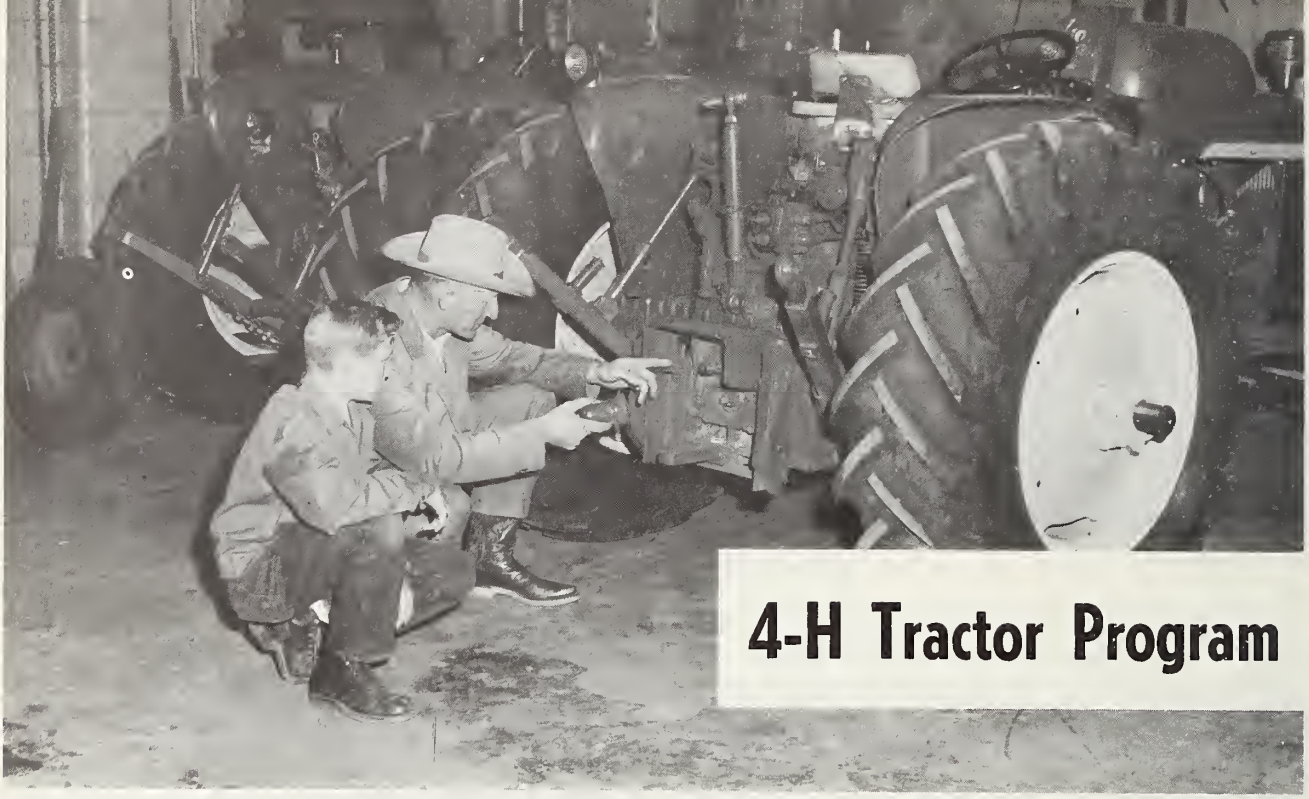
Current Activity and Future Plans

As a result of their experience in RAD the Custer County Committee has been called upon several times to help explain RAD to other counties in Nebraska. This has been a most effective means of motiviation. Other local people concerned about their economic and social problems are able to identify more closely with other farmers and businessmen who have accomplished positive results than with specialists from the University or other State-level agencies.

Custer County has many projects outlined as possible sources of economic and social improvement which were brought out in development of the OEDP. Currently they are working in conjunction with several other organizations to develop a map of the county showing historical sites and other points of interest for tourists. A program is now being generated to provide education on proper use of fertilizer in the county. The county agent, vocational agriculture teachers, farm organization members, and others will work together to provide information and help with soil testing.

Other projects include promotion of a feed mill in the county, further encouragement in promoting hunting and vacation farm activities, a program to promote better range management and irrigated pasture, experiments with specialty crops such as dry edible beans and beets, and cooperation with other groups to find feasible industrial potential for the county.

This is one example of a group of local people who have recognized change as something that is happening to them. And discovered that they can do something about both adjusting to those changes and shaping those changes to their own needs and desires. ■



4-H Tractor Program

Father and son discuss the importance of proper shielding of the power take off shaft.

Canadian County, Oklahoma Uses Three-Step Training Approach

THE NEW APPROACH to leader training and projection in the Oklahoma 4-H tractor program is paying off in Canadian County. Circular letters and good publicity helped to get the program off to a good start but the real merit of the program is the series of four training schools for 4-H Club members.

Leaders carried out the 4-H tractor program according to an overall plan developed by the State 4-H staff and the Extension agricultural engineer. This three-step plan included a planning conference with agents, a dinner and leader-training meeting, and a series of training schools for 4-H Club members.

Eleven adult leaders and two local machinery dealers cooperated with the assistant county agent, Phillip Mannschreck, in conducting the training schools. There were 42 4-H boys enrolled in the Tractor Care and Safety Program in 1964.

The first step was a planning conference in the county agent's office. In this conference, the Extension agricultural engineer and the State 4-H Club leader worked with the county agent and the assistant county agent to develop plans for Step Two, the dinner meeting-training session.

Mannschreck took the lead in making the arrangements. He sent special invitations to some leaders and invited others personally before the meeting time. In a special circular letter to leaders he stated, "We are going to kick off the New Year with a new project on the 4-H Tractor Program in Canadian County.

"We need your help as well as your attendance at the first dinner meeting which will be for leaders' training. The meal will be furnished through the courtesy of the program sponsor. . . . The purpose of the meeting will be to discuss and review the new lierature available for 4-H Club members and to make plans for schools, demonstrations, and other activities to encourage and assist 4-H Club members to learn to operate and care for tractors skillfully, safely, and economically. . . ."

Eager Leadership

Leaders attending the dinner meeting-training school were enthusiastic about the 4-H tractor program. But what appealed to them most was the new literature which included special instructions for them with emphasis on safety. The leaders had been greatly concerned about safety with tractors and machinery because several serious accidents had recently occurred in Canadian County.

At this training meeting plans were made for conducting a series of four training schools for the 4-H'ers. Since Canadian County had not been active in the 4-H tractor program for several years, the group decided that

by C. V. PHAGAN, *Extension Agricultural Engineer, Oklahoma*

all of the sessions would be from the first year manual.

The assignment of leaders to be responsible for each lesson was voluntary. Response was excellent: some preferred to take certain subjects and others said, "I'll be glad to take any of them."

Most of the leaders were fathers of boys who were enrolled in the program. They had a personal interest in doing the best possible job in presenting their assigned lesson. Local machinery dealers were cooperative in furnishing meeting places in their shops or showrooms. The groups decided to hold the schools on four successive Thursday evenings at 7 pm with the understanding that the sessions would last until 9 pm.

Good Publicity

Excellent publicity and communications helped to get the Canadian County 4-H tractor program off to a good start. The local newspaper carried information about the leader-training meetings and gave plans for each of the four schools for the 4-H'ers. Dates, meeting places, and names of the leaders were listed in news stories and circular letters.

Mannschreck used circular letters to keep leaders and members informed about the schools with a footnote reminder of schools to follow, listing dates and places. His first letter invited leaders to the training meeting.

The next letter informed 4-H members of plans to hold the schools and gave dates and locations. He said, "I would like to urge both you and your dad to attend these sessions to find out how you rate in tractor care and safety and to learn all you can in this respect."

Phillip Mannschreck, Assistant County Agent displays equipment used in lesson on nuts, bolts, and screws.

Mannschreck's third letter to club members told names of instructors and gave the lesson topics. He listed dates, times, and places of the remaining schools.

"All of the leaders did a tremendous job in presenting demonstrations and leading discussions," according to Mannschreck. Also quite helpful was the fact that none of the leaders missed a meeting. Leaders for some of the later lessons reported that they got some good ideas from leaders in the first lessons. Some leaders arranged for their sons and a friend to give a short demonstration as part of the lesson.

Lessons Popular

A former State winner in the Record Book Program taught a lesson on "Daily Maintenance and Safety Check." This was one of the most popular programs. Part of the discussion and demonstration was the showing of the leader's record book with emphasis on the importance of keeping a workbook up to date.

At the close of each session the boys were encourageed to fill out their workbooks and bring them the next week. At the beginning of each meeting the previous week's leader briefly reviewed his lesson and went over the quiz questions on the check up sheet.

Mannschreck reported, "The more we called on the leaders to help out in different parts of the program, the more interested and cooperative they seemed to be."

A local leader rated this series of training schools for 4-H boys about the best he had ever seen because of the keen interest and attendance of boys and their dads. Mannschreck adds, "When dads support a program like this, we know it must be worthwhile."

Attendance held up quite well. Starting with 48 boys at the first meeting the average was 44 4-H'ers and 15 fathers at each of the four meetings.

Other Counties, Too

In 1964, six other Oklahoma counties also conducted 4-H tractor programs similar to the one in Canadian County. All six county agents reported excellent interest and cooperation among club members, parents, leaders, and machinery dealers.

Canadian County plans for 1965 are to continue the program on an enlarged scale. For each training school for club members there will be two classes—one for beginners and another for boys enrolled in the second-year program. ■

To reach the young homemaker—

LETTERS . . . LETTERS . . . LETTERS

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

■ How do you get the Extension home economics program to the beginning homemaker? Many thousands of young homemakers appear on the scene each year. Home economics has much to offer them. But for many reasons these young women are an elusive audience.

Last year two New York counties used a young homemaker letter series with results worth reporting. Nassau County and Suffolk County on Long Island tried a weekly series of personalized, mimeographed "Dear Homemaker" letters. Each was planned to accompany a brief threefold Extension Service bulletin or leaflet.

There was nothing in this particular "Dear Homemaker" approach that all Extension home economists haven't used since the beginning of the Extension Service program and the authorized use of the penalty privilege—but it happened to work!

It was a joint effort, cooperatively planned and executed, but the mailings were handled in the separate Extension offices and signed by the agent in the particular county. Nassau and Suffolk are neighboring counties with growing similarities in population trends and program potentials. Members of the two staffs have found it helpful over a period of years to meet together occasionally to discuss present and future policies, and to bring the two programs in line with each other.

The final pattern for the project was to prepare a series of 18 franked letters on specially-designed and printed stationery. They were mailed a week apart to

Homemakers' reactions are varied. Some report interest from their "better half" and most say they pay more attention to labels and shop for advertised specials.

give the homemaker just enough time to read and digest one letter and to anticipate the next. They were to be friendly, short, and easy to read. They were to encourage action or changes in practice. A beginning homemaker was defined as a homemaker with 3 years or less of homemaking experience.

Each county started with a list of 200 "brides." The list was compiled by asking Extension members for names of daughters, daughters-in-law, nieces, friends, and neighbors who might enjoy receiving the letters. The service was also publicized in the monthly Extension newsletter and in the weekly newspapers of the county. A large poster was used at several countywide meetings. About half of the initial list came from mass media publicity.

The selection of topics was determined to a considerable extent by available *free* three-fold USDA or Cornell leaflets, although the two counties worked up some special leaflets themselves. The leaflet list included: *Food for Fitness, Keep the Quality in the Food You Buy, Manage Your Way to Quicker Meals, You and Your Market Basket, Working Wives, Freezing Foods, A Financial Checkup* (credit), *Read the Label, Know Your Fabrics, Spot and Stain Removal, Housecleaning Methods, The Family Wash, Selecting and Cooking Turkey* (in the spring series, Fish), *How to Select a Basic Cookbook, When You Buy Wood Furniture, When You Buy Curtain and Drapery Fabrics, When You Buy or Rent a House.*

The initial letter was introductory, telling a little about the Extension Service program, the purpose of the series, and how the mailing list was compiled. It was mailed with an explanatory Extension Service leaflet in one of the printed Extension file folders (used by the two counties for leader training school materials) with the suggestion that the series would make a useful reference file. The final letter again called attention to the services and opportunities offered by Extension and invited each reader to avail herself of these opportunities.

Toward the end of the series a 2-page questionnaire was sent to each reader for evaluation purposes. The first page was a profile questionnaire; the second was for evaluating the series. Space was left for comments and suggestions, and there was a form to fill out if they would like to have the series sent to any of their young married friends.

In Extension, the return from any questionnaire is an exciting and heady experience. In each county the response to the questionnaire was about the same—a 50 percent return, and most of them very enthusiastic.

Some readers merely answered the questions, but the

The final pattern for the Nassau-Suffolk project was to have a series of franked letters on specially-designed stationery, signed by the agent of the issuing county. They were spaced a week apart to give time for the homemaker to read one letter and anticipate the next.

majority took time to write a note to say that the letters had been of real help, that they had enjoyed and anticipated them from week to week, and that the letters had made them think. Some asked that the series be extended, or to be put on the list if another series were contemplated. Nearly all of them sent in one or more names of friends for the second mailing.

The profile proved that the audience was quite young, more than two-thirds of them in the 20 to 25 year bracket; more than seven-eighths in the 20 to 30 bracket. A few lived with parents, but around half rented apartments (or houses), and about half were homeowners. Very few had less than high school education. Around one-fourth had taken courses beyond high school, about one-third had bachelor degrees, and few had degrees beyond the bachelor.

Warmed by appreciation, Nassau and Suffolk found that their mailing list for the repeat series in the spring of 1964 more than doubled. The pilot list of 200 in each county jumped to more than 400 making a total for the two counties of 1,300 reached in the fall and spring mailings.

A summary and evaluation of the Nassau-Suffolk series was sent to the State Office and then reproduced and sent to the other counties in the State. The following fall (1964), 12 other New York counties used the idea (adapting and improving the letters) with mailing lists varying from 100 to 500 per county. A recent poll (November 1964) gives the number of young homemakers over the State reached by the fall 1964 series (including Nassau and Suffolk) to be well over 3,000. Most of the counties plan a repeat in the spring.

The project is not inexpensive in either time or money, but the fact that it has captured the attention of that young homemaker audience, not once but 18 times, has been judged reason to put the project among those on the priority list when planning programs and budgets.

The 33-page summary and evaluation describes the project and its mechanics. It lists the topics and bulletins; summarizes, analyzes, and evaluates the questionnaire returns; and includes copies of the questionnaires and letters. The report is available for $1 from the Nassau County Extension Service Headquarters, 57 East Jerico Turnpike, Mineola, New York 11501. ■

Money Lenders Attend Farm Management School

by EDWARD KOESTER, *County Extension Agent, Gooding, Idaho*

IT MAY or may not be a novel idea, but it's a first in this area. What? . . . a Farm Management School for Money Lenders.

Eight years ago the Gooding County Advisory Council requested me to set up some Farm Management training for farmers. Arrangements were made with University of Idaho Farm Management Specialist, Virgil Kennedy to work with seven farm families. At this time a good deal of experimenting was going on. These families were asked to review their long range goals, their assets, liabilities (resources, land, labor, and capital), and their particular likes and dislikes. Net worth statements were prepared.

One of the main objectives was to make the farm operator more capable of recognizing and choosing alternatives as they applied to his operation.

In the spring of 1964 another Farm Management School was arranged with a broader approach. The attendance was 31 for this 2-day session. Participants were introduced to the subject of cost analysis and urged to complete their farm analysis at home and call on the county agent for assistance if needed.

Since this training was well received and the area of greatest concern was financing, we decided to offer similiar training for finance people.

In September I personally surveyed bank managers, FHA supervisors, and others as to their acceptance of such a plan.

One young bank manager stated he would be very interested because his training had all been on the lender's approach; others also indicated interest. The result was a training meeting planned just for finance people.

Every financial institution serving the county was represented at the training session. The local Production Credit Association had two representatives, both bank managers were present, the Federal Land Bank Secretary, the FHA supervisor serving Gooding County, three FHA supervisors from an adjoining county, as well as a bank manager from an adjoining county.

The training consisted of an explanation of the necessity of better farm management and the cost analysis approach. It was noted that good farm records were a must for accurate cost analysis. I presented cost analyses of two local dairy situations and explained how and why so much variation in costs and returns exists.

Farm Management Specialist, Virgil Kennedy has been very active in schools of this nature and had worked out an outline showing details of figuring machinery costs and the breakdown of fixed and variable costs.

The meeting was informal in nature and questions were asked frequently. Handout materials were prepared by the specialist.

Follow-up included a farmer calling at my office the next day, referred by one of the participants. Others have expressed a need for more such meetings. One banker was noted discussing this with farmers.

One farmer, who participated in an earlier meeting, has been "plugging" for a Farm Management course for credit at the University of Idaho. ■

SHORT SURVEYS for Program Development

by E. J. NIEDERFRANK, *Rural Sociologist*
Federal Extension Service

and BRUCE M. JOHN, *Rural Sociologist*
West Virginia

IN THESE DAYS when Extension is undertaking program responsibilities in new areas, county agents and planning groups often find themselves working with problems or subject areas less familiar to them than the more established programs.

Most of your experiences may have been with programs based on readily available Experiment Station research findings which were easily adapted to already-defined problems and easily provided the solutions or answers needed. But many problems we are called upon for assistance in solving today cannot be solved merely by the direct application of readily available information, for they call for specific information about local situations.

Many times specific local data about people, the community, or the land and other physical resources are needed for making final decisions about programs and methods. If agents or planning groups want information of this kind they usually have to gather it themselves.

To meet this void, Extension agents and citizens' groups are more frequently undertaking short range "action" or "applied" research on their own. This trend is all to the good. It not only provides local information needed for sound planning, but frequently has been found to be an effective way of involving local people. It helps stimulate interest, motivate action, and increase the leadership skills and understandings of both staff and people.

On the other hand, sometimes action research or surveys do not always produce worthwhile results because of the inadequate methodology used or for other reasons. Sometimes Extension workers also hesitate to suggest or undertake a survey because they are not sure they are able to adequately direct such work. Therefore, the following suggestions may be helpful.

Some Main Considerations

The first question is about purpose. *Why* do we need to make the survey, or why would it be advisable to suggest one? In what ways would it be helpful? This, in turn, determines the content of the study—*what* kinds of information do we need in order to fulfill the purposes of the study. Then the next question is *how*—what type of study, in general, are we talking about? How large a study? Who should make it?

These three basic questions—*why, what,* and *how*—are very important because the rest of the methodology and uses of the survey depend on them. The answers to these questions will influence the number of people needed to help, the time required to do the study, other financial costs, types and amounts of professional help needed, and the like.

It may be desirable to set up a temporary committee to give thought to such questions and make preliminary recommendations.

Making Short Surveys

Once the purposes, the general content, and the general method are in mind, the next phase in designing a survey is to plan the specific details. Careful attention should be given to the following steps.

Define the problem clearly. To make the best use of your time and effort, you should determine exactly and precisely what the central question or questions are that you want answered.

Decide on specific data needed. The next step is to determine what information you need to answer the question and how you are going to gather it. Some inexperienced researchers look first to see what is easy to obtain. This is a dangerous way to operate, for often you end up with too much data and still haven't answered the questions. You should determine first what you want to know and then decide how you are going to get it. One must be practical and realize that certain types of information are nearly impossible to get or may be impractical from the standpoint of time and money.

Determine source of data—sampling. When one is concerned with a large number of cases or universe, a sample is usually called for. It is a waste of time and effort to interview every case when a large number is involved, because the results would not be any more accurate than a properly-drawn sample. For most purposes a sample should be drawn only if the total number of cases is larger than 150. If less than 150 cases exist, it is usually desirable to interview every case.

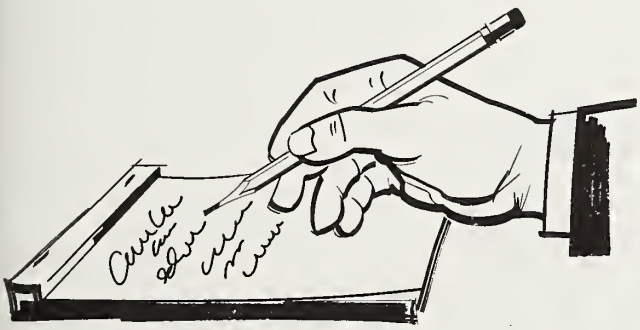
The questionnaire. The designing of questionnaires is an exacting art and space cannot be devoted here to a full discussion. However, there are a few basic principles that should be kept in mind.

First, the questionnaire should be as short as possible.

Second, questions should be worded clearly to avoid any possible misinterpretation. Care must also be taken that the questions are unbiased and do not give a hint to the type of answer wanted.

Be sure not to miss relationship data which will be helpful in interpretation. Include questions regarding age, sex, education, rural or urban residence, occupation and/or income level, and other factors that may be important in your particular case.

A general idea of social class can be determined by occupations and income levels. If data on income is desired, it is best to place it at the end of the questionnaire and to ask for it within broad categories.



Personal interviewing. Remember that the sole purpose of the interview is to secure information as accurate and precise as possible. The first step is for the interviewer to explain who he is and why he is there. It usually helps to give a brief explanation of why the survey is being taken.

It is important that the interviewer establish good rapport with the respondent. The respondent should be told that the interview is confidenial and every effort should be made to keep it so. Do not underestimate the intelligence of people and display an attitude of superiority. The interviewer must accept the interviewee as a conversational equal during the interview. He must discount his own ideas and be careful not to express moral judgments.

It is, of course, important that the questions be asked carefully and exactly as worded. The answers should be recorded completely and accurately. It is usually useful for the interviewer to make notes on the margins or back of the qestionnaire of any additional information that may be gained.

As soon as possible after the interview, the interviewer should read over the questionnaire, question by question, to be sure that every answer is filled in fully and accurately. Go back for more complete information if necessary. In no case should the questionnaires be left with the respondent for review.

Tabulation of results. The tabulation of results is always the exciting time, for here is where trends begin to be revealed. Most Extension groups find that simple tabulations are sufficient for their needs, without complicated analysis of correlations. Other studies may lend themselves to cross-tabulation and more sophisticated analysis.

If less than 200 questionnaires are taken, hand tabulation would be most desirable. If the number is larger than 200 it might pay to investigate machine tabulation.

When analyzing the results, one must be very careful not to interpret more than is in the data. But accept what the data clearly show, even if it is hard to believe; don't throw out findings if they are contrary to preconceived notions. One should also exercise caution in interpreting results and drawing conclusions. To say that this *proves* that may be dangerous. It is better to say this *indicates* that. . . .

Involve the people. Local people can usually be used for interviewing. Train them carefully. Also use local people to help tabulate data and interpret findings. Draw up a good report or summary of the findings and then use them in program planning. Publicize the findings as advisable.

Finally, do not hesitate to call on professional people in the State staff for help in planning, conducting, and using the survey. Ask your State Extension research specialist or sociologist. Once you have had one or two successful survey experiences, you will want to do more research in the Extension program, to help the people do a better job of planning, and to help you provide better professional leadership.

In recent years, many counties have undertaken socio-economic base studies as a beginning phase of work in community and area development. This is another type of useful research that should be done more. Surveys to pinpoint low-income clientele and to learn about their situations are especially helpful, as they would reveal much about the real situations of local families. Unless a staff member really understands and appreciates actual situations, it is hard for him to effectively work with given families or groups.

Surveys help develop understanding, appreciation, and compassion in both staff and leaders. Thus, they add to or enrich purpose in program development. ■

Here, Guthrie Sklar who is Chairman of the Victoria County Program Building Committee, is leading a small workshop group in developing an agenda.

Leadership Workshops in Texas

MANY representatives of clubs and organizations in Texas are becoming more effective leaders after completing special workshop training in leadership development.

Men, women, and youth are reaping the benefits of this training.

Here's a typical comment from a woman who became interested in taking the leadership training after she had accompanied her husband to one of the workshops.

"I came to the leadership workshop last year just to keep my husband company. I had not served on any committee or held office in any organization. The workshop made me realize that I was missing an opportunity to grow and develop personally and to serve my community as well as my family. The parliamentary procedure and officer's training gave me sufficient confidence to take an active part in community affairs. This year I was elected president of our PTA and I am a member of a number of committees in the church, Scouts, and the PTA. I'm back for more training this year (although my husband could not come) because it has given me a new slant on life."

These spontaneous remarks came at the close of the second annual leadership workshop sponsored by the county Extension agents and the Victoria County Program Building Committee.*

Victoria County held its first leadership workshop in September 1963. The Program Building Committee had recognized a general need for better trained leaders in the large number of organizations in the county. One of the top priority objectives in the long-range county program was for officers and members of organizations to develop good leadership qualities in order to serve more effectively.

Both the 1963 and 1964 workshops reached the target audience by enrolling more than 100 civic leaders who represented almost as many different organizations.

Among the participants were officers and members of all of the service clubs in the county, home demonstration clubs, garden clubs, parent-teacher associations, chambers of commerce, school board members, boards of directors of banks and of farmer cooperatives, church organizations, women's clubs, youth groups, civic groups, as well as several local people holding office in district, State, and National organizations.

Four workshops were held in Texas counties during 1964. Evaluation of these training programs, focuses attention on the importance of good planning. The three essential steps in the planning are:

Determine the need for leadership training. Each county planning committee, with assistance from Extension, discussed leadership training with key organizations in the county. Clubs were urged to make self-evaluation of their effectiveness in the community. They asked their members questions such as:

(1) Is this organization active and dedicated to a worthy cause?

(2) Does it have a variety of good programs supporting that cause?

(3) Is regular attendance good?

(4) Do the officers perform their duties with skill and confidence?

(5) Are the business meetings orderly and democratic?

** Texas County Program Building Committees are similiar to RAD Committees in other States. Each committee is broadly representative of the social, economic, and geographic areas of the county; and with the help of the Extension agents, other agencies, and resource people develops the long-range county program.*

(6) Are the committee meetings productive?

(7) Is it easy to get new, well-qualified officers to serve?

(8) Is the membership increasing?

Negative answers to these questions indicated a need for the officers and members to develop more leadership skills.

Designate a workshop committee. Leadership development provides an excellent area of program concern for the County Program Building Committee, since its members represent the many different social and economic groups in the county.

However, the chairman in two counties appointed a special workshop committee to plan and conduct the training. Each committee had from 8 to 12 members representing a cross section of the organized groups in the county. Extension agents, organization and program specialists, and local people served in an advisory capacity.

Design the workshop. Many important elements go into the design of a good workshop. The committees found it necessary to meet several times before plans were completed. The following points were considered:

a. *Subject-matter or leadership skills to be taught.* The self-evaluation of organizations in the counties gave clues about types of training needed. The planning committees also used checklists to determine interest in different topics. Most committees chose two or three major subjects rather than attempting to cover too much in a short period of time. Parliamentary procedure, officer training, committee work, group techniques, how to plan a meeting, how to develop an agenda, how to speak effectively, how to preside, how to introduce a speaker, and the problem-solving process were among subjects frequently suggested.

b. *Length of the workshop.* Local interest and the audiences to be reached were considered in determining the length of the workshops. Two successive nights, with a 2-hour session each night, provided enough time to give training in one or two subjects each night. Each program also allowed sufficient time for audience participation and discussion.

c. *Dates for the workshop.* Each workshop was scheduled from 60 to 90 days in advance to provide enough time to secure the best instructors and to insure wide media coverage. Sufficient time also was allowed to contact local organizations and to enroll prospective participants.

d. *Advance registration.* The workshop planning committees, assisted by the Extension agents, developed a list of organizations in each county and assigned committee members the responsibility of contacting certain groups and announcing the workshops. In most instances, copies of the printed program were distributed. Advance enrollment enabled the planners to estimate attendance and plan for appropriate workshop facilities and training materials.

e. *Facilities and training materials.* Both Victoria County workshops were held in Victoria College, which provided an expansible auditorium and additional classrooms for workshop groups. The Nolan County workshop had equally good meeting rooms at a church in Sweetwater. In Taylor County, the ultramodern Cooper High School in Abilene was the workshop site. Provision had been made for larger facilities, if needed, for each training meeting.

A popular feature of the workshops has been a reference handbook of training materials prepared by the State Extension Specialists. Included in an attractive plastic looseleaf notebook were reference materials on the duties and responsibilities of club officers, parliamentary procedure, public speaking, committee work, working with media groups, suggestions for planning meetings, group techniques, and general organizational suggestions and references. Looseleaf binders were used so participants could add other materials.

f. *Teachers for the workshops.* Extension organization and program specialists, members of the Extension agricultural information staff, and local resource people have served as instructors for the workshops.

Each workshop has featured a keynote address by a community leader to challenge other local leaders to prepare for more effective leadership in community affairs. Keynote speakers have included the executive officer of a bank, a minister, a superintendent of schools, and a consulting engineer.

The president of Victoria College has taught sessions on public speaking and developing an agenda. Other local instructors included school teachers, club leaders, businessmen and women, and county Extension agents. The Extension organization and program specialists, Bonnie Cox and Larry Burleson have given training in parliamentary procedure and group techniques. Mary Mahoney, assistant editor in the Extension Department of Agricultural Information, has worked with local editors in workshop sessions for club reporters.

Each of the three initial counties has planned follow-up workshops. Some are planning to conduct them on a community basis, focusing on more specific needs of community groups.

More than 30 other Texas counties are planning workshops in 1965. El Paso and Winkler Counties have three workshops scheduled for this year, while many other counties have similar indications in their 1965 plans of work. ■

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From The Administrator's Desk

The President's Agricultural Message

As I was about to prepare this month's page, President Lyndon Johnson sent his Agricultural Message to the Congress.

Here are a few pertinent quotes from his message:

• *"The farm people of this Nation have made and are continuing to make a lasting contribution to our National prosperity. As a matter of simple justice they should share equitably in this prosperity. They deserve a place of dignity and opportunity."*

• *"Research and education, credit and conservation, and price stabilization have all served us well. They have benefited all Americans, though they were designed as programs for farmers."*

• *"We need to change much of our thinking on farm policy. Just as we do in other segments of our economy, we need to separate the social problems of rural America from the economic problems of commercial agriculture. We need to be concerned about both, but the answers to each may be different."*

• *"Our program should:*

". . . provide efficient family farmers an opportunity to earn parity of income.

". . . assist those small farmers who have little chance to enlarge their operations but whose age, physical handicap, or lack of education, prevent their shifting to other employment.

". . . assist those farm families who seek to enlarge their productive resources in order to obtain a decent living and have the opportunity and capacity to do so."

• *"I am determined that the farmers who have been efficient and successful in agriculture shall be fairly rewarded for their success. And I am equally determined that the rural community which has sustained the growth of agriculture shall have the chance to broaden its economic base and the range of opportunity which it can offer the children of its families."*

• *"Farmers with inadequate resources make up one segment of rural America's great unsolved problem of underemployment. Another is made up of families who have left the farm but have not yet found a place in the nonagricultural sector of the economy. A third consists of families displaced by the decline in the rural-based extractive industries—mining and lumbering."*

• *"The results of opportunity's decline in rural America are reflected in harsh facts:*

". . . Lack of a decent life is almost twice as prevalent in Rural America as it is in urban America. Only 30 percent of our families live in rural areas, but they include 46 percent of those American families with incomes under $3,000.

". . . Rural America has almost three times the proportion of substandard houses found in urban areas. . . .

". . . Rural people lag almost two years behind urban residents in educational attainment. . . .

". . . Rural communities lag in health facilities. Rural children receive one-third less medical attention than urban children. Their mortality rate is far higher.

"These deficiencies feed on one another. They leave too few resources to support education, health, and other public services essential to development of the talents, skills, and earning power of the people."

• *"These facts require a national policy for rural America with parity of opportunity as its goal."*

• *"This is what we need to have parity of opportunity for rural Americans:*

". . . National economic prosperity *to increase their employment opportunities;*

". . . Full access *to education, training, and health services to expand their earning power, and*

". . . Economic development of smaller and medium-sized communities to insure a healthy economic base for rural America."

• *"I have requested funds . . . to strengthen the capacity of the Cooperative Federal-State Extension Service to assist rural communities in forming strong and active development organizations."*

• *"There are other parts of our agriculture which merit the support of Congress and the attention of all Americans. Conservation of agricultural land is making a contribution to the beauty and the development of our Nation. It can help even more as we attack pollution of our streams and the defacement of our landscape. Research and education must continue to speed our progress in agriculture, to insure the protection of consumers, and to make full opportunity more than a distant hope."*

• *"The task of achieving a life of quality and dignity in rural as well as in urban America is one that will engage our minds and hearts and our energies for a lifetime."*

It seems to me that the President's words give strong support to goals toward which we in Extension are working, to our roles in helping Americans achieve a Great Society, and can give each of us renewed enthusiasm and general guidelines for the work ahead.—*Lloyd H. Davis*

EXTENSION SERVICE
REVIEW
U S DEPARTMENT OF AGRICULTURE ✳ APRIL 1965

SAFE AND EFFECTIVE USE OF PESTICIDES

VOL. 36 • NO. 4 • APRIL 1965

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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EDITORIAL

Pesticides, and particularly chemical pesticides, are prime tools in helping to assure this Nation's food and fiber supply. The following excerpts from "Farm Programs And Dynamic Forces In Agriculture" (a Congressional document issued in February of this year) bears this out:

"Although the purchases of chemical pesticides used to control diseases, pests, and weeds account for only 2 percent of farmers' cash operating expenditures, they play a vital role in maintaining or increasing production.

"Many of the most effective chemical pesticides used on farms today were not on the market 10 years ago. Some of the chemicals used 10 years ago are not manufactured today.

"Although expenditures for farm pesticides have increased two to three fold in the past 10 years, this understates their increasing importance in achieving year-to-year increases in crop and livestock production."

This issue of the *Review* covers various aspects of Extension's educational work on pesticides.—WAL

Pesticides and USDA

by NYLE C. BRADY
Director of Science and Education
U. S. Department of Agriculture

ONE OF THE most important responsibilities of the Department of Agriculture is to develop, use, and recommend safe and effective methods for controlling the pests that threaten man, animals, plants, farm and forest products, and communities and households.

Two main considerations guide us in carrying out this function—the health and well-being of the people who use pesticides and the products protected by their use; and the protection of fish, wildlife, air, soil, and water from pesticide contamination.

Research will ultimately provide pest-control weapons that are safer and more effective than those we now have. USDA is continuing to shift emphasis from studies of broad-spectrum chemical pesticides to research on non-chemical concepts of control such as the biological and sterilization techniques; selective methods of applying chemicals; non-persistent pesticides; and those that act only on the target organism.

Research has already proven the value of using proper cultural practices and good management in controlling pests, and we are developing these relatively simple yet effective techniques still further. We are also emphasizing basic research on the physiology and pathology of insects in an effort to find out how and why they function as they do, and how this knowledge can be utilized to bring about their control.

Approximately two-thirds of our work in entomology is devoted to these approaches. Chemicals, however, are still our main weapons for controlling pests. Studies are underway to develop compounds that are effective but less hazardous to use than some we have now.

As use of pesticides has increased, so have the laws surrounding them. One is the Federal Insecticide, Fungicide, and Rodenticide Act, which is administered by the Department. Under this law, we register all pesticides sold interstate.

We make certain that the pesticides being considered for registration are safe for the purpose intended, and that the label instructions for use are clear and the warnings adequate to protect the public. The Department works constantly with the State Experiment Stations and other scientific institutions to establish proof of safety and effectiveness before the pesticide is registered. Recent changes have strengthened the registration and labeling procedures and further protected consumers.

Of special interest to the States is the model legislation that USDA has drafted to regulate registration and use of pesticides within State borders. This statement was prepared in response to requests from several States, after a study of all existing State regulations on pesticides.

State-Federal cooperation is very much in evidence in our pest control programs. We have worked together to emphasize safety by planning operations to protect the people, wildlife, and the environment in the treated area.

Recently, USDA began a program of monitoring pesticide use in these cooperative programs in order to assure high performance standards and adherence to safety measures. Each program is planned on an individual basis, because the environments in which the pesticides are used differ so greatly. USDA has contracted with many State agencies to determine the effects of spray programs on the soil and water adjacent to the treated areas, as well as on the birds, fish, game, and beneficial insects.

USDA has also begun to monitor and evaluate the effect of normal agricultural use of pesticides on the environment in the Lower Mississippi Valley. Samples of soil, silt, runoff water, crops, other plant life, and fish are taken periodically to check on residues. Monitoring is also underway in the potato and sugarbeet areas of the Red River Valley, and a program is planned for the vegetable-growing areas of Arizona. USDA is cooperating in this effort with the State Departments of Agriculture and the Departments of Interior and Health, Education, and Welfare.

USDA, Interior, and HEW recently set up an agreement to coordinate all activities relating to registration of pesticides and the establishment of tolerances. They routinely share new information on pesticides, and USDA supplies the other two with weekly lists of the applications for pesticide registrations. Many other cooperative activities among the three Departments are being planned.

Additional coordination is provided by the Federal Committee on Pest Control, formerly known as the Federal Pest Control Review Board. This Committee reviews all Government-sponsored pest-control programs and coordinates efforts in monitoring, research, and education. Serving on this group are representatives from Agriculture; Interior; Defense; and from the Public Health Service and Food and Drug Administration of Health, Education, and Welfare. Such representation insures that every important value receives proper consideration in Federal pest-control programs.

We can only go so far in developing techniques to control pests through research and in working out regulations governing pesticides. The ultimate responsibility for safety lies with the users; misuse or improper use is the chief cause of accidents. To prevent this, USDA carried on a nationwide campaign to educate people about pesticides. Our Extension farm and home specialists are planning special schools and information programs to educate users on the most effective way to use pesticides, the importance of following label instructions, and the dangers of misuse. ■

States Increase Training Programs In Pest and Plant Disease Control

by HARLAN E. SMITH, *Plant Pathologist*
and L. C. GIBBS, *Horticulturist*
Federal Extension Service

STATE Extension Services are placing increasing emphasis on training county agents, commercial applicators, farmers, dealers, and others concerned in pest and plant disease control. The last 2 years have seen advances in this type of training, particularly in the pesticide-chemicals field.

We anticipate further progress in these training programs as the States in recent months have put on additional pest and plant disease specialists. A full-time pesticide-chemicals program leader or coordinator position has also been established for most of the States.

Late last fall in order to get a current picture of the training program, a request went out to all of the States for information on what they had been doing in this field. Forty-four responded. Here are some of the answers.

Thirty of the 44 States reported statewide or area training activities for special groups. Fifty percent of this training was designated as short courses; 36 percent, conferences; 5 percent, workshops; and 9 percent fell in a miscellaneous category.

An analysis of the training indicated that 52 percent was the refresher type. Those attending received the latest research results and recommendations. Seven percent could be considered a combination of refresher and in-depth training and 10 percent was entirely in-depth training. Principles, including the *why* of pest and plant disease control were stressed. Less than 5 percent of the training was for the specific purposes of preparing the students to pass an examination necessary for licensing. Thirty percent of those reporting had not conducted training for special groups. However there is movement to nearby States that do offer training. Also, several States were planning to offer training for the first time.

The survey indicated that many different groups are involved in giving advice and supplying a pest control and plant disease service to farmers and homemakers. Those trained by State specialists at State or area meetings included county Extension personnel, pesticide dealers, salesmen, formulators, manufacturers, other chemical industry representatives, aerial and custom applicators, agricultural consultants and technicians, canning industry representatives, and equipment dealers; also, pest control operators and exterminators, aborists, medical doctors, health officers, and vocational agriculture teachers.

Pest and plant disease control made up smaller portions of other Extension-sponsored training activities. For example the Extension plant pathologist, entomologist, or weed specialist may have participated in the training meeting for seedsmen, garden store operators, nurserymen, florists, insurance groups, bank representatives, various processor groups and many other short courses, conferences, workshops, or meetings.

Training for many groups was on an annual basis. The average duration of the training period was 2 days. Length of time spent per training period ranged from 1 to 11 days. The training was not necessarily continuous: a few in-depth activities were scheduled for 1 day per week for a span of several weeks. Thirty-three percent scheduled night training in addition to the day sessions. In 7 percent of the cases a certificate was presented to students at the end of the training.

With 33 percent of the training a fee was charged. The average fee was $4.80 per student and ranged from $2 to $10.

People from many disciplines and professions served as instructors. The major workload was carried by Extension specialists in entomology, agronomy, horticulture, plant pathology, agricultural engineering, nematology, weed control, pesticide chemical program leaders, public affairs, and wildlife. Others included specialists' counterparts in experiment station and USDA research; university resident instructors; pesticide regulation personnel—both State workers; and Federal; chemical industry representatives; State Department of Health workers; pest

control operators; custom applicators; Food and Drug Administration and Public Health Service of the U. S. Department of Health, Education, and Welfare; State Department of Forestry; Federal Aviation Agency; and Plant Pest Control Division and Plant Quarantine Division of USDA. Also involved in instructing were magazine editors, sociologists, power and light company personnel, a biochemist, an attorney, insurance agents, and others.

The average number of instructors per training period was 16 with the number ranging from 6 to 45 per training period. The large number of instructors included panelist members in some cases.

Subject matter presented varied considerably among the audiences. For example, information presented to custom farm applicators was quite different than that presented to lawn and shade tree spraymen. Information also varied depending on the location. Cotton insecticides may have been emphasized in a Southern State whereas corn insecticides were discussed in the North Central States. However many of the basic principles that were taught concerning insect, plant disease, and weed control were somewhat the same for many of the various audiences and locations.

In some instances students were involved in planning discussion topics and selecting instructors. Only a few States attempted to evaluate training. Students had an opportunity to fill in forms near the end of the activity indicating their feelings and judgment toward various parts of the training.

The results of the study suggest places for further strengthening of training. In-depth training probably needs to receive more emphasis in Extension teaching.

It should include how to identify pests and plant diseases, biology and life cycles and the effect of environment. Also it should include the nature, kinds, and types of pesticides available and their use in a manner to assure that persons, livestock, wildlife, fish, bees, soil, air, water, and other values are adequately protected. Such training should be available to all interested persons.

Whenever possible, the training and supporting publications need to be designed for specific audiences. Certificates of accomplishment and other forms of recognition could be used more extensively especially for students that successfully complete the in-depth training.

Extension specialists need to coordinate their training activities with the formal courses offered in the universities. A plant protection major in the university curricula, for example, could in future years help to strengthen the overall pest and plant disease control training programs. Most universities have done a good job of training specialists such as cotton entomologists, fruit plant disease specialists, and corn weed control specialists. There is a need for universities to train general practitioners. These would be professionals with the ability to identify most of the common crop troubles and prescribe treatment.

It is suggested that Extension training needs to be coordinated with pest and plant disease regulatory efforts at the State level. Is there a need for licensing of the various people involved in pest disease control activities? If so, those that are to be licensed must recognize and understand why this is needed. With the right kind of training, Extension can help bring about this understanding. Extension can play an important role in providing training that will help prepare students to meet licensing requirements.

Where there is a lack of State Extension or resident on-campus instruction resources, several States might combine their resources on a regional basis. The annual Cornell University Extension-sponsored training is a good example of regional cooperation. Also, the interstate compacts set up to train veterinarians is a precedent that might very well be followed for training professionals in the crop pest and plant disease area.

OKLAHOMA'S COOPERATIVE APPROACH TO PESTICIDES' WILDLIFE PROBLEMS

■ The high standard of living enjoyed by most Americans today includes a big helping of free time.

In the quest for use of this spare time, two out of five people over 12 years of age are spending part of it either hunting, fishing, or both.

Oklahoma is no exception to these National figures. In 1960, 19 percent of all men, women, and children fished during the year and spent over $42 million. That same year small game and waterfowl hunters spent an average of $60 each for a total of almost $9 million. Oklahoma's total fishing and hunting bill in 1960 reached an amazing $62,762,942 which exceeds the gross value of dollar admissions in the State for all spectator sports and motion pictures for the same period of time.

A tract of land needs to be considered in a much broader context than only for food and fiber production; its recreational potential must be considered also. This is what wildlife conservationists term "multiple use," meaning the maximum degree of use to which land can be employed.

Use of agricultural chemicals became widespread in the post World War II era. As a result, many responsible individuals in government as well as sportsmen and conservationists have become concerned over the effects of their use in various wildlife habitats. Even though this is only one aspect of wildlife conservation, attention has been focused on chemical usage because of the potential hazards created where appropriate safety precautions have been overlooked in wildlife habitat areas.

Recent congressional appropriations have provided funds for intensifying public education on the safe use

Top, Quail are enormous insect consumers during certain seasons. Left, Kids are natural fishermen when they can fish in productive waters. Below, Wildlife Department personnel teach classes at several youth camps.

by R. W. (BILL) ALTMAN, *Extension Wildlife Specialist*
and NEWTON W. FLORA, *Extension Entomologist, Oklahoma*

of agricultural chemicals. This educational program will encompass many phases of chemical usage including expanded programs involving various agencies interested in wildlife conservation.

In Oklahoma, interdisciplinary agencies concerned with this problem have had a close, working relationship for many years. The Extension wildlife specialist is a member of the advisory boards of the Oklahoma Wildlife Federation and the Izaak Walton League and he is a member of the Oklahoma Outdoor Writers Association. In these capacities he has had the opportunity to promote and coordinate programs recommended by the Wildlife Conservation Department. He has also worked closely with the Oklahoma Pest Control Association and the Oklahoma Aerial Applicators Association relative to safe use of chemicals.

We have over 40,000 4-H Club members in various wildlife projects including conservation. The youth also have an excellent opportunity for lessons and demonstrations in conservation and safety practice at the 25-30 4-H camps in which the Extension wildlife specialist participates.

Foresighted individuals anticipated the need for a cooperative approach to solving problems of environmental and water contamination—affecting men and wildlife—and 2 years ago the Interagency Pesticide Usage Committee was organized. This committee is composed of representatives of Extension and the State Departments of Health, Wildlife Conservation, and Agriculture.

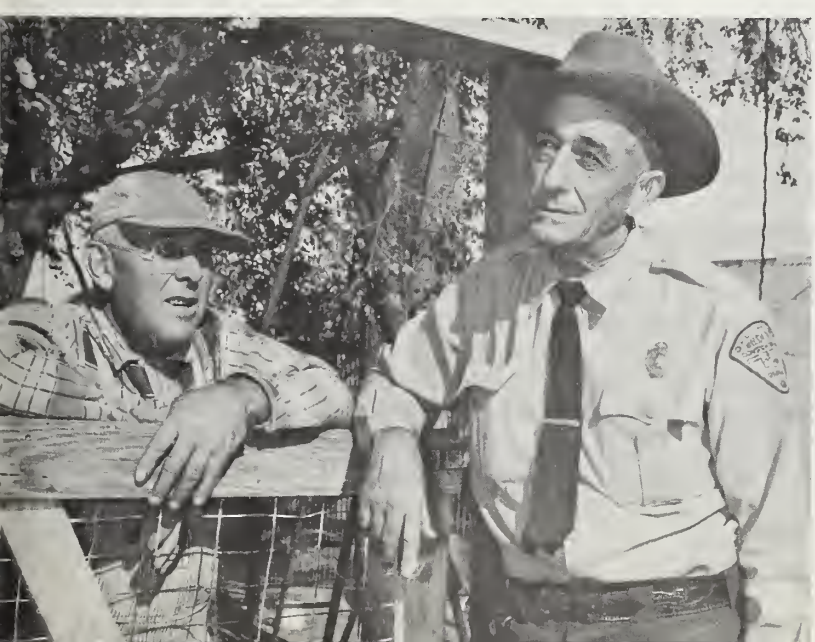
At about the same time, the Oklahoma Pesticide Education Society was in the process of organization. This group consists primarily of wholesale chemical dealers but also includes a few commercial applicators and representatives from the State Department of Agriculture and Extension. Members have appeared before many civic groups and similar organizations.

They have also helped to plan short courses on safe use of agricultural chemicals which will be held in key areas of the State for chemical retailers. If the response is favorable, an expanded statewide program is planned.

The use of chemicals has expanded quite rapidly in recent years and because of this, Extension has been gradually giving more attention to the proper application and safe use of these materials. A result of the intensified program is the Extension Advisory Committee on Chemical Usage. This committee has conducted five district meetings involving the entire field staff. They discussed the existing problems and outlined in detail an overall educational approach to their solution.

Ambitious plans for further cooperation are already underway. The dedicated cooperation of the many government agencies and wildlife preservation groups will lead the way in developing the "multiple land use" concept. Biologists feel this is necessary to supply a rapidly expanding population with the food, fiber, and recreation facilities they need. ■

Below, Game rangers are the farmers' friends. They work closely with landowners to protect game, prevent hunting without permission, and to combat pollution. Right, Winter duck concentration on an Oklahoma lake.



Before treatment, this pond is an eyesore and useless.

The same pond with its value for recreation restored.

Recreation Areas, Pest Control, and Extension

by RICHARD W. BELL, *Assistant Extension Director, Michigan*

EVERY 1965 Michigan automobile license plate carries the inscription, *Water-Winter Wonderland*—not *Automobile Capital, Cherryland,* or *Bean Basket,* although Michigan leads all other States in annual output of these three. With its 3,200 miles of Great Lakes shoreline, 29,000 natural inland bodies of water, 36,000 miles of rivers and streams, and heavy winter snowfall, Michigan is, in fact, a water-winter wonderland. The tourist-resort-recreation business is big—one of the biggest of the State's many industries.

The latter statement is true for many States, and although the specifics differ from one region to another, those providing recreational services have a common problem—unwanted insects, rodents, weeds, and plant diseases. The problem takes the form of an occasional severe flare-up or a continuing year by year infestation of varying intensities. The resort area that has no pest problems of any kind is indeed a rarity.

To all progressive operators, pests are an anathema. Ray Gummerson, Michigan's Luce County Extension Agent, puts it this way, "Insects all become horrid creatures in the eyes of those catering to tourists and vacationists. Anything that impairs the surroundings of a resort or motel tends to detract from the whole operation, and hence has dollar significance."

Certainly one of the most common problems for which operators of recreational establishments seek answers is infestation by insects. "We are being eaten up by mosquitoes but we're afraid to spray the area because it might kill the birds and fish." How does the Extension agent answer this typical call from lakefront owners, subdivision associations, resort operators, golf course superintendents, sportsmen's clubs and others?

Obviously the best approach is elimination of nearby breeding places for these pests. For small, identifiable breeding places that cannot be eliminated, spot-spraying is usually recommended. For larger areas, licensed commercial operators usually do a safe and satisfactory job and observe correct application rates. Often, to be effective, an insect-control program must be a group action in which adjoining resorts get together and treat, by chemicals or otherwise, relatively large blocks of land.

Typical of the latter situation is one described by Lake County Agent, Fred Dostal. In this instance, a heavy

infestation of the red-humped caterpillar developed in the Big Star Lake Resort Area. Commercial facilities in the Area include a youth camp, a resort hotel, 14 resort and trailer-park units, and four service businesses—representing an annual tourist-resort income of about $1 million—not to mention 300 summer homes and 75 year-round residences. During this particular July-August vacation season the infestation became so severe that most rental-unit reservations were cancelled. Summer residents stayed home or vacationed elsewhere. Volume of retail trade in the area took a decided drop.

With the help of entomology specialists from Michigan State University, Dostal positively identified the insect and settled on a recommended action—an aerial spray to be applied the following year shortly after egg hatch. At this point, representatives of the Michigan Departments of Agriculture and Conservation were cued in and consulted. Permission was obtained from the U. S. Forest Service to include their lands, as necessary, in the treatment. The Big Star Lake Resort Association staged a fund drive which netted over $3,000 and contracted with a licensed concern to apply the spray.

By the end of June more than 3,000 acres had been aerial-treated. The 11 lakes were carefully avoided. The results? Excellent control of the pest; very little wildlife and fish damage; and hundreds of satisfied owners of summer homes, recreational facilities, and resorts.

Similar experiences in sparking collective action are reported by other Michigan agents. Frank Madaski promoted a community program to control mosquitoes and flies in parts of the scenic Keweenaw Peninsula.

In Luce County Ray Gummerson helped motel and resort operators develop a cooperative, and successful, attack on the strawberry root weevil. Folks from all parts of Menominee County have joined with agent Gail Bowers in trying to solve the woodtick problem, the growth of which seems to be associated with improved control of forest and grass fires.

In Michigan, and no doubt in most States, there has been a marked upsurge in requests for Extension help in control of aquatic weeds—occasioned in part by the rapid increase in privately-owned, newly-created bodies of water in the form of pit ponds, bypass ponds, impoundments or combinations of any of these methods. In most cases the owner has visions of attractive fishing, waterfowl, and fine swimming. It isn't long before he sees his "dream lake" choked with weeds and undesirable fish—a liability instead of an asset to the property.

This is the situation George Bartlett, Wexford County Agent found when he surveyed over 100 ponds constructed during the past 10 years in the county. Each owner (more often than not, an absentee owner) was sent a letter offering assistance from the Extension Service in solving his pond problems. Included was a returnable card asking for the exact location of the pond and dates he would be available for a visit. Seventy-five owners returned the card asking for help in weed control and fish management.

Treating for mosquito control.

During the summer each of these landowners was visited and a management plan developed for his private body of water. This included the chemical best suited to take care of his particular weed problem, application rates, method of application, and precautionary measures. The program produced some spectacular results. Ponds 9 feet deep with 8 feet of weed growth and 1 foot of free water were cleaned out so that the original bottom became visible again.

The fish program was assisted by recommending the amount and kind of chemical needed to eradicate the fish life in his pond and suggesting more desirable species and numbers for restocking.

Winter meetings, demonstrations, and evening tours created additional interest in the use of chemicals for weed control, not only in newly-created waters but also on the frontages of natural lakes. The proper use of chemicals has restored the value of many such properties. This is important to the entire area because the enjoyment of his land will determine the number of times an owner will use it as well as the additional capital investment he is willing to make.

Fog generator for pest control.

In Southern Michigan, also, pond construction is progressing at a rapid pace. For example, in Livingston County, 50 miles northwest of downtown Detroit, 40 new ponds have been built during the past 2 years and there are now 180 such bodies of water ranging up to 5 acres in size. In addition there are numerous public and private impoundments each with a surface acreage from 50 to more than 600—plus many natural lakes.

A comparable situation exists in adjoining Oakland County, of which Pontiac is the County Seat. In 1960, calls for help with an aquatic-weed problem in the two-county area became so great that Extension agents Wayne Seifert and Hans Haugard decided that a handbook adapted to local problems was needed. The result was a cooperatively-financed, illustrated, 28-page "Aquatic Weeds and Their Control" booklet authored by technical experts from Michigan State University, the University of Michigan, Michigan Department of Conservation, and Metropolitan Authorities. In 1964 the Michigan Department of Conservation financed the printing of a revised edition in order that they might have copies available in their work.

Recognizing the need for a stronger program, the Michigan Cooperative Extension Service will soon employ its first aquatic-weed specialist. His home base will be Michigan State University's Department of Fisheries and Wildlife.

Insects and aquatic weeds, common as they are, don't begin to exhaust the list of pest problems that beset operators of recreational facilities. There are also poison ivy, weedy golf fairways and greens, swimmer's itch, starlings, "trash fish," and spiders—just to mention a few. Obviously, the Extension agent is better equipped to deal effectively with some of these problems than with others; in fact completely satisfactory answers do not yet exist for some of them. Better answers are on the way.

The question of Extension Service responsibility for helping develop the country's recreation business is becoming increasingly academic. Today, we recognize that a considerable part of our traditional subject matter can be adapted to the needs of operators of recreational facilities. Also, researchers continue to uncover new findings that bear directly on recreational problems.

Such information should be disseminated—all the more so because of the National need for overall economic development and the increased recreational demand. In dealing with pest control, Extension's responsibility includes not only providing technical information for achieving desired results and minimizing undesired side effects, but bringing about better public understanding of pest control and pesticide contributions as well.

Where agricultural production and recreational areas are intermingled, and even overlapping, as they are in much of Michigan, the importance of resolving conflicts—both real and latent—can hardly be overemphasized. As an unbiased educational institution, the Cooperative Extension Service makes substantial contributions in effecting improved relations and understanding between agricultural and recreational interests.

Our agents most experienced in pesticide use for recreational facilities say they put the safety consideration at the top of the list. Manistee County Agent, Norman Brown has achieved excellent results working with operators of recreational enterprises. He recently said, "The emphasis during these educational efforts (aquatic-weed control, in this instance) was on the safe use of chemical pesticides. This group had very limited experience in the use of chemicals, so it was of utmost importance to make sure they fully understood the methods and rates of application or the necessity to hire applicators if the chemical was dangerous when handled by the unskilled."

He added, "As the group used chemicals for their own benefit and understood how to use them safely and effectively they became more tolerant of others who must use chemical pesticides in producing the food and fiber for America." ■

Pests Don't Stand a Chance In Maryland Suburbia

by LINDA KAY CROWELL, *Extension Information Specialist, Maryland*

IF YOU live in or about the Nation's Capital, you can phone PO 2-5454 any time of day or night and get timely tips on spraying household bugs.

As a Baltimorean, you might be one of the 54,000 persons who each Saturday watches *Garden Living,* a popular, year-round television show.

And as a Sunday driver, you can motor from Washington, D. C., into nearby Montgomery County—one of the Nation's wealthiest—and see many pesticides demonstrated on 700 rose bushes.

These are a few examples of how the Maryland Extension Service benefits city and suburban people—beset with indoor pests or lawn and garden problems.

Educating metropolitan consumers, garden center operators, and chemical salesmen on the safe and effective use of pesticides is a primary assignment of four Extension horticulturists and an agricultural chemist—all strategically located in the Washington-Baltimore area and supported by other University of Maryland scientists.

Two horticulturists stationed in Montgomery and Prince George's Counties conduct programs planned to reach 1.3 million persons in the greater Washington area.

Around the clock, callers ring a TIP-A-PHONE and hear a recording of Brian Finger, Montgomery County Agent, giving timely tips. His 1-minute messages, changed five times weekly, feature suggestions on insecticide use: "Always read the label . . . store in original containers . . . wash and change to clean clothing after spraying or dusting."

Finger views dealers and salesmen as important, educational links between manufacturers and users of chemical products. Each week, he mails printed TIP-A-PHONE messages to 200 nursery, garden center, and hardware store operators, informing them of his latest recommendations.

Ten thousand visitors a year flock to Finger's *Rose and Lawn Plots* 2 miles from his office. Here he shows the effects of four new spray mixtures, one dust preparation, and six fertilizers on 350 different rose varieties. Sixteen plots of turf are treated with preemergence crabgrass materials.

"Companies who produce the new insecticides and fungicides are formed of their products' efficiency," says the young agent. "All of the plants, seed, chemicals, sod, and mulches are donated, and one acre of land for plots is on loan from a local farmer."

Two Extension agents star in Baltimore's weekly TV show, Garden Living.

Above, this county agent records TIP-A-PHONE messages heard by about 50 persons each day.

Top left, Local demonstrations teach the control of insects that trouble an entire community. Left, Garden centers regularly receive pesticide information.

In neighboring Prince George's County—the country's second-fastest-growing area—horticulturist Clayton Werner works with the Board of Education, city governments, and the State Department of Forestry and Parks in developing pesticides programs on public properties.

Trees on city streets are protected through Werner's spray recommendations: Many schools benefit from his Japanese beetle spore dust program.

When a new community was troubled by sod webworms on the young lawns, the agent distributed leaflets on their control to local hardware stores and garden centers. Residents followed directions, and the insect was curbed.

Midshipmen at the U. S. Naval Academy in Annapolis are probably unaware that an Extension agent helped control hemlock scale trespassing on their grounds. But thousands of suburbanites in the Chesapeake area do know the work of Anne Arundel County horticulturist, J. Edgar Ferrell, Jr.

Each spring in the Maryland capital, Ferrell cooperates with the YWCA to teach lawn and garden care to teenage boys and girls, preparing them for summer jobs. In another class series, he instructed apartment dwellers in the care of indoor plants.

Keeping other Baltimore suburbs horticulturally wise is Nicholas Stephin, Baltimore County agent, who held a 2-week lawn school last fall for 80 husbands and wives. He repeatedly stacks his Courthouse bulletin rack with USDA's "Safe Use of Pesticides" and records TIP-A-PHONE pointers, too.

Together, Ferrell and Stephin produce *Garden Living*, a weekly Baltimore television program. In its sixth year, the half-hour, Saturday morning show has the highest rating of any public service program on that station.

Seasonal topics include dormant spraying, termite identification and control, fungicides for lawn diseases, and prevention of box elder bugs. Offered publications draw up to 700 requests weekly.

When the two *Garden Living* stars and Finger, spurred by a major chemicals company, held all-day classes last year for dealers and salesmen in the Baltimore and Washington areas, the turnout was gratifying. Nearly 400 participants learned about fungicides, plant materials, and grass seed.

Baltimore Sunday Sun photo, *A. Aubrey Bodine*

Baltimore Sunday Sun photo, *A. Aubrey Bodine*

Above, Cities fight scale insects on holly with a horticulturist's help. Top left, These roses show 10,000 visitors the effects of different pesticides. Left, Lawn plots intrigue suburban homeowners.

But such sessions are not always successful. One agent reports, "Bosses don't want to let salesmen attend classes during working hours, and salesmen don't like to come at night."

The Four Maryland agents also reach the public through:

Newspapers—Washington, D. C., papers used 70 by-lined articles prepared by Finger last year. A columnist for a rose magazine, he tells "How to Handle Pesticides" in this month's edition.

Radio—Agents are heard daily. One Extension worker appears 15 times weekly.

Brochures—Ferrell distributes 3,000 "hint lists" monthly, describing current home and garden jobs. Another agent mails 3,000 newsletters monthly.

Welcome Wagon—Kits on pest control are given to new area residents through this local Chamber of Commerce activity.

Community Demonstrations—Agents give lectures before neighborhood, civic, school, and adult education groups—not just garden clubs—to widen their audience. Frequently shown is a slide story revealing the USDA's role in assuring the safety of pesticides and stressing "You can control pests safely . . . if you use pesticides the right way."

"Groups rarely ask for an entire program about pesticides," observes one agent. "But when the topic is suggested, they are eager for the presentation."

At the University of Maryland, a newly-appointed agricultural chemicals specialist will emphasize "safe and effective use" to Free Staters buying 788,500 pounds of pesticides a year.

Research on residues, plant diseases, and chemicals used on ornamentals helps Extension scientists make proper recommendations. A Pesticides Conference is held yearly by the botany, entomology, agronomy, and horticulture departments for men in government and industry.

University entomologists constantly answer questions about "beetles in table legs," "bats in the attic," termites, or bedbugs.

Squashed under tape, crushed in bits of paper, floating in vials, and even alive in pill boxes, bug samples are sent to the specialists who write and mail pamphlets on dozens of insects. ■

Mass media greatly increases the number of persons who receive pesticide safety information. Here, two Extension specialists are making a radio tape.

People, Pests, and Pesticides

by RAY R. KRINER, *Extension Entomology Specialist Rutgers, The State University*

and WILLIAM R. OBERHOLTZER, *Senior Bergen County Agent Hackensack, New Jersey*

IN NEW JERSEY the nonfarm population far exceeds the farm population. But a large percentage of the nonfarm group does have its backyard vegetable garden, its two- or three-fruit orchard, its nursery of horticultural crops, foundation plantings of shrubs and trees, and the much babied lawn area. Many home gardeners spend much time and money on chemicals and gimmicks to try to keep their collection of plants in tiptop condition. Towns, garden clubs, and local newspapers help foster this enthusiasm with "green thumb" contests.

The home gardener and homeowner is in a vulnerable position in obtaining reliable information on disease and insect control, and the use of agricultural chemicals and pesticides. The advertising and literature pertaining to these products often exploit, for example, a person's natural inclination to control weeds with less cost and less labor. Advertising campaigns sometimes tend to oversimplify the procedure and give exaggerated encouragement about the chances of success. The language on the label sometimes needs to be reinterpreted for the consumer.

Another stumbling block is at the point of sale. The clerk in the supermarket couldn't care less what a gardener uses for crab grass or how he should go about using it safely. For all he may know, lace bugs are on tablecloths, and "that's in the linen department at the rear of the store."

The Extension specialist must work along with the county agricultural agent to contact the homeowners and gardeners. The majority of individuals who should receive accurate safety information can be divided into five groups:

1. *Professionals*—nurserymen, food producers, greenhouse operators, florists, mosquito control commissions, landscapemen, pest control operators (exterminators), and arborists (tree surgeons).

2. *Pesticide dealers*—garden shops, hardware stores, shopping centers, drug stores, supermarkets.

3. *Home gardeners*—we have both the indoor and outdoor variety, the full-time enthusiasts and the one-shot, couldn't-care-less type.

4. *Individuals who occasionally use pesticides*—this could be almost anybody, for example, the housewife on her annual moth hunt, campers chasing mosquitoes each season, and those who must war on ants, mice, or other pests.

5. *Other individuals who request or need information on pesticide safety*—here we are likely to find public officials, teachers, health officers, and people who have to decide "if we do anything, and what should we do for the good of all concerned?"

These are the people who should be well informed. They all handle, apply and store pesticides, or are directly associated with their use.

At Rutgers, The State University, in most training programs and short courses, pesticides and their safety are a vital part.

Each year a Pesticide Dealers Conference is held at the College of Agriculture. A publication, entitled *Pesticides for New Jersey,* is given to those attending the meeting. The first section of this publication deals with safety equipment, use and care of respirators, conditions requiring gas masks, precautions, a table listing insecticides and insecticide mixes, and a list of poison control centers. A publication containing the above information is extremely helpful to dealers in the selection of their safety equipment for customers.

The use of radio and television greatly increases the number of individuals receiving pesticide safety information. The staff at Rutgers prepares tapes which are used on 13 TV stations in the Northeast. These are a network of educational stations.

Our Extension Specialist in Landscape Design, Raymond P. Korbobo, has a program, "The Compleat Gardener"—one of the most popular TV programs taped by Rutgers. This program alone has an estimated audience of 5 million viewers. All of these programs do not necessarily devote time to pesticides, but they do pass along important pesticide information.

Thirty-eight radio stations, reaching New Jersey, New York Pennsylvania, and Delaware, receive tapes prepared by specialists at Rutgers. Twenty-five percent of these programs are aimed at agriculture, while 75 percent are directed at the lay public. One station in Philadelphia handles a weekly program put out by Rutgers which reaches 175,000 people in the Philadelphia area alone. Here again pesticide information as such may not be the principal subject, but it is always worked in at the appropriate time.

When answering letters to the general public in which control recommendations with insecticides are given we enclose a copy of USDA PA594, *Homemakers and Home Gardeners—Use Pesticides Safely,* or USDA PA589, *Safe Use of Pesticides—in the Home—in the Garden.* People are usually impressed when they read official information.

All the concern about pesticides in recent years gave birth to the Food Facts Committee at Rutgers. Made up of members from various departments of the College of Agriculture, the committee acts as advisor to the Dean of the college of Agriculture and to the Director of Extension. The committee's primary goal is to provide a continuing flow of basic factual information on foods to the college staff and "communicators" in New Jersey and the metropolitan areas of New York City and Philadelphia.

One of the first projects was an article, *We Must Choose,* written by Dr. Bailey Pepper, Chairman of Rutgers University's Department of Entomology. Several thousand copies were printed. Copies were sent to the National Agricultural Association, which reprinted the article in their magazine received by agents all over the United States.

This was followed by a very simple, clearly written, easy-to-understand-at-a-glance pamphlet, *People, Pesticides, Progress.* Twenty-five thousand copies were originally printed and later another 25,000. There are less than 500 left at this writing. County agents and county home economists made about 60 percent of the distribution; the others were used to fill requests received at the State office. A considerable number of requests were received from local health officers and school teachers.

A year ago we began issuing a monthly newsletter, *Food Facts from Rutgers.* Issue Number 3 dealt with the positive approach, "The Case For Pesticides." As of January 1, 1965, *Food Facts* had a mailing list of 1,545. (These people asked to be on the mailing list.) Thirteen hundred of the recipients are in the New Jersey and metropolitan areas of New

Author William Oberholtzer gives an illustrated lecture to a garden club.

York City and Philadelphia. Included in the group are 8 syndicated news services, 50 nationally distributed magazines, 9 television stations, 27 radio stations, and most of the newspapers in the tri-State area. Also included are home economics teachers, home economists in business, dietitians, PTA's, The League of Women Voters, Extension (State and Federal), Rutgers staff and advisors.

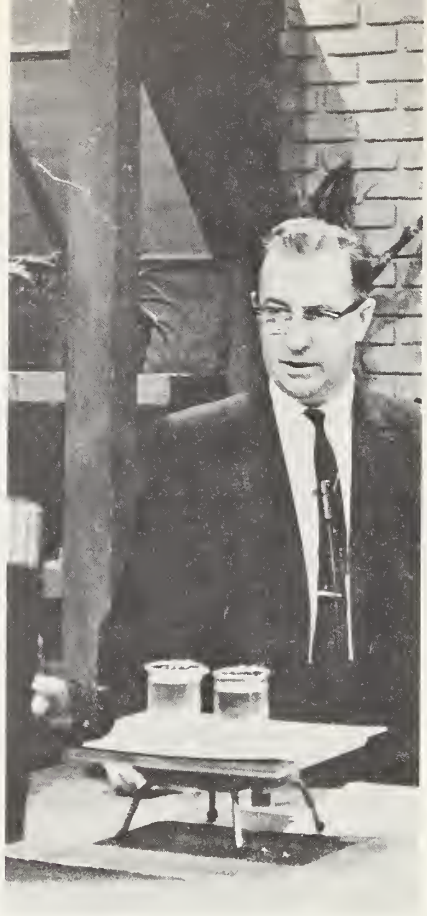
In Bergen County (one of the most urban counties in northern New Jersey) there is a good working relationship with the nonfarm community as well as with agriculture. A newsletter, *Round-up,* is sent weekly to producers, dealers, and nurserymen. This is a catchall of pertinent information, some of which finds its way to the consumer.

Each year sees a few more farmers "selling out." However, there are still many roadside farm stands. Here the agents set up bulletin boards displaying State and Federal publications including pesticide information.

All the county Extension Staff work in an intensive public relations program, trying to reach the urban population. The following are some of their more interesting activities.

For the past 8 years Bergen County agricultural agents have sponsored a very successful *Farm Open-House Weekend.* In October, just a few days before the planned weekend, the local newspapers carry a story inviting the public to attend and tour about four farms during certain hours; general directions are included.

With 4-H Club members as guides, the visitors are taken on a tour, encouraged to ask questions, and given literature to take with them, such as: *Your Food Is Good Food, Our Nation's Agriculture, Better Eating for Better Health, People, Pesticides, Progress.* A sunny weekend brings out 7,000 to 8,000 people, and about half as many come if it rains. Everyone has a good time and the newspapers give excellent coverage creating a better understanding of the farm and agriculture.



A network of 13 educational television stations in the Northeast uses tapes made by the staff at Rutgers.

For the past 7 years during the month of August, the agents have conducted a lawn demonstration and clinic in a county park. The demonstation includes pest control, correct applications of herbicides, and proper use and care of equipment.

Plans are well under way to launch a new spring demonstration. A Garden Clinic will be held in a county park. Transplanting, pruning, and pest control techniques will be shown.

In late winter the agents hold an Annual Garden Supply Dealers Meeting. A portion of the program is devoted to agricultural chemicals and their safety aspects. This year's program featured pesticide safety equipment for the home gardener. This is a new program in the county and efforts are being made to convince dealers to stock safety equipment and to encourage the public to use it.

From March to December the county agent supplies the only daily newspaper in the county (circulation approximately 130,000) with a garden column for its Friday garden page. This may contain helpful photos, periodically includes information on pesticides, and stresses safety aspects. The same column goes to 30 other newspaper outlets, including two leading dailies in New York City. The agents have also done feature news stories where information about pesticides was included.

At this same time of year the Bergen County Extension Service provides a 1-minute automatic telephone message, nicknamed "Tip-O-Phone." On some weekends they receive over a thousand calls. Pesticide information is included when necessary to meet the needs of the season.

The agents work closely with county officials—freeholders, legislators, and others. In an attempt to keep them up to date, they are sent publications, such as *Food Facts* and *News and Views* (a publication of our Bureau of Conservation and Environmental Science). Material is available to the agents that public officials might not have the opportunity to see, the officials are glad to get this material. Public officials do receive questions about pesticides and now they know where to turn for help. At the annual Freeholders Luncheon the opportunity again presents itself to keep these people up to date in a capsule sort of way.

As with all agents everywhere, meetings are a way of life. Garden club activity is high in the Bergen County area. There are well over 100 organizations in the county having a major interest in gardening. In talks before these groups the agents use the slide series "Safe Use of Pesticides," developed by the Federal Extension Service. These slides are geared to lay people. There are many groups that could be approached, and the potential for working through existing groups is limitless. ■

4-H'ers Learn Pesticide Safety

by F. H. TITLOW, JR., *Associate Extension Editor (News), Virginia*

"EVERY time Virginia 4-H Club groups are taught entomology, the safe use of pesticides is stressed," says Dr. J. O. Rowell, Extension entomologist at Virginia Polytechnic Institute.

He estimates that he and John M. Amos, the other Virginia Extension entomologist, directly reach more than 1,000 4-H Club members every year. In addition, the two entomologists conduct training schools for county Extension agents, and these agents carry the information to hundreds more 4-H Clubbers.

Rowell and Amos, along with specialists from Extension Plant Pathology and Physiology, have just completed a series of six agent training schools on pesticides in different parts of the State. They were successful in reaching nearly all of the county agents, home agents, and assistant agents. In these training schools, too, pesticide safety was one of the very important topics covered.

"Safe use of pesticides has been receiving much more attention during the past 3 years," says Rowell.

From time to time throughout the year, Rowell and Amos teach the safe use of pesticides to junior and senior 4-H Club groups at club meetings and special sessions in the counties.

Every June, when the Annual State 4-H Short Course is held at VPI, the two entomologists have another opportunity to reach many of the 1,200 outstanding 4-H'ers and volunteer adult leaders who attend the week-long session.

During the summer, Rowell and Amos are able to accomplish some of their most effective work. They teach four entomology classes a day over a 4-day period at each of from five to eight 4-H Club summer camps in the State.

They are also able to reach other 4-H club groups during the summer at the State 4-H Conservation Camp at Virginia Beach. One entomologist spends a week at this important 4-H Club activity.

The effectiveness of this teaching is evidenced in the case of Stephen Whitt, a 17-year-old Newport News 4-H Club member who was chosen to speak on "Use Insecticides Safely" at the annual convention of the Entomological Society of America in Philadelphia last winter. Stephen was one of three 4-H youths from throughout the Nation selected to talk at the ESA gathering, which was attended by more than 1,500 persons, most of whom are professional entomologists in industry, research, teaching, and Extension.

The illustrated talk-demonstration was well received at the meeting. In fact, Stephen also presented it over two Philadelphia television stations.

As teaching aids, Rowell and Amos use motion pictures; color slide presentations, accompanied by taped scripts; prepared lectures using color slides and charts; and an unusual teaching aid, Insect-Tac-Too.

The film "Safe Use of Pesticides" is shown regularly to the groups the entomologists teach, as is another very important color-slide presentation entitled "Pesticides—Boon to Mankind."

The colored slide presentations feature such titles as "What's on the Label?" and "Use Pesticides Safely." A chart presentation is also entitled "What's on the Label?" while another shows the "Range of Insecticide Toxicities."

The visual and teaching aid invented by Rowell—"Insect-Tac-Too"—has enjoyed a very good reception, and it is now being used also in several other States. Patterned after "tick-tack-toe," but played on a giant display panel, the game features questions on insect control and safe use of pesticides. Everyone present can participate in the game.

Several pieces of literature have also been made available to all 4-H members. This literature was distributed by Virginia 4-H Club members last year as they cooperated with various organizations in their communities in helping to tell the story of the safe use of pesticides. In fact, Katherine Roach, National 4-H representative from Buckingham County; and Nels Ackerson, National FFA president from Indiana; made a series of radio and television shows in Washington, D. C. last year. The programs, sponsored by the National Agricultural Chemical Association and the National Safety Council, were broadcast all over the country.

"As we have stepped up our emphasis on the safe use of pesticides we have gotten a very enthusiastic reception from our 4-H members and leaders," says Rowell. "In line with the State's expanded program, we intend to continue stressing this subject."

A National 4-H Entomology Awards Program was established in 1952. In the intervening 13 years of this program, under the leadership of Rowell and Amos, Virginia has captured seven National awards in entomology. This is a tribute to the effectiveness of the entomology instruction in the 4-H Club program for the State. ■

Florida Chemical Education Groups

by F. E. MYERS, *Assistant Extension Director, Florida*

OVER 90 percent of Florida's 67 counties have local Chemical Education Groups for developing 1965 programs.

Objectives of these coordinated efforts include:

—improving identification of problems and developing solutions.

—stimulating educational efforts on a local basis around local people.

—accelerating procurement and use of educational aids, programs, personnel, and activities.

—increasing awareness and understanding on the part of the public, organizations, interests, etc.

—directing emphasis to specific audiences or situations including the positive side of chemicals and precautions.

The county Groups represent a cooperative effort with many individuals and organizations, guided by Extension's Chemical Information Center and county Extension agents.

In the summer of 1964 the University of Florida and related industry sponsored DARE (Developing Agricultural Resources Effectively). They projected trends, problem areas, and solutions needed. Florida seems destined to make phenomenal growth in the next 10 years. Pesticides, of course, are essential to quality and production, and also provide valuable tools related to public health and outdoor and indoor living.

Preliminary DARE projections showed that increased use of agricultural chemicals will take place: fungicide use will increase 40 percent, insecticides 75 percent, herbicides 339 percent, and fumigant use will increase 392 percent. Final projections were even greater, based on thriving agricultural developments. Improvements related to home use also will likely take place. The chemical additives field is moving at an exceptionally fast pace.

In November 1964 the Florida Agricultural Extension Service, State Board of Health, State Department of Agriculture, Vocational Agricultural Research Institute each designated representatives in all counties. This nucleus group enlists assistance of others to examine the situation, develops solutions, and acts as the focal point for this effort.

Florida's prominent role in supplying the Nation's food, its desirable climate, and rapidly expanding number of homes, for many years has kept Extension faced with a direct need for continuous efforts in the chemicals area.

Basic research data were developed by the Florida Agricultural Experiment Stations in the 40's and early 50's. Much of this was used in hearings related to the 1955 Miller Pesticide Amendment to the Federal Food, Drug, and Cosmetic Act.

Concurrently, Extension specialists incorporated tolerances, residue data, minimum days last application to harvest, and related information as standard topics in recommendations. Extension was very active during this period establishing a sound research and educational base in vegetable crops and other areas affected.

Florida Extension's more intensified chemical education efforts have been underway since 1960. First steps were to establish an overall Chemical Tolerance Committee, a Chemical Information Center, and the release, *Chemically Speaking*. (See *Extension Service Review*, September 1961, "Design For A Central Information Point.")

Some major Extension emphasis over the past 4 years has been on area pesticide schools, producer meetings on specific problems, and a training guide—*Safety Kit for Agricultural Chemicals*. The guide was developed for agricultural teachers but also has been useful to county health departments and Extension. Emphasis in 1965 is toward further development of local programs by the county educational groups. A strengthened program in the chemical additives area is planned for 1965-66.

Organizational meetings for Groups at the county level have included as a minimum: agricultural agents, home economics agents, county health representatives, agricultural teachers, inspectors, and industry designees. This means at least a 6-member nucleus in each county, and they are involving others from many local sources of key leadership.

The county Chemical Education Groups are identifying their own local problems needing attention in 1965, and developing the action program they will carry out. As they go about this, they also consider ways to recognize and strengthen their long-term needs and resources.

Extension's Information Center and the cooperating organizations provide additional assistance on request from these local groups. Better liaison and understanding between the many interests involved with chemicals has been evident throughout the meetings. Many excellent ideas and approaches have resulted from individual county programs and will be circulated statewide. Sounder awareness and general stimulation of efforts is taking place in many areas for a better use of total resources available.

County agents, Florida's county Extension chairmen, have again provided the necessary leadership for a dynamic program in agricultural chemicals education. Home economists, joining with them to extend the effectiveness into homes can do much to strengthen the overall chemicals program. ■

Extension Education on Pesticide Safety

by HAROLD GUNDERSON, *Extension Entomologist, Iowa*

IT IS DIFFICULT to attract an audience—and hold it—with an article about safe use of insecticides.

However, one *can* draw an audience with a specific topic dealing with the control of an insect pest. Safe use of insecticides then simply becomes a part of the control program.

Let's use the educational program involving the western corn rootworm in Iowa as an example.

An unexpected rapid increase in populations of the western corn rootworm occurred in 1963 in the western third of the State. The insect caused a loss of at least $30 million worth of corn in that area.

Compounding the problem was the fact that the western corn rootworm had developed resistance to aldrin and heptachlor. This necessitated the use of organophosphorus insecticides to control the insect. These materials are extremely hazardous unless handled with care.

A program was initiated during the winter to educate farm operators in the cultural and chemical control of the insect. Special emphasis was placed on the protection of persons applying these insecticides.

Extension entomologists at Iowa State University told the story of the western corn rootworm in a leaflet which was made available to all farm operators throughout the State.

For nearly 20 years, Extension entomologists and weed control specialists have conducted pest control clinics throughout Iowa to discuss current insect and weed problems. During the fall of 1963, clinics held in the western half of the State were devoted almost entirely to the western corn rootworm.

Extension specialists and information personnel prepared stories about the western corn rootworm problem for release to radio and television station, newspapers, and farm magazines. These articles included warnings concerning the potential hazards involved in applying the insecticides.

Chemical company salesmen called on dealers to explain methods of handling the insecticides safely. Dealers, in turn, informed their customers.

Extension specialists conducted training schools for pest control specialists in industry. Instruction in proper use of pesticides was included as a normal part of the training.

The Iowa Farm Safety Council was alerted to possible problems involving use of the new insecticides.

Extension entomologists conducted five training schools on rootworm evaluation during June. More than 260 persons, including county Extension directors, area agronomists, and insecticide and equipment dealers were trained in recognition of rootworms and rootworm damage. Research entomologists at the Iowa Experiment Station had developed a technique to apply organophosphorus insecticides during lay by cultivation to prevent loss in infested fields not treated at planting time.

County Extension directors and area agronomists conducted meetings in rootworm infested cornfields to familiarize farmers with the insect and its destructive capabilities and to help them decide on the need for chemical treatment.

The Institute of Agricultural Medicine at the State University of Iowa sent brochures describing symptoms and emergency treatment of organophosphorus poisoning to all physicians in Iowa.

A physician from the Institute interviewed doctors and patients in several rumored cases of poisoning. His findings were negative.

Application of organophosphorus insecticides during 1964 would have been profitable on approximately 2 million acres of farm land in western Iowa. Between 1.25 and 1.5 million acres were treated.

The effectiveness of the insect-control program is borne out by the fact that loss due to western corn rootworm damage in the western *half* of Iowa in 1964 did not exceed $15 million. This was approximately half the loss suffered in the western *third* of the State the preceding year.

The success of the program is even more impressive when viewed in light of the safety in handling the insecticides. More than 10,000 farmers applied these chemicals for the first time during 1964. Approximately 10 million pounds of insecticides were used. Not one authenticated case of poisoning or ill-effect was reported.

Proper use of insecticides is *safe* use. Through Extension education, more than 10,000 Iowa farmers learned to apply these chemicals safely to control the western corn rootworm. ■

A late-planted Iowa cornfield showing damage from western corn rootworm.

The sampling machine operates like a vacuum cleaner, the tube sucks insects into a removable nylon bag. Samples thus bagged in the field are transported to the laboratory, anaesthetized, and removed for counting.

Integrated Insect Control

by VERNON E. BURTON, *Extension Entomologist*
University of California, Davis Campus

and ANDREW S. DEAL, *Extension Entomologist*
University of California, Riverside Campus

INTEGRATED control means combining chemical, biological cultural control methods into a single unified program. It has been demonstrated to be a practical and effective approach to the solution of some of our most serious pest problems. By utilizing chemicals less frequently but more judiciously, production costs may be lowered, but more important the pesticide hazard to man, domestic animals and wildlife will be reduced. Further, decreased exposure of pest populations to chemicals will delay the development of resistance, thus prolonging the useful life of certain pesticides. Integrated control has limitations, it cannot be applied immediately to all crops and may never find use on some crops. However, with careful research and cooperation among all concerned, it can be put into wider use for the benefit of our agricultural economy.

The development of integrated control for alfalfa insects is an example of how proper selection, dosage and timing of chemicals can be used with biological control and cultural practices to achieve better control than could be obtained by any single method. The spotted alfalfa aphid moved into California during the mid-1950's free of the parasites and predators that kept this pest under control in its native area.

Research and Extension workers first developed and demonstrated effective chemical control measures without which the grower was unable to produce a marketable crop and frequently suffered severe stand reduction. Though helpful, the chemical control program did not assure growers of "pre-aphid" hay quality and it greatly increased production costs and aggravated other insect problems. Exploration by our entomologists in areas native to the aphid resulted in the introduction of at least three parasites into infested areas of California and other States. Field research utilizing new sampling techniques established treatment levels of the aphid in relation to parasite and predator population levels. Selective dosage rates of certain organophosphate materials were developed that decreased the aphid and other damaging insect populations while preserving the beneficial complex.

Agricultural Extension Service personnel conducted demonstrations pointing out the requirements and methods of integrating selective chemical control with parasites, predators, and insect pathogens. Ultimately, new alfalfa varieties, resistant to the aphid were developed and again Agricultural Extension personnel played an important role by demonstrating the production potential of these new varieties in various areas of California. Integrated control of alfalfa pests including the spotted alfalfa aphid, the alfalfa caterpillar, leafminers, pea aphids, and armyworms has been successfully used in California since 1958.

Other problems are under investigation and results show promise of the possibility of effective integrated control programs on several crops. For example, studies of pest control problems on grapes have shown that populations of a very effective egg parasite of the grape leafhopper may be increased by planting blackberries within or along the margins of vineyards. The blackberry provides host material for another leafhopper which serves as an overwintering host of the egg parasite. The blackberry-grape association was found to explain the early appearance of the egg parasite in certain grape vineyards and also why this parasite effectively controls the grape leafhopper in

certain limited areas of California. In the absence of blackberry, the parasite is rare to nonexistent.

Field studies have established population levels of leafhoppers and parasites for use as a basis for treatment in an integrated control program utilizing chemicals and timing procedures that are least detrimental to the parasite population. County Extension personnel are establishing experimental plantings of blackberries to further test and demonstrate the importance of this practice to the efficient control of grape pests.

Investigations in orange groves of coastal southern California have demonstrated the possibility of integrated control programs on citrus crops. Studies in untreated test areas of groves revealed that many potentially important citrus pests were present, but often did not reach the damaging levels expected because of natural enemies. An exception was purple scale which in spite of the presence of a parasite, often reached economic proportions. Ants, which interfered with natural enemies of many of the citrus pests, were also found to be present.

Entomologists studying this situation applied insecticides to the ground beneath the trees thus controlling the ants, but causing no harm to the parasites and predators in the trees above. The groves were then systematically mapped and oil spray treatments applied only to alternate pairs of rows or strips for control of purple scale. This system of strip-treating always left an untreated row of trees next to a treated row. Since oil sprays do not leave a persistent toxic residue and the drift hazard to natural enemies is low, the beneficial species soon moved back into treated rows. Twelve months later the pairs of rows or strips left untreated in the previous spraying were oil sprayed while those treated before were skipped. This procedure was continued for several years.

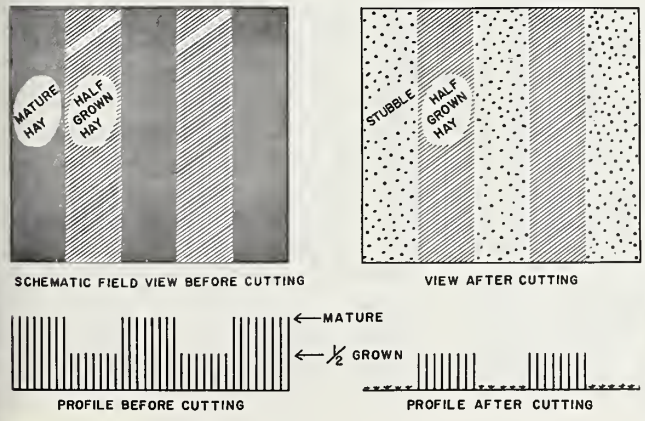
It was soon evident that the strip-treatments of oil plus the activity of parasites was sufficient to control the purple scale. It was also evident that natural enemies unharmed by the selective oil sprays and in the absence of the ants held many other citrus pests below the damaging level.

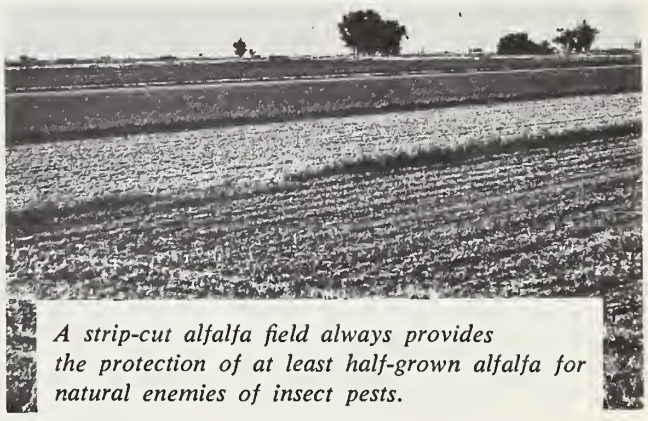
Strip cutting of alfalfa has demonstrated a promising technique for reducing insect problems, primarily lygus bugs, in crops adjacent to alfalfa. In addition, such a program creates a "preserve area" for many beneficial insects. By cutting alternate strips of the field (each strip being 100 to 200 feet wide) the lygus population is "herded" from the cut to uncut strips; thus, most of the lygus remain in the field.

A strip-cut program may drastically reduce early season lygus control treatments on crops such as cotton where such early treatments frequently increase spider mite and bollworm problems later in the season. The greater preservation of beneficial species in alfalfa hay, by maintaining a refuge during the entire season, will enhance the integrated control program in alfalfa and possibly add to the beneficial insect complex.

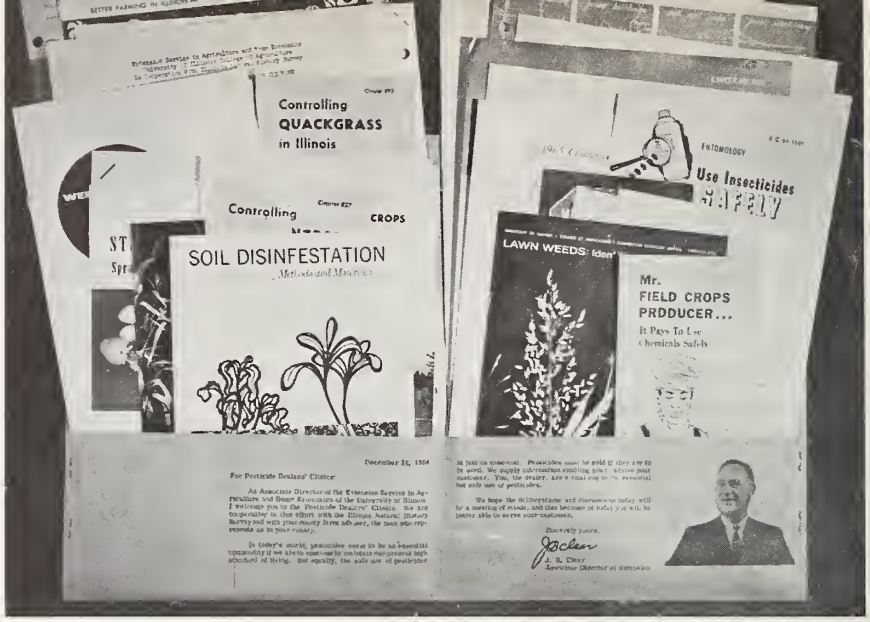
The development of integrated control programs requires close and consistent cooperation of Research and Extension personnel. The research phrases are, of necessity, under the leadership of the Experiment Station. During this stage Extension representatives learn the fundamental techniques, aid in applying them in early field studies and play a larger role in demonstrating the techniques as a program approaches grower use. The establishment of the alfalfa program would have been impossible with the absence of either phase of the program.

Frequently, growers and agricultural chemical representatives must completely change their thinking on insect control before they can adopt integrated control. They must tolerate the presence of a certain number of insects in their fields and accept a lower degree of control from chemical applications. They must recognize beneficial species. They must evaluate pest populations in relation to beneficial populations. They must be willing to accept new plant varieties and adjust to new management practices. These changes will be brought about only through reeducation. County Extension personnel are charged with the responsibility of this reeducation. Only through constant association with the program during the developing stages can they be equipped for this task. ■





A strip-cut alfalfa field always provides the protection of at least half-grown alfalfa for natural enemies of insect pests.



Make Pesticides Work FOR You

by H. B. PETTY, *Extension Entomologist, Illinois*

ILLINOIS farmers have long known that proper cultivation and use of clean seed are basic to a sound farm weed control program. They also know that barn sanitation and screens are necessary to control flies and that resistant varieties, adjusted planting dates, clean plowing, use of fertilizers, and other cultural practices help control insects and diseases.

But during the past 20 years many farmers have also learned that they can no longer gamble on these cultural practices for effective weed, insect, and plant disease control. Farmers must protect their high investments in land, taxes, machinery, seed, fertilizer, and labor, by preventing insects, plant diseases, and weeds from cutting yields and profits.

Farmers now know that drilled corn can out produce cross-checked corn but weeds such as giant foxtail cannot be cultivated out of the drilled corn. Weeds that come up with the crop nullify this yield advantage. This is the reason that Illinois farmers applied preemergence herbicides to one-fourth of their soybeans and corn in 1964—five times more than in 1960. Nearly all seed corn is treated with a fungicide to prevent rotting before germination.

Four of every 10 fields of corn in 1964 received a soil insecticide to prevent depradations of cutworms, wireworms, rootworms, white grubs, and many other corn soil pests. Some fields require foliar applications to prevent damage from insects that attack the plant above ground. Pesticides, used where needed, protect the farmer from losses which would average between $750 and $1,000 per farm. This is above the cost of treatment and is in addition to the savings provided by cultural and mechanical control of pests.

Fruit and vegetable growers are even more dependent upon pesticides to produce a market-acceptable crop. One orchardist in northern Illinois carefully followed cultural practices; he sprayed for codling moth, curculio, scab, and other diseases, but overlooked the apple maggot and lost his entire crop. Timely apple maggot sprays would have meant a near-perfect crop. Sweet corn unprotected by sprays is often rejected on the market because of earworm infestations. Canning sweet corn, broccoli, cabbage, potatoes, peaches, cherries, all have their specific problems.

Controlling farm pests to meet today's high market standards is not an easy task. The Cooperative Extension Service must use every available educational resource if it is to maintain its major role of providing education on proper and safe use of pesticides, both on the farm and in the home. Many avenues can be used, but the local leader is a starting point and this system has proved to be effective. The pesticide dealer is the natural local leader—he already knows something about pesticides and usually has an excellent grasp of the problem. Ordinarily he is anxious to increase his working knowledge of the product he sells to improve his service to his customer. Extension is in an excellent position to help him do this.

Each farm adviser in Illinois has compiled a list of pesticide dealers in his county—2,500 dealers for the State, (not including many of the grocery and drug stores handling a few aerosol bombs). We prepare and send to these 2,500 dealers eight or more "Insecticide Dealers' Newsletters" annually, giving the best information we have on insect control but stressing particularly pesticide safety information. These newsletters are sent to the adviser who mails them, with a covering letter, to the dealers in his county.

Specialists from Extension agricultural engineering, agronomy, entomology, and plant pathology annually hold area pesticide dealers' clinics, giving county advisers an opportunity to bring in their dealers for information. Subjects range from homeowner pesticides through farm application equipment and what a dealer's pesticide inventory should be. Each person is presented a folder containing abstracts of the discussions and a wide variety of reference materials (this year a total of 50).

Unique or suitable circulars are sometimes purchased from other States and are supplied along with USDA and Illinois leaflets.

Perry County Farm Advisor, C. R. Howell, conducts a pesticide school for dealers and leading farmers. He requires advance enrollment and limits attendance to 20 persons. He holds 5 weekly night meetings during February and a calibration field meeting in late April. Howell presents a different phase each night, from recommendations for control through pest identification to safety.

The emphasis is on the dealer—he of all people will be in direct contact with the ultimate user. In a single individual effort he can point to the label, tell the customer to read it, give instructions and answer questions. We in Extension must recognize his potential and work with him to further good, sound usage.

This year we held the 17th Illinois Custom Spray Operators' Training School, sponsored by the Cooperative Extension Service and the Illinois Natural History Survey. Those attending were given a 175-page booklet containing pesticide recommendations, abstracts of discussions, and latest research findings. Illinois Extension and Research personnel planned and presented a program, which included subject-matter specialists from USDA; the Universities of Missouri, Michigan State, and Iowa State; and the Illinois Department of Agriculture.

This school, originally designed just for applicators, rapidly developed into a school for anyone interested in the wise and judicious use of pesticides. Of the 1,034 persons attending this year, 503 were representatives of industry (including dealers, salesmen, researchers, and advertising specialists); there were also 135 farmers, 110 representatives of canning and seed companies, 95 commercial ground applicators, 23 aerial applicators, 36 county agents, 23 farm managers, 37 State and Federal employees, 9 representatives of the press, and 63 University of Illinois students and faculty attending. We have found this school to be an excellent method of providing our information to the leaders in the pesticide sales and application industry.

In addition we conduct each year upon request, several salesmen training schools for pesticide formulators and distributors.

Timely reports on the pest situation greatly influence pesticide use. For over 25 years orchardists have received the Spray Service Report, a cooperative effort on the part of orchardists, entomologists, pathologists, and horticulturists in Indiana, Kentucky, and Missouri.

The weekly Illinois Insect Survey Bulletin, started in the early 1950's, is a companion publication covering insect pests of field crops, livestock, and ornamentals. About 2,000 copies are sent to subscribers, farm advisers, radio and TV stations, daily newspapers, and cooperators. It provides up-to-the-minute reports on the insect situation and advises what to do, what not to do, when to treat or if it is too late to treat, along with warnings against incorrect use of pesticides. This bulletin has saved farmers from spending thousands of dollars on treatment that is not needed or that is too late to do any good. The information contained in this weekly release is based on insect abundance reports received from farm advisers, research, survey, and Extension entomologists.

Keeping the dairymen aware of the changing pesticide recommendations and regulations is not always easy. For years our DHIA Newsletter has carried items on insect control, but this year some issues of the Insecticide Dealers' Newsletters are titled "An Insecticide Report to Dairymen." This note is supplied to 14 milk producers' associations as well as to the DHIA Newsletter.

Regular news releases, TV appearances, radio tapes, magazine articles, circulars, and county meetings and demonstrations are a part of our direct-to-the-people program. Thus, in addition to reaching the farmer directly through his newspaper, his magazines, radio and TV, county meetings, and his county farm adviser, we also reach him indirectly through his dealer, his custom applicator, and the chemical salesman.

The farmer who protects his crops receives all the benefits from fertilizers, better varieties, better harvesting equipment, and marketing facilities. All these advantages are passed on to the consumer through lower food prices.

While pesticides are helping to produce cheaper food, they also enable the average citizen to lead a more enjoyable life with a minimum of swatting and scratching due to better mosquito, fly, flea, tick, and louse control, but even more important has been the lowering of the incidence of human diseases carried by these pests. Structural pests as termites, which conservatively have, are now, or will attack at least 10 percent of the homes in the southern half of Illinois can be controlled. Pesticides are on hand to protect items of aesthetic value also.

A home safety pesticide score sheet was given to some 50,000 interested people who attended the Chicago World Flower and Garden Show in late March. Since pesticide accidents occur more commonly in the home than on the farm, these people were asked to score their own homes. Another 250,000 persons viewed our pesticide safety exhibit but did not pick up literature. And this summer a farm exhibit in Chicago's Lincoln Park Zoo will show the urbanite the role agricultural chemicals play in food production.

The salesmen, dealers, applicators, farmers, homeowners, urbanites, and suburbanites—all have an interest in safe, efficient, and wise use of pesticides. Extension has the knowledge and the tools with which to further this objective. But to get the job done we must supply the information available to interested persons. ■

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From The Administrator's Desk

As this issue of the *Extension Service Review* goes to press, many Extension workers have become acquainted with a study of the field operations of the Department of Agriculture conducted by the Commission on Civil Rights entitled "Equal Opportunity in Farm Programs." The report is based on information obtained by the Civil Rights Commission in Washington and in several States during the last year.

In a letter to Secretary Freeman, President Johnson said: "Based on its study and review of the material available to it, the Commission concluded that Negro families have not participated equally in those programs designed to assist our rural population. These programs so essential to our continued welfare and economic growth must reach all in our rural areas if they are to be effective in lifting those areas to full economic self-sufficiency."

"The new emphasis which the Civil Rights Act of 1964 gives to equal treatment for all persons provides the basis for assuring that the benefits of these efforts will be available to all. Equality of opportunity is essential if we are to achieve the rural renaissance which you so vigorously champion."

When we started this series, I indicated that from time to time I would briefly discuss things that seem important to us as Extension workers from a National point of view. One of the most important events of the last year affecting us in our programs is the passage of the Civil Rights Act of 1964. I am sure that over the last few months all Extension workers have become acquainted with this Act and its implication to us. There is nothing more important to all of us in the Extension Service than to make our programs consistent with the Civil Rights Act if these program services are to continue to be available to the American people and particularly to those who need them most.

Section 601 of the Civil Rights Act says that "no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving Federal financial assistance. . ."

The regulations approved by the President of the United States further interpret and define the application of the law. In defining the discriminatory actions prohibited by Section 601, the regulations list:

"Deny an individual any service . . . provided under the program."

"Provide any service . . . which is different, or is provided in a different manner, from that provided to others under the program."

"Subject an individual to segregation or separate treatment in any matter related to his receipt of any service. . . ."

"Restrict an individual in any way in the enjoyment of any advantage. . . ."

"Treat an individual differently from others in determining whether he satisfies any admission, enrollment, quota, eligibility, membership, or other requirement. . . ."

"Deny an individual an opportunity to participate . . . or afford him an opportunity to do so which is different. . . ."

All these apply when race, color, or national origin is the basis for such differences in treatment.

The Civil Rights Act is the law of the land and all Extension workers have accepted their responsibilities under it. The report of the Civil Rights Commission emphasizes the very great responsibility we have and the very high level of significance this has to us and our organization.

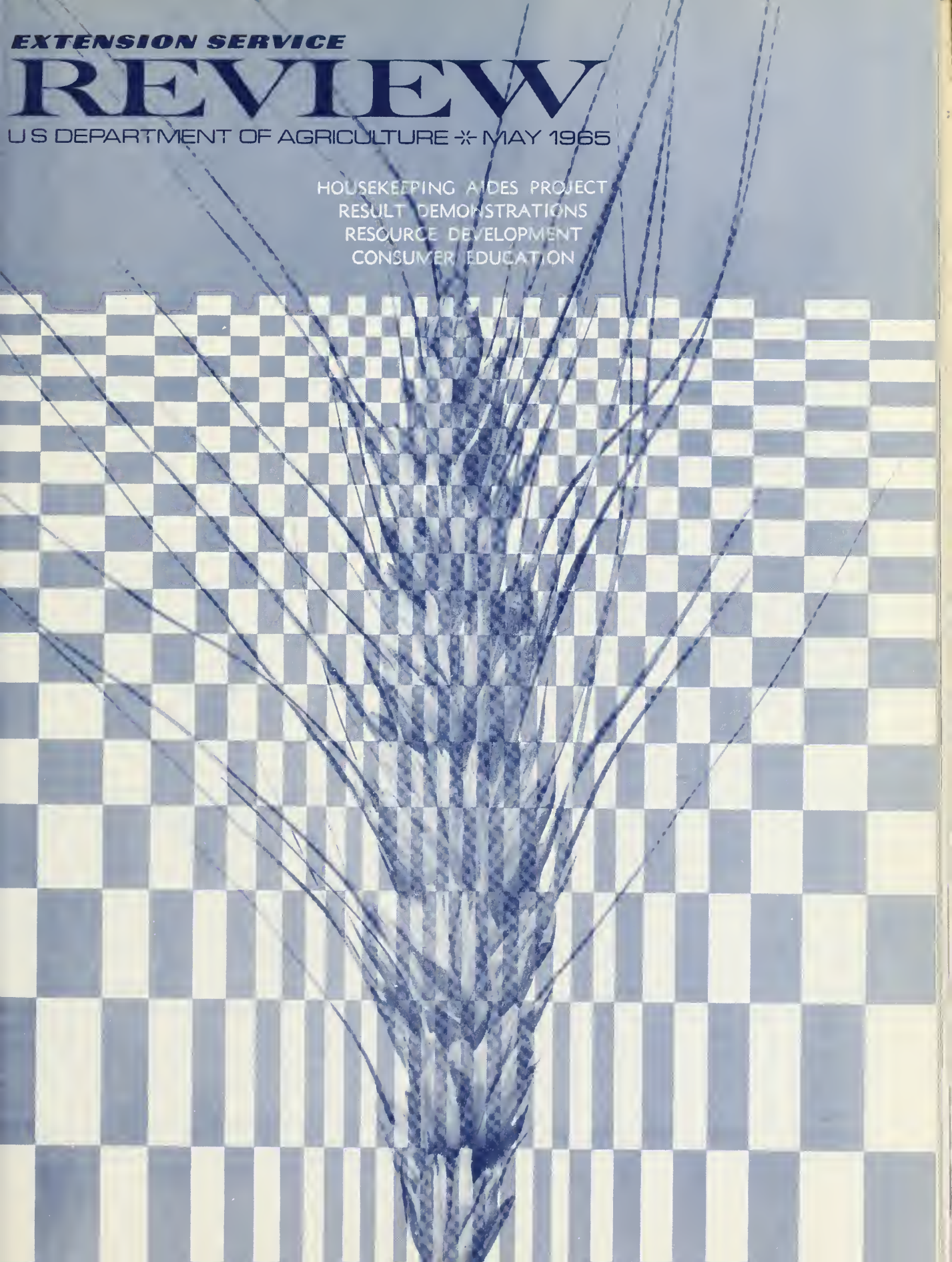
Recent conversations with State Extension directors and others indicate that Extension workers throughout the country are taking this responsibility seriously. Our information indicates that Extension workers are making adjustments to necessary changes required by the law in a sound and constructive manner. We look with pride on the good work you are doing and look forward to future reports of accomplishment.—*Lloyd H. Davis*

EXTENSION SERVICE

REVIEW

U S DEPARTMENT OF AGRICULTURE ✳ MAY 1965

HOUSEKEEPING AIDES PROJECT
RESULT DEMONSTRATIONS
RESOURCE DEVELOPMENT
CONSUMER 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.

ORVILLE L. FREEMAN
Secretary of Agriculture

LLOYD H. DAVIS, *Administrator*
Federal Extension Service

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REVIEW

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EDITORIAL

From bathing a baby to producing steel for tractors, and making the desert to bloom takes *water*. From a little to a lot.

Management of water resources ranges from individual farm ponds to vast expanses of artificial lakes created by trapping the flow of mighty rivers.

Alexander Gavitt, Jr., of the College of Agriculture, University of Connecticut, in a recent article gives some striking examples of water use. Here they are:

> "It takes 30 gallons of water for one complete cycle of the washing machine; 379 gallons for a slice of bread; 550 gallons for a family of four for household uses; 240,000 gallons for a ton of newsprint; 325,800 gallons for an acre-cutting of alfalfa; and 500,000 gallons to produce a thousand yards of woolen cloth."

Water is a precious, an indispensable resource. As a Nation, we are becoming more aware that reckless use or misuse of water is a loss to all of us.—WAL

Each housekeeping aide wears a uniform and name tag for identification.

by RACHEL C. HOGAN
Extension Home Economist
Erie County, Pennsylvania

Developing Leadership Among Low-Income Clientele

ERIE, an industrial and lakeport city, is located in the northwestern corner of Pennsylvania. The third largest city of the State, it has a population of 183,523 comprised of many ethnic groups. During World War II, the Housing Authority built dwellings for service families and war workers. Following the war these units were used for low-income housing. A few years later, the Commonwealth of Pennsylvania sponsored other housing projects in the city. Today in Erie, there are seven integrated housing developments providing living quarters for 1,600 families.

Cooperative Extension has long recognized the need for working with low-income groups. Such an opportunity for educational assistance came when a representative of the Erie Housing Authority asked for help in developing programs for their tenants.

Concerted efforts over a 5-year period, resulted in a coordinated program aimed to create in tenants a desire to learn. Workshops were held showing the best uses of donated foods, ways of providing better nutrition, care of clothing, and the construction of children's clothes. These proved successful in educational programs. However, the drawback was the small percentage of the 1,600 families reached by this method.

This was the underlying reason for initiating the Housekeeping Aides project, whereby all tenants could benefit. Briefly, the program was established to train a selected group of nine women in easy and inexpensive methods of performing household tasks. Following a training period, the Aides were to be assigned to families to demonstrate ways of caring for hardwood and tile floors,

household equipment, and other general housekeeping tasks.

The pilot project had two objectives. It was believed that leadership could be developed with this selected group of women through a training program, teaching specific skills, and stressing ways of effectively working with people. Secondly, it was hoped that the Aides working with tenants on an individual basis could motivate them to raise their standards of housekeeping and improve sanitation.

The pilot project in Erie, necessitated considerable planning. A team consisting of the community relations supervisor of the Housing Authority, managers of housing projects, Extension specialists from Pennsylvania State University, and an Extension home economist met several times to formulate plans. Early in the planning stages, visits were made to several families in the housing developments. It was found that needs and standards of housekeeping varied. Because of this, much thought was given to develop a suitable program that would benefit everyone and yet be fairly uniform.

The housing personnel assumed the administrative responsibility of the pilot project, and much of its success should be credited to them. They selected an integrated group of nine trainees living in the projects on a basis of their apparent capabilities. Priority was given to those needing financial aid, who were trustworthy, responsible, and good housekeepers.

The Cooperative Extension Service accepted the responsibility of preparing materials used in workshops and for training the Aides. It was necessary to adapt teaching methods, subject matter, and visuals to the level of the trainees. The written and spoken word had to be simple and repeated many times. The Aides were given the opportunity to practice suggested cleaning methods at home to gain self-confidence. Each gave demonstrations before the group to be certain she had mastered the techniques of the various housekeeping

Homemakers who live in Harbor Annex Housing Project received training in the use and care of modern equipment. Each has a cleaning basket with supplies used in teaching and demonstrating modern housecleaning methods.

tasks. Included in their training and discussed at length, were ways Aides could introduce themselves, attitudes in working with the public, good grooming hints, and suggested procedures for working with families.

The success and reception of the pilot project has led to further training of the Aides. The phases of housekeeping tasks selected have been based on the numerous questions tenants have asked. Laundry techniques seemed to be a problem with many families. A workshop, held in a tenant's home, included discussion and demonstration of the sorting of clothes, pre-treatment of excess soil, size of load for best results, washing products, thorough rinsing, and proper drying of clothes. A training session on easier ironing methods followed.

Improper storage of frozen foods in the freezer compartment of refrigerators noted by Aides, was the basis for another training period. The purchase, care, and storage of commercially frozen foods was presented as background information. Proper packaging for freezing and the cooking of frozen vegetables were taught.

Aides found many tenants not using their donated foods nor storing them properly. A 2-day workshop was held on preparation of nutritious meals using donated foods. Aides were given an opportunity to practice preparing meals using these foods. Part of the time was spent on ways to show tenants how to plan and prepare more nutritious meals for their families.

Future training sessions are planned on care and mending of clothing and spot removal. It is the Aides who help to plan the program; they are always on the alert to notice and to ask questions concerning ways to give further help and assistance to tenants. Training sessions provide an opportunity for Aides to learn and teach new information and to better evaluate their progress with individual homemakers.

To prepare the tenant for this program, the housing development managers sent a letter explaining the project, giving the name of the Housekeeping Aide, asking that she be welcomed and permitted to demonstrate the simple and inexpensive methods she had learned in their training.

No compensation was given the Aides while attending classes, but following graduation an hourly wage was provided them when working. This was paid by the Housing Authority which also furnished each with a name tag for identification and a basket containing inexpensive but effective supplies for demonstrations.

The community relations supervisor assigned Aides to families. Great care was exercised here. Personalities, personal problems, and makeup of the family and Aide were carefully considered. It was understood that housing administration would handle any problem that arose.

Perhaps it is too soon to be positive about the results of the Housekeeping Aides project, but the trend for its success certainly looks good.

The program, in effect since June 1964, has been a real experience and challenge to all participants. The eagerness and attention with which the Aides greet a new subject is stimulating to the teacher. It seems to substantiate the fact that materials and presentation geared to those for whom it is intended makes teaching possible, even for those far removed from schooling. Personal development and increasing self-confidence of Aides has been witnessed with the growth of the program.

The trainees, knowing they were a handpicked group, have felt great responsibility for the success of the program. At first they seemed fearful of not being received by the tenants. The majority are, in fact, happy to receive the Aides and talk with them; only a very small percentage are not receptive.

Records show that Aides in the project since June 1964, made visitations to 1,585 families. Twenty-one families refused to admit them; 8 were not very receptive, but did admit them and were not rude; 300 tenants have asked Aides to visit them after each training workshop. This indicates that most tenants are approachable and want to be helped.

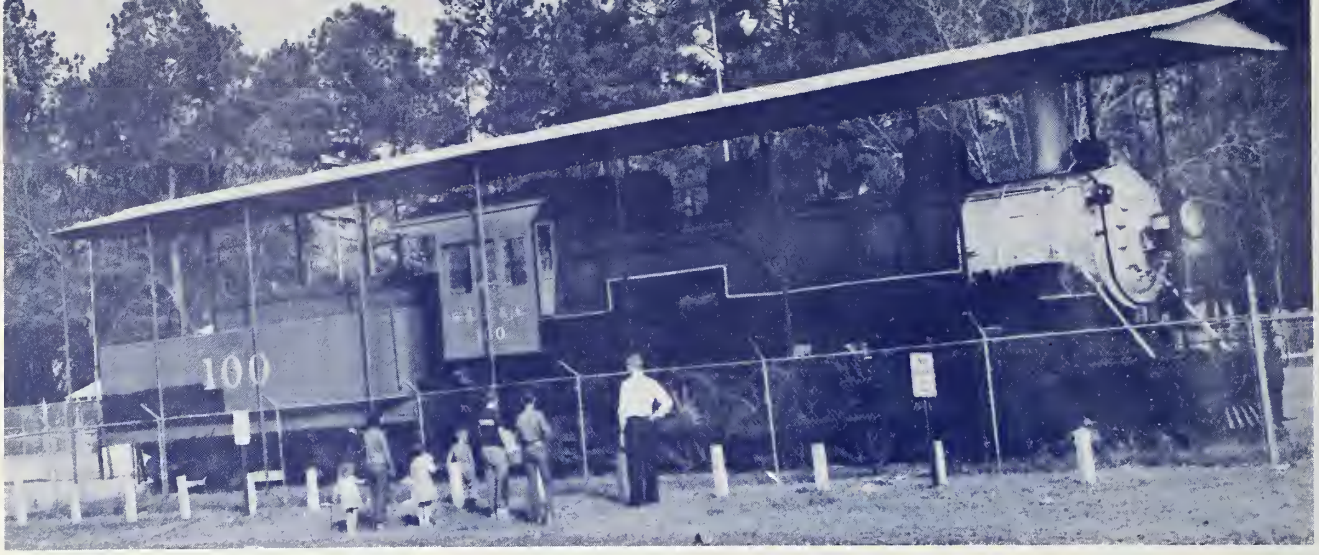
A marked improvement in the appearance of the inside of the homes as well as the outside has been noted and commented on by Aides. This proves that praise is a stimulus for improvement.

Results of this program have received favorable recognition from the Executive Director and Secretary of the Housing Authority of Erie, and the Regional Public Housing Administration in Philadelphia. The program has been publicized in a circular letter to all Housing Authorities in Pennsylvania, Delaware, Maryland, and the District of Columbia. A statement in this letter points out, "Everyone can benefit from education, and most people will help themselves, if they are shown the way. The story from the Erie Housing Authority proves the validity of this philosophy."

Each Aide received a personal letter from the Executive Director and Secretary of the Housing Authority of the city of Erie. He complimented her on attitude, patience, politeness, and composure exhibited throughout the program—many times under very trying conditions.

The enthusiastic reception of this project, has led community agencies, such as YWCA and the National Christian Family Movement, to become interested in working with low-income families. Representatives of the Christian Family Movement have assumed leadership for two youth groups in handyman and electric projects.

Cooperative Extension Service and Erie Housing Authority personnel agree that agencies can work together and share responsibilities giving greater depth and breadth to a program. Evidence indicates there is leadership potential that can be developed among low-income clientele. □



Despite all its progress, Worth County has not broken with the past. This old steam locomotive, donated to the City of Sylvester, is part of City Park. Tourist attractions are being promoted through the RAD program.

Georgia Extension agent tells how Rural Areas Development got . . .

Worth County on the Move

by JOEL B. GUNNELLS, *Worth County Agent, Georgia*

FOR MANY Extension workers, this year will mark the 10th anniversary of the Rural Areas Development idea. It was in 1955 that various agencies of Federal, State and local governments joined with non-government agencies, organizations, and individuals in a concerted effort to speed up economic and social development in certain designated rural areas of our country.

Rather than being entirely a new program, it was at that time—and continues to be—a realignment of the forces at work in the fields of economic and social development. The program placed greater emphasis on the needs and problems of people with inadequate incomes. And even today, with the expanded emphasis of the Economic Opportunity Act, the basic concepts of Rural Areas Development are essential to the fulfillment of the American Dream.

Rural Areas Development has been defined as "a unified effort by local people, local organizations, civic groups, business groups, and other agencies to develop and improve the social, economic, educational, and spiritual opportunities in an area through individual, family, community, and area development."

After working with Rural Areas Development here in Worth County, Georgia, I believe it would be difficult to improve on this definition. And the program's objectives and basic concepts seem to fit mighty well what has been going on here, too.

The objectives: to create an economic and social climate in which people can realize their maximum productivity and to provide alternative economic opportunities for people in problem areas.

The basic concepts: the Rural Areas Development approach is based on the total development of all resources, both human and natural. It is a unified approach involving leadership from every sector of the area's society, economy, and government. It is a self-help program, dependent on the understanding and initiative of the people in identifying and solving their problems. All local agencies have the responsibility of furnishing information, guidance, and encouragement for Rural Areas Development work, but each is to retain its full identity in efforts on behalf of the program.

While the Rural Areas Development idea was hatched 10 years ago, Worth was not one of the pilot counties

Before a new door manufacturing plant was built in his community 2 years ago, this young man was a full-time farmer. He still farms, but now works in industry to supplement his farm income for himself and his family.

that got in on the program in the beginning. But regardless of when they start, all planned progressive moves have a first step. Here, that first step was taken on November 22, 1960. On that date, as county agent and acting under responsibility delegated to me by the Extension Service, I called a meeting of 33 recognized leaders in the county. The group included local representatives of State and Federal agencies, City and County officials, and others from all segments of the population.

Dewitt Harrell, then State Rural Areas Development Agent and now head of Extension's Community Resource and Development Department, explained the design, purposes, and potentials of a Rural Areas Development program for Worth County. All that came out of this first meeting was a promise on the part of the leaders to go home and think about the idea of organizing a County Rural Development Board.

But from that meeting and that promise, Worth County has come a long way. Let's take a look at some of the accomplishments, then go back and examine the organizational developments from November 1960, that made the progress possible.

Agriculture has been, and for a long time will continue to be, the lifeblood of Worth County. In 1959 we ranked eighth in the State in value of all farm products sold—$10,238,938 worth. In 1964 the value of farm products sold exceeded $18,500,000. Indications early this year were that 1965 farm income will approach that figure. This is an increase, over a 5-year period, of approximately 60 percent. Few Georgia counties can match this progress in agricultural efficiency.

So the first half of the Sylvester-Worth County Chamber of Commerce slogan, "Established in Agriculture—Growing in Industry," has long been an established fact. But in less than 3 years, the second half of the slogan has become a reality, too.

Twelve new industrial firms have been established in Worth County since the fall of 1962. They include five farm supply firms, three wood manufacturing companies, a textile plant, a meat packer, a builder of mobile homes, and a builder of truck bodies.

And look what this has done to the economy of Worth County. According to the Georgia State Department of Commerce, retail sales in the county in 1961 totaled $10,461,000. This was a 3 percent increase over 1960, but in 1963 retail sales in Worth climbed to $13,003,386. Later figures indicated a 23 percent increase in retail sales during the first quarter of 1964, compared to the first quarter of 1963. There is evidence that the economic boom held up throughout all of last year.

A lot of people are following—or taking—the results of the surging economy all the way to the local banks. There are two banks in the county, and as of June 30, 1960, there were 6,830 accounts with total deposits of over $5 million. But at the close of the fiscal year ending June 30, 1964, there were 8,593 accounts with deposits totaling over $8 million. Both accounts and deposits continue to grow.

Worth County has been growing in many other areas to—areas on which it is difficult to place a dollar-and-cents value. There are obvious improvements in living standards, religion, education, and social atmosphere. Consider the following projects, all of which are the direct or indirect results of the fundamental concepts of total resource development espoused by the local Rural Areas Development program:

—In April 1962, the City of Sylvester (the county seat) began installing a complete natural gas system, costing $272,000. Money was borrowed from the Housing and Home Finance Agency at 3⅜ percent interest.

—The City of Poulan, in late 1963 secured a loan from Community Facilities for $94,000 and a grant from Housing and Home Finance for $92,000 to install a water system. This small town was also approved for a grant of $28,500 for sewage disposal.

—Sumner has completed a rural community water system made possible by a loan of $25,000 from the Farmers Home Administration under its Soil and Watershed Association loan division.

—A group of landowners in Worth and adjoining Col-

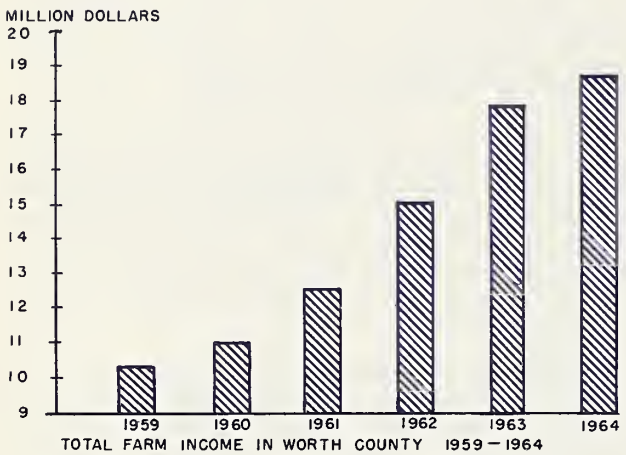
quitt County have organized the Bridge Creek-Ochlocknee River Watershed to provide water management for irrigation and recreation and to speed up land treatment measures.

—In August 1964, a new nursing home for the elderly was opened in Sylvester. This $250,000 facility, built by local people and privately owned and operated provides for 58 residents.

This is only a partial listing of our accomplishments, but they show that we have been on the move since those 33 leaders got together on November 22, 1960.

Feeling that they had had enough time to think about Rural Areas Development, I called a second meeting for December 10, 1960. It became evident that the original group had done something other than think. They must have done some talking too, for 45 interested persons from throughout the county showed up.

At this second session the Rural Areas Development concept was explained in more detail. Also, procedures and recommendations were offered for setting the program in action in Worth County. As the meeting progressed, the group voted to organize officially as "The Worth County Redevelopment Corporation." They elected officers and directors.



TOTAL FARM INCOME IN WORTH COUNTY 1959 – 1964

All of the officers, with the exception of the president who asked to be relieved after 2 years, are still serving in posts to which they were originally elected. In addition to the president, the officers include a first and second vice president, secretary, treasurer, and reporter.

This group, along with three directors, makes up the Executive Committee. The Executive Committee meets regularly (usually monthly) to assure an ongoing program. The entire membership of the Corporation meets at least annually, and more often if the need arises, to conduct business requiring full vote of the membership.

One of the first actions taken by the officers and directors of the new Worth County Redevelopment Corporation was to draw up a basic plan for county development. This later came to be known as the Overall Economic Development Plan (OEDP). In effect the OEDP was our blueprint, for it became the framework and guideline for all future actions of the Rural Areas Development Committee.

Early in 1961 all members of our Redevelopment Board were assigned to one of five committees: Rural Development (concerned primarily with industry); Health, Education, and Welfare; Youth; Agriculture; and Soil and Water Conservation. A chairman of each committee was appointed, and he was instructed to bring his group together as often as necessary to draw up a detailed program of work involving all aspects of development within the scope of his committee's responsibility.

Once the reports were in, they were reviewed and approved by the entire membership and published as "The

The young people are not neglected in Worth County, Georgia's Rural Areas Development program. This new Youth Center was built in 1962 and completely furnished a year later.

Nearly anywhere you look in Worth County you can see the booming economy. The new bank was completed in 1961 as was the educational building of First Baptist Church next door.

When the mobil home assembly plant burned, reconstruction plans were made within 24 hours. The new, improved facility was ready for occupancy in less than 2 months' time.

Worth County Redevelopment Program." In the summer of 1961, after passage of Senate Bill 1 and the creation of the Area Redevelopment Administration, Worth County became one of 62 Georgia counties eligible for Federal assistance. But to qualify, our county group had to submit an OEDP for approval by the proper agencies.

The work we had already done served as the basis for the required OEDP. With the addition of new information, and rearrangement of it to meet the desired standards, the Rural Development committee submitted its completed Overall Economic Development Plan to the proper State and Federal agencies. Our plan, one of the first to be approved in Georgia, got its official okay on December 30, 1961.

Worth County has been on the move ever since, and we are not through growing yet.

A new County Airport Authority has been created and is now active in securing an airport. The project, to cost $140,000, has already been approved by State and Federal aviation agencies. A paved runway 3,400 feet long and 75 feet wide is planned. The cost is to be borne half by the City and County and half by the State and Federal governments.

At least two new industries are now considering locating in Worth County. Two more recreational areas are being planned, and there is talk of building a golf course, riding club, and recreational lakes. The need for a new County Health Center and expanded hospital facilities is being discussed. Also under consideration is a new building to house agencies of county, State, and Federal governments. Development of existing tourist attractions is coming under the scrutiny of the Redevelopment Corporation too.

One of the significant aspects of our Rural Areas Development work is that the declining trend in population —the fate of many of Georgia's rural counties—has been halted and an increase begun. According to the 1960 census, there were 16,682 people in Worth County. Population today exceeds 17,000 and now that the growth has started no one wants to hazard a guess about where it will stop.

That there is increased interest in the activities of the Worth County Redevelopment Board is evidenced by the fact that 102 county residents are full-fledged members today. This is a far cry from the 45 leaders who organized back on December 10, 1960. And the Corporation is now a legally chartered organization with all the powers commonly held by such groups.

There have been, and will continue to be problems which need solution and basic needs that require fulfillment. But more important, there have been and will continue to be, people who possess the knowledge, the foresight, and the courage to move ahead.

The secret of the success of Worth County's Rural Areas Development program lies in the total involvement of all our citizens. People have been willing to voice their ideas for improving the overall condition of our county. They have been willing to work out solutions to problems at the local level. They have been willing to make—and accept—change.

During the last 3 years, 12 new industries have been established in Worth County. They have provided 226 new jobs and a weekly payroll of about $15,000. This man is among some 10 workers at a new truck body plant.

And most important, they have developed an attitude of building a better home, a better community, a better county. Therefore, they have been able to make for themselves, their families, their neighbors, and for all people, a better life.

This has not been any one person's program, nor any one agency's or department's program. Rather it has been our program. It was designed by us, for our county, and for our total prosperity.

And with the goals, the guidance, and the encouragement of Rural Areas Development, we have made the progress cited in this article—and much more. From a county agent's viewpoint, this is the way I see it. □

EDUCATION—
key step to resource development

by ALVIN C. BLAKE, *Assistant Extension Editor, Tennessee*

THE Resource Development Committee of Trousdale County, Tennessee, believes that education at both youth and adult levels is the key to resource development in their county.

They have a somewhat unique problem. While the county enjoys near-full employment, there is still a lack of economic opportunity for most of the upcoming generation. The result is a steady outmigration of the younger set for greener pastures elsewhere.

Trousdale is the smallest county in area in the State. About half of its 5,000 people live in and around Hartsville, the county seat. "We are the only county in the State whose entire population can be seated in the football stadium," say local wags. This is literally true.

The five factories in Hartsville manufacture blouses, shirts, boots, paper boxes, and sewing machine cabinets. These factories employ about 1,000 people—mostly women, and most of the job requirements are for unskilled labor. This means that when certain job levels are reached, there is little opportunity for advancement.

Leading citizens had become increasingly aware of the situation. Their barbershop discussions assumed a more positive form early in 1964 with the organization of the Resource Development Committee.

From the beginning, Clyde Webster, County Agricultural Extension Agent, had a guiding hand in the formation of the RD committee. Many of the factory employes are from the farms in the county and most are still conducting farming operations. Aware also that opportunities for substantial expansion of the agricultural economy are limited, he felt both a personal and official responsibility to offer his services to the RD program.

Webster is secretary of the RD committee and serves in organizational and educational roles. He provides staff guidance and helps develop information needed by the committee.

One of the first moves of the RD committee was to meet with local industrial leaders. A list of questions was submitted to these leaders in advance for discussion at the meeting on an informal basis. These questions were:

1. In what educational group do you have the largest labor turnover?

2. Does a higher-educated person make a better and more stable employee?

3. What percentage of your employees have an education of:

   a. 8th grade or less?

   b. completed high school?

   c. more than high school?

4. What percentage of your labor force is made up of Trousdale Countians?

5. Does your company have any incentive that would encourage high school graduates to work for you? If not, would you consider or make suggestions that in the future your company might formulate such plans?

While all of the employers did not respond in detail to all of the questions, there was considerable frank and open discussion on most of the points.

"We found, somewhat to our surprise, that the better educated employees were the most unstable," says Webster. "The employers agreed that high school graduates were easier to train and made good workers, but also became dissatisfied more quickly and were more likely to seek greater opportunity elsewhere."

While a great majority of the employees are natives of the county, the employers indicated that a substantial percentage live or were raised

in adjoining counties. Reports on educational level were incomplete but indications are that a high percentage are high school dropouts.

None of the employers have an incentive plan directly related to educational level and were not in the process of formulating such plans at the time of the meeting. The majority of the employees are paid on a production or piece work basis and their output depends more on manual dexterity than on educational level.

"Company officials have been very cooperative and we feel that they will continue to do so," says Jack Patterson, chairman of the Resource Development Committee.

"It was the consensus of the committee that education is the place for us to start," he continues. "We must stress the importance of young people finishing high school. And then we must offer them more opportunity to find local employment that will give greater opportunity for advancement. This means we must develop new programs and attract new industries which will employ more men, require higher skills, and offer jobs at higher levels. We certainly do not want to give up what we have now—but we definitely need to add to what we have."

A State trade school is under construction at Hartsville. It will serve a five-county area and will offer training to youth and adults in auto and machine shop, drafting, office and machine repair, and similar trades. Some of the local manufacturers have indicated they will furnish equipment and instructors to train people to work in their plants. The school will be adaptable to teaching almost any trade which might be required in the area.

Floyd Jackson, principal of the county high school, is emphatic in his view that educational standards in the county need improvement. He points out that the educational level of adults aged 25 years and over actually declined in the 1950-60 period.

"Employers should raise their educational standards, give preference to high school graduates and offer incentives for promotion," Jackson says. "And we need additional industry that will be more demanding in its labor requirements.

"The State trade school is a step in the right direction," he continues. "We will be able to offer joint training between the high school and the trade school and give high school credit in many cases. The present imbalance in employment, with so many wives and mothers working, has also created moral and sociological problems. This is one reason why we need more industry which will utilize higher skills and why we need an adult education program."

Miss Bonnie Lee Safley, County Extension Home Demonstration Agent, is devoting a great deal of time and attention to working with the female factory employees. Company officials permit her to contact the employees during lunch hours and other periods to discuss homemaking and home improvement and to interest them in home demonstration clubs.

"This is a challenging, though rewarding, work," Miss Safley says. "Women who work all day in a factory need help and guidance in home improvement perhaps even more than those who can spend full time homemaking. Many of these workers have children who will soon be seeking employment and building homes themselves. We are stressing the importance of their children finishing school and offering guidance on how to have a more rewarding home life."

Miss Safley also works with the Resource Development Committee in an advisory and organizational capacity. State level RD staff personnel have met with the committee on occasion and counsel regularly with the local Extension personnel.

The RD committee has appointed an agricultural committee of farmers and farm leaders to explore the possibilities of improving farm income and developing farm resources. So far, their studies indicate only limited possibilities. Burley tobacco accounts for about 45 percent of farm income and the rest is about equally divided between dairying and livestock. Most of the dairying is grade B, and there is a long waiting list for grade A producers on the nearby Nashville market. The size and type of farms offer only limited opportunity for the expansion of livestock enterprises.

The committee feels, according to Webster, that it is headed in the right direction in stressing education as the basis for developing the county's resources. A recent development is worthy of note.

One of the factories has established a scholarship fund to help provide a college education for a son or daughter of an employee. The RD committee feels this move is an outgrowth of their work with local industry.

At the same time, the committee also realizes that industries must be developed which will offer more opportunity for economic advancement than presently exists, or the effort would be self-defeating. However, they look forward to the day when the outflow of people will be reversed and upcoming generations can find opportunity at home to apply the many skills and talents of a progressive society.

Only time will tell if the efforts and judgment of the committee have been correct. □

Prove Your Point With A Result Demonstration

ONE OF THE oldest and one of the best Extension teaching methods is the agricultural result demonstration: well used, it is almost sure-fire.

A result demonstration tests a practice or recommendation under local conditions—conditions which approximate those of the intended audience. Although most result demonstrations are based on careful tests in other parts of the State or Nation, local trials convince growers that the practice will or will not be worthwhile. Familiar names also strengthen reports of the results. The actual testing shows growers that Extension and Research work hand-in-hand for their benefit and constantly look for ways to help them farm and live better.

The farmer-cooperator in such a demonstration becomes a better local leader because of the experience. He feels a sense of pride in taking part in a serious testing program and with the additional know-how he has obtained, he may wish to participate in another demonstration in the future. Certainly, he will be in a position to give a doubting neighbor encouragement to cooperate in such trials.

Result demonstrations have a price, even though the rewards may be great—they require careful planning. The test must be set up to insure that the results will be scientifically valid. The farmer-cooperator must be an individual who will follow specific directions and check with the agent for suggestions from time to time.

The first consideration when planning a demonstration is whether it will be worth the expended time and effort. The agent may devote many hours to a demonstration which brings negative results, although such results will probably be of value to growers.

by ERVIN L. BRAMHALL, *Ventura County Farm Advisor*
and RALPH PARKS, *Extension Engineer, California*

In planning, the county agent selects a practice he believes to be important to the community. He then calls on leaders individually or as a group to determine if there is sufficient interest and if the farmers consider the practice important enough to be tested locally. Much depends on selecting the right cooperator. He should be dependable and have reason to be interested in the results. The conditions on his farm should be representative of those in the community.

One or more specialists should be directly involved in planning the demonstration for maximum validity and value. They can also use the results throughout the State.

The agent usually helps the cooperator with details. He must see that the needed materials are available on time. He stresses the need for careful records and assists cooperators in obtaining these. In some cases, the agent prepares signs indicating to passersby the practice being tested. Other publicity will inform the community of the demonstration. Usually, the simpler the point to be demonstrated and the larger the plot or test, the greater will be the interest of the community.

Completing the demonstration finishes only part of the task. Other farmers should have the opportunity of seeing the demonstration results. Other cooperators and prospective ones should receive personal invitations. Records should be reported both within the Extension organization and to the public.

Success in one result demonstration opens the door for others. Usually the agent has several possible demonstrations in mind. He can take advantage of the interest in a completed test to begin another.

Here's an example of a result demonstration conducted in Ventura County, California. Debeaking of poultry primarily to reduce cannibalism has become a common practice in recent years. At about 12 weeks of age, the pullet's beak has been removed.

Through exploratory work, we found a method of debeaking 6-day-old chicks in a precise way, and thus eliminate later debeaking. In cooperation with a local poultryman we set up a large-scale result demonstration.

Our cooperating poultryman keeps a million layers and is a leader in his community. We talked with him and showed him our unit which a local manufacturer helped develop. The unit automatically gauges and adjusts the position of the cut and cauterization with the timed travel of a cam mechanism. The poultryman agreed to keep careful records and carry out the demonstration carefully.

In our demonstration, and others that followed, we showed that debeaking by this procedure was three times faster than the usual type of debeaking. Other results included elimination of from 5 to 10 percent of the culls resulting from errors in judgment or carelessness, utilization of less skilled labor, reduction of feed wastage, and lower labor costs.

The older hen pictured on the opposite page was debeaked by the method shown above when she was 6 days old.

Our cooperating poultryman now debeaks all his chicks by this new method. Through this and other demonstrations, tours, and publicity, 95 percent of the poultrymen in the county adopted this practice. Our publicity included a magazine article, newsletter items, and local newspaper stories.

Agents in adjoining counties were kept informed on the demonstration. A debeaking unit has been loaned to a Southeastern State where it is also being demonstrated.

We believe this demonstration method resulted in the improved practice being adopted by a number of poultrymen. □

A consumer speaks out on the panel at Vermont's Consumer Days.

Controversy, Crisis, or Contretemps?

Vermont Consumer Days

by MARGARET A. MAURICE *Extension Editorial Assistant Vermont*

THE EXTENSION SERVICE has been working with consumers for years but let's not kid ourselves—we're still babes-in-the-woods when it comes to reaching them directly. Anybody whoever purchased anything is a consumer. And it's the same old iceberg—a surprisingly large mass never appears above the surface.

Maybe it's the glacial country up here—we're used to thawing things out. Vermont did it. We held a successful 2-day Consumer Days Conference that pulled in people from all corners of the State, people with one common bond. They were consumers and they wanted to know:

"If you complain about meat today, don't stores just continue to do what they've always been doing?"

"I'm tired of these cents-off prices. Everything is 'on sale' today."

"And why," asked one mother, "can't they put a piece of matching material in the pocket of boys' plaid shirts?"

Obviously, there's more for consumers to worry about these days than how to pick out the best head of cabbage. (Athough that kind of consumer choice is not to be sneezed at, either.)

With this in mind, a neat bundle of up-to-the-minute knowledge was wrapped up and tagged with the consumer's name. The conference was sponsored by the Consumer Information Clearinghouse of the University of Vermont and Consumers Union, Inc. It was arranged by Faith Prior, Extension specialist in family economics.

Delivering the bundle was something else again. How did Vermont do it? We used our general information program and gave it the blue chip treatment. "You can't get people out to meetings nowadays," our agent told us. "If you're going to hold a meeting, it's got to be a big one. And you gotta get the word out."

Instead of one word, we used three: *Dollars and Decisions.* Under this heading, Faith Prior wrote her weekly news column, voiced a weekly radio broadcast, appeared on television, and sent out her bimonthly newsletter. She concentrated on making the pitch as readable and palatable as possible. Sample headlines—*The Froth Over Detergents, The Man Behind the Marabou,* and *Mother, Why Is Your Tongue So Green?*

Light touch? Sure. But the aim was to reach them now, teach them now. Over and over, she told consumers, "Come and see how important everybody thinks you are."

To further promote the conference, a snowstorm of material was blitzed out to the counties. Copies of a mailer insert were given to county agents for use as a companion piece with other material prepared by each county office. Several fill-in straight news stories were written for agents to supply to their local press.

Invitations were issued to men and women, educators, businessmen, and such organizations as cooperatives and credit unions.

Our regular tape service to Vermont stations carried four tapes telling about VC Days. To get a variety of personalities and messages several voices were used featuring both Extension Service and Experiment Station directors, the State home demonstration leader, and the family economist.

A selection of short station-break announcements was sent to all radio stations with a letter asking their cooperation in the interest of consumers in their listening areas. Special tape series were sent to the women's editors in the radio stations, and live specials were done on their air time.

In addition to our regular pre-meeting press promotion, mats were made from photos so that all dailies and weeklies could use news photos of the main speakers.

A short suggested editorial on the plight and problem of the consumers called attention to the UVM 2-day meeting.

The turnout made it worth the trip through media channels. They came from all over—homemakers, husbands, businessmen, teachers with

their home economics classes. More than one mother who couldn't find a babysitter found a quick walk around the exhibit area, children in tow, was rewarding.

The program was a cross section of what's going on in work for the consumer. In addition to the voices of consumers, the audience heard a member of the President's Committee on Consumer Interests, a speaker from Consumers Union (testers of products, authors of "Consumer Reports"), representatives of the Federal Trade Commission, Food and Drug Administration, Department of Standards, State Government, producers, marketing specialists, and businessmen.

Dr. Colston Warne, Amherst economist and member of the President's Committee on Consumer Interests, gave the keynote address. A reaction panel on "Contributing Roles in Consumer Welfare" followed.

Panel members represented the average consumer, producer, marketing, and business interests. When they didn't ask the very question that was on the tip of a homemaker's tongue, she stood up and asked it herself. Sparks flew. In fact, at one point or another, both sides felt as if someone had slammed the oven door and the cake fell.

Businessmen were observed taking notes on complaints. Irate, and not so irate, just interested consumers were taking it all in. "Well I never knew that before," said one.

During the evening session, Dr. James Mendenhall of Consumers Union discussed that organization's testing and educational activities. The questions were familiar to him but not to his audience who wanted to know things like: How do these consumer testing outfits operate? Who sponsors them? How do they decide what to test and how to test it? And are they really not in league with advertisers?

The second day of the conference sought to make sense of the alphabet soup that represents the many government agencies working on behalf of the consumer.

"Do they ever pay any attention to me, up here in the hills, when I think somebody's done me wrong? Or are they so tied up in their own red tape, as some people suggest, that it uses up all their energy just staying out of each other's way?"

They found out that they have a built-in ear with the government agencies—if they will only use it.

The session wound up on an optimistic note—a look into the future with Philip Dwoskin of the USDA's Economic Research Service who told the audience what they'll be buying tomorrow that they can't even imagine today.

We found, in our post-game rehash:

. . . that federal and State agencies are not only cooperative but have excellent displays and materials available.

. . . that businessmen will come the minute they think consumers are involved.

. . . that educators are delighted to have this teaching opportunity.

. . . and we found, most important of all, that when the Suggestion Box was turned out, nearly every slip said, in one way or another, "Do it again."

But the whole thing would be a dud without that slippery character, the consumer. Someone once said that people use mass media for entertainment, so it should not be clouded with ideas. We'll buy the first thought, but we balk at the second. To prove it, we used the soft sell approach and today we're in cahoots with consumers. □

Dr. James Mendenhall shows a consumer two examples of the "short quart."

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From The Administrator's Desk

We are the *Cooperative* Extension Service. While we are sometimes called the Agricultural Extension Service, the term "Cooperative" is more common and has been in more general use in recent years. I think it is good for us all, once in a while, to stop to think what the term means.

It could mean to you that we are cooperative in working with farm organizations, civic clubs, church groups, and other voluntary groups and organizations—cooperating to help these people make their work more effective in reaching common goals. In this sense Extension workers are always "Cooperative."

It could mean to you that Extension programs are only possible because of the cooperation of hundreds of thousands of volunteer leaders and many businesses and other organizations. In this sense too we are a "Cooperative" service.

However, the term Cooperative Extension Service has come about more to indicate that this is a service in which there is cooperation between units of government at several echelons. It indicates a service cooperatively sponsored by county, State, Federal, and sometimes city government. It indicates cooperation in financing programs, in planning and conducting programs, and in administration.

All county Extension workers realize that with county financial support goes a responsibility to the people of the county and the county government to use these funds for purposes important to the taxpayers and appropriating body—if they are to receive continued support.

There is, of course, a similar responsibility to the other partners providing support. In each State we have a responsibility to the State legislature to use funds provided by it in working toward goals and objectives important to the people of the State and in line with the intent of the legislature as they provide Extension's funds. This includes a responsibility to University administration, the University governing board, or other groups involved in providing the State funds.

And, similarly, Extension workers have a responsibility to the Federal Government and the United States Congress—a responsibility to conduct educational programs related to important National goals and objectives, in line with the purposes and objectives these bodies have as they provide Extension funds.

The broad objectives and goals of these levels of government are generally consistent. As we work to develop and carry out our programs we work for programs satisfying to all our responsibilities to the several cooperating groups. We recognize local, State, and National responsibilities that go with the support we receive. Extension workers at all three echelons work together in a cooperative manner in programs and administration.

Yes, we *are* the Cooperative Extension Service. In our cooperation lies our strength. Let's maintain and develop the cooperative nature of our service by at all times remembering our responsibilities to the various cooperating supporters of our work and blending into our programs educational work to support the several goals and objectives they expect us to serve.—*Lloyd H. Davis*

EXTENSION SERVICE REVIEW

U S DEPARTMENT OF AGRICULTURE ✲ JUNE 1965

IN THIS ISSUE: ASPECTS OF RURAL AREA DEVELOPMENT

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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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Secretary of Agriculture

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REVIEW

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EDITORIAL

The American landscape is one of infinite variety. You can get into a good argument as to what part of our land is most pleasing to the eye. Some prefer the spectacular Grand Canyon. Others come back year after year to view the Valley of Virginia from the Skyline Drive. And there are vigorous advocates of the values of this or that State Park, National Forest, State Forest, or National Park. Still others are equally enthusiastic about New England's hills and mountains or the broad sweep of beaches of the Carolinas, the Gulf, or those along the Pacific. The desert appeals, and so do the Great Plains.

As our country becomes ever more urbanized, the vast farmlands of this Nation take on added appeal. Apple blossom and other similar festivals attest to this.

Landscapes take hold of people. When some particular pleasing view is needlessly damaged or destroyed or littered it is a loss to all who place high value on America's landscape.—WAL

In a Toastmasters Club any situation can be simulated. Mock courtroom, expression practices using poetry, or extemporaneous simulated telephone conversations using sales approach and resistance technique (above) all provide opportunity for club members to think and gain command of language.

4-H Toastmasters

by CONNIE GOERINGER
Associate Washington County Extension Agent, Dewey, Oklahoma

EVERY OTHER Monday evening 24 boys meet in the agricultural building on the Washington County fairgrounds for the express purpose of standing before a group, talking, and learning to be comfortable at it.

They're members of the Washington County 4-H Toastmasters' Club, an organization that began May 5, 1961, and is bound to be an important influence on its membership.

This is not a training ground for State champion 4-H public speakers. I believe that effective public speaking is an acquired art, and the best way to acquire this art is through experience—and that's just what our boys get in their program.

Members of the 4-H Toastmasters' Club range from the beginners, who mentally at least, tug at their collars and hope their trembling legs will somehow stay under them through their talks, to boys who have appeared in district and State public speaking events.

They all learn and improve.

I am assisted in the program by Wayne McLaughlin, a Bartlesville chemist who is a member of the Cherokee Toastmasters' Club and a former area governor of Toastmasters' International. He attends all the meetings, assisting the boys through helpful, careful criticism and many an encouraging pat on the back.

The objectives of the club are:

1. To improve abilities in oral expression and thought.

2. To develop the ability to appear effectively before audiences.

3. To provide constructive evaluation and comment on all speeches giving the speaker the benefit of audience reaction.

4. To develop the habit of analytical listening.

5. To provide instruction and experience in chairmanship and parliamentary procedure.

Because of the nature of the organization, membership is limited to boys 13 years old or older. Membership is free; 24 boys are currently enrolled in the program and are actively participating.

When the speakers for the evening have finished their talks, McLaughlin and I make our evaluation and criticism of each speaker. The criticism is gentle and encouraging pointing out the faults obvious to both speaker and audience with tips on how to eliminate these faults.

Both of us are obviously careful to watch for good points in a presentation as well as bad. I believe that the boys progress through encouragement and improve through criticism and experience.

In the usual sequence of a meeting of the Washington County 4-H Toastmasters' Club, the program is opened by the president, who, after the business formalities introduces the Toastmaster of the evening.

He in turn introduces the speakers. After the speech session comes the evaluation and following the evaluation is the topic session in which all members participate by speaking on a topic which is handed to them as they approach the speaker's stand.

Incentives are added to spice the program. One is a "traveling trophy" awarded to the best speaker each evening. The same trophy is passed from one "best speaker" to another. Whenever a boy wins the best speaker award four consecutive times he is awarded it permanently. This is not a slight accomplishment, however, the trophy was retired for the first time on February 17, 1964. The award, sponsored by McLaughlin, will be continued, and all boys will have equal opportunity to win it.

The second award is sponsored by myself and will be awarded to the Toastmaster of the Year. This is based on the club member's performance as to meetings attended, how well he carries out assignments. A point system is used to determine the recipient of the trophy at the end of the year.

The 4-H Toastmasters Club is one of the most worthwhile programs now underway in Washington County and the time I spend working with these boys is less than that which would be required to work with one judging team of four boys. And the boys get a lot more out of the time I spend with the program. □

TENCO

People in ten contiguous counties team up to build a stronger economy and a better life in an area where the corn doesn't grow as tall and a once-flourishing mining industry is almost gone.

by EBER ELDRIDGE, *Extension Economist and* BOB KERN, *Extension Editor, Iowa*

THE MOST IMPORTANT single accomplishment of the TENCO program is that people in this area now recognize their interdependence.

Those are the words of Bob Kaldenberg, the Albia banker who served as chairman of the TENCO steering committee through the first 3 years of the project.

Kaldenberg can cite a long list of ways in which people in TENCO back up their awareness of interdependence by working together. Consider just a few:

* The TENCO industrial committee, with assistance of the Iowa Development Commission, has conducted area conferences on credit and industrial financing, analyzed the industrial environment of the area, and has plans for preparation of *area* industrial promotion materials.

* The TENCO agriculture committee has studied the farm economy, offering recommendations on public policy and on educational programs needed to help farmers adjust to the present situation; farmers have participated in 3-day Extension conferences on "Modern Management Methods for the Farm Business," following up a high-priority recommendation of the committee.

* Recreational resources of the 10 counties have been inventoried and advertised in 100,000 copies of a promotional brochure.

* Two intensive studies of the public school system have been completed by Iowa State and now are undergirding schoolmen's appraisal of education in TENCO at the present time.

* Over 200 clergy and lay leaders have attended 1-day conferences on social and economic trends and their implications for churches.

* Area committees are working closely on several aspects of planning related to the Rathbun Dam, which will create a flood control and recreational lake with about 1,000 miles of shoreline.

* County labor surveys have been conducted through the Employment Security Commission.

* A growing list of social and economic study reports have been developed through Iowa State University, providing objective data on a wide range of subjects, for use by the area and local leaders.

* The 10 counties of TENCO have been designated this year as a field extension unit in which the Iowa Cooperative Extension Service will pioneer its modern approach to multicounty programming.

Many other activities and actions could be cited. Also a reality in the area, though it is difficult to document, is a new kind of area orientation in the minds of thousands of people. When one of the county seats, Centerville, was chosen as a site for a plant of a major chemical producer, the largest area newspaper over 40 miles away editorialized the congratulations of its own city and the whole area.

"This would never have happened before TENCO," said many longtime residents.

Awareness of the TENCO organization and the area development idea has mushroomed, according to careful observers. Two communications studies add supporting evidence.

What is TENCO? TENCO is a many-faceted approach to area development. It is an organized structure of area leaders—50 men and women representing their home counties on a steering committee and four study committees: agriculture, education, industry, and recreation. It is many public agencies and some private ones working with and through the structure to provide resources that help area people study, make decisions, and act to solve their own development problems.

TENCO is a geographic area of 10 contiguous counties in southeast Iowa. They are counties with a continuing history of out-migration and sharp changes in economic base. The area's combination of soil and climate places the inherent productivity of its agriculture below the median for the Corn State. A once-flourishing mining industry has almost disappeared. Retail sales have lagged behind State trends. Employment has lagged.

TENCO, to Iowa Extension, is a pilot trial of a new rationale for rural areas development effort. Iowa Extension was the intellectual architect and the continuing organizational and educational support.

Mid-century social and economic tensions of the rural community are well known to most Extension workers. We will only call a few major factors to mind. Science and technology have brought economic advantages to units of sufficient scale to apply them; numbers of farm workers have declined more rapidly than nonfarm jobs have been added in rural communities. People have demanded increasing quality and quantity of both public and private services; desired services have been difficult

to maintain in the face of lagging employment base and shrinking population.

The technology behind such striking economic changes, particularly the new ease in travel, has widened the boundaries of "community" in the minds of rural residents; in their actions, too. People go greater distances for goods and services, and they commute to work many miles away.

Social scientists have long told us that villages, towns, counties—even large cities—do not exist in economic isolation. Nor are they socially isolated. Complex links of interdependence create ties among institutions and across wide spaces.

Economic and social decisions of individuals are not isolated. Spatial factors decrease in their power to restrict individuals' alternatives. An Iowa family may consider, at one time of decision, choosing a job in a factory 20 miles away or migrating to California; they may choose between bowling in their home town or attending an opera in the State capital.

The Iowa philosophy of area development education and organization was expressed in *Rural Areas Development in Iowa,* published in 1961:

> "The people themselves—when they have the information they need can best analyze, make choices and take action. When issues and problems are defined correctly, people of varied interests can reach a reasonable agreement."

The question then was, what area is relevant for people and their analyses, choice-making, and action? Iowa social scientists saw the multicounty area as the most relevant focus. Here are some reasons:

1. A multicounty area has a large enough economic base to permit an optimum scale for production, services, institutions, and recreation of high quality and low cost.

2. A multicounty area provides a base for the kind and variety of community services that have outgrown the small community, even the rural county.

3. A multicounty area provides stability of population needed for effective planning, even though some communities may grow or decline at rapid rates.

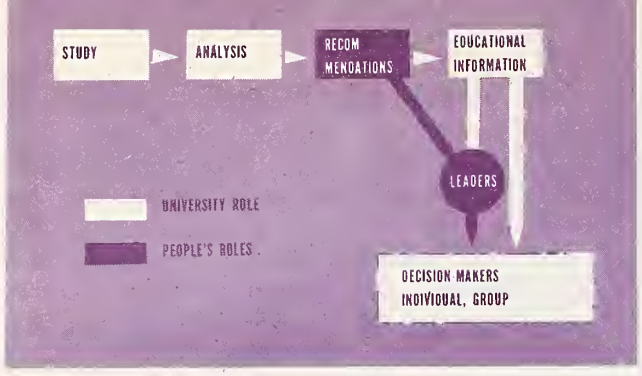
4. The multicounty area has many economic and social linkages. Development in one part spreads its benefits to other parts.

5. The multicounty area provides a missing link in industrial location. Industrial location is a narrowing-down process, and the last decision, usually, is the choice of one specific community. An area organization can work on the same unit as the industry in the earlier critical stage of selecting an area.

6. A multicounty approach does not detract from the local self-interest and initiative of a particular community. On the contrary, it gives that community benefits of analyses and access to area systems of leadership and service to support its own efforts.

7. A multicounty area offers a larger "pool" of effective leaders and supporting resources. Both are vitally needed for planning and action.

Social and economic development, of course, involves much more than space in terms of square miles or numbers of counties. Development occurs as people and in-



stitutions take actions. And the time-honored Extension imperative applies: "Start where the people are."

Iowa State's Dr. Karl Fox, head of the Department of Economics and Sociology, has offered the "functional economic area" as a structure in which development efforts can be carried out.

Here are some of the characteristics that seem to be related to a multicounty functional economic area:

1. Residents have a feeling of personal identification with a larger community. When you question people you discover which direction they look toward this larger community.

2. Commuting patterns tend to follow the functional area. Direction of commuting is toward larger communities within the multicounty area. At the outer edges, there is a sort of "watershed" that marks transition between two functional units.

3. Traffic patterns show an increasingly heavier flow as you move toward the center city of the functional area.

4. A common communication pattern usually exists. Area of major newspaper and radio-television coverage approximates that of the functional economic area.

5. Distance seems to be a practical criterion for delineating the area. Commuters and consumers show little reluctance to drive for one hour to reach a city that has a full range of goods and services and a wide spectrum of job opportunities. In Iowa at the present time, that means a distance of about 50 miles outward from the center city.

6. A functional economic area has some semblance of an organized economic layout. Typically there is a central city—with well-developed wholesale trade, surrounded by a circle of retail centers, each surrounded by convenient service centers.

In Iowa, the east-west and north-south road grid has led to diamond-shaped areas that cover 8 to 10 counties, with total populations of 150,000 to 200,000 living in 10 to 12 retail centers, many small villages, the open country, and one central city of 25,000 to 50,000.

Area development programs are community programs. The leadership and the people of an area carry the initiative and make the decisions. Their decisions may not always coincide exactly with a coldly logical economic model.

Iowa Extension offered the initiative that brought leaders of the 10 counties together to consider a multicounty program of economic and social development. Extension specialists laid out their analyses of the area and outlined what they could see as possible gains for the area from such a program.

On November 30, 1961, an invited group of 55 community leaders decided to undertake the area program. With assistance from Extension, they organized their committee structure. An area agent in community development, Arthur C. Johnson, was assigned to assist the committees and lead in educational efforts on the idea and content of development.

The ultimate test of development efforts is usually a set of social and economic changes. A set may include such criteria as: (1) rising per capita income; (2) fuller use of resources, as indicated in improved efficiency and volume of goods and services and reduction of unemployment and underemployment; (3) creation of new jobs; (4) improved education and training of the labor force; (5) higher quality services, both public and private; (6) development of facilities and services in recreational and cultural spheres; and (7)—though often hard to measure —increased satisfactions of people, more positive attitudes, strengthened moral environment, and esthetic pleasures of many kinds.

These, however, are not Iowa Extension's objectives. The goal we pursue is education that helps people in an area take actions and make decisions that contribute to development.

We believe that we have a significant role to fulfill in the stage of study and analysis of current situation and possible alternatives. The consideration of these alternatives and formulation of recommendations, however, is the unique province of the people and the systems of the area.

When recommendations have been sent out, Extension has a vital task in disseminating information. We supply educational information—the data, the implications, ways of taking action—but we never decide that a certain action should be taken; we never play the proponent role.

The TENCO idea was conceived about 5 years ago. Activation came 3½ years ago. We have been learning —along with the leaders and people of TENCO—through study, trial, evaluation, and adjustment.

At the present time another multicounty area program is nearing the end of its second year. Preparatory work is underway that may lead to two others. Several other areas have made known their interest in Extension assistance for similar work.

As we read all of the data currently feeding back to us, we find validation in Iowa of this concept of multicounty area development. □

Learning to identify quality and grades of wool at the Shearing School.

Sheep Shearing School On Wind River Reservation

by RAY A. WOLFLEY
Agricultural Extension Agent
Fremont County, Wyoming

WYOMING has always ranked high among the sheep and wool producing States in the Nation, and continues to offer opportunity for that "hardy breed of men" who wish to supplement their incomes in the specialized business of sheep shearing. Sheep shearers are in demand now and there appears to be a growing need for more locally-trained men to enter the sheep-shearing field.

Looking toward the possibility of partly supplying this need for shearers from Wyoming's Indian Reservation, and also furnishing seasonal employment, the Agricultural Extension Service in cooperation with the State Employment Security Commission and Bureau of Indian Affairs, organized a sheep-shearing school for Indians on the Wind River Reservation in February 1965.

Extension Livestock Specialist, Ken Faulkner, from the University of Wyoming, and I met with the Arapahoe and Shoshone Tribal Councils to outline the purpose of a shearing school and received their cooperation and support.

Faulkner prepared a 2-week course of instruction and arranged for instructors to assist with the school. The sheep shearing school was specially-designed to give actual training experience in the use of machine shearing equipment, together with its care and maintenance in the field. In addition to the shearing training, instruction was given in wool grading, care of shorn fleeces including tying the fleece, sacking, and various steps in its preparation for market.

Instructors for the shearing school included Faulkner, Alan Herold, Instructor in Wool at the University of Wyoming, and E. A. Warner, shearing specialist for a manufacturer who furnished the power shearing equipment.

Eight Arapahoe men enrolled in the shearing school. Most of them had had previous experience with blade shearing, but not with using power machines. The demand for machine shearers and the desire on the part of the enrollees to earn additional income, made this project important to the Indian worker. Each enrolled member received a subsistence allowance of $43 per week from the Employment Security Commission and attended classes for 40 hours each week.

The first 2 days of the school were for classroom instruction in wool grades, breeds of sheep, types of machine shearing equipment, and some economic factors in wool preparation as it affects the grower.

Two days were spent sorting, grading, tying, and resacking 400 fleeces owned by a local man. In this way the enrollees became familiar with power shearing equipment in preparation for the following week which was devoted to actual shearing in the field. The County Fair Building was used for the grading and sacking.

The Extension Service made arrangements for the shearers to shear out 1,400 head of sheep belonging to four different wool growers in the Riverton and Pavillion areas.

As a result of this school the shearers have been given an opportunity to join with other shearing crews in the area. □

by LLOYD L. RUTLEDGE, *Program Leader Division of 4-H and Youth Development, FES and* U. G. WORD, JR., *4-H Club Agent, Arkansas*

Special 4-H Youth Deve

THE ARKANSAS Special 4-H Project involves low socioeconomic families having youth who never before have been reached by an informal educational program. The project is a cooperative venture between the Federal Extension Service and the Arkansas Extension Service. Essentially, the project is aimed at the great need in low-income areas—and all underdeveloped areas—of "education for living" and the development of native leadership.

The specific objectives of this project are: to develop and test methods and processes of working with youth of rural low-income families; develop, adapt, and test 4-H projects and informal educational programs; test the feasibility of utilizing the services of program aides for recruiting, organizing, teaching, and supervising youth involved in the project.

Work on the project is concentrated in three counties—St. Francis, Lonoke, and White. As methods and programs are developed and tested, ten additional counties will be involved. To date 578 boys and girls from 204 low-income families are participating.

Presently the young people are recruited, organized, and taught by 49 program aides who are trained and supervised by the county Extension agents. The program aides are local citizens who have agreed to recruit and work with young people. Generally the program aides are a part of the indigenous leadership of the community. The program aides involve youth who are not presently reached by Extension Service or any other informal educational group. The program aides work with groups of young people between the ages of 9 to 19 in a "program of youth work" as outlined by the county Extension agent.

The program of work consists of educational training project units, each of which is planned for completion in 2 to 3 months. Then the program aides introduce additional units to the youth.

The work with the youth may be done on an individual basis, but usually is conducted in small informal groups or on an organized club basis as is done in 4-H Club work. The program of work includes at the end, an exhibit or display of work done or project tour. After this is accomplished, a second phase of the program, which is now being planned, will give more career development to the young people and more emphasis will be directed to the need for education in tomorrow's world.

Under this Special Project, program aides receive some financial reimbursement. The aides are recruited with the understanding that such work is done as a community service. This part of the program is being observed, evaluated, and special attention is being given to the growth of indigenous leadership in the community. At this point, the work in Arkansas has shown already that what happens in the personal development of the program aides is highly significant. For example, after participating in the program, the present leaders are demonstrating greater aspirations for the improvement of family and community life.

Very elementary educational subject-matter materials and methods have to be used and special program materials are prepared by the State Extension specialist as local Extension agents discover the needs, interests, and situation of the youth, their families, and their community.

The Special Project began 12 months ago. Thus far, the project has had such a response that the demands for involving other low-income groups have had to be limited so that attention could be given to testing and evaluation. The project has shown that disadvantaged youth are interested in informal educational activities if the program is based on the needs and pitched on a very elementary approach.

Another tentative conclusion is that indigenous leaders (program aides) are available in low socioeconomic situations; they respond to recruitment enthusiastically; they can be trained; they do have ability and confidence to lead groups of young people in their own neighborhoods. Special educational materials have been prepared in clothing, foods, electricity, health, handicraft, gardening, lawn care, poultry, and home management topics. More materials are being planned for other topics.

The cooperative project arrangement between the Fed-

Program aides teach young girls short-term projects that have immediate use in their everyday home life.

ıent Project in Arkansas

eral Extension Service and the Arkansas Extension Service is demonstrating a new type of program leadership. Program leadership competencies of Federal Extension and that of a State Extension Service complement each other in such a way that a two-way flow is established in which local needs can be served through the channels of State and National programming. The funding, educational leadership, and evaluation are being conducted cooperatively by Federal Extension Service and Arkansas Extension Service.

The major issue, defined in terms of rural youth, which distills from the Arkansas project reveals three basic cruxes of a paradoxical problem.

First, rural young people are acquiring skills and habits which are not realistic in terms of the structure of employment in or out of the rural community. Often the young people may be oriented to the obsolescent and disappearing end of the occupational hierarchy. This characteristic is rooted in the very complex nature of values in the rural community, in the lagging aspirations of the family, in the quantity and quality of educational and other community services, and in the presence of special features of the community expressed through race, minority groups, and the extent of delinquency and retardation.

Second, with all of the distinct strengths of the rural child, the real situation is that the range and quality of visual and verbal impressions, in and out of school, tend to limit knowledge about alternatives, in work as in other fields. Obviously, a rural youngster in Arkansas as in other rural sections, is handicapped in the ability to deal with abstractions, concepts, and change. Essentially, the price the rural environment exacts from its young is less awareness relatively of the nonfarm world.

Third, the odds suggest that the rural child in Arkansas is at a disadvantage as he shifts from youth to adulthood. This move is built along three axes. One is the axis of physical mobility; this goes beyond the boundaries of a familiar physical community. The second is the axis of social mobility; the purpose of this move is to achieve higher money and status symbols which require entrance into new groups and activities. The third axis is toward increasing distant personal relationships and moving towards a more extensive verbal environment characteristic of an urban environment. The basic objective in the Arkansas Project is to help prepare youth for these movements through informal educational experiences within his own family and community.

Such a theory or framework gives the salient and powerful propositions which lurked just behind the massive and vigorous format of our program guidelines. Essentially, the Arkansas project endeavors to develop a boy and girl who can live successfully in his home county or in Little Rock, Detroit, or Kansas City. It is working at the challenge of breaking a chain of the adolescent obsolescent—a child born with a rural heritage who can live as a good citizen and leader in a complex society—rural or urban.

In summary, the Arkansas project is a search for educational means to work with disadvantaged youth—to increase their employability, to encourage them to stay in school, to develop wider participation with others, to instill a sense of accomplishment, and to enrich their outlook for the future. □

Cooperative Action Harnesses Community Forces

by AUDREY BURKART
Extension Specialist in Foods and Nutrition, Rutgers, The State University; New Jersey

TOO MANY COOKS can spoil the soup but when the women of a community band together to improve nutrition on a wide scale, the adage changes to "The more the merrier."

This proved true in the case of a teenage nutrition workshop promoted by the Somerset County Medical Society Auxiliary and the Somerset County Cooperative Extension Service in New Jersey.

Margaret Mearns, county Extension home economist in Somerville, had long been aware of the need for improved teenage nutrition and had attempted to organize interest in a community-wide project.

The catalyst she sought appeared in the form of the Auxiliary. Some of its members had attended nutrition meetings sponsored by medical auxiliaries elsewhere in the State. The women noted the similarity of purpose of the meetings with those of groups encouraged by Extension. They agreed with Mrs. Mearns' purpose and joined her in her efforts.

So self-propelling did the community enthusiasm become that it did not diminish when Mrs. Mearns' husband was transferred to Prince Frederick, Maryland, and she joined him there. Mrs. Mearns is now on the Extension staff of Calvert County.

I took over as advisor for the group, but the natural effervescence of the women was the primary factor in the success of their teenage nutrition workshop.

The project began with an exploration of the potential of each group; financial resources, contracts with the community, and speakers available.

Extension provided indispensable professional leadership. Mrs. Mearns had clearly visualized the educational possibilities inherent in a teenage nutrition workshop and knew where to go for program and materials. In addition, she had the ability to organize the diverse talents of homemakers and professional nutritionists.

Her advisory council was an active ingredient and cooperated fully with Mrs. Mearns' plans. The final success of the workshop proved the importance of lay leaders; the council deserved much credit.

Extension also handled a number of the details that are so essential to the success of a workshop. These ranged from mimeographing letters to getting films for showing.

The Medical Auxiliary provided the financial support for the speaker, lunch, printed invitations, and mailing charges. As the president of the Auxiliary said, "You people have the know-how, we have the money."

Members of the combined Medical Auxiliary-Extension groups searched the membership rolls of women's professional and community organizations and compiled a master file of names of individuals in New Jersey interested in teenage nutrition. They made two mailings, personally inviting women to attend.

One woman from each of the two groups wrote stories that were printed in New Jersey newspapers each week for 3 months before the workshop. These included biographcial sketches of speakers and panel.

Whenever possible, two women from each group made up each committee.

The women successfully obtained a Nationally-recognized authority on nutrition as speaker, and, with the showmanship of Madison Avenue pros, they added films, exhibits, and laymen's practical questions to make the event stimulating and educational.

Dr. Frederick J. Stare, Chairman, Department of Nutrition, School of Public Health, Harvard University; and Catherine Nawn of the Consumer and Marketing Service, USDA attracted a group of 315 to the all-day affair.

The two speakers were backed up by an equally knowledgeable panel: Mary Ann Dean, New Jersey 4-H specialist in foods and nutrition; Evelyn Antal, New Jersey School Lunch Program supervisor; Florence Melick, of the Community Diet Council Service, Douglass College; and Thomas DellaTorre, athletic coach, Hackensack High School.

To present the layman's point of view, two students, two homemakers, a school lunch supervisor, and a school nurse quizzed the panel.

A well-organized, three-ring circus effect took over during the lunch hour. The committees provided a stand-up lunch so that the audience could view films on nutrition and see exhibits while they ate.

Among the organizations exhibiting and distributing literature were the National Dairy Council, Department of Health, Department of Education, Federal Food and Drug Administration, USDA, and two visiting nurse associations. Extension also provided printed materials.

Twenty schools sent representatives to the workshop: school nurses, dietitians, home economics teachers, and

school lunch or cafeteria people. Five hospitals and homes were represented.

Also attracted were members of 3 PTA groups, 15 groups representing local churches and clubs, 5 county Extension advisory councils, and 3 Red Cross units. This proved that professionals, sub-professionals, and homemakers can meet and converse in an environment that offers each group an educational challenge. Medical men were astonished that such a large and diverse group could be encouraged to meet about nutrition.

Among the positive accomplishments of the workshop was the enthusiasm of the professional workers for the opportunity to update their knowledge. Groups of teachers reported their impressions of "the good meeting attended" to Florence Heal, New Jersey State home economics supervisor.

In addition, a comprehensive card file of organized groups in the Somerville area was collected and is serving as a useful resource for the promotion of other area-wide meetings.

But most meaningful of all was the cooperation that developed between Extension and the Medical Auxiliary. Although neither the members of the Auxiliary nor Extension knew each other at the time the plan first crystallized, they quickly assessed the unique qualities of each group and worked together to make their nutrition workshop "first" in cooperation as well as "first" in success.

At the close of the workshop, the two groups did not ask, "Shall we do this again?" but rather, "When will be our next workshop?" □

Indian boys select swine for their 4-H Club projects.

We're on the Warpath Against Poverty

by LAVON DAY
Roosevelt District Extension Agent, Utah

"WAR ON POVERTY" is no mere slogan here on the Uintah and Ouray Indian Reservation. To us as Extension agents working with the Ute Indians it's a big challenge.

Perhaps you can appreciate this more if you will visualize the problem situations facing us as change agents challenged with the responsibility of helping these good people improve their living conditions. They lack adequate housing; they also need vocational training, assistance in improving their farming and livestock production, and more constructive youth activities.

Three bands, Uintah, Whiteriver, and Uncompahgre, approximately 1,551 members, comprise the Ute tribe. They live in four main settlements, Fort Duchesne, Ouray, Randlett, and Whiterocks. Most of their homes are frame houses with three or four rooms; some are smaller houses, and there are a few log cabins. Fifty-four percent of the homes have outdoor toilets and no indoor plumbing. About 61 percent of them have running water piped from a well or public supply into their homes or to a tap just outside the house. About 19 percent of the people haul water from chlorinated public supply sources; the other 20 percent haul their water from irrigation ditches, rivers, and other unsatisfactory sources.

A large majority of the people aged 6 and over do read and speak English, and most children attend local public schools. However, there is no industry in these communities, and the lack of adequate transportation hampers economic development resulting in severe unemployment.

As you might expect, the average family income is low; most of it comes from subsistence farming, but the farming and ranching conducted here is not adequate to care for the entire population. Some families do receive small returns on grazing leases, oil and gas leases, and bonuses; but this money is often dissipated without lasting benefit to the people.

Those are some of the problems we see. But how do the people themselves visualize their own situation? Old-timers in Extension tell me a relative newcomer, that this is the important question. To get the answer, we held a series of meetings in the Indian communities and asked those people what they thought were the causes of poverty. We divided them into small discussion groups to discuss the question, then each group reported back. Almost unanimously they agreed that the following were causes of poverty for them:

1. Serious lack of education,
2. Lack of experience and training in specific job skills and extreme difficulty in getting either of these under present circumstances,
3. Lack of transportation to the places where work opportunities exist in the Uintah Basin,
4. Lack of job opportunities near home,
5. Lack of unity or cooperation among different factions of Indians and individuals in the community,
6. Lack of a feeling of individual and group responsibility, and
7. The actual lack of opportunities.

We are convinced that a group of people must first recognize their problems before you can really help them overcome poverty. That is why we in USU Extension Services have been working closely with the Ute people to help them analyze their economic and social problems, and recognize opportunities and available assistance programs to solve those problems. We are trying to help them effectively utilize the following programs: Mutual Self-Help Housing, Economic Opportunity Act Loans, and VISTA Volunteers.

In the latter part of 1963, The Public Housing Administration announced that it would be possible for members of the Ute Tribe who were in the low-income group to participate in the Mutual Self-Help Housing program. A Ute Housing Authority was organized to handle the organizational part of the program, select the applicants, and carry out the program.

In the summer of 1964 the Extension Services of Utah State University took the lead in this program. As Ex-

As the agent supervises, the men apply siding to the structure built during the 3-day self-help housing workshop.

tension agents assigned to the Uintah and Ouray Reservation, Mary Boender, former Roosevelt District Home Agent, and myself scheduled a 3-day Self-Help Housing Workshop at a youth camp owned by the tribe in the Uintah mountains. Since the regular camp members had just completed their program, the camp staff assisted us greatly by watching the children and preparing the meals.

We had in mind four main goals for this workshop:

1. Answer the people's questions concerning the Mutual Self-Help Housing program,

2. Find out the types of homes they would like to live in,

3. Teach some basic skills in building construction and help them develop a basic knowledge of the proper use of power and hand tools, and

4. Assist them in formulating a budget and provide instruction in money management.

Wayne Ringer, Extension Engineer from Utah State University, Lloyd Smith, Duchesne County Agent, and Mary Kennington an FES Program Leader assisted with the workshop. The maintenance department of the tribe furnished materials which were used for the construction of a small building. After several periods of instruction, we began building an 8′ x 12′ sample structure with the Indian people participating.

You, too, would have been delighted to see the enthusiasm of these people as the structure took shape during the next 2 days. They rapidly gained confidence in their own building skills—skills they would use in building their own homes. Another rewarding part of the workshop was the plans of homes which they developed.

We asked each family to draw the floor plan of the type of house they would like for their own. Interestingly, they had some constructive ideas that differed from the floor plan the Public Housing Administration had scheduled for this reservation. Using the ideas they presented during the workshop, we were able to persuade the Housing Authority to recommend these modifications to the Public Housing Administration.

Ten families represented at this workshop were chosen to receive Self-Help Homes in Whiterocks. Construction of these homes was scheduled to begin in April or May. Meetings were held in the communities of Fort Duchesne and Randlett explaining the housing program to those people, and preparations were made for ten families in each of these communities to receive Self-Help Homes.

Title III, Part A of the Economic Opportunity Act provides for loans that can be made to low-income rural families to help them improve the operation of their farms. To take advantage of this help, the Superintendent of the Bureau of Indian Affairs requested that we organize a series of Extension educational classes to help Indian men who want to either begin farming or increase the scope of their operations. This series of classes ran for 12 weeks. At the present time 5 men are interested in enlarging their farm businesses; one has already made application for one of these loans.

VISTA stands for Volunteers in Service to America. The volunteers will serve for a year living right in the area and under the same conditions as the people with

whom they are working. Velma Linford from the Office of Economic Opportunity explained the program at a meeting in Fort Duchesne last fall. She told the Indian people that they themselves, through their own chosen representatives, are the only ones who could request these volunteers for their reservation.

To get their reaction about the program, Miss Linford asked the group three questions and then divided them into three groups to discuss these questions. Here are the results of their discussions:

"What would you want VISTA volunteers to do if you had them here on the reservation?"

1. They should help train our own community volunteers to hold positions of leadership or service in:
   a. adult education programs,
   b. recreation programs,
   c. the Nursery School.
2. They should help community leaders actually develop economic opportunities in each community by:
   a. helping the communities and their leaders develop proposals to go to the Office of Economic Opportunity,
   b. helping members of the communities develop and manage their own enterprises.
3. They should work with the youngsters who are misbehaving.

"What kind of people would you want to have living in your communities as volunteers?"

1. People with professional training are desired to serve as counselors to families and to youth and particularly about school matters.
2. Older married couples might be good.
3. The volunteers should be dedicated people.
4. Indian volunteers from other tribes might be considered.
5. People with well-developed, specific skills are wanted.

"What provisions can be made for VISTA volunteers with regard to housing, meeting places, transportation, and acceptance by members of the Tribe?"

The group pointed out that each community has a com-

A group of MDTA trainees is taught the importance of good grooming and appearance when applying for a job.

munity center which could be used for classes, meetings, group discussions or programs.

They mentioned that each community has welfare houses which could be fixed up and used for housing for the volunteers.

Those in attendance pointed out that if the volunteers were to be here for one year only, they would have to be "accepted" rapidly in order to be effective. To accomplish this they agreed that the following are necessary.

1. Information about the volunteers and their programs should be exchanged and explained carefully among the people.

2. VISTA volunteers must meet on a common level with the people.

3. People must understand the mission and purposes of each individual volunteer.

4. People in the communities should have a part in asking for VISTA volunteers so they will accept them more readily.

5. Local people who are accepted by the tribe could go with the volunteers to introduce them.

Because the group present at the meeting felt that they did not fairly represent the feelings of all of the Ute people, they agreed to contact others, try and interest them in the program, and encourage them to hold and attend community meetings to present their feelings. They suggested that results of these meetings could then be sent to the Tribal Business Committee so that a formal request for volunteers could be made.

Through a series of meetings the Fort Duchesne community adopted a resolution concerning the anti-poverty program. One part of the resolution asked for five VISTA volunteers—two would assist community officers in recreation and other programs; one would assist the Extension agents in home economics classes, 4-H work, and community gardens; and two would assist Counselors in dealing with school attendance problems, tutoring needs, and dropouts. From this resolution and the results of other meetings on the Reservation and Tribal Business Committee submitted a formal request for the VISTA volunteers. Two volunteers have been approved for the Uintah and Ouray Reservation.

An Indian interested in buying cattle talks with the committee organized to help low-income rural families through small loans under the Economic Opportunity Act.

The agent assists in the organization of a swine club.

So you see that we of the Utah State University Extension Services, along with several other groups and agencies, are close allies with tribal members. We are on the "warpath" with them in their battle against poverty and the blight it makes on the lives of their people.

JoAnn Callister, our new Extension Home Agent for the district, and I see encouraging signs of success. The Mutual Self-Help Housing Program is underway with construction scheduled for ten of these homes in Whiterocks. We are making every effort to get sites and applicants chosen for ten of these Self-Help homes in each of the communities of Fort Duchesne and Randlett. We hope to get all 30 built by the end of the summer.

Farming plans are being worked out for those who wish to increase their scope of operation through the small loans under Title III. We are assisting the instructor of a Manpower Development Training program in preparing trainees and their wives to face the problems which they will encounter in accepting employment and moving to a new environment. Communities are continuing to hold anti-poverty meetings. We are also encouraging more 4-H and other youth activities. □

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From The Administrator's Desk

Some Thoughts on Our Educational Role

All of us in Extension from time to time remark that our role is education. Sometimes we are distinguishing between education and "service" or between education and "action"—service and action being the roles of other organizations.

What do we mean when we say our role is education? To some an educator is one who stands before a class, neatly arranged row on row. To some an educator is one who makes formal presentations in which he is presenting facts and information to groups of people. To some an educator is one who writes educational materials.

We sometimes make formal presentations; we sometimes write educational materials; but it isn't these activities on which we base our statement that we are educators. Ours is a particular type of education frequently not understood, even by some Extension workers.

Actually, we perform a service—an educational service. When we help somebody learn how to solve a problem, to apply some new knowledge, we are indeed performing an important service to him.

Actually, we *are* concerned with action. Ours is education *for* action and *in* action. We are concerned with helping people *take* action. Our role is to help them recognize and appreciate needs and opportunities for action, to help them evaluate alternative action, to acquire knowledge and skills needed for action. Perhaps, most importantly, we are concerned with developing people's confidence that they can take action successfully and that the results will be those hoped for.

So we have long stressed learning by doing and learning through demonstrations—by carefully observing the actions and results of others in similar situations.

Since for us the goal is action—informed, progressive, successful, voluntary action by others—the final measure of our accomplishments is always in the actions of others. They must always be given full credit and recognition for their action. Therein lies one of our reporting problems—to reliably and effectively report the true effects of our actions.—*Lloyd H. Davis*

EXTENSION SERVICE REVIEW

U S DEPARTMENT OF AGRICULTURE ✲ JUNE 1965

IN THIS ISSUE: ASPECTS OF RURAL AREA DEVELOPMENT

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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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EDITORIAL

The American landscape is one of infinite variety. You can get into a good argument as to what part of our land is most pleasing to the eye. Some prefer the spectacular Grand Canyon. Others come back year after year to view the Valley of Virginia from the Skyline Drive. And there are vigorous advocates of the values of this or that State Park, National Forest, State Forest, or National Park. Still others are equally enthusiastic about New England's hills and mountains or the broad sweep of beaches of the Carolinas, the Gulf, or those along the Pacific. The desert appeals, and so do the Great Plains.

As our country becomes ever more urbanized, the vast farmlands of this Nation take on added appeal. Apple blossom and other similar festivals attest to this.

Landscapes take hold of people. When some particular pleasing view is needlessly damaged or destroyed or littered it is a loss to all who place high value on America's landscape.—WAL

In a Toastmasters Club any situation can be simulated. Mock courtroom, expression practices using poetry, or extemporaneous simulated telephone conversations using sales approach and resistance technique (above) all provide opportunity for club members to think and gain command of language.

4-H Toastmasters

by CONNIE GOERINGER
Associate Washington County Extension Agent, Dewey, Oklahoma

EVERY OTHER Monday evening 24 boys meet in the agricultural building on the Washington County fairgrounds for the express purpose of standing before a group, talking, and learning to be comfortable at it.

They're members of the Washington County 4-H Toastmasters' Club, an organization that began May 5, 1961, and is bound to be an important influence on its membership.

This is not a training ground for State champion 4-H public speakers. I believe that effective public speaking is an acquired art, and the best way to acquire this art is through experience—and that's just what our boys get in their program.

Members of the 4-H Toastmasters' Club range from the beginners, who mentally at least, tug at their collars and hope their trembling legs will somehow stay under them through their talks, to boys who have appeared in district and State public speaking events.

They all learn and improve.

I am assisted in the program by Wayne McLaughlin, a Bartlesville chemist who is a member of the Cherokee Toastmasters' Club and a former area governor of Toastmasters' International. He attends all the meetings, assisting the boys through helpful, careful criticism and many an encouraging pat on the back.

The objectives of the club are:

1. To improve abilities in oral expression and thought.

2. To develop the ability to appear effectively before audiences.

3. To provide constructive evaluation and comment on all speeches giving the speaker the benefit of audience reaction.

4. To develop the habit of analytical listening.

5. To provide instruction and experience in chairmanship and parliamentary procedure.

Because of the nature of the organization, membership is limited to boys 13 years old or older. Membership is free; 24 boys are currently enrolled in the program and are actively participating.

When the speakers for the evening have finished their talks, McLaughlin and I make our evaluation and criticism of each speaker. The criticism is gentle and encouraging pointing out the faults obvious to both speaker and audience with tips on how to eliminate these faults.

Both of us are obviously careful to watch for good points in a presentation as well as bad. I believe that the boys progress through encouragement and improve through criticism and experience.

In the usual sequence of a meeting of the Washington County 4-H Toastmasters' Club, the program is opened by the president, who, after the business formalities introduces the Toastmaster of the evening.

He in turn introduces the speakers. After the speech session comes the evaluation and following the evaluation is the topic session in which all members participate by speaking on a topic which is handed to them as they approach the speaker's stand.

Incentives are added to spice the program. One is a "traveling trophy" awarded to the best speaker each evening. The same trophy is passed from one "best speaker" to another. Whenever a boy wins the best speaker award four consecutive times he is awarded it permanently. This is not a slight accomplishment, however, the trophy was retired for the first time on February 17, 1964. The award, sponsored by McLaughlin, will be continued, and all boys will have equal opportunity to win it.

The second award is sponsored by myself and will be awarded to the Toastmaster of the Year. This is based on the club member's performance as to meetings attended, how well he carries out assignments. A point system is used to determine the recipient of the trophy at the end of the year.

The 4-H Toastmasters Club is one of the most worthwhile programs now underway in Washington County and the time I spend working with these boys is less than that which would be required to work with one judging team of four boys. And the boys get a lot more out of the time I spend with the program. □

TENCO

People in ten contiguous counties team up to build a stronger economy and a better life in an area where the corn doesn't grow as tall and a once-flourishing mining industry is almost gone.

by EBER ELDRIDGE, *Extension Economist and* BOB KERN, *Extension Editor, Iowa*

THE MOST IMPORTANT single accomplishment of the TENCO program is that people in this area now recognize their interdependence.

Those are the words of Bob Kaldenberg, the Albia banker who served as chairman of the TENCO steering committee through the first 3 years of the project.

Kaldenberg can cite a long list of ways in which people in TENCO back up their awareness of interdependence by working together. Consider just a few:

* The TENCO industrial committee, with assistance of the Iowa Development Commission, has conducted area conferences on credit and industrial financing, analyzed the industrial environment of the area, and has plans for preparation of *area* industrial promotion materials.

* The TENCO agriculture committee has studied the farm economy, offering recommendations on public policy and on educational programs needed to help farmers adjust to the present situation; farmers have participated in 3-day Extension conferences on "Modern Management Methods for the Farm Business," following up a high-priority recommendation of the committee.

* Recreational resources of the 10 counties have been inventoried and advertised in 100,000 copies of a promotional brochure.

* Two intensive studies of the public school system have been completed by Iowa State and now are undergirding schoolmen's appraisal of education in TENCO at the present time.

* Over 200 clergy and lay leaders have attended 1-day conferences on social and economic trends and their implications for churches.

* Area committees are working closely on several aspects of planning related to the Rathbun Dam, which will create a flood control and recreational lake with about 1,000 miles of shoreline.

* County labor surveys have been conducted through the Employment Security Commission.

* A growing list of social and economic study reports have been developed through Iowa State University, providing objective data on a wide range of subjects, for use by the area and local leaders.

* The 10 counties of TENCO have been designated this year as a field extension unit in which the Iowa Cooperative Extension Service will pioneer its modern approach to multicounty programming.

Many other activities and actions could be cited. Also a reality in the area, though it is difficult to document, is a new kind of area orientation in the minds of thousands of people. When one of the county seats, Centerville, was chosen as a site for a plant of a major chemical producer, the largest area newspaper over 40 miles away editorialized the congratulations of its own city and the whole area.

"This would never have happened before TENCO," said many longtime residents.

Awareness of the TENCO organization and the area development idea has mushroomed, according to careful observers. Two communications studies add supporting evidence.

What is TENCO? TENCO is a many-faceted approach to area development. It is an organized structure of area leaders—50 men and women representing their home counties on a steering committee and four study committees: agriculture, education, industry, and recreation. It is many public agencies and some private ones working with and through the structure to provide resources that help area people study, make decisions, and act to solve their own development problems.

TENCO is a geographic area of 10 contiguous counties in southeast Iowa. They are counties with a continuing history of out-migration and sharp changes in economic base. The area's combination of soil and climate places the inherent productivity of its agriculture below the median for the Corn State. A once-flourishing mining industry has almost disappeared. Retail sales have lagged behind State trends. Employment has lagged.

TENCO, to Iowa Extension, is a pilot trial of a new rationale for rural areas development effort. Iowa Extension was the intellectual architect and the continuing organizational and educational support.

Mid-century social and economic tensions of the rural community are well known to most Extension workers. We will only call a few major factors to mind. Science and technology have brought economic advantages to units of sufficient scale to apply them; numbers of farm workers have declined more rapidly than nonfarm jobs have been added in rural communities. People have demanded increasing quality and quantity of both public and private services; desired services have been difficult

to maintain in the face of lagging employment base and shrinking population.

The technology behind such striking economic changes, particularly the new ease in travel, has widened the boundaries of "community" in the minds of rural residents; in their actions, too. People go greater distances for goods and services, and they commute to work many miles away.

Social scientists have long told us that villages, towns, counties—even large cities—do not exist in economic isolation. Nor are they socially isolated. Complex links of interdependence create ties among institutions and across wide spaces.

Economic and social decisions of individuals are not isolated. Spatial factors decrease in their power to restrict individuals' alternatives. An Iowa family may consider, at one time of decision, choosing a job in a factory 20 miles away or migrating to California; they may choose between bowling in their home town or attending an opera in the State capital.

The Iowa philosophy of area development education and organization was expressed in *Rural Areas Development in Iowa,* published in 1961:

> "The people themselves—when they have the information they need can best analyze, make choices and take action. When issues and problems are defined correctly, people of varied interests can reach a reasonable agreement."

The question then was, what area is relevant for people and their analyses, choice-making, and action? Iowa social scientists saw the multicounty area as the most relevant focus. Here are some reasons:

1. A multicounty area has a large enough economic base to permit an optimum scale for production, services, institutions, and recreation of high quality and low cost.

2. A multicounty area provides a base for the kind and variety of community services that have outgrown the small community, even the rural county.

3. A multicounty area provides stability of population needed for effective planning, even though some communities may grow or decline at rapid rates.

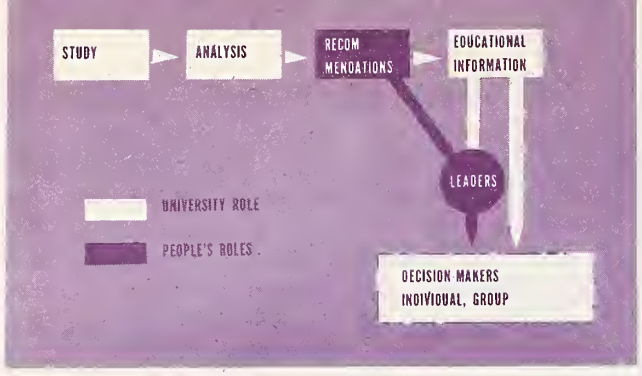
4. The multicounty area has many economic and social linkages. Development in one part spreads its benefits to other parts.

5. The multicounty area provides a missing link in industrial location. Industrial location is a narrowing-down process, and the last decision, usually, is the choice of one specific community. An area organization can work on the same unit as the industry in the earlier critical stage of selecting an area.

6. A multicounty approach does not detract from the local self-interest and initiative of a particular community. On the contrary, it gives that community benefits of analyses and access to area systems of leadership and service to support its own efforts.

7. A multicounty area offers a larger "pool" of effective leaders and supporting resources. Both are vitally needed for planning and action.

Social and economic development, of course, involves much more than space in terms of square miles or numbers of counties. Development occurs as people and in-



stitutions take actions. And the time-honored Extension imperative applies: "Start where the people are."

Iowa State's Dr. Karl Fox, head of the Department of Economics and Sociology, has offered the "functional economic area" as a structure in which development efforts can be carried out.

Here are some of the characteristics that seem to be related to a multicounty functional economic area:

1. Residents have a feeling of personal identification with a larger community. When you question people you discover which direction they look toward this larger community.

2. Commuting patterns tend to follow the functional area. Direction of commuting is toward larger communities within the multicounty area. At the outer edges, there is a sort of "watershed" that marks transition between two functional units.

3. Traffic patterns show an increasingly heavier flow as you move toward the center city of the functional area.

4. A common communication pattern usually exists. Area of major newspaper and radio-television coverage approximates that of the functional economic area.

5. Distance seems to be a practical criterion for delineating the area. Commuters and consumers show little reluctance to drive for one hour to reach a city that has a full range of goods and services and a wide spectrum of job opportunities. In Iowa at the present time, that means a distance of about 50 miles outward from the center city.

6. A functional economic area has some semblance of an organized economic layout. Typically there is a central city—with well-developed wholesale trade, surrounded by a circle of retail centers, each surrounded by convenient service centers.

In Iowa, the east-west and north-south road grid has led to diamond-shaped areas that cover 8 to 10 counties, with total populations of 150,000 to 200,000 living in 10 to 12 retail centers, many small villages, the open country, and one central city of 25,000 to 50,000.

Area development programs are community programs. The leadership and the people of an area carry the initiative and make the decisions. Their decisions may not always coincide exactly with a coldly logical economic model.

Iowa Extension offered the initiative that brought leaders of the 10 counties together to consider a multicounty program of economic and social development. Extension specialists laid out their analyses of the area and outlined what they could see as possible gains for the area from such a program.

On November 30, 1961, an invited group of 55 community leaders decided to undertake the area program. With assistance from Extension, they organized their committee structure. An area agent in community development, Arthur C. Johnson, was assigned to assist the committees and lead in educational efforts on the idea and content of development.

The ultimate test of development efforts is usually a set of social and economic changes. A set may include such criteria as: (1) rising per capita income; (2) fuller use of resources, as indicated in improved efficiency and volume of goods and services and reduction of unemployment and underemployment; (3) creation of new jobs; (4) improved education and training of the labor force; (5) higher quality services, both public and private; (6) development of facilities and services in recreational and cultural spheres; and (7)—though often hard to measure —increased satisfactions of people, more positive attitudes, strengthened moral environment, and esthetic pleasures of many kinds.

These, however, are not Iowa Extension's objectives. The goal we pursue is education that helps people in an area take actions and make decisions that contribute to development.

We believe that we have a significant role to fulfill in the stage of study and analysis of current situation and possible alternatives. The consideration of these alternatives and formulation of recommendations, however, is the unique province of the people and the systems of the area.

When recommendations have been sent out, Extension has a vital task in disseminating information. We supply educational information—the data, the implications, ways of taking action—but we never decide that a certain action should be taken; we never play the proponent role.

The TENCO idea was conceived about 5 years ago. Activation came 3½ years ago. We have been learning —along with the leaders and people of TENCO—through study, trial, evaluation, and adjustment.

At the present time another multicounty area program is nearing the end of its second year. Preparatory work is underway that may lead to two others. Several other areas have made known their interest in Extension assistance for similar work.

As we read all of the data currently feeding back to us, we find validation in Iowa of this concept of multicounty area development. □

Learning to identify quality and grades of wool at the Shearing School.

Sheep Shearing School On Wind River Reservation

by RAY A. WOLFLEY
Agricultural Extension Agent
Fremont County, Wyoming

WYOMING has always ranked high among the sheep and wool producing States in the Nation, and continues to offer opportunity for that "hardy breed of men" who wish to supplement their incomes in the specialized business of sheep shearing. Sheep shearers are in demand now and there appears to be a growing need for more locally-trained men to enter the sheep-shearing field.

Looking toward the possibility of partly supplying this need for shearers from Wyoming's Indian Reservation, and also furnishing seasonal employment, the Agricultural Extension Service in cooperation with the State Employment Security Commission and Bureau of Indian Affairs, organized a sheep-shearing school for Indians on the Wind River Reservation in February 1965.

Extension Livestock Specialist, Ken Faulkner, from the University of Wyoming, and I met with the Arapahoe and Shoshone Tribal Councils to outline the purpose of a shearing school and received their cooperation and support.

Faulkner prepared a 2-week course of instruction and arranged for instructors to assist with the school. The sheep shearing school was specially-designed to give actual training experience in the use of machine shearing equipment, together with its care and maintenance in the field. In addition to the shearing training, instruction was given in wool grading, care of shorn fleeces including tying the fleece, sacking, and various steps in its preparation for market.

Instructors for the shearing school included Faulkner, Alan Herold, Instructor in Wool at the University of Wyoming, and E. A. Warner, shearing specialist for a manufacturer who furnished the power shearing equipment.

Eight Arapahoe men enrolled in the shearing school. Most of them had had previous experience with blade shearing, but not with using power machines. The demand for machine shearers and the desire on the part of the enrollees to earn additional income, made this project important to the Indian worker. Each enrolled member received a subsistence allowance of $43 per week from the Employment Security Commission and attended classes for 40 hours each week.

The first 2 days of the school were for classroom instruction in wool grades, breeds of sheep, types of machine shearing equipment, and some economic factors in wool preparation as it affects the grower.

Two days were spent sorting, grading, tying, and resacking 400 fleeces owned by a local man. In this way the enrollees became familiar with power shearing equipment in preparation for the following week which was devoted to actual shearing in the field. The County Fair Building was used for the grading and sacking.

The Extension Service made arrangements for the shearers to shear out 1,400 head of sheep belonging to four different wool growers in the Riverton and Pavillion areas.

As a result of this school the shearers have been given an opportunity to join with other shearing crews in the area. □

by LLOYD L. RUTLEDGE, *Program Leader Division of 4-H and Youth Development, FES and* U. G. WORD, JR., *4-H Club Agent, Arkansas*

Special 4-H Youth Deve

THE ARKANSAS Special 4-H Project involves low socioeconomic families having youth who never before have been reached by an informal educational program. The project is a cooperative venture between the Federal Extension Service and the Arkansas Extension Service. Essentially, the project is aimed at the great need in low-income areas—and all underdeveloped areas—of "education for living" and the development of native leadership.

The specific objectives of this project are: to develop and test methods and processes of working with youth of rural low-income families; develop, adapt, and test 4-H projects and informal educational programs; test the feasibility of utilizing the services of program aides for recruiting, organizing, teaching, and supervising youth involved in the project.

Work on the project is concentrated in three counties—St. Francis, Lonoke, and White. As methods and programs are developed and tested, ten additional counties will be involved. To date 578 boys and girls from 204 low-income families are participating.

Presently the young people are recruited, organized, and taught by 49 program aides who are trained and supervised by the county Extension agents. The program aides are local citizens who have agreed to recruit and work with young people. Generally the program aides are a part of the indigenous leadership of the community. The program aides involve youth who are not presently reached by Extension Service or any other informal educational group. The program aides work with groups of young people between the ages of 9 to 19 in a "program of youth work" as outlined by the county Extension agent.

The program of work consists of educational training project units, each of which is planned for completion in 2 to 3 months. Then the program aides introduce additional units to the youth.

The work with the youth may be done on an individual basis, but usually is conducted in small informal groups or on an organized club basis as is done in 4-H Club work. The program of work includes at the end, an exhibit or display of work done or project tour. After this is accomplished, a second phase of the program, which is now being planned, will give more career development to the young people and more emphasis will be directed to the need for education in tomorrow's world.

Under this Special Project, program aides receive some financial reimbursement. The aides are recruited with the understanding that such work is done as a community service. This part of the program is being observed, evaluated, and special attention is being given to the growth of indigenous leadership in the community. At this point, the work in Arkansas has shown already that what happens in the personal development of the program aides is highly significant. For example, after participating in the program, the present leaders are demonstrating greater aspirations for the improvement of family and community life.

Very elementary educational subject-matter materials and methods have to be used and special program materials are prepared by the State Extension specialist as local Extension agents discover the needs, interests, and situation of the youth, their families, and their community.

The Special Project began 12 months ago. Thus far, the project has had such a response that the demands for involving other low-income groups have had to be limited so that attention could be given to testing and evaluation. The project has shown that disadvantaged youth are interested in informal educational activities if the program is based on the needs and pitched on a very elementary approach.

Another tentative conclusion is that indigenous leaders (program aides) are available in low socioeconomic situations; they respond to recruitment enthusiastically; they can be trained; they do have ability and confidence to lead groups of young people in their own neighborhoods. Special educational materials have been prepared in clothing, foods, electricity, health, handicraft, gardening, lawn care, poultry, and home management topics. More materials are being planned for other topics.

The cooperative project arrangement between the Fed-

Program aides teach young girls short-term projects that have immediate use in their everyday home life.

ıent Project in Arkansas

eral Extension Service and the Arkansas Extension Service is demonstrating a new type of program leadership. Program leadership competencies of Federal Extension and that of a State Extension Service complement each other in such a way that a two-way flow is established in which local needs can be served through the channels of State and National programming. The funding, educational leadership, and evaluation are being conducted cooperatively by Federal Extension Service and Arkansas Extension Service.

The major issue, defined in terms of rural youth, which distills from the Arkansas project reveals three basic cruxes of a paradoxical problem.

First, rural young people are acquiring skills and habits which are not realistic in terms of the structure of employment in or out of the rural community. Often the young people may be oriented to the obsolescent and disappearing end of the occupational hierarchy. This characteristic is rooted in the very complex nature of values in the rural community, in the lagging aspirations of the family, in the quantity and quality of educational and other community services, and in the presence of special features of the community expressed through race, minority groups, and the extent of delinquency and retardation.

Second, with all of the distinct strengths of the rural child, the real situation is that the range and quality of visual and verbal impressions, in and out of school, tend to limit knowledge about alternatives, in work as in other fields. Obviously, a rural youngster in Arkansas as in other rural sections, is handicapped in the ability to deal with abstractions, concepts, and change. Essentially, the price the rural environment exacts from its young is less awareness relatively of the nonfarm world.

Third, the odds suggest that the rural child in Arkansas is at a disadvantage as he shifts from youth to adulthood. This move is built along three axes. One is the axis of physical mobility; this goes beyond the boundaries of a familiar physical community. The second is the axis of social mobility; the purpose of this move is to achieve higher money and status symbols which require entrance into new groups and activities. The third axis is toward increasing distant personal relationships and moving towards a more extensive verbal environment characteristic of an urban environment. The basic objective in the Arkansas Project is to help prepare youth for these movements through informal educational experiences within his own family and community.

Such a theory or framework gives the salient and powerful propositions which lurked just behind the massive and vigorous format of our program guidelines. Essentially, the Arkansas project endeavors to develop a boy and girl who can live successfully in his home county or in Little Rock, Detroit, or Kansas City. It is working at the challenge of breaking a chain of the adolescent obsolescent—a child born with a rural heritage who can live as a good citizen and leader in a complex society—rural or urban.

In summary, the Arkansas project is a search for educational means to work with disadvantaged youth—to increase their employability, to encourage them to stay in school, to develop wider participation with others, to instill a sense of accomplishment, and to enrich their outlook for the future. □

Cooperative Action Harnesses Community Forces

by AUDREY BURKART
Extension Specialist in Foods and Nutrition, Rutgers, The State University; New Jersey

TOO MANY COOKS can spoil the soup but when the women of a community band together to improve nutrition on a wide scale, the adage changes to "The more the merrier."

This proved true in the case of a teenage nutrition workshop promoted by the Somerset County Medical Society Auxiliary and the Somerset County Cooperative Extension Service in New Jersey.

Margaret Mearns, county Extension home economist in Somerville, had long been aware of the need for improved teenage nutrition and had attempted to organize interest in a community-wide project.

The catalyst she sought appeared in the form of the Auxiliary. Some of its members had attended nutrition meetings sponsored by medical auxiliaries elsewhere in the State. The women noted the similarity of purpose of the meetings with those of groups encouraged by Extension. They agreed with Mrs. Mearns' purpose and joined her in her efforts.

So self-propelling did the community enthusiasm become that it did not diminish when Mrs. Mearns' husband was transferred to Prince Frederick, Maryland, and she joined him there. Mrs. Mearns is now on the Extension staff of Calvert County.

I took over as advisor for the group, but the natural effervescence of the women was the primary factor in the success of their teenage nutrition workshop.

The project began with an exploration of the potential of each group; financial resources, contracts with the community, and speakers available.

Extension provided indispensable professional leadership. Mrs. Mearns had clearly visualized the educational possibilities inherent in a teenage nutrition workshop and knew where to go for program and materials. In addition, she had the ability to organize the diverse talents of homemakers and professional nutritionists.

Her advisory council was an active ingredient and cooperated fully with Mrs. Mearns' plans. The final success of the workshop proved the importance of lay leaders; the council deserved much credit.

Extension also handled a number of the details that are so essential to the success of a workshop. These ranged from mimeographing letters to getting films for showing.

The Medical Auxiliary provided the financial support for the speaker, lunch, printed invitations, and mailing charges. As the president of the Auxiliary said, "You people have the know-how, we have the money."

Members of the combined Medical Auxiliary-Extension groups searched the membership rolls of women's professional and community organizations and compiled a master file of names of individuals in New Jersey interested in teenage nutrition. They made two mailings, personally inviting women to attend.

One woman from each of the two groups wrote stories that were printed in New Jersey newspapers each week for 3 months before the workshop. These included biographcial sketches of speakers and panel.

Whenever possible, two women from each group made up each committee.

The women successfully obtained a Nationally-recognized authority on nutrition as speaker, and, with the showmanship of Madison Avenue pros, they added films, exhibits, and laymen's practical questions to make the event stimulating and educational.

Dr. Frederick J. Stare, Chairman, Department of Nutrition, School of Public Health, Harvard University; and Catherine Nawn of the Consumer and Marketing Service, USDA attracted a group of 315 to the all-day affair.

The two speakers were backed up by an equally knowledgeable panel: Mary Ann Dean, New Jersey 4-H specialist in foods and nutrition; Evelyn Antal, New Jersey School Lunch Program supervisor; Florence Melick, of the Community Diet Council Service, Douglass College; and Thomas DellaTorre, athletic coach, Hackensack High School.

To present the layman's point of view, two students, two homemakers, a school lunch supervisor, and a school nurse quizzed the panel.

A well-organized, three-ring circus effect took over during the lunch hour. The committees provided a stand-up lunch so that the audience could view films on nutrition and see exhibits while they ate.

Among the organizations exhibiting and distributing literature were the National Dairy Council, Department of Health, Department of Education, Federal Food and Drug Administration, USDA, and two visiting nurse associations. Extension also provided printed materials.

Twenty schools sent representatives to the workshop: school nurses, dietitians, home economics teachers, and

school lunch or cafeteria people. Five hospitals and homes were represented.

Also attracted were members of 3 PTA groups, 15 groups representing local churches and clubs, 5 county Extension advisory councils, and 3 Red Cross units. This proved that professionals, sub-professionals, and homemakers can meet and converse in an environment that offers each group an educational challenge. Medical men were astonished that such a large and diverse group could be encouraged to meet about nutrition.

Among the positive accomplishments of the workshop was the enthusiasm of the professional workers for the opportunity to update their knowledge. Groups of teachers reported their impressions of "the good meeting attended" to Florence Heal, New Jersey State home economics supervisor.

In addition, a comprehensive card file of organized groups in the Somerville area was collected and is serving as a useful resource for the promotion of other area-wide meetings.

But most meaningful of all was the cooperation that developed between Extension and the Medical Auxiliary. Although neither the members of the Auxiliary nor Extension knew each other at the time the plan first crystallized, they quickly assessed the unique qualities of each group and worked together to make their nutrition workshop "first" in cooperation as well as "first" in success.

At the close of the workshop, the two groups did not ask, "Shall we do this again?" but rather, "When will be our next workshop?" □

Indian boys select swine for their 4-H Club projects.

We're on the Warpath Against Poverty

by LAVON DAY
Roosevelt District Extension Agent, Utah

"WAR ON POVERTY" is no mere slogan here on the Uintah and Ouray Indian Reservation. To us as Extension agents working with the Ute Indians it's a big challenge.

Perhaps you can appreciate this more if you will visualize the problem situations facing us as change agents challenged with the responsibility of helping these good people improve their living conditions. They lack adequate housing; they also need vocational training, assistance in improving their farming and livestock production, and more constructive youth activities.

Three bands, Uintah, Whiteriver, and Uncompahgre, approximately 1,551 members, comprise the Ute tribe. They live in four main settlements, Fort Duchesne, Ouray, Randlett, and Whiterocks. Most of their homes are frame houses with three or four rooms; some are smaller houses, and there are a few log cabins. Fifty-four percent of the homes have outdoor toilets and no indoor plumbing. About 61 percent of them have running water piped from a well or public supply into their homes or to a tap just outside the house. About 19 percent of the people haul water from chlorinated public supply sources; the other 20 percent haul their water from irrigation ditches, rivers, and other unsatisfactory sources.

A large majority of the people aged 6 and over do read and speak English, and most children attend local public schools. However, there is no industry in these communities, and the lack of adequate transportation hampers economic development resulting in severe unemployment.

As you might expect, the average family income is low; most of it comes from subsistence farming, but the farming and ranching conducted here is not adequate to care for the entire population. Some families do receive small returns on grazing leases, oil and gas leases, and bonuses; but this money is often dissipated without lasting benefit to the people.

Those are some of the problems we see. But how do the people themselves visualize their own situation? Old-timers in Extension tell me a relative newcomer, that this is the important question. To get the answer, we held a series of meetings in the Indian communities and asked those people what they thought were the causes of poverty. We divided them into small discussion groups to discuss the question, then each group reported back. Almost unanimously they agreed that the following were causes of poverty for them:

1. Serious lack of education,
2. Lack of experience and training in specific job skills and extreme difficulty in getting either of these under present circumstances,
3. Lack of transportation to the places where work opportunities exist in the Uintah Basin,
4. Lack of job opportunities near home,
5. Lack of unity or cooperation among different factions of Indians and individuals in the community,
6. Lack of a feeling of individual and group responsibility, and
7. The actual lack of opportunities.

We are convinced that a group of people must first recognize their problems before you can really help them overcome poverty. That is why we in USU Extension Services have been working closely with the Ute people to help them analyze their economic and social problems, and recognize opportunities and available assistance programs to solve those problems. We are trying to help them effectively utilize the following programs: Mutual Self-Help Housing, Economic Opportunity Act Loans, and VISTA Volunteers.

In the latter part of 1963, The Public Housing Administration announced that it would be possible for members of the Ute Tribe who were in the low-income group to participate in the Mutual Self-Help Housing program. A Ute Housing Authority was organized to handle the organizational part of the program, select the applicants, and carry out the program.

In the summer of 1964 the Extension Services of Utah State University took the lead in this program. As Ex-

As the agent supervises, the men apply siding to the structure built during the 3-day self-help housing workshop.

tension agents assigned to the Uintah and Ouray Reservation, Mary Boender, former Roosevelt District Home Agent, and myself scheduled a 3-day Self-Help Housing Workshop at a youth camp owned by the tribe in the Uintah mountains. Since the regular camp members had just completed their program, the camp staff assisted us greatly by watching the children and preparing the meals.

We had in mind four main goals for this workshop:

1. Answer the people's questions concerning the Mutual Self-Help Housing program,

2. Find out the types of homes they would like to live in,

3. Teach some basic skills in building construction and help them develop a basic knowledge of the proper use of power and hand tools, and

4. Assist them in formulating a budget and provide instruction in money management.

Wayne Ringer, Extension Engineer from Utah State University, Lloyd Smith, Duchesne County Agent, and Mary Kennington an FES Program Leader assisted with the workshop. The maintenance department of the tribe furnished materials which were used for the construction of a small building. After several periods of instruction, we began building an 8′ x 12′ sample structure with the Indian people participating.

You, too, would have been delighted to see the enthusiasm of these people as the structure took shape during the next 2 days. They rapidly gained confidence in their own building skills—skills they would use in building their own homes. Another rewarding part of the workshop was the plans of homes which they developed.

We asked each family to draw the floor plan of the type of house they would like for their own. Interestingly, they had some constructive ideas that differed from the floor plan the Public Housing Administration had scheduled for this reservation. Using the ideas they presented during the workshop, we were able to persuade the Housing Authority to recommend these modifications to the Public Housing Administration.

Ten families represented at this workshop were chosen to receive Self-Help Homes in Whiterocks. Construction of these homes was scheduled to begin in April or May. Meetings were held in the communities of Fort Duchesne and Randlett explaining the housing program to those people, and preparations were made for ten families in each of these communities to receive Self-Help Homes.

Title III, Part A of the Economic Opportunity Act provides for loans that can be made to low-income rural families to help them improve the operation of their farms. To take advantage of this help, the Superintendent of the Bureau of Indian Affairs requested that we organize a series of Extension educational classes to help Indian men who want to either begin farming or increase the scope of their operations. This series of classes ran for 12 weeks. At the present time 5 men are interested in enlarging their farm businesses; one has already made application for one of these loans.

VISTA stands for Volunteers in Service to America. The volunteers will serve for a year living right in the area and under the same conditions as the people with

whom they are working. Velma Linford from the Office of Economic Opportunity explained the program at a meeting in Fort Duchesne last fall. She told the Indian people that they themselves, through their own chosen representatives, are the only ones who could request these volunteers for their reservation.

To get their reaction about the program, Miss Linford asked the group three questions and then divided them into three groups to discuss these questions. Here are the results of their discussions:

"What would you want VISTA volunteers to do if you had them here on the reservation?"

1. They should help train our own community volunteers to hold positions of leadership or service in:
   a. adult education programs,
   b. recreation programs,
   c. the Nursery School.
2. They should help community leaders actually develop economic opportunities in each community by:
   a. helping the communities and their leaders develop proposals to go to the Office of Economic Opportunity,
   b. helping members of the communities develop and manage their own enterprises.
3. They should work with the youngsters who are misbehaving.

"What kind of people would you want to have living in your communities as volunteers?"

1. People with professional training are desired to serve as counselors to families and to youth and particularly about school matters.
2. Older married couples might be good.
3. The volunteers should be dedicated people.
4. Indian volunteers from other tribes might be considered.
5. People with well-developed, specific skills are wanted.

"What provisions can be made for VISTA volunteers with regard to housing, meeting places, transportation, and acceptance by members of the Tribe?"

The group pointed out that each community has a com-

A group of MDTA trainees is taught the importance of good grooming and appearance when applying for a job.

munity center which could be used for classes, meetings, group discussions or programs.

They mentioned that each community has welfare houses which could be fixed up and used for housing for the volunteers.

Those in attendance pointed out that if the volunteers were to be here for one year only, they would have to be "accepted" rapidly in order to be effective. To accomplish this they agreed that the following are necessary.

1. Information about the volunteers and their programs should be exchanged and explained carefully among the people.

2. VISTA volunteers must meet on a common level with the people.

3. People must understand the mission and purposes of each individual volunteer.

4. People in the communities should have a part in asking for VISTA volunteers so they will accept them more readily.

5. Local people who are accepted by the tribe could go with the volunteers to introduce them.

Because the group present at the meeting felt that they did not fairly represent the feelings of all of the Ute people, they agreed to contact others, try and interest them in the program, and encourage them to hold and attend community meetings to present their feelings. They suggested that results of these meetings could then be sent to the Tribal Business Committee so that a formal request for volunteers could be made.

Through a series of meetings the Fort Duchesne community adopted a resolution concerning the anti-poverty program. One part of the resolution asked for five VISTA volunteers—two would assist community officers in recreation and other programs; one would assist the Extension agents in home economics classes, 4-H work, and community gardens; and two would assist Counselors in dealing with school attendance problems, tutoring needs, and dropouts. From this resolution and the results of other meetings on the Reservation and Tribal Business Committee submitted a formal request for the VISTA volunteers. Two volunteers have been approved for the Uintah and Ouray Reservation.

An Indian interested in buying cattle talks with the committee organized to help low-income rural families through small loans under the Economic Opportunity Act.

The agent assists in the organization of a swine club.

So you see that we of the Utah State University Extension Services, along with several other groups and agencies, are close allies with tribal members. We are on the "warpath" with them in their battle against poverty and the blight it makes on the lives of their people.

JoAnn Callister, our new Extension Home Agent for the district, and I see encouraging signs of success. The Mutual Self-Help Housing Program is underway with construction scheduled for ten of these homes in Whiterocks. We are making every effort to get sites and applicants chosen for ten of these Self-Help homes in each of the communities of Fort Duchesne and Randlett. We hope to get all 30 built by the end of the summer.

Farming plans are being worked out for those who wish to increase their scope of operation through the small loans under Title III. We are assisting the instructor of a Manpower Development Training program in preparing trainees and their wives to face the problems which they will encounter in accepting employment and moving to a new environment. Communities are continuing to hold anti-poverty meetings. We are also encouraging more 4-H and other youth activities. □

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From The Administrator's Desk

Some Thoughts on Our Educational Role

All of us in Extension from time to time remark that our role is education. Sometimes we are distinguishing between education and "service" or between education and "action"—service and action being the roles of other organizations.

What do we mean when we say our role is education? To some an educator is one who stands before a class, neatly arranged row on row. To some an educator is one who makes formal presentations in which he is presenting facts and information to groups of people. To some an educator is one who writes educational materials.

We sometimes make formal presentations; we sometimes write educational materials; but it isn't these activities on which we base our statement that we are educators. Ours is a particular type of education frequently not understood, even by some Extension workers.

Actually, we perform a service—an educational service. When we help somebody learn how to solve a problem, to apply some new knowledge, we are indeed performing an important service to him.

Actually, we *are* concerned with action. Ours is education *for* action and *in* action. We are concerned with helping people *take* action. Our role is to help them recognize and appreciate needs and opportunities for action, to help them evaluate alternative action, to acquire knowledge and skills needed for action. Perhaps, most importantly, we are concerned with developing people's confidence that they can take action successfully and that the results will be those hoped for.

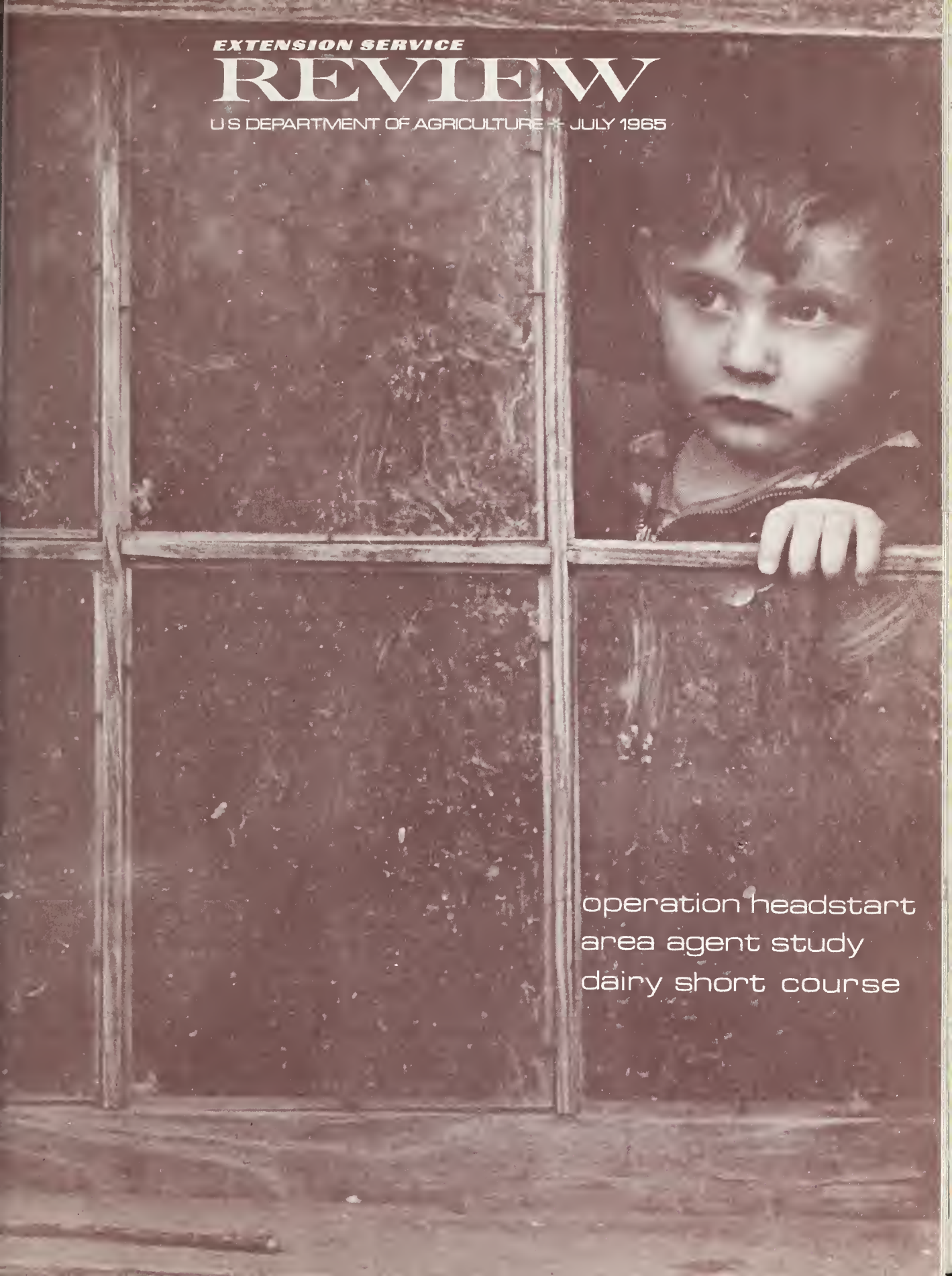
So we have long stressed learning by doing and learning through demonstrations—by carefully observing the actions and results of others in similar situations.

Since for us the goal is action—informed, progressive, successful, voluntary action by others—the final measure of our accomplishments is always in the actions of others. They must always be given full credit and recognition for their action. Therein lies one of our reporting problems—to reliably and effectively report the true effects of our actions.—*Lloyd H. Davis*

EXTENSION SERVICE

REVIEW

U S DEPARTMENT OF AGRICULTURE + JULY 1965



operation headstart
area agent study
dairy short course

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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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EDITORIAL

SAFE AND ALIVE IN '65—thousands of rural communities throughout the land will observe the week beginning July 25, as National Farm Safety Week.

As you well know, Farm Safety Week is not limited to farm people. It encompasses all of rural America. The reduction of accidents is both an individual and a cooperative endeavor.

Today, possibly more than ever before, there is a heightened awareness of the heavy toll of accidents. This is being matched by the increasing vigor of safety programs. But much more surely needs to be done. There is no dodging the fact that accidents strike down forever thousands of farm and other rural residents each year. Hundreds of thousands more suffer disabling injuries.

National Farm Safety Week is an important part of the continuing effort to reduce accidents. It gives added thrust to both individual and group safety work in the year ahead.—WAL

What About Area Agents?

Findings of a 13-State exploratory study indicate that the area agent approach is generally being well-received by farmers and other clientele.

by BUEL F. LANPHER,
Farm Management Economist
Division of Agricultural Science, Technology, and Management, FES

A rapidly-developing trend toward multicounty area Extension agent staffing has been underway in various parts of the country in recent years. A number of States now have area agents; others are giving serious consideration to this type of staffing.

Area agents working across county lines are being used in major program areas—agriculture, resource development, youth, home economics, and marketing. But as of now, only a small percentage of all Extension work for the Nation as a whole is being carried out by area agents.

Multicounty area agents work directly with clientele in much the same manner as county agents have done. In contrast to State and area specialists they have little or no responsibility for supporting the programs of county or other Extension personnel. Also, they have little responsibility for training other agents.

The area agent has a different role and function than does the area specialist who tends to perform much like a State specialist but in a smaller geographic area. For example, an area dairy specialist may be assigned to a multicounty area but would tend to work in any one county when requested. But an area agent serving dairy farmers would generally be free to work on his program, as he felt desirable, throughout his multicounty area in a relatively independent manner.

There has been significant growth in the use of area specialists in the last decade or so. However, staffing with area agents has spurted only within the last 2 or 3 years. Thus, the most fundamental question which is being drawn into focus is whether some of all Extension programs might be conducted by area agents in lieu of the traditional county agent approach.

Many questions are naturally arising about area agent work. How well are these area agents and their programs working out? What can be interpreted from the results of their program for the future direction of the Cooperative Extension Service? What kind of organizational structure is, or should be, used for administering area agent programs? What kind of training is needed by area agents? Are there differences as to which clientele

are served and in the way they are served? What happens to county and local financing with area agent programs?

The Federal Extension Service, in October 1964, initiated a study to try to answer some of the questions mentioned above. Information was obtained from 13 States where area agents are being used—California Colorado, Kentucky, Louisiana, Maine, Massachusetts, Michigan, Missouri, Nebraska, New Jersey, North Carolina, Pennsylvania, and Washington. A key factor in selecting these States was that an area agent program had been in operation long enough to make evaluation reasonably feasible.

Teams of two FES staff members went to each of these States and interviewed Extension personnel at all levels including the director's office, specialists, area agents, and county personnel. An open-ended interview technique was used. From the 13 State cases much information was gathered about the possibilities of area agent programs and their implications for the future.

The prime objective of multicounty programs in the States studied was to provide more specialized assistance to clientele and to make the most effective use of available resources. To accomplish this, some of the specific Extension goals included:

1. Making more efficient use of current resources by focusing attention to areas of most urgent need.

2. Providing greater competency to deal with the interrelated factors affecting total enterprises of the various commodity groups served.

3. Service clientele groups not now being serviced.

4. Intensifying work with clientele through carrying out applied research and bringing about an effective application of basic research.

5. Acquiring and retaining competent specialized staff by providing a satisfying area of work which utilizes special training.

6. Providing incentives for advanced training. This includes graduated levels of titles and salary commensurate with training and status associated with a closer relationship to departments at the university.

7. Making it possible for State specialists to devote more time to training field personnel, keeping informed on research developments, and providing subject matter and program support.

Although wide variations existed, the study identified four general patterns for organizing area agent staffing for administrative and subject-matter responsibilities.

Category 1. Administrative responsibility to *district* supervisors with subject-matter leadership and assistance provided by State specialists or program leaders.

Category 2. Administrative responsibility to *county* staff chairmen or directors with subject-matter leadership and assistance provided by State specialists or program leaders.

Category 3. Administrative responsibility to *area* staff chairmen or directors with subject-matter leadership and assistance provided by State specialists or program leaders.

Category 4. Administrative responsibility to and subject-matter leadership provided by *State* specialists or program leaders.

The organizational patterns of categories 3 and 4 represent a further move away from the traditional county pattern than do categories 1 and 2. The role of county lines and county programming was minimized in categories 3 and 4, while county structures were retained most clearly and strongly under categories 1 and 2.

Area agents were found to function more like area specialists under category 1 than was the case under the other categories.

Category 3, which utilized an area administrator, was one of the most frequently observed organizational patterns. There was a high degree of acceptance and satisfaction with this type of organization.

Important factors used in delineating geographic areas for multicounty programs were: (a) The "natural" or socioeconomic areas and main contact points of people; (b) the number of clientele to be served in the area; (c) the nature of the subject matter (e.g. dairy, plant pathology) of the major Extension program areas involved, such as agriculture, home economics, and youth; and (d) the size of the geographic area as it affects travel distance.

Reasonable workloads were the primary basis for making geographic assignments to individual area agents. Specialized area agents were found to be assigned to only part of a county, to a single county, or to a multicounty area.

Generally, costs did not increase significantly by the establishment of multicounty area agent operations when area agent positions were filled by transferring existing county employees. In this case, increased costs were financed from State or Federal funds but counties generally did not diminsh their share of total costs. In situations where the area agents were superimposed over the existing county staff, the increased costs were almost entirely borne by State and Federal funds. In two States studied, farmers paid fees for intensive educational services.

Even though additional county funds were not generally solicited for the salaries of area agents, most of the counties bore additional support costs such as travel, secretarial assistance, and housing.

Travel costs for agents serving in a multicounty area were about 25 percent greater than the total for agents previously having responsibility for the several single counties. In five States, all additional travel costs of area agents were paid from county funds, but in six States substantially all additional travel costs were being paid from other funds. The increase in county travel may be

partially offset by the reported decrease in travel of State specialists.

Telephone, supplies, printing, and clerical costs to support area agent positions also were larger because of heavier use of direct mail and circular letters and increased preparation of technical materials for workshops and demonstrations. Costs increased for training of area agents where travel was involved, and for additional office and visual equipment.

An informal arrangement of sharing these increased support costs among the counties seemed to be the most prevalent approach. For example, area agents often retained their same offices; the only change being that they now served several counties. In some cases, funds were transferred among counties to offset additional costs resulting from the area agent structure.

Repercussions were expected from counties which feared higher costs but their fears were unwarranted. Several county leaders indicated a willingness to increase appropriations if it would mean a higher-quality program.

Full, sustained involvement and communication with Extension staff appeared to be the more critical factor in gaining acceptance of the area agent approach and in successfully implementing its operation.

Area agent staffing was found to be providing very competent, specialized assistance on specific and complex problems. This was particularly true for agricultural programs directed toward the more progressive and advanced commercial farmers. In other programs, especially marketing, multicounty operations were considered to be resulting in efficient and high-quality Extension work.

The image of Extension, both in the State and on campus, seemed to strengthen as a result of area agent staffing. After programs had been in operation for some time, clientele of agricultural programs were reported as being well satisfied with Extension programs. Clientele of area agent marketing and resource development programs were also considered to be generally satisfied with this approach.

It was reported that when clientele did express concern about area agent operations it centered mainly on the fear of losing their local agent who could be contacted freely and quickly at any time.

Compared to traditional county agent assignments, the area agent tasks were generally more narrow either in terms of clientele or subject-matter responsibilities. In agriculture and marketing area agents' assignments were mostly on a vertical basis—by clientele such as dairy farmers. In other program areas the assignments tended to be more nearly on a horizontal or subject-matter basis such as entomology and nutrition.

Increased teamwork between subject-matter disciplines tended to develop, particularly in agriculture, as the work of area agents became industrywide and problem-centered rather than simply discipline-centered. Thus, for example, the State Extension agronomists, economists, agricultural engineers, and others were increasingly tuned into the programs of the dairy, poultry, and crops area agents according to the problems. There was a decreasing amount of work directly with agents and clientele on independent programs of their own.

Closer relationships with research were found at all levels, especially in the agricultural area agent staffing studied. Area agents were moving into applied research and will probably do so increasingly in the future. In addition to carrying out the usual field trials and demontsrations, there was a definite feeling that doing more applied research was necessary in order to deal adequately with problems of clientele.

State specialist programs appeared to be significantly affected by area agent staffing. They are expected to become "superspecialists" in more basic technology areas in order to give needed support to area agent programs. In general, they tended to become increasingly involved and influential in program development at the field level.

There were several indications that formal planning groups were being used relatively less by area agents. Close touch was maintained with clientele as a guide in program direction and there was some movement toward the development of program planning groups.

Area agents were generally quite satisfied with their working conditions. Direct contact with clientele, identity with specific accomplishments, freedom of program development and operations, professional status, and higher salaries were factors leading to higher morale. However, there may be some morale impacts on the staff involved in other program areas and staff in other counties not involved in the multicounty area agent operation.

Organization of Extension programs at the field level on other than a county basis seemed to be a definite future possibility in the minds of practically all Extension workers interviewed. However, they expect the transition from present situations to go in many directions and to continue over a considerable time period.

Many factors in the study point to the desirability of making a complete inventory of the needs and resources of an area where area agent operations may be considered. The area situation could be analyzed in terms of overall goals and policy of the Extension Service in a particular State. In most of the States studied, some degree of overall evaluation and restructuring is underway and the area agent staffing was but a step in, or portion of, a more comprehensive reshaping of all the Extension services and off-campus education of the given university.

The exploratory findings of this study indicate that area staffing offers good possibilities for increasing the effectiveness of several phases of Extension work. The findings also strongly suggest that further detailed study and evaluation may be warranted. □

Extension Specialists Train Veterinarians

by DWIGHT M. BANNISTER, *Assistant Extension Editor, Iowa*

PRACTICING veterinarians in Iowa contact more livestock producers than any other men in their counties. This fact launched a series of three symposiums last fall; and brought leading veterinarians and Iowa State University Extension specialists together in richly rewarding interchanges in livestock nutrition.

The immediate need is for impartial information for veterinarians dealing with livestock feeding under modern, rapidly-developing feed methods. This matches the need for Extension to find skilled practitioners who can carry complex feed programs essential for livestock health and efficiency.

The Iowa Veterinary Medical Association and the University helped the Cooperative Extension Service set up the symposiums at Cedar Rapids in eastern Iowa, at Mason City in the central part of the State, and at Storm Lake on the west.

Extension animal and dairy specialists conducted the symposiums where they gave a general study in depth on current livestock nutrition. Participants were given a brochure containing references on points brought up at the meetings.

About 150 veterinarians took part. Nearly 100 practicing veterinarians attending this course could very possibly contact, within a year, 30,000 people. The average veterinarian in Iowa has 250 to 400 clients.

Because of his training in professional consultation, the practicing veterinarian is in a key position to guide and direct the programs of many of these thousands of producers. Trends in the livestock nutrition field make it necessary that producers need to incorporate the major facets of livestock production. These facets are management, nutrition, housing, breeding, and health.

No facet can work singularly. They must be interwoven in order to establish an efficient livestock production unit. The idea that "feeding" can stand alone as a nutritional "program" is of little value when taken alone. As a University-applied overall program for livestock there is unlimited opportunity to enlarge the possibilities for meat and milk-producing animals. This kind of inservice educational training gives the Extension specialist an opportunity to train professionals who regularly contact the livestock producers.

An outstanding advantage of this kind of education—held in common by livestock production specialists and the veterinarians—is the unbiased information these professional men can share in helping each other to serve their basic client: the livestock producer.

This unbiased information on nutrition from the Extension specialist can be used by veterinarians in their daily practice. The fact that information is unbiased makes this type of education more effective than any other educational work that has been conducted for both the veterinarian and Extension specialist.

One practicing veterinarian, at the close of the symposium in his area, declared: "This is the first time since I was graduated from college that I have been presented a lecture on basic nutrition without a product involved."

The concept of this phase of continuing education was developed and organized by Dr. John B. Herrick, Extension Veterinarian, Iowa State University. □

These veterinarians joined in the symposium on livestock nutrition held at Cedar Rapids. Plans are being made for further courses of this nature.

Operation Head Start

(Continued from page 9)

. . . Cooperation with other interested agencies can pave the way for other cooperative efforts to help families of limited income improve their living.

. . . Mothers' interest in their children can motivate them to accept help to improve nutrition and home environment.

. . . Older brothers and sisters of preschoolers may be encouraged to participate in Extension youth programs.

. . . Educational programs for disadvantaged families may grow out of these small beginnings.

You are to be congratulated on the aggressive way you have moved into the many challenges posed by the race against poverty. May Project Head Start truly be your "head start." □

Reach More Audiences with a Slide-Tape Telelecture

by EINAR R. RYDEN, *State Leader in Extension Education, Indiana*

CAN a demonstration be conducted by remote control? Can optimum audience involvement be accomplished by a remote demonstration? Can a two-way system be employed?

The answers to the above questions are definitely *yes*. The telephone can be used, speakers can be placed in the reception room, the audience can ask questions, and the speaker can either lecture or answer questions. The telelecture brings the speaker to the audience by means of a telephone call. His voice is amplified over loud speakers and facilities can be made available so that the audience can talk directly to him just as one does over a telephone.

A remote demonstration of the slide-tape technique via telelecture was given to members of the Indiana Cooperative Extension Service staff at Purdue University last February. Dr. Lynn Robertson, Jr., Extension Soil Specialist at Michigan State University, was the speaker. In advance he had sent a tape consisting of about 150 feet, about 20 slides, and a script to go with the slides.

The audience was prepared for the demonstration and the slides, coordinated with the tape, were shown immediately preceding the telephone connection with Dr. Robertson. On telelecture the speaker answered a few preliminary questions from the audience. Then he went into a discussion of his method of using slides and tapes. Coordinated with his telelecture was a set of slides which came on at appropriate intervals according to his signals.

This presentation essentially involved two demonstrations in one—namely the telelecture and the slide-tape technique. The slide-tape method can, of course, be used independently and is so used by some specialist. The telelecture is added if there is a special advantage to talk directly to the author of the slide-tape or if an opportunity needs to be provided to ask him questions.

Dr. Robertson reported that sometimes he may be giving as many as seven or more lectures on the same evening in various parts of the State while he himself can be occupied at home according to his choice. This he says is a tremendous saving in time and the expenses of travel. Also, it gives him much more time to prepare additional future teaching materials. He feels that there is more gain than loss in this method.

If it appears appropriate and wise to appear in person before a particular audience, he may, of course, do so. The techniques of telelecture and the use of slides and tapes must be looked upon as any other teaching technique or device. You use a technique or device when it is appropriate or feasible to do so.

What happens in this kind of a teaching-learning situation? At both the sender and receiver end there are three crucial stages: preparation, presentation, and evaluation. The speaker obviously had fully prepared for his presentation since he was able to send to the agent in advance a set of slides, a completed tape, and a script. At the receiving end, the agent had opportunity to prepare for the presentation since he had previewed the slides and had become familiar with the script.

During the presentation there is opportunity for a great deal of involvement on the part of the audience, since the telelecture can be conducted in such a manner that there will be ample time for questions and answers. Both the sender and the receiver will then, upon completion of the presentation, evaluate the effectiveness of the teaching. The agent can obtain immediate evaluation by additional questions and answers and by written questions and responses. With his script Dr. Robertson includes evaluation questions which are completed by the audience and returned to him so that he can have an ongoing evaluation of his presentations.

Multiple audiences are possible with the slide-tape method and also with the telelecute. Duplicate sets of the slides and the tapes can be prepared and sent through the mail. The telelecture can be presented in several places at the same time, if this appears feasible. One could have several audiences in different locations and of course in different cities or parts of the State, or in different States—even in different countries!

Are these techniques feasible and effective. We in the Indiana Cooperative Extension Service think so. There have been several uses of telelecture and the slide-tape method during the past few years and their use continues to increase. We have added the telelecture and slide-tape techniques to a long list of ways and means to make teaching more effective and to reach more and more audiences. □

"You can have a head start!" is often part of a child's challenge to a race to the dinner table, the swimming pool, the playground. The offer is usually made when the challenger is older, bigger, stronger, or when he fancies that he is "better." It infers that the challenged is unable to compete on equal terms.

How many children in your county will enter school this fall unable to compete on equal terms in the race toward an education? None? What about that community out in the northeast corner of the county, are there children there? How do they fare in school? And didn't your friend, who teaches first grade, mention something about the children from those families across the tracks having difficulty in school? What was it that school superintendent said about the dropout situation in your county? How many were because of a poor beginning? Do they need to be given a "head start?"

Thousands of first graders will enter school this fall with a head start because of a project under the Economic Opportunity Act. Designed to help the culturally deprived children from poor families, illiterate, or otherwise disadvantaged parents—professinal workers and volunteers will combine their efforts in an 8-week crash program to give these children a running start to help them compete on more equal terms with more advantaged children.

When you receive this, Head Start Child Development Centers in several thousand communities will be in operation giving assistance to nearly 550,000 children. We know from reports that many State and county Extension workers have helped make these centers possible.

Soon after the project was launched, the Extension Service agreed that county Extension workers could serve as catalysts to help get applications filed, particularly from the 300 counties with the lowest per capita income.

It was an exciting opportunity for Extension to show that it does have an open channel to people, that it can assume a leadship role to get community action, and that it can act rapidly. The April 15 deadline for filing applications for Project Head Start demanded speed.

Combined efforts of interested citizens, school superintendents, judges, welfare and public health workers, doctors, educators, ministers, Cooperative Extension agents, and Office of Economic Opportunity representatives resulted in applications from a substantial number of the 300 lowest-income counties.

Two Kentucky State staff members and one area resource development specialist in youth devoted most of their time to training agents in their 35 "critical counties." They met with agents and other community leaders, explained Project Head Start, and gave assistance where needed to complete applications.

All 21 States in which the 300 lowest income counties are located made comparable efforts to those in Kentucky.

The filing and approval for 1965 Head Start applications constitutes almost a pilot effort in terms of meeting the present and future needs of disadvantaged preschool children. No one presumes that the children enrolled this summer will enter school in September "even" with the more advantaged children. Followup with these children, parent education, health and welfare services and continuation of preschool training for children who will enter school in 1966 and later, will all be necessary to assure maximum return for the limited effort of 1965.

Many Extension county home economists have been, and will continue to be, a resource in planning and carrying out Head Start Child Development Centers' feeding programs. Working with home economics teachers, hospital dietitians, public health nutritionists, school lunch personnel and others, food needs of the young child must be translated into a feeding program designed to provide the maximum of nutritious food. This must be done within the time limits of the Head Start program and it must be possible with available facilities for preparation and storage.

will you give n

by HELEN TURNER, *Ass*
Division of Home Economics

Extension home economists can cooperate with Head Start Teachers, school officials, and other home economists in working with the parents of children currently enrolled in preschool classes. Reports indicate that many are already involved but such activities could include:

a head start?

Director

s

1. Teaching mothers to provide nutritious meals for the family. Such activity should be correlated with the feeding program in the Head Start center. This would help parents provide the one-half to two-thirds of the child's daily food needs not supplied by the center (and what a marvelous way to open the door to some of those families you have wished you could reach).

2. Clothing the child for school. In many communities clothing will be "collected" for these children. Extension home economists can teach mothers how to make the clothing wearable and how to continue to send the child to school clean and adequately clothed. (This may help some of the older children too.)

3. Helping parents understand how they can help the child learn to like school and want to stay.

4. Helping parents learn the importance of play activities to the development of children and what they can do to help.

5. Working with parents to help assure that children come to preschool and later to school from an orderly, clean environment.

6. Working with parents to help them develop a feeling of adequacy.

Kentucky home economics agents received special training in June from State specialists to enable them to make a full contribution to the parent education program there.

Home economics Extension club members and 4-H Club members can, along with other community volunteers, play an important role in helping disadvantaged children cope with school and the world about them. Some things can be done yet this summer. Head Start professional workers and sponsors will know what is needed most. Extension volunteers can:

1. *Help with enrollment by:*

a. Locating children who should be enrolled (this is especially needed in rural areas). Extension homemakers will know who the families are.

b. Personal visits with parents to help them want to enroll their children.

2. *Help at the Head Start Centers:*

a. Many children will need much individual attention—in some centers even a few minutes each day or once or twice a week can be helpful. 4-H Club members could also help children learn to play, conduct story hours, and otherwise be useful.

3. *Help with field trips:*

a. Provide transportation.

b. Serve as guides and helpers.

c. Make arrangements for field trips, thus freeing the teachers' time.

d. In some instances even providing the place for the trip. How about visits to farms? Even many rural nonfarm children may not have seen a dairy, fished from a farm pond, or had a picnic.

4. *Help with parent education:*

a. Personal visits with parents to encourage participation.

b. Providing help with younger children and infants so parents can participate.

c. Teaching mothers skills to help make a better life for the children.

5. *Help provide for centers and participating children:*

a. Some children will need suitable clothing for the summer program and later for entry in school. Collecting and repairing it could be an excellent activity for 4-H Clubs or homemakers' groups.

b. Some centers will need play and other equipment. Volunteers can help parents and Head Start personnel collect and adapt equipment for center use. In many communities makeshift facilities will need to be substited for school properties reverting to traditional school activities.

6. *Help give special attention:*

a. Homemakers or older 4-H club members might "adopt" a child or two needing special attention as regular school begins. Followup or special attention may be important for many children.

Society is literally engaged in a contest to eliminate poverty. It is a race against a creeping malignancy that threatens all of us.

Those engaged in the contest need every possible advantage. The county Extension workers may find that cooperation with others in Operation Head Start will give them that extra boost; for example:

. . . Families needing help become visible as their children are enrolled in preschool.

(Continued on page 6)

experimental program

Summer Project Assistants In Home Economics Pay Educational Dividends

by SARA M. STEELE, *Education Specialist and Assistant State Leader in Home Economics Wisconsin*

FOR THE PAST 2 summers the Wisconsin Extension Service has run an experimental program of Summer Project Assistants in home economics. College seniors—young women who had completed their junior year of a major in home economics—were employed to fill these posts. Four girls were employed in 1963 and six in 1964.

Their main responsibility has been to visit homemakers not presently engaged in Extension activities—mainly young homemakers and those in urban areas. During the visit, the project assistant learned about the homemaker's interests and told her about the Extension Service and its programs.

Over 70 percent of the 534 homemakers visited knew little or nothing about Extension. In many cases the homemaker was indifferent at the beginning of the interview but by the close was saying, "Now that I know about Extension, I'd like to take part." Home economics agents in the counties where the project assistants were stationed have reported that several of the women visited have contacted them for more information and become active in Extension programs.

The most popular item of interest with these homemakers were the samples of Extension bulletins shown by the project assistant. Over 90 percent of them wanted to receive newsletters and information on new bulletins. Half of the women visited were under 25 years of age and 85 percent lived in cities.

Interviewees were selected by random sample from birth records and city directories. During the visit, the project assistant followed a set interview pattern. She asked the homemaker about her knowledge of Extension, topics of interest to her, her sources of information, and the current homemaking practices she followed. The main subjects covered were family business, food purchasing, and laundry practices.

In addition to the interviews with new clientele, two of the project assistants interviewed about 100 4-H Club leaders and homemakers active in Extension programs. They explored their perception of their leadership role and problems they face in carrying out their teaching responsibilities.

The data from both sets of interviews give agents and specialists a better understanding of current homemaking and leadership activities and help them to design and redesign programs.

In addition to contributing to the knowledge of the homemakers they visited and that of the Extension staff, the project assistants learned a great deal themselves. They became further aware of the need for home economics in today's society, their interest and confidence in their ability to teach adults increased, and they became more interested in Extension as a possible career.

Each project assistant worked in at least two counties during the summer. She became a part of the staff and participated in and observed other Extension activities in addition to her own specific work assignment. She conducted two or three depth interviews and wrote feature stories about families who were long-time Extension participants—exploring how they became active and the value they saw in their experiences.

The experience most appreciated and valued by the project assistants was a growth in ease when talking and working with many kinds of homemakers—the kind of women they will be working with professionally in a year or so, regardless of what home economics career they choose. They reported that they developed their ability to carry out a job with a minimum of direction and to organize their own time. Several said they thought they better understood themselves.

Summer programs for college students carried out by the Wisconsin Extension Service have two main purposes: to get a job done and to recruit and screen potential applicants. The project assistantships were designed to offer summer employment to girls interested in Extension but who were not eligible for summer 4-H Club positions because they had little or no 4-H experience.

Preference was given to education majors with a good grade point average, personality, and maturity. They were given a week's special training before starting their assignments. The 10 girls came from three Wisconsin colleges and one other midwestern school.

Five of the 10 girls that have been employed as summer project assistants are still in school. Of the others: 1 married and is teaching high school economics, 1 is employed in the food service department of her alma mater, and 3 have accepted employment as Wisconsin home economics agents. Their summer experiences are helping them adjust more quickly to the adult education aspects of their jobs.

Six project assistants are employed for this summer and we are experimenting with still another kind of job responsibility for them. They are working in one county under the direction of the home economics agent and the district leader. They will be working with pilot programs in which they will take responsibility in contacting, planning, implementing, and evaluating summer program activities for a specific clientele group such as young homemakers, working women, or low-income families. □

Direct Mail and In-Depth Short Courses Keep Oklahoma Dairymen Up To Date

by CLIFFORD BURTON *and* CURTIS RICHARDSON
Extension Dairy Specialists, Oklahoma

Extension workers may need to evaluate their teaching methods as the unprecedented explosion of knowledge forces massive adjustments and changes in all segments of the Nation's economy.

A combination of two teaching methods—direct mail and individual instruction—has effectively upgraded management practices of professional dairy workers and dairymen in Oklahoma. Some teaching methods used were based on findings of a graduate study to determine the effectiveness of direct mail in teaching mastitis control measures to dairymen.

Since 1955, the dairy Extension program in Oklahoma has been planned and executed by individual county Extension dairy committees. Members of the committees included individuals who were interested and influential in all phases of dairying.

The dairy specialist met with each county dairy committee in September and October to help develop an annual educational program.

Prior to the 1961 evaluation of individual county dairy committee planning meetings, a typical county dairy program was an all-day meeting during the winter months, a spring or fall tour, and some kind of June Dairy Month activity.

Meetings were usually scheduled from 10 a.m. to 2 p.m. with two or more Extension specialists discussing topics assigned by the county planning committee. Though the meetings were considered beneficial, they reached only

those persons whose work schedules permitted them to attend—mainly older dairymen. Little time was allotted for the dairymen to discuss the information presented or to ask questions at a future meeting.

Four needs were revealed when county planning meetings were evaluated in 1961: More time for in-depth teaching, development of a program to meet younger dairymen's needs, a means of giving effective instruction to dairymen who didn't attend meetings, and scheduling of meetings at a time when more dairymen could attend.

Many Oklahoma dairymen do a large percentage of their own dairy work. They considered all-day meetings incompatible with their work schedules.

A survey of county dairy committees in the fall of 1962 found that most dairymen felt daytime meetings should be no longer than 2 hours and meetings, if held at night, should be no longer than 1½ hours.

The 1961 evaluation showed that the behavior of dairymen was influenced by county Extension agents, vocational agriculture instructors, fieldmen representing producers associations, handlers, equipment manufacturers and companies, and health sanitarians.

Many individuals employed in such key positions lacked the technical knowledge needed to advise dairymen. In most instances, these men were not working together and were unaware of what others were doing.

Following the evaluations, the Oklahoma State University Extension Dairy Specialists reorganized their educational efforts and developed a 3-year, revolving educational program of short courses.

Oklahoma Extension workers apply recent research and combine communications tools to update dairymen's knowledge

The first year's efforts were devoted to short courses for agents and professional workers. The second year, short courses designed for dairymen were held in the same areas. The third year, a review of two to three lessons was planned for both groups.

The first year a short course was held in the Tulsa Milk Shed in 1963, for all professional personnel—including county Extension agents, vocational education instructors, dairy fieldmen, sanitarians, and feed and equipment suppliers. In the 19-county area, about 100 professional workers participated.

The short course was organized in five 2-hour sessions and held in two locations to accommodate the participants. Topics covered were nutrition, herd management and health, and animal breeding and herd improvement.

Instruction at each session was presented by the best talent available and one subject-matter area was covered in depth at each meeting. The county Extension agent in the meeting location was host for the group. A dairy specialist opened each lesson with a brief summary of the subject matter presented at the previous meeting and answered questions which had arisen since that session.

Visual aids played a large part in the dairy specialists' presentations. A 2-week-old calf stomach and a mounted mature ruminant stomach were used in the discussion on ruminant digestion. Slides, demonstrations, on-farm observations, samples, mock-ups, and transparancies were all used to present subject matter.

As a guide for planning the second phase of the program two pilot short courses were held during the first year in other milk shed areas with dairymen—one in the western part of Oklahoma, served by the North Texas Producers Association and one in the Oklahoma City area.

The pilot courses were held to determine three things; How dairymen would respond to information presented in depth, how well dairymen would attend regularly scheduled meetings, and what changes in behavior would result.

To prepare for the second year's program, planning meetings were held during the spring and summer of 1964 by county Extension agents with county dairy advisory committees and an Extension dairy specialist. Short courses were planned according to the county needs.

As in many States, dairy communities in Oklahoma are located in areas not enclosed by county lines. Meeting places for the 19 county area in northeast Oklahoma were chosen for accessibility and convenience of the greatest number of dairymen. Seven short courses were scheduled in that area. All short courses were scheduled on a weekly basis, over a 5-day span. This allowed for greater economy in instructor time and travel. County Extension agents and other professional workers were responsible for enlisting the attendance of dairymen in a particular area.

The Extension dairy specialists prepared a series of seven letters. They were terse, attractive, and illustrated.

The specialists supplied the agents with enough letters for dairymen in each county and told how to use direct mail to announce and publicize meetings. The county Extension agents sent each dairyman three letters before the first meeting, and a letter each week announcing the following week's lesson. An enrollment card was mailed 2 weeks before the short courses began.

Agents used the letters the specialists had prepared. Some agents also made personal contacts or telephoned the dairymen. One agent, for example, called about 50 dairymen before each meeting.

The local county committee determined the time of day for holding the meetings. The time from 10 a.m. to 12 noon was most popular. In areas where county committees felt too many dairymen were involved in daytime jobs, meetings were held from 7:30 to 9:30 p.m.

In each short course, the local county Extension agent taught the third lesson. This lesson was based on suggestions from the group that attended the first two meetings. Many agents used the lesson time to review and discuss questions raised from the first two sessions. Dairymen seemed to respect the county Extension agent's ability more after participating in the session he had taught.

Dairymen of all ages attended the short courses, but the majority of students were young or beginning dairymen. Some wives also attended. One 70-year-old dairyman expressed the sentiment of many, "If you're going to do better, you have to know more." Over 90 percent of those enrolling attended all five meetings.

Attendance was good and consistent. A 10-inch snow—very unusual in Oklahoma—cancelled the fifth meeting in one of the locations. When the meeting was rescheduled a month later, 85 percent of those enrolled attended.

In the northeast district of Oklahoma total attendance at six short courses was approximately 150 persons per week. The enrollment in that district, counting those who had attended one or more meetings, was about 175.

In the third year phase of the program, dairy specialists plan to follow the short courses of five meetings with two meetings in 1965. These meetings are designed as refresher or bring-up-to-date meetings—the same as is planned for dairymen in the Tulsa Milk Shed Area for 1965. Subjects to be covered will be based on information and experience from the pilot course the previous year.

In a pilot refresher course for dairymen in western Oklahoma in 1964, three meetings were planned. Dairymen at the conclusion of the three meetings requested two additional meetings on topics that had not been covered in detail at any of the previous meetings.

During the winter and spring months, the Extension dairy specialists and county Extension agents visited as many young dairymen as possible. "If we prove to them we're really interested in them, we can depend on their continued interest," one agent commented.

In evaluating the short courses which were completed in the northeast district of Oklahoma, specialists found that a larger percentage of the students were young dairymen and their wives, compared with older dairymen who attended meetings of past years.

The county Extension agents now express confidence in working with modern dairy problems. They feel that educational dairy programs planned for future years will be more effective than ever before.

Professional workers are planning and working together more and more. They have initiated supervision programs of their own. The most encouraging thing is that they are in the main giving the same story to the dairymen.

Both dairymen and professional workers indicated that subjects were covered more thoroughly and in greater depth than ever before. Those participating favored a short course series with each lesson confined to a single subject.

To reinforce knowledge of dairymen—both those who attended a short course and others—the Extension dairy specialists use a rifle approach of communications. They prepare and mail a monthly newsletter—Dairy News—to county Extension agents. The agents mail the Dairy News to 4,200 dairymen and others interested.

Recent issues of the Dairy News included such articles as keeping bulk tanks clean for low bacteria count milk, what about feeding hydroponic forages, individual stalls for dairy cattle in loose-housing systems, and do you know your best feed buys.

Success of the short courses was due largely to area planning which district supervisors arranged with Extension dairy specialists and county Extension workers.

To improve future short courses the Extension dairy specialists suggest the following: Survey the area to find out additional local problems for incorporation in the lessons; arrange presentations in a way that will encourage more discussion; and have instructors search for ways that will heighten the interest in these courses and thereby increase the attendance. □

Extension dairy specialist teaches ruminant digestion.

There is much interest as each member helps make the cake and pour the batter into the pan. For many 9-year-olds, especially boys, knowing that they can successfully break an egg gives them real satisfaction.

4-H Explorers

A pilot orientation project to meet the needs of first year 4-H Club members

by ROBERT A. STODOLA
County 4–H Agent
West Bend, Wisconsin

IN THE 4-H program we have always been concerned about the beginning 4-H member. How can we make him feel a part of the 4-H program? Now, with the age for joining lowered to nine, there is even more need to consider the characteristics and needs of the young beginning 4-H'er.

A 9- or 10-year-old has a short interest span, both in terms of the length of time he will listen at one time and in the number of weeks or months he wants to work with a certain activity. He has many changing interests. He is not particularly concerned about competition but wants to do things because they are fun and he can learn a skill. He has a need for a feeling of accomplishment. He is confused by too many decisions; prefers adults to make them for him, and gladly accepts instructions.

Yet some of our traditional 4-H projects seem to do just the opposite of what the member needs. First, when a youngster wants to join we confuse him by handing him an enrollment card and ask him to chose one out of a dozen or more projects. Then he must work with that project and keep an interest in it for almost a year. We emphasize the competition of having him strive to make something to exhibit, and perhaps he gets no recognition or sense of accomplishment until the end of the year.

To better meet some of these needs, the 4-H Explorers project was developed and tried in Washington County. It is intended only for first year 9- and 10-year-old members. The objectives are:

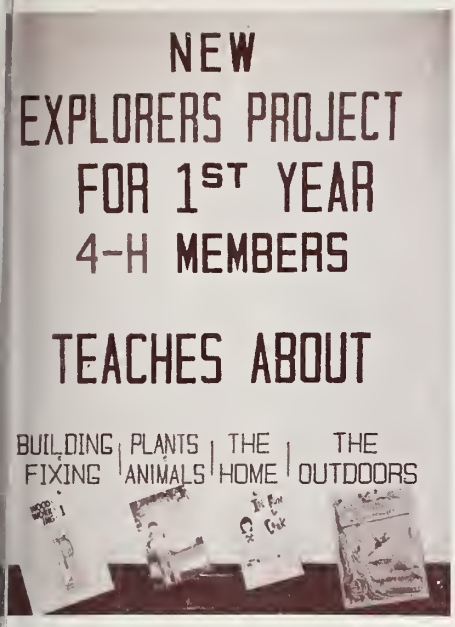
1. To meet the needs of the short interest span.
2. To acquaint beginning members with the various project areas of 4-H.
3. To satisfy the curiosity of young members by giving them an opportunity to explore many areas of interest.
4. To give members good basic knowledge and understanding of many areas.
5. To help beginning members find their interests by doing and making things in many areas.
6. To help them select a 4-H project at the start of their second year in 4-H.
7. To give members a feeling of accomplishment and satisfaction.

James Everts, Assistant State 4-H Leader, initiated and coordinated the development of the project. There are four separate parts or units—1. exploring by building and fixing, 2. exploring plants and animals, 3. exploring around the home, and 4. exploring the out-of-doors.

Specialists were asked to write each unit, keeping in mind the needs of the 9- and 10-year-old, and to develop a unit that would be completed in one to three meetings with work also done by the member at home. Each unit was written by an Extension staff member in the appropriate field.

The building and fixing unit includes use of the hammer and coping saw. Making a jigsaw puzzle proved interesting and doing experiments with magnetism and electricity completed the unit. The unit on plants and animals had experiments on seed germination and plant growth under different conditions. It also included study of the value of animals and their living habits. Exploring around the home included discussions on what members should know and do around the home, and they had a chance to try some baking and simple sewing. The outdoors unit was aimed to give and appreciation of the beauty of nature and basic background on flowers, birds, and insects.

Since the units were completely independent of each other, they could be given in any order. A unit could be completed in one meeting, or if the members were very interested it could be continued for two or three. When



one unit was completed it was set aside, the information on the next unit was given to them and they were in a completely new area of interest.

The project was evaluated throughout the year to determine if it were suited to the age group for which it was intended and to see if the objectives were being met. The members were given a short quiz to find out if they understood the principles that were discussed. Although no tests were made before the start of the project, the response at the end of the year indicated that the members understood what had been taught.

When questioned about the parts they liked or didn't like, there were many varied responses. Girls as well as boys enjoyed working with wood-working tools and magnetism. Boys like the baking part as much as the girls. One boy went home right after the project meeting on baking cookies and within two hours brought back to his leader a sample of cookies he made. He seemed to glow with a feeling of accomplishment and satisfaction.

Parents were questioned about whether the project created an awareness or interest in things the member wasn't aware of before. Answers such as "on our trip she noticed trees more and tried to identify them" and "she notices the shapes of leaves," give an indication that new interests and awareness were created.

Perhaps additional units could be developed to give leaders even more variety and more areas to explore with their beginning members.

The leaders that piloted the project this first year feel that it really meets the needs of the first year 9- and 10-year-old members. Next year they recommend it for all of the beginners of that age. □

Above, studying germination of seeds is a good introduction to the knowledge of plants. Below, a 4-H boy learns to use a coping saw by making a jigsaw puzzle.

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From The Administrator's Desk

On Helping Youth—Just an Idea

We all want to do things for youth. This is a National trait of the American people—perhaps of adult mankind. We want to do things for our youth so that they can live better in a better world.

A recent experience made me think that maybe the best way for us to help our youth is to provide them an opportunity to help us—us, the adults of the family; us, the community; us, the American people.

The experience was a ceremony in the Department of Agriculture in which Miss Luci Johnson was named honorary chairman of a National program of Youth for Natural Beauty. Miss Johnson said she didn't want this to be just an honorary designation, but she wanted to be active in the cause. Representatives of 4-H clubs stepped forward and said "we accept responsibility to work for the beautification of our community." They spoke as responsible young adults.

It seemed to me that the youth of today need a cause —an important, significant purpose on which to dedicate their lives, their energies, their ambitions. Once the cause is identified, they gladly accept responsibility. We the adults may serve youth by helping them to find the cause, and giving them credit and recognition as they succeed. The many causes with which we as American citizens are concerned need the idealism of youth, their lack of inhibitions, their energy, and their pride in accomplishment. The lessons they learn through action, the experience they gain, and their acceptance of responsibility will help to make them adults and build the adult leadership for tomorrow.

The irresponsible acts of some youth make headlines. The responsible acts go unnoticed. We can help youth to help us by freely giving them adult responsibilities and giving notice to their acts of responsibility.

Perhaps we can do the most good for youth by helping youth do the most for us. If this is true, then I would ask what is the significance of this in our 4-H program. The newly established awards for community service and community improvement are among our more significant awards.—*Lloyd H. Davis*

EXTENSION SERVICE

REVIEW

U S DEPARTMENT OF AGRICULTURE ✳ AUGUST 1965

4-H OPENS DOORS TO OPPORTUNITY

VOL. 36 • NO. 8 • AUGUST 1965

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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REVIEW

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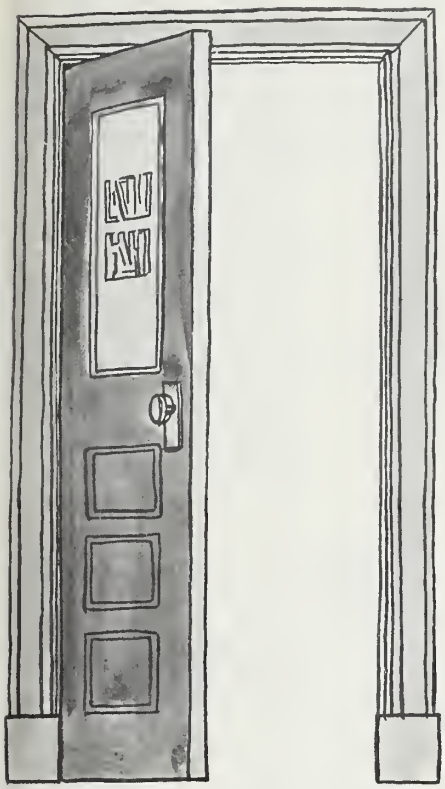
ON THE COVER

Luci Baines Johnson, the President's younger daughter, meets with a group of 4-H'ers during the launching of a "National Youth Program for Natural Beauty" at the U.S. Department of Agriculture early in June. Miss Johnson is honorary chairman of the new program. The event was a part of Secretary Freeman's response to the May 24-25 White House Conference on Natural Beauty called by President Johnson to "produce new ideas and approaches for enhancing the beauty of America."

Representatives of 4-H, the Boy Scouts, Girl Scouts, Campfire Girls, and other youth organizations pledged their support of the youth for natural beauty program at the June event. At that same time the Sears-Roebuck Foundation was announced as the new donor of the annual National 4-H Community Beautification awards program. The Foundation will work through the National 4-H Service Committee in supporting 4-H programs to help preserve and promote community beauty. The Reader's Digest Foundation through The National 4-H Foundation is making available this year an annual Citizenship-in-Action grant to supplement funds for various community service projects, including beautification in selected States.



OPPORTUNITIES UNLIMITED

- The ranks of U.S. teenagers are swelling at the rate of over 800,000 each year.
- Last year 3,700,000 youth celebrated their 17th birthday. This was 37 percent more than in 1963.
- By the end of 1964 there were 23 million U.S. teenagers and 20 percent more preteens.
- This is the greatest potential 4-H has ever faced. Youth today is seeking greater opportunities. There are many doors to opportunity through 4-H. Career exploration, personal development, citizenship training, and learning experiences in science, technology, management, homemaking, conservation, and community action.

by MYLO S. DOWNEY, *Director*
Division of 4-H and Youth Development, FES

TODAY'S OPPORTUNITIES for an expanded 4-H program are greater than ever before: there are more young people. We are witnessing a great social concern for youth and Extension has more know-how to work with young people from all economic strata and from all types of homes—both rural and urban.

We are in the midst of the greatest teenage population boom of all time. Never before has there been the opportunity to conduct 4-H and other meaningful Extension programs with so many young people. This great population explosion is the result of the increased number of marriages and births during and immediately after World War II.

Younger youth, 9 to 11—those of the early 4-H age—increased about 20 percent from 1960 to 1965 but are expected to level off until 1975, when another increase of 25 percent is projected from 1975 to 1985. These will be the children of the greatly increased number of young people growing up now in the early 60's. Every upward wave of births, such as occurred in the early 1920's and in the 1940's, produces a subsequent upward wave of marriages and births 20 to 25 years hence. These cycles in population expansion have concurrently influenced the increases in 4-H membership. We are approaching another period when there should be an expanded enrollment in 4-H based entirely on population statistics.

A much more phenomenal growth in population is occurring in what we refer to as the middle and upper teenage group. The Population Reference Bureau calls 1964 "the year that America's Post World War II baby came home to roost." About 3,700,000 youngsters celebrated their 17th birthday, a 37 percent increase in just one year. The ranks of U.S. teenagers are now swelling by over 800,000 a year and had reached 23 million by the end of 1964.

In addition to the increased number of young people, there are rapid changes in the demography of our youth population. There is an accelerating decline in the youth population of Central City and an expanding number of urban people will be living in less crowded conditions. The great majority of people living in metropolitan areas reside in the newly-annexed parts of the city or the suburban towns outside the city limits. Rural sections contiguous to metropolitan areas are growing in population while more isolated rural counties are experiencing a strong

out-migration. The numbers of children in certain rural areas are declining more rapidly than the total population because it is usually the families of child-bearing age who are moving to the population centers.

We find some of our highest rural population loss in the interior coastal plains of the lower South—Georgia through Texas. This is also true of contiguous areas of the Great Plains.

At the other extreme are areas of sizable rural increase, which often grew from net migration as well as natural increase. This includes Florida, California, the industrial centers of the lower Great Lakes, and the Atlantic Seaboard.

The changing rural population is about to fall to around 25 percent of the United States total for the first time.

With all of this expanding and shifting youth clientele, we find that they are experiencing new and difficult problems.

Through 4-H, Extension can open doors of opportunity to help youth make adjustments to today's living and to prepare them for their future in greatly changed situations.

One major concern is the opportunity for employment. Jobs for the teenager are becoming much harder to get, simply because there are so many more teenagers in the labor market and too many lack marketable employment skills.

A recent opinion survey of the American people listed "Improving Public Education" as the major National problem they would like to see the Government devote most of its attention to in the next year or two.

4-H Club work is a highly accredited, informal educational program for youth.

There seems to be an unpublished mandate—

1. To extend 4-H opportunities to a greatly increased number of boys and girls.

2. To recognize that although there are fewer boys and girls living on farms, there are greatly increased numbers living in rural and suburban America.

3. To modify the program and expand its flexibility to serve the needs of this great populace that will be more and more included in Extension's major clientele of the future.

4. To provide appealing and meaningful education experiences that will help our most underprivileged boys and girls develop new and desirable knowledge skills, and attitudes.

5. To develop programs and activities that are specifically designed for the middle and late teenagers—the largest segment of our youth population of 1965. □

THE WHITE HOUSE

WASHINGTON

April 10, 1965

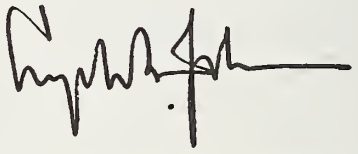
TO 4-H CLUB MEMBERS:

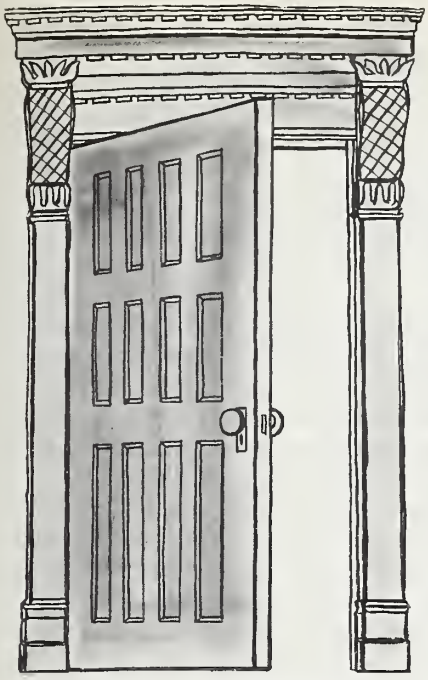
It is a pleasure to greet you, 2-1/4 million strong, as you look toward National 4-H Club Week. I commend you for your many accomplishments as you strive individually and together to gain new knowledge, skills, and attitudes in your head-heart-hands-health endeavors.

Your aims are directly in line with our Nation's goals to achieve fuller and better living for all. You will surely benefit, as will others, from your efforts to explore career opportunities and seek needed education, to practice healthful living, to use constructively your leisure time, and to strengthen your personal standards and citizenship ideals.

This reflects the ever-widening scope of your program and the increased participation by 4-H young people of all races, creeds, and economic conditions in the building of tomorrow's homes and communities.

May you continue to move forward and help other youth advance in this challenging age of change, growth, and progress.





Education With Fascination

by ALBERT F. GEHRES
Assistant Extension Director and State 4-H Leader, Ohio

WHAT comes to your mind when you think of education for young people? Do you immediately think of boys and girls practicing new skills, gaining greater knowledge and developing improved attitudes? Or, is it more likely that you visualize classrooms and teachers?

All of us agree that 4-H Club work is educational because it helps boys and girls to improve skills, knowledge, and attitudes. But, are classrooms and teachers also an important part of 4-H learning? Let's take a look!

A 4-H Club member and his dad are in a bank discussing with the banker a loan to buy a 4-H animal. A 4-H girl and her mother are planning an outdoor meal and have stopped at the meat counter of a supermarket to discuss with the butcher prices and nutritive values of a particular cut of meat.

Where are the 4-H classrooms? Who are the 4-H teachers? Do the bank and the supermarket become classrooms? Do the boy's dad, and the banker, the girl's mother, and the butcher, become teachers?

Where was the classroom and who were the teachers when 4-H members from Jefferson County visited the local hospital and had a physical examination? Where was the classroom and who were the teachers when the Franklin County 4-H Club Congress delegates met with their Congressman to discuss their trip to Ohio 4-H Club Congress and their session in the Ohio General Assembly?

A series of tornadoes left a terrifying swath of destruction in Lorain County on Palm Sunday. On the following Saturday over 800 4-H boys and girls and advisors responded to a call for help from the County Extension Office. They organized the cleanup work along a 9-mile stretch where the storm had done severe damage. Nearly 100 youths were assigned to each mile area. The youngsters lined up across the fields and walked slowly, picking up debris as they went along and placing it in piles. Farmers supplied wagons to haul the debris away. Will those youths ever forget this kind of a learning experience, even 50 years from now?

If you have ever been in 4-H, think back to your 4-H experiences. How many different real-life classrooms did you have? How many real-life teachers helped you in 4-H? Dr. Jerome Folkman, Rabbi of Temple Israel in Columbus, says that one of the most pressing needs of today's youth is to participate in adult-like experiences. His observation is that 4-H Club work provides a better opportunity for these experiences than any other youth organization.

From these examples, we can see that the scope of 4-H classrooms or the methods used by a 4-H teacher are limited only by the imagination of the 4-H Club members, their parents, and the advisors.

Work in 4-H can be education with fascination. Dr. Grant Venn says, we seem to think you can learn only if you sit in a seat for 6 periods a day.

Educational efforts of 4-H are flexible. For years clubs have been encouraged to have two or more leaders, sometimes as many as five, who assist each other in a procedure not unlike "team teaching." By developing project books with information and suggested things to do with their projects, as they progress, we see the concept of "programmed learning" coming into focus.

Allowing youth to take projects that challenge them according to their abilities, not according to their age, is a recognized process of good education. Basing all this learning on the developmental tasks of boys and girls makes the work interesting for the age group. Leaders in 4-H enjoy being "teachers" much more after they become aware of these tasks and their application through 4-H Club work.

Occasionally we hear persons say that the schools, the homes, the churches, or other groups are doing the job. Dr. Ralph Tyler, who is well respected for his concern for applied education, says ". . . the total educational task involved in inducting youth into responsible adulthood is far too great for any one of our social institutions to undertake effectively. Only by the fullest utilization of the potential educational efforts of home, church, school, recreational agencies, youth-serving organizations, the library, the press, motion pictures, radio, television, and other formal and informal activities can this Nation meet its educational needs."

County and Area Extension agents are constantly trying to make these lifelike classrooms as effective and helpful as possible. These agents conduct many training meetings, plan tours, write letters, carry on discussions, make phone calls, and present radio and TV shows—all to help make 4-H classrooms and 4-H teaching so real that growing up is fun. □

Montana's Dual Approach to Citizenship

Young Citizens Conference

by RUTH K. PIERSON
Extension Home Demonstration Agent
Billings, Montana

"AS CITIZENS we should be thinking, feeling, and doing something about our place in our school, club, community, and country today. Citizenship is not passive. Let's all get together for a conference to learn, discuss, and search for ways to be better citizens." This, written by a 4-H'er, was the opening statement of an invitation to the 1963 Yellowstone County Young Citizens Conference.

The junior leaders wanted this conference. Sixty boys and girls were involved in planning and conducting it with help from the Montana 4-H Club Office, Extension agents from two counties, and six youth who had attended a citizenship short course in Washington, D. C. The young people liked it. It was theirs. The discussions were meaningful. It was a Saturday well spent for all participants and those involved in the weeks of planning benefited even more.

"Let's have another conference next year with other youth groups in our own county." Five enthusiastic junior leaders worked with the Extension agents and sold the idea to the directors and representatives of six youth groups. Planning meetings were arranged through the Extension Office. The young people chose "What is Education? How Much is Enough?" as a topic for their 1964 conference. Committees of young people from six local youth organizations with adult help from four groups worked out the details.

Songs for the conference are selected by these young people who represent 3 different youth organizations.

One adult met with each committee but the ideas, objectives, plans, and methods of the conference were worked out and decided by the youth.

At the 1½-day conference, one adult was interviewed by a young person, another adult participated on a panel summary, and in separate career sessions eight local representatives discussed jobs and training needed.

The rest of the program was handled by the youth: instructions, keynotes, inspirational talks, recreation, entertainment, reports, and the summary.

This was the first time these junior leaders had worked with other youth groups and with young people of another race. They discovered they all have similar interests, needs, desires, and values but that it takes time and effort to develop understanding.

One of the main strengths of 4-H is that there are opportunities for young people to decide what they want to learn. They can be involved all the way by setting objectives, planning, conducting, and evaluating a learning experience. We must gear ourselves to give guidance and direction. It takes longer, we must listen more carefully.

Young people appreciate discussions where *they* can express ideas, be creative, and learn to work with others to develop their self confidence, personal goals, and self direction. □

Junior Leadership Camp

by ROBERT G. RACICOT
County Extension Agent
Big Timber, Montana

"DIMENSIONS OF DEMOCRACY" was the theme of Montana's Fifth-Annual 4-H Junior Leadership Camp. The location was a mountainous area north of Red Lodge.

Here 100 4-H members ages 14 to 21 and representing some 19 counties in south central and eastern Montana were embarking on a new and challenging experience which was to last for one week. The camp staff was

comprised of 24 county agents, Extension specialists, parents, 4-H leaders, and junior staff members. There were three guests; and IFYE from Japan, one from Australia, and an ICYE from Germany.

This all started many years before when in 1955-1957 a National 4-H Citizens Improvement study was conducted. It was sponsored by the Extension Committee on Organization and Policy (ECOP) and carried out by the National 4-H Club Foundation.

During 1958 and 1959 several adjoining counties in south central Montana became quite interested in the results of this study. These counties decided that ideas it generated might be put to use through a "new type" of Junior Leadership Camp at Red Lodge.

In 1960 the first camp in the "experimental" approach was held at Red Lodge. Extension agents found it was well worth the time and energy involved. It has answered the needs of the 4-H member between the ages of 14 and 21 in developing leadership potential.

The overall aim of the 1964 camp was *to better understand myself and others and to work with other campers and adults more effectively and responsibly in developing a democratic situation.* The experimental part came into play in the teaching program to accomplish this purpose. It was to give each camper a real responsibility for developing and carrying out the camp program with structure and guidance from empathetic, supportive adults.

This was done through nine camper-involvement committees which planned the day-to-day activities. These included committees for morning programs, mealtime activities, optional recreation, ceremonies, the camp notebook, evening programs, evaluation, camp living, and adult cabin counselors.

Junior leaders at their camp in Red Lodge work together solving puzzles as part of their recreation program.

Striving for involvement of all Junior Leaders attending the 4-H Camp, the program provides numerous opportunities for young people to assume leadership roles.

There were also five workshops at which skills were taught such as emcee ability, recreation and family fun, discussion techniques, folk singing, and the building of international friendships. Throughout the week these skills and ideas were used at various activities within the camp. Each workshop and committee, in addition to their work job requirement, had specific goals which tied back directly to the overall purpose of the camp.

One outgrowth of this camp was the Young Citizens Conference held in Billings, Montana. Other benefits have been a truer self-understanding by campers and staff; an appreciation for the other person; a better understanding between youth and adults; a definite trend towards more interest in international understanding; the development of leadership qualities for use at county clubs and camps; and the feeling that planning is so important in order to meet the total potential of such a camp.

In the planning of this camp both State and Federal Extension specialists have been used as resource people. In 1965, not only Extension agents but, also parents, leaders, junior staff, and 4-H'ers at the county level have had some responsibility in planning for Red Lodge Junior Leadership Camp.

This new type of camp has grown considerably in its 5 years of existence. Incorporating new ideas and teaching techniques has kept it interesting, challenging, and dynamic for the staff. For the 4-H Junior Leader it is usually the highlight of their 4-H year, as they tell it.

A new camp of this same general type will be started this year at Ekalaka, Montana. It will be spearheaded by some of the junior staff and Extension agents who have been to Red Lodge. Working closely with their resource people in the counties of eastern Montana, they hope to develop a similar experience for the young people of that area of the State. □

This leader is using a soil profile pit to teach the boys about soil types and capabilities. The camp has four pits, each illustrating a different type of soil.

The Program is Made For Learning
—at camp in 800-acre forest

by TOM McCORMICK
Assistant Extension Editor, Vermont

ANYONE who thinks the younger generation is going soft should visit the 4-H Forestry and Conservation Camp in Vermont. And folks who want to see across-the-board cooperation by public and private agencies should make the same trip.

At rugged Camp Downer in late August, they'd find scores of boys from age 12 on up learning the ABC's of the woodlands. These youth not only watch and hear experts but they also pitch right in and help.

The faculty is drawn from the Cooperative Extension Service, the Soil Conservation Service, the State Forest Service, and the State Fish and Game Service. The Associated Industries of Vermont helps underwrite the costs, supplementing the modest registration fee. The Camp Downer Corporation, which operates the 4-H Camp during the earlier months of the summer, supplies the camp and administrative personnel.

This pooling of talents has been working for years, since 1947, in fact. As such, it could supply abundant material for an article on public and private teamwork to help Vermont youths. But the cooperators are insistent that the real story is the young people themselves and their growing efforts to harness nature.

Downer State Forest, with its 830 acres, is in Windsor County on the eastern border of Vermont. It was given to the State in 1910 by Charles Downer, a prominent citizen of nearby Sharon. Almost from that date, the gift has been used for educational purposes.

For a time, agriculture and forestry were taught in the manor house that accompanied the grant. A CCC camp was in operation during the depression years.

In 1945, 4-H leaders from five counties started a summer camp which has become a mainstay of the 4-H camp program in Vermont. And it was just 2 years later that the Extension forester and the assistant State forester, working with the State 4-H leader, established a forestry camp.

They wanted a camp that would build on the instruction received in 4-H Clubs. Downer Forest, originally established as a demonstration forest, offered the perfect place to observe and practice modern techniques.

After about 3 years, the program was expanded to include soil conservation and wildlife management. One other change was made. Instruction was put on a three-level basis. This made it possible to gear instruction to the knowledge of the youth. More than that, it made the education open ended so that the youth could keep coming back and keep growing.

How to measure the results?

Some day an educational genius will be able to correlate progress with academic input. But not today. However, it's no coincidence that two students have won National forestry scholarships.

Several other youths from the camp also earned Statewide recognition a few years ago when they pitched in to help stop a forest fire. Because of their training, they were able to follow orders and use tools without time-consuming instruction. The fire warden later singled

them out for special praise.

This carryover from camp to community, although seldom so spectacular, has been typical of the effort, according to State 4-H Leader John D. Merchant.

"This is one activity where the knowledge really seems to stick with them," he commented. "Without going into too much theory, I suppose we could say it's the classic Extension formula of demonstration, instruction, and individual effort. After young people have worked hard to learn something, they seem particularly anxious to use the knowledge when they return home. And of course this repetition reinforces the learning process."

The program itself is made for learning. With nearly 20 years experience behind the curriculum, camp leaders have an excellent idea of what can be absorbed and what will capture interest.

In the first year, the *Pathfinders* are instructed in tree identification, planting, weeding and thinning of young timber stands, pruning, and the poisoning of trees that cannot be removed in any other way.

After a review, the second year *Guides* are briefed on the differences between trees and are instructed in cruising to learn how to measure trees and determine their value. They also learn to judge pruning done by someone else and they perform planting and thinning chores.

Instruction in wildlife management work includes study of the fish in the nearby pond, improvement of the stream leading out of the pond, and the elements of the deer herd management.

They also are shown how diversion ditches and other soil conservation measures are developed, get basic instruction in land judging, and are briefed on the Soil Conservation Service programs.

The summertime seniors, the *Rangers,* work on special projects such as camp improvement, visit nearby farms, and explore career opportunities with their instructors.

Recreation is a key part of the camp. In addition to chopping and sawing contests the youth enjoy baseball, volleyball, and horseshoes. In the evening, they see films on forestry, soil conservation, and wildlife management topics.

And it's a man's world, open only to boys. Evaluation forms occasionally list this womanless world as one of the attractions of the camp. (An evaluation we won't attempt to appraise here.)

A less-controversial response has been the report that the camp is lively. The youth say that they enjoy the feeling of working and learning, that they even get more out of it than regular 4-H camps.

Some have reported that the 3-day sessions are short enough to banish any parental objections. And more than a few have said they enjoy the close contact with adult experts on outdoor life.

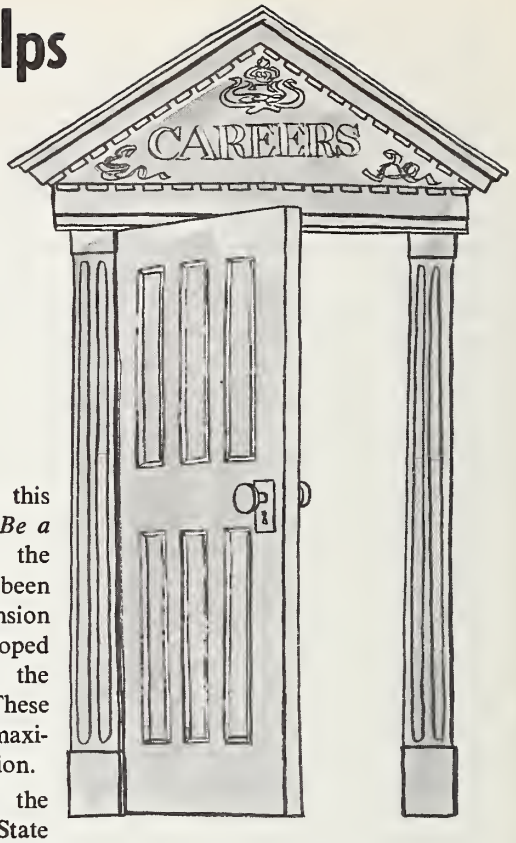
Possibly this last reason is the most important of all, Merchant feels. The opportunity for partnership with an adult performing his regular occupation is one that comes infrequently to young people.

But it's not one-sided.

A number of faculty members have reported that a couple of summer days in a Vermont forest with interested youngsters recharges the batteries like nothing else can. As in all 4-H programs, it's still an open question as to whether the youngsters or the adults are helped the most.

But all agree it's a happy arrangement. □

Career Exploration Program Helps 4-H'ers Prepare for the Future



by JOHNNIE SARTOR
Associate Extension Economist, Mississippi

MISSISSIPPI is primarily an agricultural State with a large proportion of boys and girls living in rural areas. With the trend toward mechanization and fewer farms, our primary concern is to train youth for employment off the farm.

The 4-H Career Exploration Program, designed especially for high school juniors and seniors, is attempting to increase the number who will be seeking employment with the proper training and qualifications for the jobs available. A handbook, presented in three steps or phases, is given to each 4-H Club member who participates in the Career Exploration Program. In Step One the members look at themselves and explore their interest and abilities. In Step Two they look at the different careers available. Step Three helps them to compare their interests and abilities with the opportunities offered in the several careers they explored and decide which career to pursue.

Career Exploration handbooks are also provided for adult leaders and Extension agents.

Boys and girls are encouraged to stay in school and prepare for competition in the better jobs. This is done through news articles, newsletters, radio, television, and meetings —4-H Clubs, Junior Council, District and State 4-H Club assemblies, civic clubs, community clubs, and P-TAs.

Publications and leaflets from the USDA, State agencies, and the local government have been helpful in this program. A slide series, *"Don't Be a School Dropout,"* developed by the Georgia Extension Service has been used by many of our Extension agents. Slides and script developed from "Manpower, Challenge of the 1960's" have been very helpful. These slides point out the need for maximum education and career selection.

Two films, "More Power for the Job" developed by Montana State University and "Careers in Horticulture" produced by Mississippi State University are two other outstanding visuals being used.

Here are some of our county workers' experiences in this 4-H activity:

Mrs. Jean Allen Young, Extension Home Economist, Oxford, showed the school dropout slides to her 4-H members. During the recreation period the members dramatized the program by having a "paymaster" pay the weekly wages to boys and girls for various educational levels as shown in the slides. This was followed by a "bill collector" who emphasized the lack of finances of people with low education and income.

Jimmy C. McLain, Assistant County Agent, Senatobia, counsels with senior 4-H Club members and encourages them to continue their education. He helps them select a major area for study, choose their school, and plan their program.

McLain used the school dropout slides in a 4-H Club meeting during the spring of 1965. He checked to see if members were interested in this type of program and if it had any influence on them. He found that four members would not graduate with their class and this program had caused them to take more interest in their studies. All four are now planning to go to summer school or attend another year of high school and graduate.

J. C. Oatis, Associate County Agent, Hattiesburg, has used lectures, news articles, and special programs and is making an effort to reach 4-H members, parents, and adult leaders with the Career Exploration Program. Main emphasis has been to point out the opportunities and values of education.

Mrs. Sadye H. Wier, Associate Home Economist, Columbus, presented the Career Exploration Program to the Adult Leaders Council which is composed of teacher sponsors. The Council is working with Mrs. Wier in organizing a Career Exploration Club

of junior and senior high students.

The 4-H Club at Prentiss, according to Mrs. Bonita S. Bridges, Associate Home Economist, chose Career Exploration as its major study for the year. The first program was a panel discussion by the girls, *Why I Should Be Thinking of a Career.* A survey was made to determine areas of interest and throughout the year speakers presented the information the students wanted.

Guest speakers and topics of discussion were: (1) Employment Security Commission representative—*Advantages of a High School and College Education,* (2) representative from local welfare department—*Social Service Career for You in Public Welfare,* and (3) local business woman—*Advantages and Disadvantages of Self-Employment.* Each member agreed to have five interviews with persons engaged in a career in which she is interested.

The Booneville 4-H Junior Council invited a teacher, a minister, and a banker to participate in a panel discussion. Miss Mary Evelyn Edwards, Assistant Home Economist, said they discussed questions on college, rewards of various occupations, and salaries.

Another interesting approach to career exploration comes from J. H. Price, Associate County Agent, Canton. Price contacted the principal of the school and asked him to urge all junior and senior boys not enrolled in 4-H to attend a 4-H program on careers presented by Price and 4-H junior leaders. Fifty-one boys attended and discussed: *How To Get and Hold the Right Job, Look at Yourself, Look at Careers, Make a Decision,* and *The Co-op Program at Mississippi State University.*

A great deal of interest was indicated by the questions raised and requests for more information.

Mrs. Annie B. Jennings, Assistant Home Economist, Ripley, reports that school dropouts are of concern to all people of that area. Ten junior and senior 4-H Clubs chose school dropouts as a topic for discussion; four clubs invited the school guidance counselor to speak and several clubs invited professional and business people to present programs. Radio programs and news articles were presented on *Choosing A Career* and *Stopping School Dropouts.*

Charles R. Fletcher, Associate County Agent, and Mrs. Graftie M. Randle, Associate Home Economist, Hernando, work with local teachers in presenting talks and plays emphasizing jobs waiting to be filled by youth with educations, together with the disadvantages of dropping out of school.

The highlight of the career program in Corinth, according to Mrs. Ophelia S. Warren, Associate Home Economist, was a countywide meeting of 4-H members and students from the seventh grade through high school. The principal address was by a bank president—*The Changing Outlook for Future Careers.* The county superintendent of education discussed the value of an education; professional people discussed careers in science, industrial arts, home economics, business, teaching, music, social science, religion, and library science. An exhibit of bulletins and leaflets on careers added interest to the program.

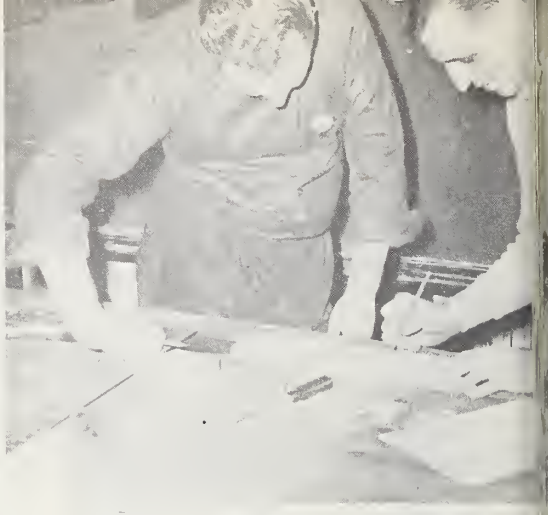
James R. Davis, Assistant County Agent, and Miss Frances Echols, Assistant Home Economist, Jackson, use group discussions, individual counseling, tours, and student employment in their career exploration program. Thus far, 14 boys have been employed for summer work.

4-H project work, associated with career opportunities, oftentimes serves a dual purpose in working with 4-H'ers.

Career Exploration is an important program and it is extremely useful in terms of helping young people make the right decisions about their future. □

Prentiss County 4-H'ers met with a banker, a minister, and a teacher to discuss the choosing of an occupation.

Two members of an Alcorn County 4-H Club put the finishing touches on an exhibit about career exploration.



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Buffalo Inner City 4-H Program

by ALFRED LASKY, *Erie County 4-H Club Agent, New York*

"WE'LL BE HAPPY to provide any facilities you need."

With this promise from the director of the Buffalo Municipal Housing Authority, the 4-H School Dropout and Youth Employment Program was off the ground in Erie County.

The Erie County 4-H staff and executive committee had been planning an inner city program for 2 years. A concentrated public relations campaign and visits to several existing urban program areas were part of preliminary preparations. Methods of approach were being considered when State 4-H Leader Wilbur Pease came to us with an offer that we act as a pilot county for a State-supported program aimed at preventing school dropouts and increasing youth employment opportunities through 4-H. In our case the target was to be a low-income, inner city area.

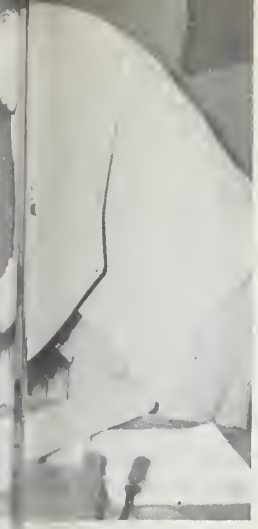
The State office and local staff cooperated in selecting personnel. Two agents, a man and a woman, were hired with specific responsibility for the city program. Assistance in establishing the program and facilities was given by existing staff and Pease.

The offer of space by the Municipal Housing Authority resulted in initial facilities at the Commodore Perry Homes. A one-bedroom apartment was converted to office use and two community halls were used—one for homemaking training and one fitted out for a shop and mechanics. These facilities have since been expanded to include a two-bedroom apartment for home management training and another community hall for use by Junior Chefs Clubs.

Care was taken to be "invited in." Arrangements were made for the local Community Council to ask us to explain our program to them. The Commodore Perry Homes, a low-income area was selected as a target area. Perhaps the comment, "If you can succeed there, you can succeed anywhere" had something to do with our choice of this housing project.

We moved in and started organizing clubs in March 1964. Those of us connected with this 4-H attempt weathered some mild ridicule for even making the effort. It is interesting to note that one year later an organization of agencies concerned with the needs of families living in Perry Homes had been formed. Over a dozen agencies are represented and the list is growing. Our home demonstration department which has arranged several excellent adult programs was instrumental in forming the interagency association. Several groups are starting some work there.

The initial program approach was twofold. For the core program at Perry we started with an abridged version of our regular county program. For a special program for girls at East High School, the emphasis was on self-improvement. Since then, quite a bit of effort has been made to adapt programs to the needs



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of our clientele and objectives.

Quite a bit of emphasis has been placed on career exploration. In an area where this phrase has been worked to death, we were cautious to include the exploration with project work and supporting activities. Projects in automotive safety and care, electronics, Junior Chefs, home maintenance for both personal and commercial use, commercial sewing, photography, ornamental horticulture, woodworking, and furniture refinishing, are either underway or planned. All of these have practical, commercial potential in the area.

It is rather early to say, but observation seems to indicate that some progress is being made in the area of encouraging youngsters to stay in school longer. Every effort is made to include inner city members in countywide activities. Trips and tours are planned whenever possible. These youngsters are making contacts with education-oriented groups and individuals through 4-H that they probably would never have made. We get an occasional indication that this is rubbing off on our new audience.

Our objectives were arrived at and listed, but because of the pioneering nature of the situation, they were not always crystal clear. Briefly stated, they are to provide training in skills and knowledge for the younger groups and to add career exploration and vocational opportunities for the older youth. Throughout the entire program a subtle emphasis on education is maintained in order to help develop positive attitudes toward continuing education and training beyond high school. An early decision was made to present this as a "4-H" program and to soft-pedal broadcasting it as a "School Dropout and Youth Employment Program." These people are sensitive and some of these expressions have become overworked.

Plans for the future include an in-depth evaluation, a camping program consistent with the above-mentioned methods and objectives, inclusion of new geographical areas (they are asking for us), and a continued informal evaluation and changing of program for meeting needs. The imagination and initiative of those connected with the effort know no bounds.

The program could not have gotten off the ground were it not for the liberal and open-minded attitude of State staff, local executive committee, and all connected with it. The absence of rigid barriers seems to make us a more effective instrument.

It is too early to make categorical evaluations. Those of us connected with the project are only too aware of the many problems. Difficulty in getting leadership, reading barriers, transportation, gang rivalry, and other very real obstacles are there. However, our anxious senses are detecting progress. The row looks long and difficult, but the harder we work the smoother it gets. □

Unparalleled Opportunities — ahead for the young women of America

by ROSE TERLIN, *Chief, Employment Opportunities Branch*
Economic Status and Opportunities Division
Women's Bureau, U. S. Department of Labor, and
Chairman, Interdepartmental Committee on Children and Youth
Subcommittee on Services to Adolescent Girls

DR. JOHN B. PARRISH, Professor of Economics at the University of Illinois, stated in a significant article last year: "We are now in the early stages of [a] revolution which will fundamentaly alter the employment of both men and women, but most profoundly affect women." He pointed out that by the end of the decade of 1950's, "an entirely new set of social and economic forces had begun to determine the work pattern of women"—and that "we are now in a period of accelerating change." What are these social and economic forces? What changes do they portend, and what implications have they for the leaders of the 4-H Clubs who are working with teenage girls?

The components of this revolution are rooted in physiological, social, economic, and educational factors which have created far-reaching changes since the turn of the century and indicate even more for the future. Put in capsule form, these changes can be summarized as follows:

- In 1900, the life expectancy of a girl baby was 48 years; it is now nearly 74 years.
- The most frequent age at which girls marry today is 18 years. In fact, it is estimated that more than 96 percent of today's young women will marry—and at an earlier age than their grandmothers.
- Family planning is far more characteristic of young couples today, irrespective of religious faith, than was true in the early 1900's. A greatly decreased rate of infant mortality and reduction of maternal disability in childbirth, are also factors in enabling young women to plan a "second career" at an early age.
- Half of today's young women will have had their last child by about age 30 and by the time the last child enters school they will have 40 or more years of life before them.
- Many families today must have two pay checks to meet the greater economic demands which continuously face them. These budget items, contrasted with grandmother's day, include the higher cost of education, the higher cost of health care (and the wider use of health services, such as orthodentistry), and the cost of the great variety of goods and services now processed outside the home, but still considered essential to meet the American standard of living, circa 1965.
- The anticipated work-life span of girls has increased even more than their life-span expectancy. A baby girl born in 1940 had a work-life expectancy of 12 years; for girls born in 1960, it is 20 years.
- In 1920 the average woman worker was single and 28 years old. In 1964 she was married and 41 years old.
- The more education a girl has the more likely she is to be employed. The ratio of girls graduating from high school increased from 7 per 100 girls aged 17 in 1900 to 73 per 100 in 1963. Approximately a million girls graduated from high school in 1963 compared with 57,000 in 1900. College graduations increased from less than 1 out of 100 girls 21 years old in 1900 to nearly 14 out of 100 in 1963.
- In March 1964, 72 percent of all women who had completed 5 or more years of college were in the labor force—in contrast with only 25 percent of those with less than 8 years of formal schooling. A spectacular 86 percent of all women aged 45-64 who have 5 or more years of college are in the labor force!

Even when swallowed in capsule form, statistics are indigestible. What all these data really add up to is that THERE IS NOT A SINGLE GIRL IN JUNIOR HIGH SCHOOL OR HIGH SCHOOL TODAY WHO DOES NOT NEED TO PLAN SERIOUSLY FOR A CAREER! In many ways, her 4-H Club leader can help her do this, even more than her teacher or her guidance counselor—even granted there is a counselor—and he is assigned less than 500 students.

The "revolution" to which Dr. Parrish refers is, like all revolutions, attended by crises. The Chinese symbol for "crisis" is composed of two other symbols: *danger* and *opportunity*. Surely the young girl coming to maturity in 1965 is faced with an abundance of both of these elements.

Wherein lies *danger?* It lies in the tendency of the mass media, of parents, teachers, counselors—and yes, even some youth leaders, to assume a different and outmoded pattern of life from the challenges that today's young women will actually face in the course of their lifetime.

The idea that "good little girls" are composed of "sugar and spice and everything nice" and never should bother their pretty heads about a

math major—or which university offers the best science curriculum—is very close to the surface. The prevalent idea is still that for women paid work is a stop-gap between school and marriage. The result is that far too many women in their 30's and 40's, returning today to the labor force, are settling for jobs far below their own potential. Jobs that are far below their own educational attainment, and the need of our society for trained workers at the more sophisticated technical and professional levels.

Another very real danger is that if girls are not motivated *early* in their school careers to prepare for a dual role, they will fail to meeet the curriculum requirements for the vocational goal they may eventually choose.

The other side of the coin of "crisis" is the *opportunity* which invariably comes with far-reaching social change. Today's young woman in America faces unparalleled opportunities:

- for achieving excellence in homemaking without much of the drudgery. . .
- for preparing herself to become a volunteer who makes a truly significant community or church contribution, because she is *trained*. . .
- for participating in the challenging paid work of the world, if she chooses. . .
- and all of these at levels where she can realize her own fullest potential. . .

Our Nation needs such young women today—and will need them even more in the challenging years ahead. □

Our Younger Farmers —their status in agriculture

by FRED L. GARLOCK, *Agricultural Economist*
Economic Research Service, USDA

SINCE WORLD WAR II, growing concern has been voiced about the opportunity for young men to get started in farming and, if they do get started, about their ability to develop economic-sized farm units. This concern stems from the rapidly-increasing capital requirements for efficient farming. Technological advances and the cost-price squeeze have increased the size of farm and the investment in livestock, machinery, and other production goods needed for efficient operation. Rising land values have driven up the required investment in real estate.

Today the capital needed for typical farms of many kinds ranges from $50,000 to $100,000, and for some types of farms it is much higher. How is the young farmer to get a foothold in an industry requiring so much capital? And if he does get started, how can he build up an operating unit of efficient size?

The 1960 Sample Survey of Agriculture conducted by the Bureau of the Census provided data that show what young farmers had been able to accomplish during the preceding 10 to 15 years of rapidly rising capital requirements in agriculture. Their accomplishments in that period suggest what other young farmers may be able to accomplish in the future.

The survey revealed that young farmers at the end of 1960 were not conducting small-sized operations, when compared with those conducted by middle-aged and older farmers. In proportion to their number, more young farmers were conducting large and medium-sized operations than either of the older groups. Moreover, fewer of them were located on noncommercial farms.

As indicated by the average value of the land and buildings operated and by the value of the products sold in 1960, young farmers operated on about the same scale as middle-aged farmers but on a larger scale than older farmers. Their net cash farm incomes were as large as those of the middle-aged farmers and larger than those of the older farmers. Thus, it appears that the young farmers—those who began to farm in the postwar period—had succeeded as well by 1960 in developing "efficient-sized" operations as those who began farming earlier when capital requirements were lower.

How were the younger farmers able to attain this comparatively favorable position in the size-scale of the industry? They did it mainly

FARM OPERATIONS: Percentage distribution by size of farming operation and age of operator, end of 1960.

Size of operation [1]	Age of farm operator [2]		
	Young	Middle aged	Older
	Percent	*Percent*	*Percent*
All farms			
Commercial			
Large	15	12	7
Medium	45	40	25
Small	20	25	28
Noncommercial	20	23	40
Total	100	100	100
Commercial farms			
Large	18	16	12
Medium	57	52	42
Small	25	32	46
Total	100	100	100

[1] *For commercial farmers product sales in 1960 were: $20,000 and more for large farms, $5,000-$19,999 for medium-size farms, and under $5,000 for small farms.*

[2] *Ages of operators were: Under 35 for young farmers, 35-54 for middle-aged farmers, and 55 and more for the older farmers.*

by leasing land and borrowing capital. Although all age groups of commercial farmers leased some land and buildings, the younger farmers were the only group that leased most of the land and buildings used in their operations. About half of the young farmers in each size-group leased all —and many of the remaining young farmers leased part—of the land and buildings they operated. Full ownership was found chiefly among the older farmers and was more prevalent among middle-aged than among young farmers.

Relative to the size of their operations, the young farmers used more credit than the older farmers. Moreover, half of the mortgage debt of the young farmers, compared with a fourth for middle-aged farmers and only a seventh for the older farmers, was owed to persons from whom they had bought the land they owned. Sellers of land usually extend credit on much more liberal terms than financial institutions.

As of 1960 the young farmers were skating on thinner financial ice than the older groups of farmers, and they would continue to do so for some time. Most of the land they operated was rented and their equities in the land they owned were relatively small. In both respects, their control over the land they operated was less secure than that of the older farmers. On the other hand, since they rented so much more land, the young farmers were able to pass on to landlords a greater part of their production risks. However, this advantage was gained at the cost of turning over to landlords part of their production.

The survey does not show the extent to which the postwar generation of farmers had family assistance in getting started in farming. Since half of the younger farmers rented all of the land they operated and relatively few were full owners, it is clear that most of them had not inherited the farms they operated. Yet many, if not most, probably received help from their parents or other relatives in one form or another.

A study of 62 farmers in Missouri who started to farm in 1953 indicated that 38 began farming on land owned by their parents or other relatives and that 18 more had family assistance in buying or renting land from others. A third, or 21 of these farmers earned their starting capital while working on their parents' farms; 30 received gifts averaging $557 per operation; and many received other assistance to which a monetary value could not be assigned.

How the oncoming generation of farmers will make out in tomorrow's agriculture can only be surmised. Capital requirements and competitive pressures in the industry are now much greater than in the early postwar years and they probably will increase in the future. Nevertheless, the experience of the postwar generation of farmers gives hope that the oncoming generation will be able to carve out a favorable place for itself in the industry.

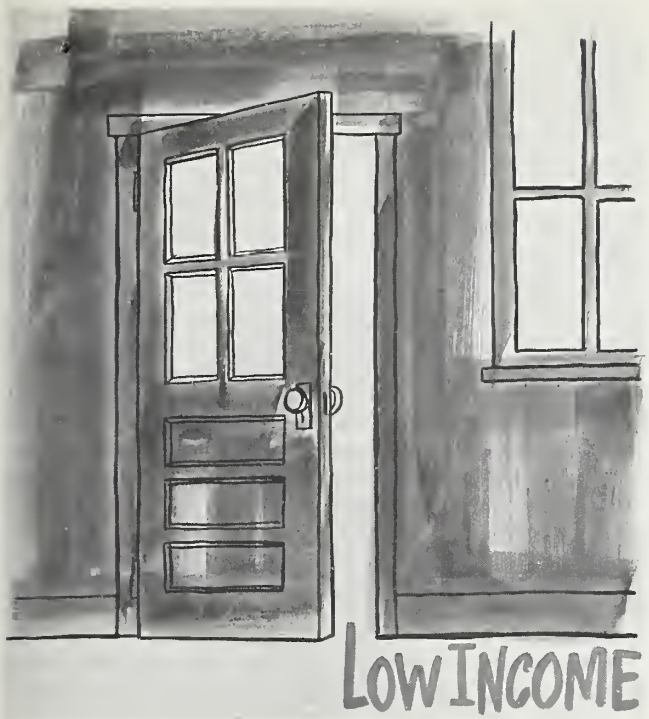
This does not mean that the doors will be open to all young people who may want to become farmers. The number of farms is declining rapidly and opportunities to make a successful career of farming are becoming fewer for people of all age groups. Family assistance may be essential. Neverthless, there will be opportunities for some young people to enter farming each year as older farmers retire or give up farming for other reasons.

The relatively favorable position attained by young farmers should not blind anyone to the fact that in 1960 many farmers of all ages were operating on too small a scale to earn much income, even when their off-farm activities were included. If the proportion of low-income farmers is to be reduced, many of the small farms will have to be consolidated with other farms and young farmers entering agriculture will have to start on a larger scale than many of their predecessors did. □

AVERAGE PER OPERATOR: Value of land and buildings operated, leased, and owned, equity in land owned, and debts, at end of 1960, and income during 1960, by age of operator.

Item	Age of farm operator[1]		
	Young	Middle aged	Older
	Dollars	*Dollars*	*Dollars*
Value of land and buildings operated	42,855	43,084	33,574
Value of farm products sold from farm	11,329	10,827	6,927
Operator's net cash farm income	2,560	2,467	1,987
Value of land and buildings owned	14,504	23,867	25,767
Value of land and buildings leased	28,351	19,218	7,806
Operator's equity in land and buildings owned	10,394	20,230	24,063
Operator's debts:			
Major real estate debt	4,110	3,637	1,704
Non-real estate related debt	3,285	2,721	1,098
Total debt	7,395	6,358	2,802
Off-farm income of operator and family	1,933	2,442	1,966
Total net income of operator and family	4,493	4,909	3,953

[1] *Ages of operators were: Under 35 for young farmers, 35-54 for middle-aged farmers, and 55 and more for older farmers.*



Creating New Opportunities Through 4-H Club Work

by LEIGHTON G. WATSON
State Extension Editor and Head-
Office of Communications and Visual Aids
Appalachian Center, West Virginia University

DOES 4-H have anything to offer an economically-depressed area?

What can it do for the children of unemployed or underemployed parents?

Can 4-H Club work help the physically handicapped?

The answer to all three questions is "yes" and the proof is in the results.

For instance, we know one 15-year-old boy who fits all three categories. Joe is small for his age and afflicted with a speech defect. John D. Cutlip, County 4-H Extension Agent, first noticed Joe at the organizational meeting of his club because the boy was too timid to come inside the building where the Extension agent was talking to the group.

His father was unemployed, and Joe enrolled in the Pig Feeding Project mainly because an American Legion Post would loan 4-H members money to buy pigs. His parents did their best to see that Joe fed his pigs properly but this was difficult.

After carefully following directions for curing and smoking the meat, the ham Joe exhibited at the County Ham and Bacon Show was selected as the grand champion. The money Joe received from the sale of his hams and bacons enabled him to pay all costs and net a profit. He was honored at school when the principal presented him to the entire student body and told them of his achievement.

Joe's experiences in 4-H have helped him to have a more optimistic outlook on life. He steps forward with greater determination, and exhibits greater self-confidence. True, he still has his speech defect and he still is a member of a low-income family, but his experiences may help him overcome both problems.

An unusual case? Perhaps. An isolated example? Yes, from the standpoint that not every boy and girl in a similar situation becomes a champion. No, from the viewpoint that every experience is valuable to a growing boy or girl.

Let's look at another example—urban 4-H Clubs in low-income areas. Mary D. Conrad, County 4-H Agent in Ohio County, a populous county bordering the Ohio River in the heavily industrialized Northern Panhandle of West Virginia, has organized several such clubs. One came as a result of an announcement on a television program that 4-H Clubs would be organized in the city if interest and leadership were available. The next day, a former 4-H'er, who heard the announcement asked what she could do to start a club in her neighborhood—East Wheeling. (This is the area in Wheeling with the lowest median income and the highest number of juvenile delinquents.)

Together, a plan of action was mapped. Mrs. Conrad presented the idea of a 4-H Club at a PTA meeting. Two mothers agreed to help as adult leaders, and a club was later organized. The club now has 38 members, holds regular meetings, and to date has had good representation in countywide 4-H events. Work project meetings have been held and at the April meeting a good grooming contest helped transform the appearance of many of the boys and girls. Their general behavior has improved, too, Mrs. Conrad says.

The county 4-H agent has worked closely with this club to help it get started. But much credit also should go to the leader. When there's any sign of a member losing interest, she makes a home visit to find out what the trouble is and help correct it, if possible.

Two clubs on Wheeling Island (a residential area located on an Island in the Ohio River), have been organized following a request by a young minister who established a "House of the Carpenter" community center. The combined membership in the two clubs is 67.

Since the leaders and all but two members were new to 4-H Club work, junior leaders from established clubs in the county assisted with the first few meetings. Mrs. Conrad indicates more emphasis will be placed on special interest or project areas to hold members. It is too early to judge success or failure, but the seed has been planted, she says, and with careful nurturing will take hold.

In all areas of West Virginia efforts have been made to enroll members in 4-H Clubs regardless of income or other status symbols. In Nicholas County, at the present time, 30 percent of the 4-H enrollment comes from families with less than $3,000 annual income. The leaders do give special consideration to these boys and girls, however, the project requirements have been adjusted to meet their resources.

In Kanawha County, where there are more than 2,800 4-H Club members, many clubs have members from low-income families. Although the Kanawha County schools have special teachers who are trained to work with mentally retarded children, our Extension agents work with mentally retarded groups in five schools.

The youngsters are organized into clubs in the usual manner, but projects are adjusted to fit members' needs, ability, equipment, and materials available. The officers, meetings, and programs also are adjusted to fit the special conditions. The County 4-H Agents—Jacqueline J. Hunt, Charles B. Maxwell, Wilma Ferrari—work with leaders, teachers, school board officials, and the Council for Retarded Children to make these adjustments. The schools permit the special teachers to instruct in projects such as handicraft, sewing, cooking, and electricity as a part of classroom activity.

In Cabell County, work with retarded children has been underway for 6 years. These boys and girls have had special emphasis placed on learning to operate a sewing machine. Several members with muscular troubles have had a difficult time and patience and understanding is required, points out Mrs. Violet Brandon, County 4-H Agent.

Members have branched out into simple foods projects and they also have tried their hand at handicrafts. They are not expected to do the same quality work as normal children but they do receive certificates of achievement and are encouraged to do their best.

Leaders give these advantages for retarded children belonging to 4-H: It gives them the opportunity to gain the satisfaction of belonging; to meet and work with other people; to learn skills and gain information they would not learn otherwise; to improve musclar coordination; and to develop pride in accomplishment.

In Mason County, Gilbert V. Barnette, County 4-H Agent, has directed a Retarded Youth Camp for 2 years. Thirty-three campers attended the first year and 63 the second.

Many of the usual 4-H camp activities have been used at these special camps including crafts, informal classes, fireside activities, and vespers.

Problems encountered include programming for the various degrees of retardation and securing qualified personnel. The objective of the camps is to provide a situation where these children can participate in a social atmosphere with their own peer group and develop more independence. Most of the children come from poor homes where many health habits are neglected. It is interesting, Barnette comments, to observe the children as they arrive at camp and to see the change that takes place during the week in appearance and habits.

Another type of educational work is underway at the Hodges School in Putnam County. Evangeline Hedrick, County 4-H Agent, has organized the program with the assistance of an adult church group from an adjoining county. There are 44 children between the ages of 6 and 14 enrolled in grades one through six. Approximately 90 percent of the children drop out of school when they get to junior high school or reach 16 years of age.

The objective of this program is to provide more learning experiences for the children and to create the desire to stay in school longer. More than 50 children (which includes some high schoolers) and several parents have been involved in the program. Meetings are held every 2 weeks on a Saturday afternoon for 2 hours. Included are work sessions; instruction periods on manners, courtesty, and current topics, group singing; refreshments; and recreation. The boys and girls are divided into age groups or interest groups each time they meet.

These handicapped boys and girls, members of a Cabell County 4-H Club, are proud of their handicraft exhibit.

The children seem to be enjoying their experiences, the Adult Forum is enthusiastic about the program, and the school principal reports he has noticed a definite change in the pupils. They are more interested and seem to be making more progress in school. He has attended all meetings to see what is being done and to arrange for follow-up work the next week.

Another approach to meeting the needs of teenage boys and girls has been taken by Mrs. Janie V. Carter, Marion County 4-H Agent, and Mrs. T. J. Livisay, State Extension Specialist in Child Development.

Miller Junior High School in Fairmont has an enrollment of more than 1,200 students. Ninety percent of the children come from low-income families in both rural and urban communities and include both Negro and white. Social problems have been created because most of these children have not been given guidance at home.

A series of Youth Forums was held in March 1964, designed to improve citizenship and human relations attitudes of the boys and girls. The Forums were designed for the older children who were ready to move on to senior high school and stressed both group and personal conferences with the County 4-H agent and the State specialist.

As a result of these Forums, a large number of children from low-income families were reached with guidance and personal counseling on many problems. After an evaluation of this first series of meetings, the principal and teachers reported such a change and improvement in student behavior and attitudes that another series was requested and held in March 1965.

In the two Forums held, emphasis has been placed on student participation and discussion of problems the students want to talk about. The role of the Extension workers has been to lead the discussions and provide guidance and counseling. In addition to the Forums held in March, checksheets are distributed and programs are held several times during the year to sustain interest and to gather information on which to base the discussions.

Another example of a way to work with the disadvantaged is the approach by Rebecca H. Riggs, Marshall County Extension Home Demonstration Agent. A Salvation Army worker asked Mrs. Riggs to lead a discussion on dating for a group of girls. This was something these girls—14 to 18 years old—badly needed because they were seeking attention and affection which they did not get at home.

This project was between the Salvation Army and the Extension Service and ran for 10 class sessions, one 2-hour class each week. The first class period was used to get acquainted. From then on the group of 12 to 20 girls and Mrs. Riggs studied and discussed personalities, what makes people like us, what is dating, and similar topics. The last session was a mock wedding and reception.

The Junior High home economics teacher and the county Extension 4-H agent cooperate in conducting a teenage forum using "A Teenager's Guide to Personal Success."

Mrs. Riggs charted these experiences: 1. The girl's emotional feelings change from week to week. 2. They appreciate help but it is hard for them to express it. 3. When they make a change in their personalities, they won't admit it, but say that they have always been this "new self." 4. In order to work with these girls you must first accept them as they are, and they must accept you as a friend. 5. Learning must be interesting and fun. It must be completely different from the in-school learning situation. 6. They are reluctant to mix with others, because they feel inferior. 7. They are more free in their discussions in their cliques than with strangers.

Throughout the State, Extension workers work with youth on an individual basis or through established welfare agencies. Clifton Dotson, Mercer County 4-H Agent, for instance, just recently contacted several farm families to find a home for a 15-year-old "dropout." He has been placed in a farm home where he will have the opportunity to develop into a worthwhile citizen. Other young people are encouraged to consider the Job Corps and other special-help programs.

In the State 4-H office, many program adjustments have been made to provide the materials and opportunities needed to reach the disadvantaged youth. Project circulars, for instance, have been thoroughly reviewed and many have been revised to fit special needs. Some new projects have been developed to meet the special needs of urban youth and low-income youth. Also special training programs for leaders are underway.

These are typical examples of what is happening throughout West Virginia as Extension workers strive to reach the disadvantaged—whether their situation is caused by lack of money, lack of educational opportunities, lack of home experiences, or lack of guidance and counseling.

As Mrs. Riggs said, "Progress with the disadvantaged is slow, but in the long run it is noticeable and rewarding if you have patience and an understanding that these people have values and feelings of their own, just as you do." □

Bilingual 4-H Clubs

by MARY ANN OWEN
Home Agent at Large
Mora and San Miguel Counties,
New Mexico

SINCE the time of the Spanish settlers in the early 1500's, New Mexico's population has been chiefly bilingual. Only recently have other cultural groups migrated into the State but the majority are still of Spanish extraction. At present there are 548 4-H Club members of Spanish descent and 85 of other cultures in the county program.

Forty-one percent of the population of San Miguel County live in rural areas—a few on large ranches but mostly on small, subsistance farms. Drought and financial difficulties have forced many to move to the city or seek other employment.

The Extension Service recognized that 4-H educational programs could help members keep pace with changes taking place throughout the county. Through the 4-H Club program an interest has been instilled in the betterment of the member's environment, culture, and attitudes.

An awareness of their individual needs, health, morals, and citizenship has been successfully attained. They have learned self-confidence, loyalty, responsibility, cooperation, sharing, respect and understanding of others. The homemaking and gardening skills learned in 4-H are especially useful in this community where most of the youth marry quite young. Also because of the solid foundation acquired, many of the San Miguel members have furthered their education in colleges and universities.

The schools in San Miguel County have been most cooperative and given a great deal of time to the program. Teachers have donated their time and efforts as leaders to further 4-H. About half of the 43 local clubs are school clubs.

The 4-H Club members have been active in working with civic organizations in landscaping public parks, highway medians, and school grounds. They have also helped in drives such as the Heart Fund, Muscular Dystrophy, Cancer, and the United Fund and many have served as hospital aides.

Many 4-H members are from families receiving Food Stamps. San Miguel County was chosen in 1961 as a pilot study area for the Food Stamp Program. With the aid of the county home agent the committee action program included nutrition classes for welfare case workers, community meetings on food buying, marketing tours to local stores, and home visits.

Nutrition information was distributed through the local grocery stores and over the radio. Often a 4-H Club member served as the translator for his family.

Three proposals under the Economic Opportunity Act of 1964 have been approved for San Miguel County. The Neighborhood Youth Corps Program will include work with high school dropouts.

A personal appearance clinic for teenage girls is now underway at the New Mexico State Hospital for mental patients. The home agent meets twice a week with these girls to help them in their efforts to return to society.

The 4-H Club Program in San Miguel County is aimed at helping the youth increase their desire for a better standard of living. □

MONEY MANAGEMENT

4-H Dollars and Sense Program

by FRED KAEHLER, *Assistant State 4-H Club Leader, Colorado*

"JUST $90 down and $90 a month for 30 years. Only 1½ percent interest per month on the unpaid balance. Let us pay your bills at no cost to you!"

Just how much do these dollars actually cost? How do you make sense out of them? Recently 125 western 4-H members tried and they discovered that money and personal credit can be bought and sold just like any other commodity.

These 4-H'ers, plus their leaders, were delegates to the 46th annual National Western 4-H Roundup held January 17-21. The event is held in conjunction with the National Western Stock Show in Denver. Delegates are selected from accomplished older 4-H boys and girls from Kansas, Oklahoma, New Mexico, Utah, Wyoming, Montana, South Dakota, and Colorado. National Western 4-H Roundup is conducted by the Extension Services in participating States with assistance from many Rocky Mountain region business and civic sponsors.

In 1965, a different type of educational theme was emphasized—"Dollars and Sense." Educational objectives and experiences were organized and carried out to help youth understand principles of wise management of personal credit and to illustrate the effects of wise and unwise use of personal credit. The idea behind the program was to introduce young people to the realities of finance.

The "introduction to financial reality" occurred in four installments. On Sunday evening the president of a savings and loan association gave the keynote address and explained the role of consumer credit in our National economy.

Monday, 12 groups of delegates were sent to observe particular financial or business institution operations in downtown Denver. Mrs. Madeline Moos, Colorado State University Home Management Specialist led a "report back session" held on Tuesday. Wednesday, "So What" questions (in relation to 4-H'ers and Dollars and Sense) were discussed by Miss Arliss Honstead, Extension Specialist in 4-H Work from Kansas and J. M. (Jim) Nicholls, Wyoming State 4-H Leader.

Specific discussion information was gathered by each group from a designated department store credit section, bank, savings and loan association, credit union, or credit bureau.

Groups visiting department stores tried to discover features of charge account plans and actual credit costs. Groups investigating installment loans attempted to determine the complete cost of a sports car at a given list price. Home mortgage loan requirements and the influence of a person's short term credit record occupied the attention of groups visiting savings and loan associations. 4-H members who observed credit bureau operations learned the value of sound credit ratings and how they are established.

Each group collected facts and reported its observations. All reports were posted on large charts and Mrs. Moos helped assembled delegates note important similarities, dissimilarities, and strong points of the information.

What were some of the points stressed by the hosts and 4-H'ers?

Credit bureau manager . . . "Americans are operating so close to the belt that half our working people will be bankrupt if they lose two paychecks."

4-H boy from Colorado . . . "My gosh, that's $40,000 for a $25,000 house at that rate of interest and payment!"

Home agent from Montana . . . "The basis of credit in all cases is character, capacity, and collateral."

4-H girl from Utah . . . "I had no idea a good personal credit rating was so important."

Department store credit manager . . . "Our operation couldn't function except for the fact that most people are generally honest."

Home management specialist . . . "You can shop for money just like any other thing, but it requires a clear mind and sound thoughts."

Extension was involved in arranging for the various visits and in briefing hosts on what information was desired from each visit. Each host, we discovered, was excitedly interested in doing all he could to make sure each visit was successful.

Did these 4-H'ers make "sense out of dollars?" The use of the "Three C's of Credit" (character, capacity, collateral), they found, was just another way of emphasizing the 4-H pledge. For many, the experience brought the 4-H pledge philosophy into practical application. □

On a tour of the bank, these 4-H'ers interested in money management receive instructions on check writing.

Teaching Youth the Principles of Management and Decision-Making

by LAVERNE FARMER
Extension Home Management Specialist, Tennessee

"I'VE FOUND THAT 4-H members, regardless of age, income, or where they live, can find something in management to interest them," says Mary Elizabeth Lawler, Assistant Home Agent in Gibson County, Tennessee. But Miss Lawler, like all Extension workers, has found that the interest of the youngsters depends on the approach used to teach them.

In Tennessee, agents use a variety of teaching methods and techniques. The basis of many of the techniques is the Home Management Project recently developed. A series of nine members' guides and several outlines for leaders and agents are available to use in teaching the principles of management and decision-making. The guides, first planned in 1960, are the result of efforts by a committee of county Extension workers, State and Federal home management specialists, and University of Tennessee home economics faculty members.

Beginning 4-H'ers enjoy the first unit, "Let's Groom Your Room." It provides a number of learning experiences that can be completed in a reasonably short time for the youngster with a short attention span. The following units become progressively harder, but are consciously aimed at activities that will interest the particular age group.

Since management of the dollar takes on increasing importance as the 4-H'ers begin earning their own money, four of the more advanced units stress money management. The units provide record forms for weekly expenses and income. Members are encouraged to refer to this record when they make a plan of how they will use their money in the future to get things they want and need.

Susie Proffitt, an East Tennessee girl who recently showed a prize-winning Angus calf, says her home management project helped her to do a better job of effectively using money she won with her beef and other 4-H projects. Susie, as well as many other Tennessee 4-H Club members, has started a savings account with "4-H" money earmarked for a college education.

Susie and fellow club members from her county learned that the money they save can earn for them. And, they learned it through a very simple technique—the tour of a local bank. A discussion of the services offered by the bank and demonstrations on banking procedures prepares the members for the tour. While at the bank they see the "inside" workings and have a chance to ask questions.

Tours of stores also show Tennessee 4-H'ers what to look for when they select food, clothing, and household items. It teaches them how to judge a good product—and how to decide which product is a good buy.

Older girls are eager to learn quicker and easier ways of doing home tasks with as good or better results than their old methods. And what better way is there to show manage-

ment principles and practices than applying the principles in a demonstration? *Work Smarter—Not Harder, Manage Your Way to a Better Day,* and *Time Savers in Cleaning,* have been used in effectively teaching management principles in doing household tasks.

Demonstration is an effective way to emphasize the importance of consumer credit and getting your money's worth in shopping also, agents agree. The members have an opportunity to study different sources of credit and learn to figure true interest rates.

Sample problems are sometimes given to members on a judging team to help test their understanding of business procedures. They judge the best source of credit rather than products.

In Rutherford County, agents Martha Jo Smith and Ben Powell have adapted these techniques to fit into a specialized group—the special education class they've been working with for 3½ years.

The handicaps of the children are not drawbacks in teaching them home management, the agents believe. The entire group works on the project together. Each month they teach a lesson in management based on ideas from 4-H member guides.

The 4-H Club helps meet the needs of these children by allowing them some form of recognition, giving them an opportunity to participate in extra-curricular activities, and teaching them skills they can use in their homes and schools, the agents report.

Miss Lawler pointed out that the home management project could be considered a teaching technique in itself. She says it has certainly helped her impress upon parents that both farm and nonfarm children can benefit from 4-H. As adults become better acquainted with the management project, the job of obtaining support and leadership becomes easier.

Boys and girls eagerly respond to whatever techniques are used in teaching management skills! □

Above, a 4-H Club girl talks with a bank executive about her savings program which she has tagged for her college education. Below, Assistant Extension Agent, Esther Hatcher teaches these young 4-H members the rules of money management—thrifty spending, continuous savings, and sharing.

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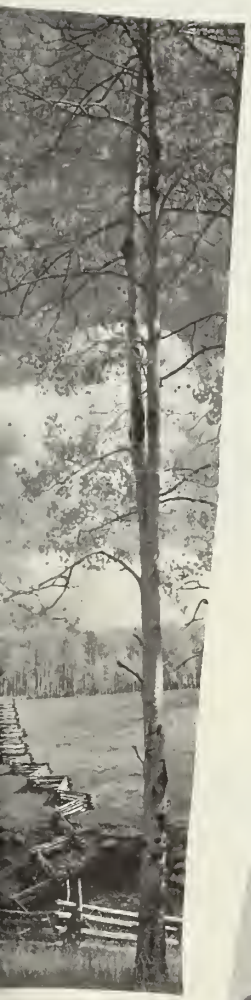
From The Administrator's Desk

This is an appropriate time for an issue of the *Review* dealing with youth for many reasons. But speaking as a parent, it seems a particularly appropriate time because at this season our youth are with us in a way they are not during most of the year. They are with us on the streets and highways, and we must exercise particular caution for their safety. They are with us in the home, rather than in the classroom. The older youth are with us looking for something to do—something profitable, productive, educational, and perhaps enjoyable.

President Johnson has emphasized the need for the older youth to have something to do during the summer—something to do that is productive and educational. He has recently urged employers throughout the Nation to provide summer jobs for our older youth —jobs that would provide them income, experience, and training—helping them to prepare for adult life. It is certainly an important need of our society to provide such opportunity for our older youth.

We can look with pride on 4-H as a program that has served millions of youth in satisfying this important need. While 4-H has many values, surely one of its greatest is in serving this need of youth—to do something that is useful, productive, profitable, educational, and that provides satisfaction of accomplishment and inspiration for greater development.—*Lloyd H. Davis*

EXTENSION SERVICE
REVIEW
U S DEPARTMENT OF AGRICULTURE ✳ SEPTEMBER 1965



NATURAL BEAUTY
CLOSED CIRCUIT TV
EFFECTIVE EXHIBITS

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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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EDITORIAL

Opening nationwide observance of Cooperative Month (October) will be a 5-day program of activities here in USDA beginning October 4. Secretary Freeman says the Department is placing special emphasis this year on across-the-country observance of the role of Cooperatives in providing high-quality consumer goods and services; job opportunities, credit, supply, and technical services for farmers; community leadership; electric power and telephone systems in small towns and rural areas, and a strong foundation to the free enterprise system.

Cooperative Month was observed last year for the first time on a national basis. Last year, for instance, governors from 12 States issued *Cooperative Month* proclamations. In these and other States many organizations such as State cooperative councils, banks for cooperatives, regional, and local cooperatives, and State Cooperative Extension Services participated in the observance.

—WAL

"For centuries Americans have drawn strength and inspiration from the beauty of our country."—President's Message on Natural Beauty, 2-8-65.

THE NATURAL BEAUTY PROGRAM

by DOYLE SPURLOCK, *Public Affairs Specialist, Federal Extension Service*

A program of National scope for the preservation and enhancement of America's natural beauty was launched when President Johnson delivered his White House Message on Natural Beauty to the Congress on February 8, 1965. To many, this was a new program; to the Extension Services it was simply new support and new stimulus for an informal program of long standing.

The preservation of the natural beauty of America, and particularly of rural America, has long been a concern of the nature lovers of the Nation. This concern stems largely from observations of the exploitation of rural areas for commercial

purposes, and the resulting depletion of the recreational and aesthetic values of these resources. Areas and sites of beauty have too often been despoiled and stripped of their aesthetic value in the process of converting them to areas of greater immediate economic value.

Extension workers, too, have been concerned with the preservation and enhancement of beauty in rural America. But their concern has had a broader base. Extension workers have traditionally worked to build a rural America which, through its order and beauty, will provide for farmers and rural dwellers that serenity of mind and spirit that comes from an association with God's handiwork and man's responsible stewardship as manifested in the beauty of the countryside. At the same time, they have been concerned with the use and management of the resources of rural America in such a way that farmers and rural people may derive sufficient income from those resources to assure them the economic well-being necessary to enjoy beauty. It has been well said that poverty sees no beauty.

Working toward the dual objectives of beauty and bounty, Extension workers have long since discovered that the beauty and the productiveness of agricultural lands are not only compatible but complementary. As Extension has worked to achieve a more efficient and prosperous agriculture, much of this work has been directed toward the control and prevention of erosion, control of insect pests and noxious plants, plant disease eradication, prevention of stream pollution, and other conditions which not only hamper production but despoil the natural beauty of the land.

Prevention and control of these conditions contribute to a more beautiful countryside just as surely as does the planting of ornamental shrubs and the cleaning of litter from roadsides. As a prominent agricultural leader stated recently, "Productive fields of growing crops, rolling meadows of grass and hay, thriving forested areas, hillsides and streambanks protected by healthy vegatation all contribute to the beauty of the countryside. This beauty and bounty are synonymous with sound land use and the protection and development of land, water and forest resources. Wildlife thrive in such a setting and this is the landscape that produces clear streams and steady water supply."

The production-oriented county agricultural agent, the agronomist, the irrigation specialist, the pasture management specialist, and other Extension workers whose primary concerns are with the growth of crops and the conservation of land for continued production are all very directly involved in the preservation of the beauty of rural America. Generally, they have done a good job.

Extension's more formal and direct beautification programs have been spearheaded by home demonstration clubs and agents, 4-H leaders, and horticulture and landscape specialists. They, too, have accomplished some outstanding results.

The Utah State Extension Services provided educational and organizational leadership for an intensified cleanup and beautification program which was initiated by the State Rural Areas Development Committee. Arvil Stark, Extension Landscape Horticulturist, effectively involved State organizations (including the Governor's Office), local organizations, and mass media in the program.

A comprehensive Community Landscape Improvement Inventory Form and a Home and Farm Improvement Checklist were developed to help local homeowners and community committees make an initial benchmark survey as a basis for planning their beautification programs. Stephen L. Brower, Social and Economic Development Leader, stated, "We attempted to design the effort in such a way that it introduced a rational, problem-solving process among local people."

The development of skill and experience in local communities which can be capitalized on in other areas was one result of this endeavor. A far more dramatic result: Fillmore, Utah, won the U. S. Beautification title for towns under 5,000 population; and three other Utah towns, Hurricane, Clearfield, and Heber City, were given honorable mention in the campaign.

• The Georgia State Department of Industry and Trade and Georgia Cooperative Extension Service, working through county and home demonstration agents, 4-H Club members, garden clubs, and civic clubs, set out to make Georgia more beautiful. During the week of January 24-30, 1965, they: planted 413,762 dogwood trees; and 94,272 other ornamental trees; policed 937 miles of streets and highways, and picked up 362 truckloads of litter; and involved 136,499 people representing 2,331 organizations.

• As a part of their Landscape Extension Project, the Illinois Cooperative Extension Service, published "Landscaping Your Home," (Extension Circular 858). This 151-page publication is a comprehensive educational program in the planning, landscaping, and care of private home grounds. A series of training films developed from this publication have been widely used by television stations (particularly in the Chicago area) to stimulate the interest of private homeowners in home grounds beautification.

• Pennsylvania State University Extension specialists reach several million listeners weekly with a radio and television program having a "Keep America Beautiful" theme. Usually one or two "KAB" theme 3-minute radio tapes reach 117 radio stations in Pennsylvania and neighboring States weekly. These are aired by the Canadian Broadcasting Corporation and by a New York station. Extension radio news releases on this theme are mailed to 58 radio and television stations, 98 county extension offices, and others. These are being used regularly by the CBC and by another New York station. Twenty-five topics with a beautification theme were aired in 1964 on the daily Extension-produced "Farm, Home, and Garden" television series.

Many other examples of Extension's interests and achievements in the enhancement and preservation of natural beauty could be added to those cited above. This all adds up to the fact that the State Extension Services have long been individually involved in a program that is now receiving National emphasis and support.

Significant though some of our achievements have been, much more remains to be done. As our population continues to increase and become more mobile; as the cities spill over into the countryside and more suburban and rural homes are built; and as people use roads, picnic areas, and public and private grounds increasingly for recreation and pleasure; there is an increased challenge for Extension to exercise educational leadership in programs for the preservation of the beauty of rural America. The challenge calls for better organization of efforts at all levels and for exchanges of ideas and program methods between areas, States, and regions.

Several States are aggressively preparing to meet the challenges of the President's Natural Beauty program. Vermont Extension, for instance, has set up an ad hoc Extension Service Committee on Beauty in Vermont. This committee will prepare educational material and mobilize resources for a Statewide beautification program. The Vermont Resources Research Center has developed a scenery classification system which will be used to make comparisons of the scenic qualities of alternative sites.

Ugliness is costly.

The Federal Extension Service has set up a committee on beautification programs to provide National Extension leadership to this program to develop educational materials and to assist States in developing more effective programs in this area.

The Extension Services are well advanced toward meeting President Johnson's charge to introduce "into all our planning, our programs, our building, and our growth, a conscious and active concern for the values of beauty." □

by CORDELL HATCH, *Extension Radio-TV Editor, Pennsylvania*

Extension Conference by Closed Circuit Television

Studio setup for televising Pennsylvania Extension Conference. Assistant Extension Director William Cochrane (1) makes a point as one of 3 closed circuit television cameras (2) shoots visuals displayed on flannelboard. The "talkback system" (3) relayed questions to the speaker from any of 13 viewing rooms. Dick Wiles, assistant radio-TV editor (4) handles visuals in "limbo" while the author (5) who was television coordinator for the conference talks to the director about the next shot that is to be made.

AN ELABORATE closed circuit television system on The Pennsylvania State University campus was put to work recently to handle some of the 1965 Annual Extension Conference sessions.

The system, consisting of a fully-equipped studio, fed the televised sessions through cable to 13 viewing rooms. About 30 staff members were assigned to each room.

The setup offered the advantages of broadcast television plus a few of its own. The studio was equipped with three cameras, rear screen projection, slide and film chain, flannelboards, flip charts, easels—the works. In addition, a unique talkback system was available. This ingenious gadget permits anyone in the viewing rooms to ask the speaker, who is on camera, any question he chooses. All other viewers, even in other rooms, hear the question and the speaker's reply.

The really big advantage of this "conference by television" technique is that everyone can see and hear. Visuals not suited for distance viewing by a large audience, such as in an auditorium, become "visual" on TV.

This is not to say that poor visuals become good visuals on TV, no indeed. It's not necessary, however, to have life-size illustrations, foot-high lettering, a flannelboard 32 feet long, or a theatre-size projection screen. As long as the visual is fundamentally good, TV can handle it. Bad lettering, art, or pictorial material is bad regardless of the medium.

It is felt that this use of television encourages more thorough preparation than might otherwise be the case. Certainly, visualization is encouraged; presentation organization and techique benefit also.

In spite of what presenters will tell you, many honestly enjoy the experience. Also, it is believed that participation by administrators and others on this type of television setup, nurtures their interest in broadcast television.

County Agent, E. V. Chadwick, at the chalkboard, leads a discussion after one of the televised sessions. The groups were pre-arranged so there was no delay in getting viewer reactions to the discussion points. A reporter in each group took notes. Shortly after the conference, a report was printed and then distributed to all Extension staff members.

Assigning persons with similar interests to the same viewing room makes it possible for them to engage in discussion immediately after the televised session without having to regroup. This interest group viewing and discussion was used quite successfully at the Pennsylvania conference.

All this may sound great and quite easy. It is not. The conference required days of planning and hard work. Even then, not everything came off exactly as planned. Guest speakers often have no orientation at all in television, and because of time and distance, adequate liaison cannot be established to properly structure the presentations for television. Just as with most other presentation methods, this type of closed circuit television required thorough preparation, plus appropriate visualization.

However, we are extremely pleased with the technique and its implications for future use. □

1.

2.

Fitting Exhibits To Your Audiences

What it takes to make people stop, look, listen, and learn, based on a half-century of examples from the Indiana State Fair

3.

by FOREST E. VAN PELT, *Extension Visual Aids Specialist, Indiana*

The date of the first appearance of an educational exhibit at the Indiana State Fair as one means of presenting Purdue's program of Agricultural Extension is shrouded in the mists of incomplete reports. However, it is safe to say that for at least 20 years the facilities for presenting such exhibits to Indiana State Fair visitors were in an old barn. *(1)*

In the fall of 1924 the Purdue Agricultural Extension Department proudly presented "specialist prepared" exhibits in a new building provided by the State Board of Agriculture. This building 70 feet wide and 250 feet long, attracted as many as 7,000 viewers an hour by actual count. *(2)*

A photographic record of the educational exhibits prepared for the State Fair has been maintained since 1924. An animal husbandry exhibit from the Dairy Department shows that 7-1/3 average cows were required to equal the net profit produced by 1 high-class producer. The men who built this exhibit did not attempt to show one-third of a cow (a trick we haven't mastered yet), but they did observe one of the same principles we

4.

still use, that of displaying live animals or actual objects. *(3)*

The Home Economics Extension specialists at Purdue have had an important part in the Extension activities in the State and haven't missed a year in presenting an exhibit on some topic of current interest. Three exhibit areas were devoted to the distaff side of the family in 1924.

Subject-matter specialists prepared and set up the early exhibits. By 1907 the Department of Short Courses and Exhibits had become part of Purdue University. As the department grew, two exhibits specialists and a technician, with hand tools and a work bench, did what they could to advise and assist other specialists in exhibit preparation. It was during this period that Purdue pioneered in creating action devices designed to draw attention to the exhibit. *(4)*

As the exhibits became more mechanical and sophisticated, the specialists working in the Short Courses and Exhibits Department gradually assumed more of the responsibility for planning and construction.

Beginning in the early 1930's and all through the 1940's considerable effort was given to taking exhibits to the people of our State. Probably the most ambitious of these were exhibits prepared for the "Farm & Home Special" train which covered most of Indiana during March 1947. The theme of this exhibit train was "Save Time, Save Money, Save Labor, and Do A Better Job." Fourteen passenger cars were furnished by the New York Central Railroad, and these cars accommodated 23 exhibits.

The train was routed over the New York Central lines for 3 weeks and the Monon line for 1 week, making 56 scheduled stops throughout the State. Twenty-three specialists stayed with the train throughout the month and a total of 45 participated. By actual count, 66,415 Hoosier farm and home people saw the exhibit.

The exhibit train proved the need existed throughout Indiana for exhibits of this type, so plans were made for an exhibits trailer which could be taken any place in the State.

In 1948 an extensive change was made in the interior of the Purdue Exhibit Building at the State Fair. Flat wall exhibits were replaced by a typical Indiana farmstead with full-scale buildings so that the various departments could integrate the information they wanted to present. *(5)* This made possible a functional approach so farmers and homemakers could visualize new practices for their home situations. This farmstead plan of presentation was used over a period of about 10 years with the various buildings being revised or replaced as became necessary.

By 1956 most of the buildings had been removed. One end of the "house" was preserved to provide a setting for exhibits designed to be of interest to people whose homes might be either rural, urban, or suburban.

A limited budget makes it necessary to adapt some of our exhibit presentation to preexisting conditions each year. This was very effectively accomplished with the 1958 Home Economics Extension exhibit.

The terrace, representing the dooryard outside the kitchen entrance, had considerable depth and we needed some device to logically fill the background so our principal display would be located at the front of the area. This was accomplished by putting in a carport and an automobile (both loaned by cooperative businessmen). The inference was that Mrs. Housewife, her son, and daughter had just parked their car and were unloading their supply of groceries for the week.

The detailed possibilities of what the grocery packages for a family of four might contain were displayed on three slightly inclined and separated panels. These food groups were divided into three cost categories—low, medium, and liberal. Equally nutritious menus could be prepared from any of the three. *(6)*

Since everyone is interested in food and its cost, this exhibit proved to

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be one of the most successful (measured in terms of crowd-stopping ability) which we have ever put in our exhibit building. At the same time, this exhibit was set up with minimum change from the preceding year.

Home lighting problems have been the subject of questions received by the Home Economics Extension Department in recent years. For the 1963 State Fair we constructed an enclosed area so that light could be controlled and in it presented two identically-furnished family rooms adjacent to each other. The first room was lighted by a collection of lamps which could easily be in any middle-class home where no particular attention had been paid to this problem. The second room, a mirror image of the first, was finished in exactly the same manner, but the lighting fixtures were planned for the proper degree of light intensity depending on the activity desired in that area.

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Four girls alternated in conducting visitors, by groups, through this area. A taped recording provided the story while the girls demonstrated what could be done to enhance attractiveness of color in furnishings as well as provide comfortable levels of lighting for family room use.

The next year this space was revised to tell the story of planning rooms for teenagers. One room for two teenage daughters and the other for two boys of about junior high school age were shown. *(7)* A bathroom separated the two rooms, and a workable plan for efficient space use and storage areas was featured. Again, this was a conducted tour with young home demonstration agents-in-training explaining the features shown.

Regardless of the use that may be made of a display, our first consideration is to develop an idea for an exhibit that will answer questions concerning a given problem. Next we devise some way of attracting attention to the exhibit. This may be done with light, action, color, and various other means. We then work out details of content so there is information for the mildly interested and significant facts for the ones seeking answers to their problems. It is our goal to influence or impress each viewer—even if it is only inspiration to seek further information from a source we may provide for him.

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Exhibits prepared through the years by our Entomology Department consistently adhere to these principles. The insect-control exhibit prepared in 1953 presented an enlarged papier-mache wheat kernel in which a weevil family had set up housekeeping. *(8)* The figures of the weevils were kept in motion, doing household tasks, and the stick figure of the man alongside the wheat kernel moved his arm in a pointing gesture. Small animation motors provided the power for this activity. Once a viewer was stopped

in front of the exhibit, his eye was guided to pertinent facts about the need for control of the weevil and methods to follow in control measures. We have found through years of experience that humor can be a tremendous asset in attracting attention to an exhibit and when used discreetly, will add to the effectiveness of the subject matter.

As the staff of the Agricultural Visual Aids Division expanded and better working conditions developed, we were able to tackle a more sophisticated type of attention-getting devices. A large animated ant was prepared by our shop crew. Animation was provided by a concealed motor so that the anterior legs handled a knife and fork and the insect appeared to be eating from a plate on a picnic table. The complete exhibit was shown under the title "Do Uninvited Guests Come to Your Picnic?" Other large-scale model insects appeared in the exhibit which was shown adjacent to a camping scene, and the entire section of the building carried out the general theme of outdoor living.

Another natural trait possessed by most people which can be exploited when planning exhibits is the tendency to peek into partially concealed areas, "sidewalk superintendent" like. This principle applies very well to many exhibit subjects, especially to insect identification and control. The "Wanted Dead or Alive" exhibit made use of this natural curiosity trait. *(9)* The ten insects shown included those which had been the subject of most questions to our specialists during preceding weeks. Internally-lighted boxes and magnifying lenses made it possible to show live insects in their natural habitat. Leaflets describing control measures were available.

During the 1961 State Fair we made a daily survey to find out who our audience was. We found that 31 percent were from cities, 22 percent lived in suburban areas, 25 percent had rural interests but listed nonagricultural occupations, leaving 22 percent who listed farming as their occupation. This rounds off to a ratio of about four people in our audience with nonfarming interests to one who is actually producing food and fiber; yet a hefty percentage of Indiana people are engaged in the production of materials used in large quantities on the farms in our State.

We decided to prepare an exhibit showing the interdependence of industry and agriculture. The millions of dollars which farmers spend for equipment and supplies help keep the paychecks coming in regularly for industrial workers. The food products turned out by our farmers feed an ever-increasing number of nonagricultural families. We titled this area "Our Food Production Team" and devoted about one-fourth of the floor space in our exhibit building to the display. Such a large area, nearly 3,000 square feet, made it necessary to elevate the viewing area so all of it could be seen as one exhibit.

We took our problem to a cement association and their engineers drew up a blueprint for the construction of a ramp. The association provided the cement blocks, and a concrete masonry association constructed the nearly 100 linear feet of walkway 8 feet wide and 4 feet above floor level. A "Ready-Made Step" company donated sets of precast concrete steps. This construction has provided flexibility in the type of exhibits.

We have continued to use the elevated walkway, 1965 being the fourth year for this feature. Another advantage of such treatment is the change in appearance we can achieve in our building arrangement from year to year. This walkway is but one example of the splendid cooperation we have from business and industry every year. Without their help we would be severely limited in working out our plans. Advance planning is a *must* to secure this type of help.

During the year when we used the integrated farmstead approach, the tramp shed used in the 1949 dairy exhibit illustrated the kind of advice our dairy specialists were presenting to Indiana dairymen. This exhibit

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showed the actual conditions for housing live animals, and the animals were in the tramp shed while the State Fair was in progress.

As late as 1958 we were still presenting exhibits which were planned to show viewers how to do certain prescribed practices. The exhibit prepared for the 1958 State Fair graphically portrayed the advantage of a well-planned roughage program in cutting feed costs per production unit.

The action in this exhibit attracted everybody's attention whether or not they had direct interest in milk production problems. When the "manger," which was on a turntable, placed top-quality hay under the muzzle of our mechanical cow, all four faucets of the cow's udder gushed milk. When the manger rotated to the section presenting hay of ordinary quality, the milk flow dwindled to a trickle from only two faucets. The head of the abstract cow raised and lowered as if eating as the manger rotated. *(10)*

Ensuing years have seen the various departments of Animal Husbandry combined into a Department of Animal Sciences, and this combination has been reflected in the type of exhibits presented to our audience whom we know are more interested in the product than in its production.

During 1960 our Purdue Dairy Division of the Animal Sciences Department was developing several modifica-

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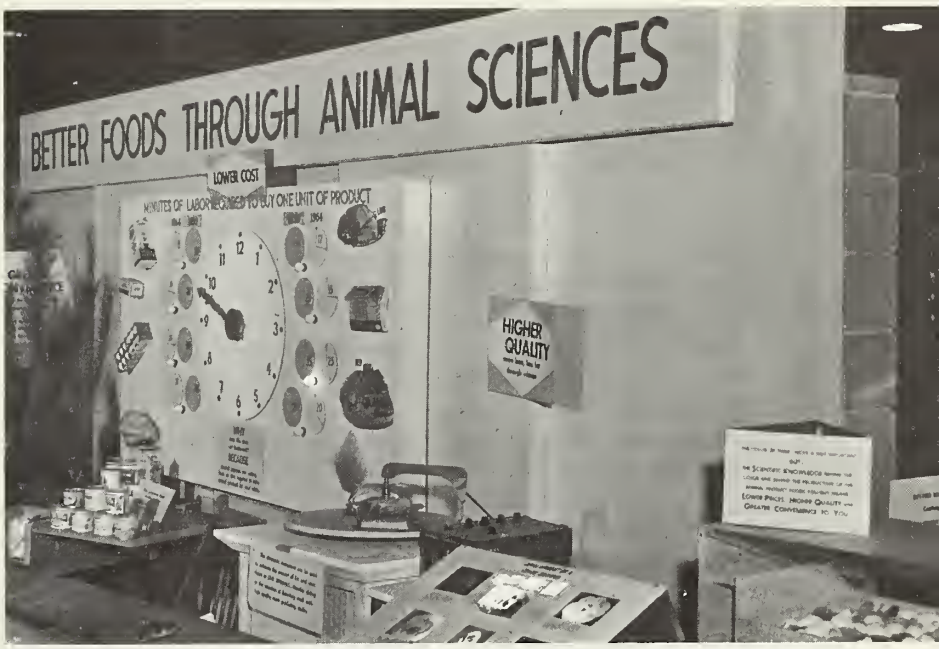

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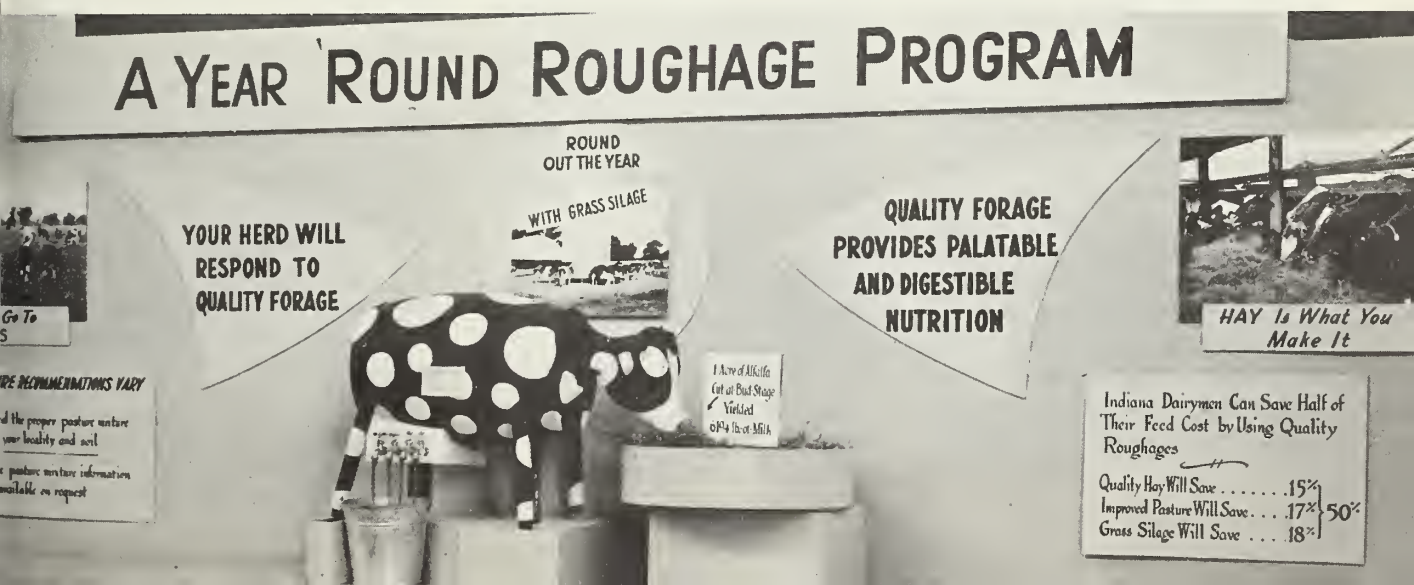

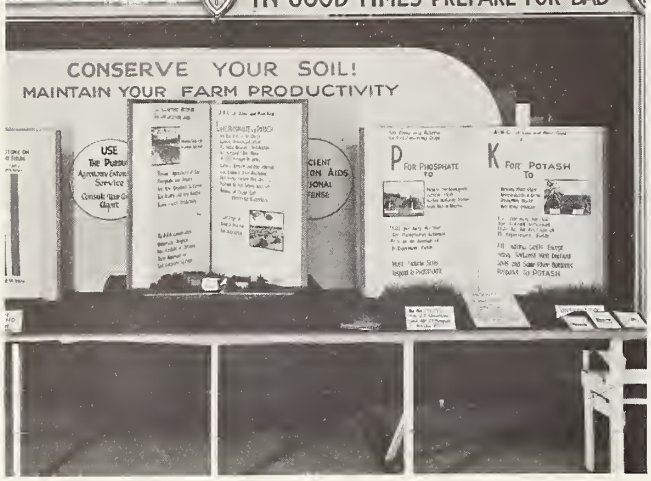

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tions in production of cottage cheese and swiss cheese. Research was needed on consumer preference for these different products, and visitors to our exhibit building were invited to participate in a taste test needed to determine what products merited further development. *(11)*

The results from this research study proved so useful that the booth was continued in 1961 with emphasis on various mixes of ice cream. People waited in line to get some free ice cream and were perfectly willing to check a "score card" which recorded their preference. We presented the inside story of a carton of milk where the people waiting in line had plenty of time to think about the value of dairy products in their daily diet.

The 1964 Animal Science exhibit told the story of how continuing research in the animal sciences provided higher-quality products at a bargain price to the consuming public. *(12)* Cost was expressed in terms of *real* wages, i.e., at average hourly wages, the number of minutes required to earn a unit of product. 1964 prices were compared with the prices of the same products 25 years earlier. Eight staple food products showed a dramatic decrease in the real wage cost. Hatching colored baby chicks was the attention-getting device we used for this exhibit. A new batch of chicks hatched during each day of the Fair.

The economy of the State of Indiana has been undergoing a gradual change from a predominantly rural toward a more urban and industrial interest. The exhibits in the Purdue Building at the State Fair reflect, and in some cases anticipate, this change.

The exhibit prepared in cooperation with the Agronomy Department for the 1941 State Fair was aimed directly toward a farm audience. Viewers were advised concerning practices necesary for soil conservation. *(13)*

This farm audience approach continued for more than a decade as shown by the emphasis on use of lime in our 1955 exhibit for the Agronomy Department.

It is easy to prepare an exhibit for a farm audience showing the importance of soil and the related management practices. It is a different matter to prepare a soil relationship exhibit for an audience of widely diversified interests. In our 1963 State Fair exhibit representing the Agronomy Department, we called to the attention of people in general that soil and drainage are factors to consider when purchasing lots for homes. *(14)*

Profiles of two soil types, common to large areas in Indiana, were shown along with a description of their characteristics. Instruction was given where more detailed information could be obtained. Attendants at this exhibit received many comments, most of them complimentary, and answered questions from both urban and rural visitors.

The Agronomy exhibit prepared for the 1964 Fair told the story of Indiana wheat. Since the majority of our viewing audience is not concerned with the problems of growing wheat, we tried to reach them through the title, "Put Enjoyment in Your Meals with Indiana Wheat." We also displayed appealing products freshly prepared by our milling and baking industries. We hope that our consuming public learned that there are different types of wheat produced in different areas. In this exhibit we also told the story of the contribution plant breeders have made in providing improved varieties and why these new varieties are an improvement.

As part of this story we also prepared a portable exhibit giving the production practices of the current yield champion of Indiana. This portable portion of the Agronomy exhibit yielded additional benefits in that our Extension agronomy specialists and county Extension agents made use of the portable panel exhibit all through the winter in meetings held in the wheat-producing sections of the State.

While the preparation of exhibits for showing at the State Fair is a continuing effort throughout the year, there are other phases of our work which we consider equally important. The portable exhibit made to fit in with the wheat story in the 1964 Agronomy display is an example. We have a "library" of similar portable

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exhibits which are on call at any time. We are also set up to build portables of general interest when there is a problem of sufficient scope covering several counties.

Ten years ago we were using a portable exhibit made up of four panels hinged together which, when opened up, required floor space of about 3 feet deep, 10 feet long, and stood 6 feet high. Light and action boxes added more bulk and weight. Our department truck was about the only reliable means of transportation for these bulky exhibits and use was necessarily limited to whatever schedule arrangements which could be worked out. *(15)*

Increasing demands for wider use of this type of visual aid made a change to a more flexible system necessary. We have experimented with several arrangements, and the two or three styles we are currently using are all built to be easily transported in the trunk or back seat of a car. *(16)*

Direct results can be traced to this method of communicating new ideas. Acceptance of new methods has followed meetings where lectures were reinforced with exhibit material.

While continuing service to Indiana County Extension offices is part of the regular routine of our department, we occasionally make special effort to be of assistance when unusual situations arise.

Lake County, near Chicago, was one of the first counties to get started in Agricultural Extension activity and celebrated its 50th anniversary in 1964. County Extension Agent A. D. (Bud) Luers' staff and advisory committee availed themselves of the opportunity presented when the County Fair Association offered them the use of a 60′ x 90′ wing of the Industrial Arts Building on the fairgrounds to present exhibits showing fairgoers what Cooperative Extension work had contributed.

After a preliminary meeting or two, the county staff decided they "had a very big bear by the tail" and requested help from the State office. We were able to spend some time working with their committees and a plan began to take shape. Parts of exhibits which had been saved from State Fair presentations of previous years were adapted to the demands of this situation and new materials were prepared.

One area of the floor plan was a re-creation of a 1914 kitchen. Two women, in costumes of the period, attended the booth throughout the fair. A range and woodbox, sink, hand pump, hand-operated washer, and similar period items were shown.

Another area furnished a direct contrast to the 1914 Production Unit by presenting the choices our modern housewife has available which we showed under the title "Built-In Maid Service."

The 4-H sewing club area featured improvements in sewing equipment during the half century. Photos of the girls' dress review winners were enlarged and cut out a 3-D effect.

On the agriculture side of the hall we presented a graphic display of advice on house and lawn arrangements. This was especially timely since the Lake County area is experiencing tremendous expansion problems, and many people are buying lots in new subdivisions and building homes. Remains of two recent State Fair exhibits were combined, and visitors were told: "Investigate Before You Invest."

A county Extension office was set up in the center section of the exhibit hall and members of the staff were on hand to answer questions. A display of bulletins available for distribution and a panel showing life-sized cutout portraits of the staff were also shown.

Perhaps the response to this kind of cooperation with our county agents can best be summed up with a quote from Bud Luers' letter written after the fair was all "wrapped up." The letter, in part, reads as follows: "Dear Van: . . . The Extension personnel, our committeemen, and many others want to thank you and Howard [Knaus, in charge of the division of Agricultural Visual Aids] for the terrific job you did in assisting us with this particular exhibit. It was, we feel, an outstanding success. . . Very truly yours, A. D. Luers, County Extension Administrator." □

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From The Administrator's Desk

**"Take from the past
not the ashes
but the fire."**

We in Extension are proud of the past record of our organization—and rightly so. Few American institutions during the last half century have made greater contributions to the growth and development of our Nation and the well being of her people. Our future contribution can be equally important to the welfare of people a half-century from now. We who are in Extension today, in a period of rapid transition, are building the Extension Service of the years to come. We will build on past experience.

Recently I came across the words "Take from the past not the ashes, but the fire." I have not located the source but the message seems particularly appropriate for us.

We *must* take from the past as we build the future—take from the past that which is most useful, adapt and modify to serve future needs—add to this new ingredients for a new era of service.

But, take from the past not the ashes—the inert residue left when the heat, light, and the fuel that feeds them are gone—but the fire!

What has been the fire in our past? As I have thought about it, it seems to me the fire in Extension's past has been in the minds and spirits of Extension workers.

Extension workers have always been willing to "get mud on their feet" in helping make practical application of scientific knowledge. Their down-to-earth practical approach has fanned the spark of confidence. They have been armed with sound knowledge serving important and critical needs. They have presented it in such a way that this knowledge was a fire that lighted the way of progress. For the future we must have such knowledge and practical approaches to getting it used.

The outstanding Extension workers have been people of vision—people who could visualize a better way, a better life, a better world, and the means by which it could be attained. The fire of their vision has ignited hopes and aspirations of those with whom they worked and as these fires burned high, sparks have spread to others—bringing forth whole communities of effort to a common cause. We must have the fire of such vision.

The great Extension workers, in addition to these qualities, have been dedicated people—dedicated to public service, dedicated to helping "their people"—and have given unselfishly of their time and talents in helping make the better life of their vision. This dedication has been a fire that has warmed the leadership in others. It has provided the fuel on which this leadership has built its fires—fires that in turn have provided the heat and light needed along the way of new avenues of progress.

Yes, the fires in Extension's past are the fires in the spirit of Extension workers. Let's fan and feed these flames and carry them into the future.—*Lloyd H. Davis*

EXTENSION SERVICE
REVIEW
U S DEPARTMENT OF AGRICULTURE ✳ OCTOBER 1965

marketing development

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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*
Federal Extension Service

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EDITORIAL

Have you ever thought of launching a new food product? And anticipated thousands of eager customers buying your product? You're sure you have a winner—deep-down you know you can't lose. But before you make the plunge take a look at the scoreboard of those who have made the plunge. Here are some figures garnered from a study released this past August by the U.S. Department of Agriculture.

An estimated 5,000 to 6,000 new food products were introduced in 1963.

But remember you have to sell the grocer or the food store before you sell your new food product to the customer whom you hope will be a steady buyer.

But here are the facts: Only 1,800 of the some 5,000 to 6,000 new food products introduced in 1963 were accepted for sale by grocers.

Of the 1,800 only 500 survived more than a year.

In this issue you'll get a perspective of educational work in marketing, including the development and marketing of new food products.—WAL

Market Development— One Phase of Extension's Total Marketing Program

by RICHARD G. FORD, *Extension Economist*
Division of Marketing and Utilization Sciences
Federal Extension Service

Extension marketing and utilization educational programs provide technical and economic information to people who make marketing decisions. These marketing decisions are of three basic types; 1) to identify and to define important problems which affect their operations or well-being and to discover available opportunities, 2) to investigate and analyze the alternative actions or changes which will provide solutions, and 3) to choose that alternative which provides the most satisfactory solution given the conditions which the decision-maker faces.

Marketing and utilization are concerned with all the "services and activities connected with changing the form of goods and moving them from producer to consumer." Consequently, Extension marketing and utilization programs are conducted with many groups in the marketing system—from producer to consumer. Such educational programs provide the latest research results and evaluate the use of such information to producers, assemblers, processors, distributors, and consumers.

The objective of Extension marketing and utilization work is to contribute to improvements in the marketing of agricultural products. This includes providing producers, consumers, and marketing firm decision makers with research results and other information from which they may: 1) obtain a comprehensive understanding of the operations of various phases of the marketing system (such understanding is essential if adjustments are to be made to changes in technology, supply, government programs and regulations, and demand); 2) reduce unnecessary costs of marketing agricultural products; and 3) expand the uses of agricultural products.

The Cooperative Extension Service has a longstanding obligation and a legal mandate to conduct marketing work. The legal mandate is expressed in the Smith-Lever Act of 1914 and is further supported by Hearings prior to the Act. In addition, the Agricultural Marketing Act of 1946 spells out very specifically Extension responsibilities in marketing and utilization.

This is the third issue of the *Review* devoted exclusively to a particular phase of Extension education in marketing and utilization. The first issue defined Extension's educational role in marketing and utilization and illustrated the wide range of activities in which marketing specialists and county agents are engaged (November 1963). The second issue concentrated on market feasibility and illustrated some of the many facets and approaches involved depending upon the commodity, the area, and the degree of detail required (September 1964). This issue is concerned with some of Extension's activities in market development—another of the numerous areas of Extension marketing work.

Market development includes the development of new agricultural and industrial products (known as product development) and the expanded use of existing products. Effective market development work (examples discussed in later articles of this issue), necessitates a high degree of interdisciplinary cooperation from such disciplines as plant and animal physiology, chemistry, nutrition, bacteriology, genetics, psychology, economics, engineering.

Market and product development educational work affects and involves many people in many different parts of the economy. Producers of agricultural products are vitally interested in research and educational work which increases the demand or use of their products because of its salutary effect on producers' incomes.

Processing or manufacturing firms are also vitally interested in research on new products. The introduction of successful new products is essential to the growth and competitive position of many firms. Increased supply and use also benefit consumers because high volume process-

ing and distribution usually result in lower costs and prices. In addition, new products provide consumers with new satisfactions or conveniences which they have not had, but many of which they will buy when they learn of them.

Also, the result of much market or product development work combined with advanced technology, mass merchandizing, competitive prices and improved marketing efficiencies provide consumers with convenience foods —foods in new forms or uses. These may cost less than the fresh or less-highly-processed or serviced product. Consequently, many convenience foods have strengthened somewhat the demand for some foods and services. For example, the development of processed potatoes undoubtedly helped to reverse the longterm decline in the per capita consumption of potatoes.

One of our major objectives is to increase the efficiency of the marketing system. Extension works at three major points or levels in the marketing system. The first is at the production level—helping producers do a better job of marketing.

This includes helping individuals make decisions with respect to what, when, where, and how to market. It includes also assistance to groups of producers on alternatives for enhancing income through group action in the marketing of their products or purchasing of supplies.

Extension agents are making an important contribution at this level by helping producers understand the need for producing a product which can most efficiently be transformed into the final product, and at the same time not increase production costs or reduce net income.

With the development, acceptance, and consumption of more highly-processed and convenience foods, the greater is the need and the opportunity for Extension agents to do more market development work because highly-processed and convenience foods are many forms and many processes removed from the raw product which producers sell.

For these commodities, the marketing system is long, and many changes are made in the raw product after it moves beyond the producer's gate. Consequently, for many commodities, producers are not producing directly for the ultimate consumer, but for the marketing system—a system which functions for the sole purpose of providing consumers with products where they want them, when they want them, and in the many forms they want them at prices reasonable to all.

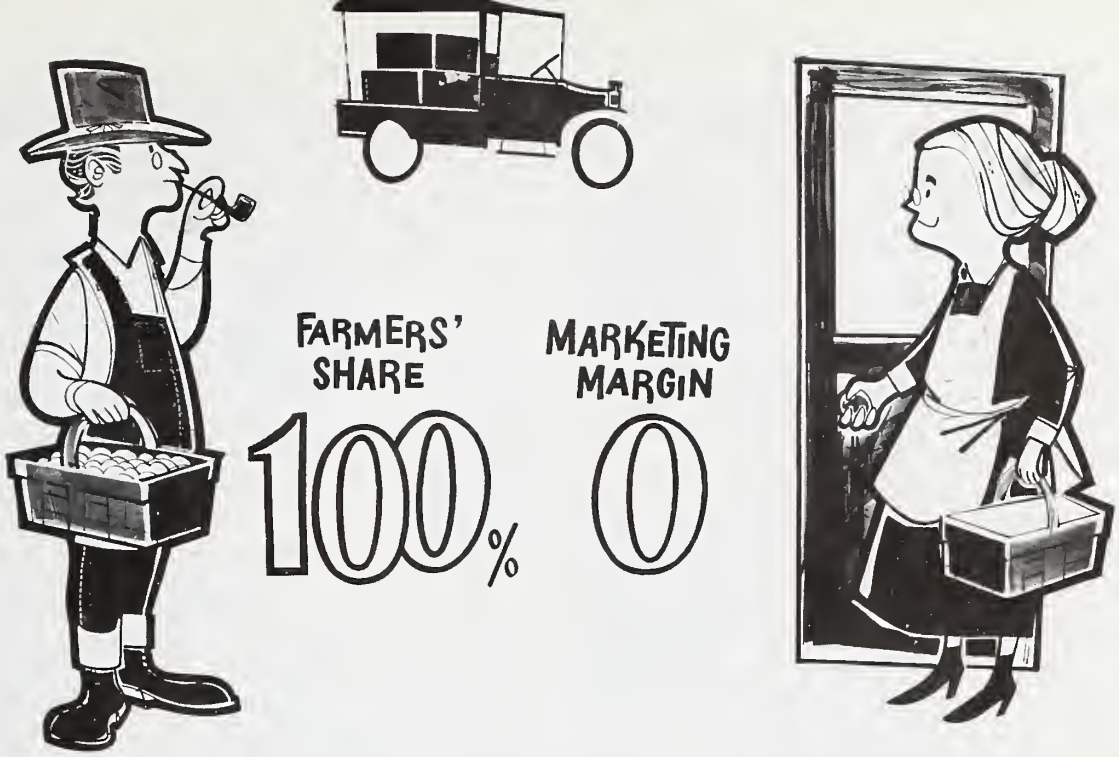
The second level of the marketing system at which Extension works is the processing level. At this level Extension agents are helping producers and processors coordinate their production to facilitate efficient assembly. This is an area where the agent's production training is most useful. One prerequisite to market and product development is a product which is uniform in many ways such as quality, size, shape, composition, weight. The attainment of the uniform characteristics requires that producers grow uniform products, and uniformity can be obtained only through coordination of varieties, planting dates, cultural practices, grading. Cooperative producer organizations are often organized for the purpose of assembling the production of many small producers into large enough lots for efficient selling and processing. Extension agents are doing very effective work with these groups.

Extension marketing workers also assist processors with their technical processing and distribution problems. In addition, they assist processors to think through the least costly alternative methods and techniques available to them given the production and marketing conditions facing them. Many processing firms continually evaluate their "product mix"—the combination of items to manufacture, and the form in which to manufacture and package them. Extension marketing specialists assist these firms when they introduce new or improved products by interpreting the latest research on how certain operations can better be performed (such as freeze-drying) and help them evaluate consumer acceptance. This includes studies on the effects of various types of advertising and promotional campaigns.

The third major level of the marketing system at which Extension works is with consumers. Our domestic consumers make up the largest, the most diverse, and the most complex group. Opportunities to do market development work with consumers are infinite because of the multitude of buying decisions the 195 million people in our country have as consumers.

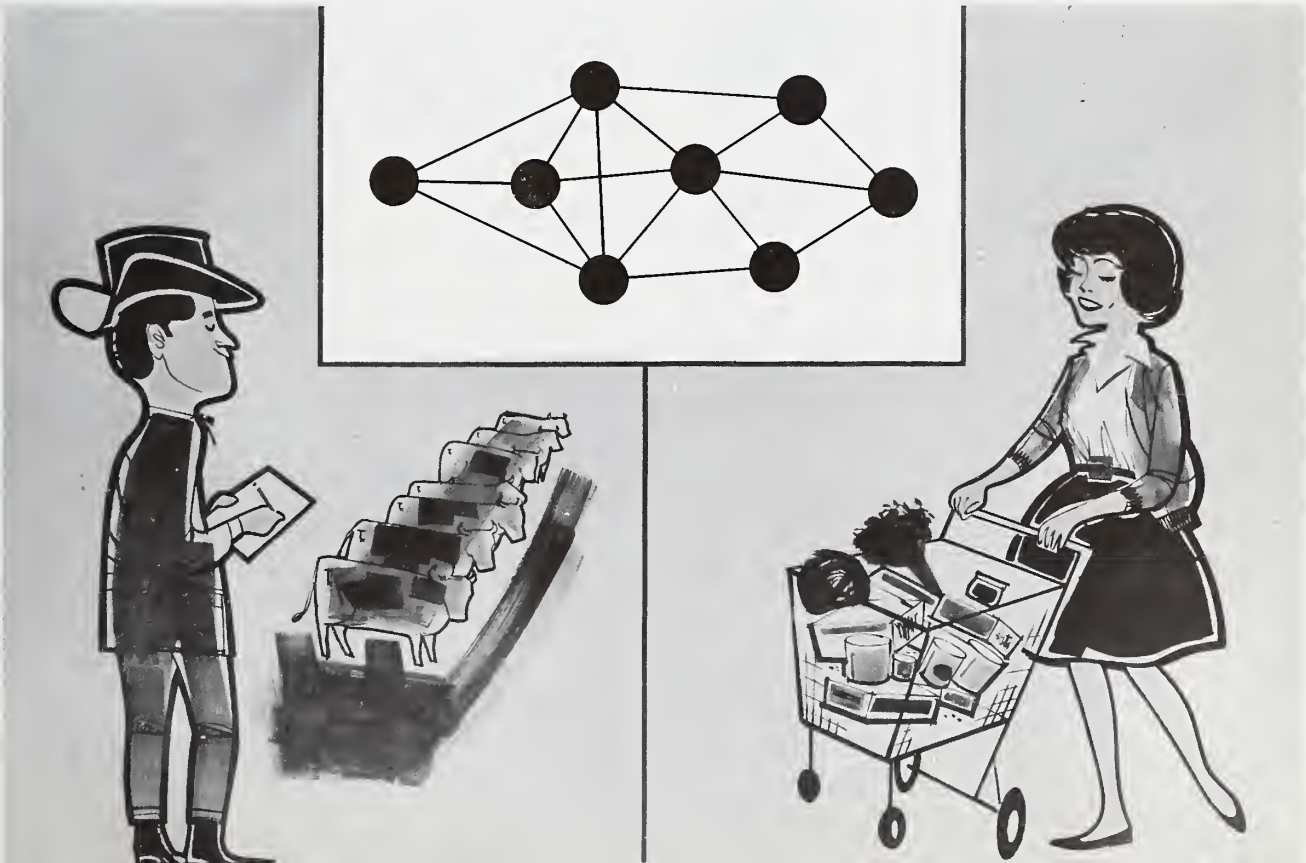
Extension agents and specialists assist consumers in evaluating desirable characteristics among products and brands in relation to cost as well as provide information on such other programs as the school lunch and food stamp plan. With the increasing avalanche of new, improved, and slightly altered products; color, shape and size of packages; and package weights coming onto the market, consumers are in need of reliable information which will help them make logical choices.

Foreign markets as an outlet for agricultural products are growing and are now a major outlet for certain commodities. Marketing work in foreign trade is a combination of the three above levels but has its own unique characteristics because of differences in customs, tastes, trade and exchange regulations. Exports could be further expanded if we knew more about the end-products which are made from our exports. Educational work needs to be done which will relate the end-product to raw materials. The nature of the demand of foreign consumers for U.S. agricultural products needs to be understood so that domestic producers will have the opportunity to produce the type or variety of raw product which can be processed efficiently into those products foreign consumers want. □



The Dynamics of Agricultural Marketing

by ROBERT E. FREEMAN,
Agricultural Economist, Marketing Economics Division, Economic Research Service, USDA



WE ARE well aware of many dramatic changes in the marketing of farm products. As consumers we have seen supermarkets, convenience stores, and discount houses develop at the expense of the independent corner grocery and traditional department stores. We have used new forms of frozen, dried, and partially-prepared foods; improved fabrics; and filter tips on our cigarettes. Synthetic foods, including "meats" from vegetable protein, are gaining a foothold. Less obvious, but no less important, changes in marketing include improved refrigeration, bypassing of terminal markets, vertical integration, increased emphasis on packaging and promotion, and more meals eaten away from home.

Farmers and agricultural colleges take a much broader view of marketing than do industrialists, and schools of business. To the manager of a business firm, marketing involves only the distribution of his product or service. By contrast, we agriculturalists have a "gate-to-plate" concept, including all the operations from farmer's gate to consumer's plate. Our view of marketing covers assembly, processing, wholesaling, retailing, exporting, restaurant service, and transportation at all stages.

There are interconnections among all these functions. Some milk is still delivered by producer-dealers directly to consumers and some fruits and vegetables are sold at roadside stands, but most products pass through many marketing agencies.

Thus defined, agricultural marketing is a big business. In 1964 consumers spent $68.7 billion on foods produced on U.S. farms. Farmers got $21.9 billion for these products at point of first delivery, and the value added by the myriad of marketing services was $46.8 billion. Consumer expenditures for all foods were $80.0 billion, equal to 18.5 percent of their disposable income.

Out of a total civilian employment of 70.4 million persons, there were 6.1 million farm workers, family or hired, and nearly twice that number of persons involved in marketing.

Agricultural production and marketing are mainly performed by private enterprise. Farmers and marketers are guided by their costs of production, prices received for their goods and services, and the hope of profits. The "unseen hand" of competition coordinates the process so U. S. consumers can be confident of their unprecedentedly abundant daily supplies of food, fiber, and tobacco.

Public bodies aid the private sector by providing law and order, facilitative services such as a monetary system, enforcement of contracts, weights and measures, education and mail service, regulations to enforce rules of the game, and such direct aids as price supports and food distribution for the economically-disadvantaged in our society. In the field of agriculture USDA, the Land Grant colleges, the Extension Service, and State and local agencies have been particularly active in assisting farmers.

Technology is the principal agent of change in marketing and in farming, as it has been in all industrialized societies for the past two centuries. The process of industrialization reduces the proportion of workers and other resources which are required in agriculture. As our experience in the United States demonstrates, returns in agriculture tend to be depressed during a period of rapid change such as we have had since World War II. Despite the cost-price squeeze, the farmer's standard of living has risen and the urban-rural gap has narrowed. However, farmers still lag behind many other producer groups in the advancing standards of living made possible by the larger share of effort devoted to nonagricultural goods and services.

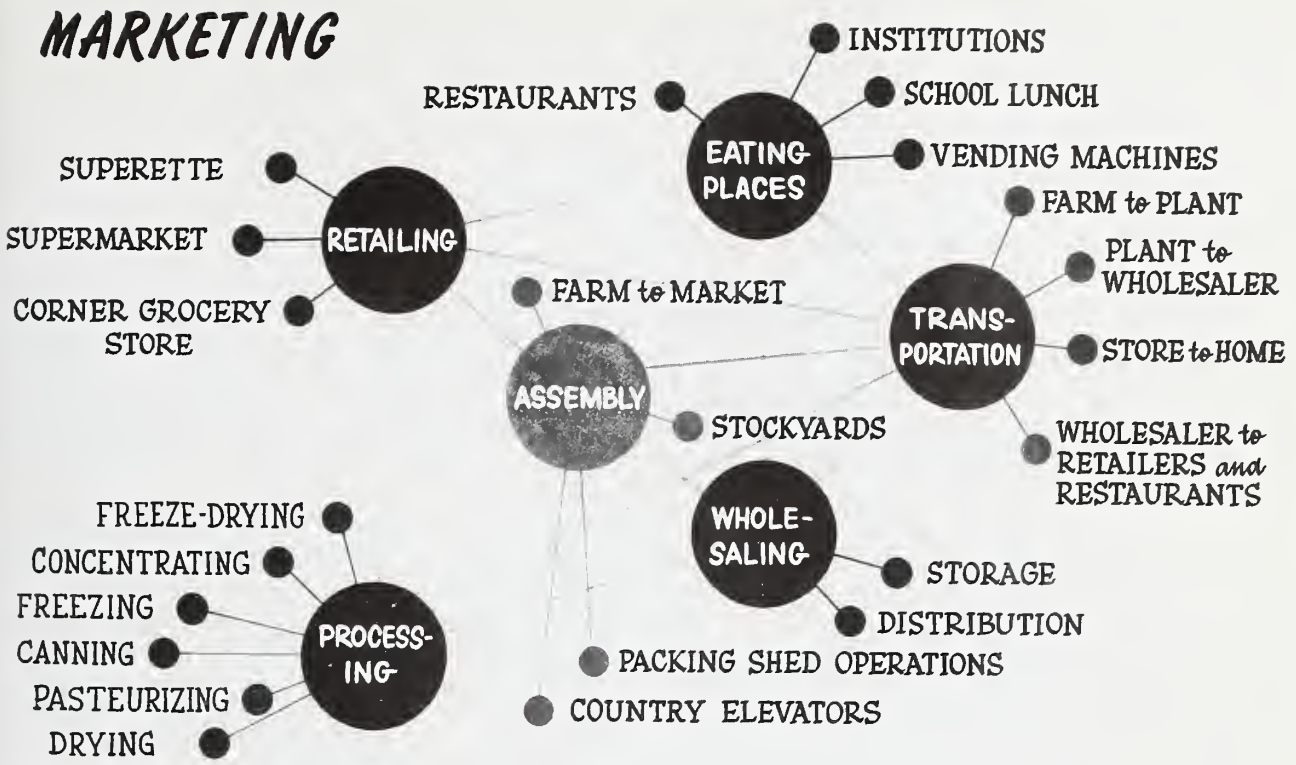
There are some suggestions that agricultural research should be halted until price-depressing surpluses are eliminated and farm incomes improved. Such a course would, clearly, be contrary to the technological progress which has kept the Nation strong and raised standards of living. Farm problems do suggest that more effort be made to help farmers adjust to the rapid pace of changes in production and marketing.

In the marketing field farmers rely increasingly on joint action through their cooperative associations. They also push for more effective governmental services in market news and inspection and grading. They also avail themselves of State and Federal marketing agreements and orders.

Changes in farming, marketing, and consumption affect each other in many ways. Most changes since World War II have led to a larger role for the marketing agencies. For example the number of agricultural workers declined from 10.4 million in 1947 to 6.1 million in 1964 while total population rose from 144 to 192 million.

The marketing system has grown because there are fewer farms and more consumers. Marketing has also grown because farmers are more specialized, in order to use their expensive equipment more efficiently, while consumers have an ever-wider choice of products. Furthermore, farmers are more commercialized and buy more of their equipment, fertilizer, and fuel in the marketplace.

Production expenses accounted for 50 percent of gross farm income in 1947 and were up to 70 percent in 1964. Meanwhile rising consumer incomes and urban living create a demand for restaurant eating, fancier and tastier foods, and ready-to-cook and ready-to-eat foods. Proc-



essors and retailers provide more merchandising and customer services. It seems likely that the marketing system will continue to expand.

Most farm products move directly from the farm to processing plants, so there are only a few products for which there are firms primarily doing business as assemblers. The huge stockyards at Chicago and other terminals have been largely displaced by smaller ones and by direct-buying. Country grain elevators have gotten much larger, but there are fewer of them and a third of them are operated by cooperatives. The fruit and vegetable packing sheds and receiving stations for milk and eggs are the other main types of assembly operations.

The tremendous rise in the output of frozen fruits and vegetables illustrates the success of a set of new processes.

The second big growth sector is in poultry, where broilers are essentially a new product, much cheaper in relation to meats than 15 years ago. The growth of the broiler industry involved new breeds of birds, mechanization of production, contract financing by feed companies, USDA inspection and grading, and a low-margin policy by the supermarkets. Marketing is done by the feed dealer who links the production and processing operation and often carries through to the food retailer. The farmer grows the broilers under specific contract and makes none of the marketing decisions.

Other processing operations which have grown faster than population include dairy products, meats, and canned fruits and vegetables. Slower growing processes are bakery and grain mill products.

In most lines, there has been a decline in the number of processing plants reflecting the basic drives to achieve economies of scale. One exception has been the meatpacking business. This has become decentralized from the terminal markets to country points. Both the number of plants and number of firms have increased. The other exception is poultry dressing, where the fourfold increase in volume was accompanied by a doubling of plant numbers.

The two major changes in food retailing are the rise of the supermarket and the gain in the share of business done by the affiliated independents.

Grocery stores doing $500,000 or more business per year accounted for only 2 percent of the total number of stores in 1948 but already made 26 percent of the sales. In 1963, "supers" comprised 12 percent of the number and did 75 percent of the business.

The biggest chains have not increased their share of total grocery sales since World War II. In fact, the nationwide chains were slow to adopt supermarkets and did so only after their competitors demonstrated the advantages of the supermarket.

The smaller chains have grown and the total chainstore share has risen moderately. Affiliated stores have grown rapidly, their share of the total grocery business rising from 29 percent in 1948 to 49 percent in 1963. They include voluntaries (wholesaler sponsored) and cooperatives (retail store sponsored). Since 1953, the affiliated groups have accounted for a larger share of total grocery sales than the ownership chains. The share of the unaffiliated independents has declined drastically, from 34 percent in 1948 to 10 percent in 1963.

These trends in grocery store ownership are reflected in wholesaling. The chains tend to own their wholesale facilities. However, wholesalers are gaining in other portions of food trade. They are a key element in supplying affiliated grocers, there are more specialty wholesalers and the restaurant and institutional trades depend mainly on wholesale suppliers.

Away-from-home. Trade data indicate that this market is growing rapidly and that consumers spent about $25 billion on meals at restaurants and institutions in 1964. We know little about the quantities of the various food served. USDA is developing cooperative research projects with the trade to determine the quantities and origins of foods consumed and other aspects of this sector of the marketing system.

Exports. U.S. agricultural exports were up during and after World War II and the Korean action. They then declined to a 1953 low of $2.8 billion. They have risen to a 1963-64 level of $6.1 billion. This total includes grants and sales for local currencies under Public Law 480, and some of the dollar sales have had governmental assistance. However, the greatest growth has been in commercial sales without assistance. Moreover, long-range prospects are good. The developing nations will need food and the U.S. is a highly-efficient producer of many basic foodstuffs.

Exports are a major outlet for many of our products. In 1963-64 exports of wheat and flour accounted for three-fourths of farm sales of wheat and flour, over half of our rice, over one-third of our tallow and soybeans, nearly one-third of our cotton and over one-fifth of our lard, tobacco, corn, barley, and sorghum grain.

One of the principal advantages of the free enterprise system is the great incentive it provides for introducing new methods, products, and services. The firm which successfully innovates a product or cost-saving method of production reaps large profits until others copy or improve on the discovery. Innovations in farming, marketing, and throughout the United States economy have reduced the proportion of our income spent for food to lower levels than anywhere else on earth. U.S. consumers spend less than 19 percent of their income for food as compared with about 25 percent in Sweden, 30 percent in France, and 50 percent or more in such less-developed lands as Ceylon and Ghana.

Two of the most significant areas of innovation showed up in our discussion of processing, in the form of tremendous increases in the output of frozen fruits and vegetables and of broilers. The soybean is a prime example of a new crop. The loss of our coconut oil supplies in World War II gave impetus to U.S. production of soybeans. They now provide two-thirds of all domestic vegetable oil, and three-fourths of all oilseed meals for livestock feed.

Such a simple-appearing innovation as the paper carton for milk had a greater effect than is generally realized. It was a big factor in shifting sales of milk from home-delivery to grocery stores, usually at substantial savings to consumers. The filter tip for cigarettes and homogenization of leaf tobacco have drastically altered the types and grades of tobacco needed for cigarettes and cigars. Cotton fabrics have made a substantial comeback through the development of wash-and-wear processes. The new stretch-weave process gives promise of further marketing gains. The USDA Western Utilization Research Laboratory has developed the promising "Wurlan" process to make woolens machine launderable.

We are all aware of the growing array of convenience foods available in our supermarkets in ready-to-cook or ready-to-eat form. Many of them cost more, but are welcome for the time and effort saved. However, a recent USDA study showed that frozen orange juice concentrate and many other convenience foods were cheaper than the equivalent raw foods because the extra costs of processing were more than offset by savings in transportation and handling costs.

In some ways though, we are overly impressed with the new items. Total output of processed foods increased only 12 percent faster than population from 1947 to 1964. We still take most of our food home and cook it, and our diets have not changed drastically. In reviewing the whole field of our industrial organization in the United States the food trades show a comparatively slow rate of change, while the electronics, atomic energy, and space industries are leaders in rapid development.

One of the major hopes for the Research and Marketing Act of 1946 was that large-scale new uses could be developed for farm products. The four utilization research laboratories are widely credited with important achievements. However, it must also be recognized that coal, petroleum, and other substances are comparatively cheap raw materials and that industry is rapidly developing products from them which compete with natural fibers, oils, and even with foods.

Competition is also keen within the food field as producers of old and new products strive to gain consumer acceptance. Our acceptance of new foods is commonly gained by price advantages, attractive packaging, and promotion. These, though, can be as effective a means of introducing new foods as the dietary shortages of protein in the underdeveloped lands.

As farmers become more specialized and commercialized and as consumers demand or accept more services and their real incomes improve, the marketing system will continue to grow.

Really drastic changes in foods, oils, and fibers seem technologically possible. However, such a sudden revolution does not seem likely. In our affluent society there is no urgent need to substitute vegetable proteins for meat and poultry.

We look forward then, to a continuation of recent trends in marketing. Some of these major trends: many new products and processes will gain consumer acceptance, the retail trade has become the dominant force in marketing, the effort and expenditures on merchandising and promotion have grown, farmers have relied increasingly on cooperatives and joint promotional efforts, and governmental services have grown as the marketing system has become more complex. It seems likely that consumers will continue to spend a smaller proportion of their rising incomes on food. □

Extension Education on Advertising and Promotion

by EDWARD DAILEY,
Extension Economist, Purdue

THERE IS a growing demand among producer groups for data, concepts, principles, case histories, and research results relevant to advertising and promotion of farm products. Interested groups are calling more and more upon Extension workers to provide guidance and information to help them in their decision-making; to help them make more meaningful judgments about optimum conditions for advertising and promotion; to help them reduce the probability of errors in planning.

For example, greenhouse tomato producer groups interested in improving their returns through advertising and promotion called on Ohio Extension Marketing Specialists, Ed Royer and Paul Thomas recently. Fred Perkins, Extension Marketing Specialist in New Jersey, has met several times with groups studying the formation of a commodity council for promotional purposes. Tom Stanley, Vermont Extension Economist, used case problems in a work session with a combined commodity marketing committee.

Other Extension workers such as Don Long (Virginia), Jeanette Lynch (Colorado), and O. E. Allen (Missouri) have met with State Departments of Agriculture, producer-promotion groups, and farm organizations. Educational programs have been carried out by these folks helping farm leaders to understand the relevance advertising and promotion has in expanding their product's demand.

Latest surveys show over 1,200 commodity groups are spending about $100 million per year for promotion.

Early efforts to advertise and promote farm products were made by a California marketing cooperative in 1907. In that year $10,000 was spent by this group to promote oranges in Iowa. Over the years, promotion activities by producer-promoter groups have varied greatly. Farm products were promoted vigorously during the depression years and up to World War II and the Korean War, commodity promotion has expanded both in numbers of groups promoting and in size of budgets.

Producers and others have become increasingly interested in the promotion of farm products. Cooperative Extension workers are being pressed to provide guidance. While promotion has long been used by some commodity groups, to others it is new and untried.

Extension has broadened the scope of its educational work to better serve agriculture and related business. Extension policy statements point out the need for educational work in the marketing of farm products and especially in expanding the demand for these products. Advertising and promotion is an important part of the marketing mix. Educational programs in this area are an essential and logical part of the work to increase efficiency of marketing agricultural products.

A major overall objective is to provide educational assistance to commodity groups and others in helping them make decisions about promotion of their product or products which will contribute to marketing efficiency. Some specific objectives are to help decision-makers: 1. under-

stand the role of advertising and promotion with respect to the marketing of farm products, 2. analyze their promotion opportunities, 3. define their goals and set specific objectives, 4. plan effective promotion programs, 5. develop alternative plans, and 6. have program evaluation.

Recognizing the growing responsibilities and opportunities for Extension education relative to the promotion of agricultural products, the Federal Extension Service contracted with Purdue University to develop some educational materials and resource information on promotion. These materials are designed primarily for use by Extension workers in conducting educational programs with commodity and industry groups interested in the promotion of their products. Materials developed under this contract include the following.

1. An annotated bibliography, including a discussion of major promotional problems and sources of information for solving them.

2. Guidelines for advertising and promotion of agricultural products (including a systematic consideration of 16 important factors to study when evaluating the feasibility of promoting a product, evaluation of promotional effectiveness, and complementary activities for expanding markets and net returns).

3. A guide for developing educational programs in advertising and promotion.

Slide sets and scripts were prepared to accompany the printed materials and are available from Purdue to the States. Seminars have been held at three different locations (Midwest, East Coast, and West Coast) to acquaint Extension workers with the materials and to explain how these materials may be used in working with promotion-minded commodity groups. Case-problem situations have been developed and used to add realism to abstract promotion principles.

The Federal Extension Service plans to continue its assistance to State Extension workers by fulfilling requests for in-service training of staff members and assistance in working with commodity and industry groups interested in promoting their products.

Results of adult educational work are not always easily measured. Even in areas of long-standing Extension activity, action by decision-makers may result from a combination of factors. The following examples illustrate some recent Extension educational activities in advertising and promotion of farm products.

In New Jersey, after several meetings of the blueberry industry, the group decided not to promote at this time. Extension personnel using a promotability audit helped them analyze their promotion opportunity in the process of making their decision. Their decision was in keeping with research studies of promotion effectiveness that show considerable variation exists in the opportunity for promotion. Through these meetings producers acquired a greater understanding of the role and effectiveness of promotion which influences their decisions.

The opportunities for promotion educational work vary from State to State. Extension personnel have played a number of different roles. In addition to close counseling with individual groups and with boards of directors, Statewide workshops and seminars have been conducted. One such school was held recently in Charlottesville, Virginia. Participants included State Department of Agriculture officials, managers of commodity groups, research workers, advertising agencies representatives, State Extension specialists and Federal Extension personnel. Workgroup sessions focused attention on market targets, promotion objectives, alternative promotion plans, and program evaluation for two newly-established Virginia commodity groups—eggs and sweetpotatoes. At a similar meeting held in Missouri, State officers of farm organizations participated as well as other categories of personnel.

One of the newer farm products receiving marketing assistance is privately developed recreation facilities that utilize rural resources. In Indiana a district school has been held for county agents to outline promotion principles and guidelines to enable these agents to better serve clientele who may need such help. A newly developed enterprise was analyzed to provide case study materials and the operator was counseled about his alternatives.

Advertising and promotion work in farm commodities is somewhat unmapped territory with few established procedures. Although the available materials such as the "Guidelines—Advertising and Promotion of Farm Products" published by Purdue University will be helpful, the ingenuity of the individual worker will continue to be important. Only with the passage of time can the impact of Extension's contribution to decision-making among commodity groups with respect to advertising and promotion be fairly judged.

An important bonus or fringe benefit in this work is that of uncovering basic marketing problems which require the consideration and remedial action of producers and market interests. Producer groups formed for promotion purposes may find basic industry problems such as quality control, adequate distribution, and grade standards should first be solved before promotion can be effective.

As progress proceeds in meeting educational objectives Cooperative Extension specialists working with commodity groups and agricultural business can contribute to the efficiency of marketing agricultural products by helping decision-makers to: 1. analyze their promotion potential, 2. define their problems and alternative solutions, 3. define their objectives and goals, 4. plan effective promotions, 5. evaluate their programs, 6. make knowledgeable decisions on the basis of the best information available, 7. consider complementary activities to advertising and promotion programs, and 8. discover weaknesses in their product marketing practices that may have been traditionally overlooked. □

Harvesting white club wheat in the rolling Palouse Hills of Whitman County, Washington, the top-ranking wheat-producing county in the Nation.

Extension Helps Develop And Expand Markets for Pacific Northwest Wheat

by OWEN S. WIRAK,
Extension Marketing Economist, Washington

COOPERATION and mutual understanding have become the key links in a new chain of effort to expand foreign and domestic markets for wheat produced in the Pacific Northwest. Agricultural Extension has helped to forge these links through an industrywide educational program.

The production of wheat is a major industry in the Pacific Northwest. Farmers obtain more money from wheat than from any other crop. Income to railroads, trucking firms, barge lines, steamship companies, grain handlers, exporters, flour mills, and banks in the region depends to a great degree on the wheat crop.

The bulk of the crop is delivered to country elevators for storage at harvest time. Farmer-owned elevators account for 85 percent of interior commercial storage. Most of these firms are organized as independent cooperatives and are relatively large concerns averaging about two million bushels of storage capacity. The local cooperatives own a regional cooperative with terminal and subterminal facilities through which they market some or all of their grain.

Growers generally maintain ownership until their wheat is sold to an exporter, miller or feeder. Since 1949 the principal outlets for 85 percent or more of Pacific Northwest wheat production have been export markets in the Far East. The wheat movement is primarily westward by rail, barge and truck to Pacific tidewater terminals at Puget Sound and along the Columbia River.

About 65 to 70 percent of the grain produced in the

area moves to terminal positions by rail. However, with the completion of dams presently under construction on the Columbia and Snake Rivers, slack water navigation will be accessible to most of the producing areas in the region.

Exports of wheat and flour have played an important role in international commerce of the Pacific Northwest for over a century. On the average, about two-thirds of all wheat exports in recent years have been sold for foreign soft currencies under Public Law 480. Japan is the major hard currency market.

Trading differs from that of other major wheat areas because export sales are so important and there is no future market.

The entire industry is highly organized with wheat growers associations, wheat commissions, a growers' supported foreign market development entity and numerous trade organizations. All segments of the trade are represented in the Pacific Northwest Grain Dealers Association.

Although the region has many inherent and other advantages in the production of wheat, it also has many problems associated with the marketing of this important crop.

The importance of the export market has been mentioned previously. However, the extent and nature of wheat exports varies greatly from one year to the next depending on supply—demand relationships and particularly on P. L. 480 authorizations and the amount of the export subsidy. This situation along with the many changes which are occurring in the market structure for Pacific Northwest wheat places growers in a situation of increasing complexity in deciding what, when, where, and how to market.

Both producers and decision makers in the marketing system are faced with a growing problem of trying to conduct the everyday affairs of their business and at the same time recognize and understand the changes which are taking place, determine the adjustment alternatives available, and implement the most desirable adjustments. Such moves generally require new management skills, new technology, and large amounts of capital for operations, improvements, and new ventures.

The development of slack water on the Columbia and Snake Rivers is causing all segments of the industry to review positions and to attempt to determine the impact of slack water navigation on facility location and improvements, transportation costs and competitive relationships.

Freight charges are of extreme importance to the industry because the producing areas are so far removed from major markets. Efficient use of the transportation market

A typical country elevator station in the Pacific Northwest.

is a major factor in grain marketing for all segments of the industry.

Leading Pacific Northwest wheat growers, through the Oregon Wheat League and later through Western Wheat Associates, Inc., in cooperation with the Foreign Agricultural Service have pioneered in the development of foreign markets for wheat and wheat products such as Bulgur. The typical producer though, has been more concerned about the quantity of wheat produced than about the qualities (both from grade and end-use standpoints) or how the grain was marketed.

Although Far Eastern dollar markets for wheat have been growing rapidly, particularly in Japan, this growth is due largely to increased usage of hard wheats and feed wheat. In addition, Australia is competing strongly for the soft wheat markets traditionally supplied by this region.

The domestic markets for the region's wheat have remained relatively static for a long period of time until this last marketing year when feed use increased sharply. Lack of research data on the market potential for use of wheat for feed makes it difficult to predict the impact of this outlet on total supply-demand relationships.

When the present Extension grain marketing program was initiated about 4 years ago, it soon became evident that there was considerable lack of understanding and in some cases real antagonism between various segments of the industry. Unless these attitudes could be changed, it was doubtful that any significant progress could be made. The first objective was to increase mutual understanding and cooperation among all segments of the industry, government agencies, and other entities who are concerned with the marketing of this important crop.

Loading a grain cargo ship at a Pacific tidewater terminal.

The Washington Association of Wheat Growers and the Washington Wheat Commission had expressed interest in a wheat marketing workshop. It was decided to use this as a vehicle to get leading producers and representatives of the trade and agencies concerned with grain marketing to sit down together to consider matters of interest to all —how wheat is marketed, what determines prices at terminal and local levels, and what is the nature of Government programs which affect the markets and marketing system.

The idea was to describe, explain, and analyze market organization and factors effecting market supply and demand. A policy was established and has been strictly followed that the workshops, which have now become an annual event, would be used to increase understanding of existing Government programs and would not be concerned with legislative proposals or resolutions. This created an atmosphere which permitted participants of widely different viewpoints to work together in a congenial, educational atmosphere.

The workshop programs are planned and conducted by a committee representing the Extension Service, the Department of Agricultural Economics, the Washington Association of Wheat Growers, and the Washington Wheat Commission. Resource people are drawn from the three Pacific Northwest Land-Grant Universities, as well as other universities throughout the country, various Government agencies, leading growers, representatives of grower organizations, and all segments of the trade. Excellent cooperation has been received from all concerned.

Four workshops have now been held with each program increasing in scope and depth. Because of the workshop nature of the project, attendance has been limited to about 100 participants. This educational effort along with similar meetings and workshops held in the major Washington wheat counties have materially contributed to the rapidly-increasing core of wheat leadership in Washington and to some extent throughout the Pacific Northwest.

The trade in general has recognized that their secretive attitudes in the past have contributed to the attitudes which existed among growers. When country and terminal elevator managers, merchandisers, millers, and exporters, outlined the nature of their businesses, the large investments involved, the risks and uncertainties, their operating practices and margins, the basis for prices bid for grain, etc. they found producers to be sympathetic and understanding.

Leaders throughout the industry soon realized there was

A panel considers the economic and political aspects of wheat exports during a wheat marketing worshop.

so much for everyone to gain by working together.

When the USDA Agricultural Marketing Service (now the Consumer and Marketing Service) proposed substantial revisions in the U. S. Standards for Wheat, trade representatives and growers worked hand-in-hand under leadership of a tri-State grain standards committee to carefully study the impact of proposed revisions in grading factors and dockage on the industry. Large numbers of samples were collected at country points by elevator operators for grading. State inspection reports on export cargoes were examined to compare the quality of wheat being exported with country grades. When a hearing was held in the area on proposed revisions, the industry from growers to exporters were able to present a united case based on factual data rather than opinions.

Educational work with country elevator firms receives major emphasis and is carried on in cooperation with an industry advisory committee representing all types of country elevator concerns—cooperatives, non-cooperative corporations, and proprietorships.

The objectives are to help elevator managers increase their merchandising abilities and knowledge of domestic and international trade in wheat as well as other cereals and to increase operational efficiency of the firms, both technical and economic.

In order to increase or even maintain both domestic and dollar export markets for Pacific Northwest wheat, the trade must supply customers with the type of wheat they want at competitive prices. If a customer wants low protein White Club and gets a high protein Soft White, he will go elsewhere to secure his needs. If he is a domestic miller who wants a hard red winter wheat and all that is available is Soft White wheat, he will go to Montana or the Great Plains to get his supplies.

A variety of educational programs are used to assist country elevator managers. A Terminal Marketing School is held each year in cooperation with Oregon and Idaho Extension economists, exporters, terminal operators, port authorities, and various Federal and State agencies. In general, these schools have combined classroom sessions with tours to terminal and port facilities, the grain exchange, and processors. They are designed to increase participants' understanding of the market structures for cereals produced in the region, factors affecting terminal prices, the physical handling and inspection of grain at terminal elevators, and specific requirements of processors and other buyers.

Management audits are conducted of representative firms to obtain case study data and to be in a position to define with some precision key performance areas and the major problem confronting country elevator concerns. These studies also establish "benchmark firms" which can be used to evaluate the effectiveness of Extension programs over time.

The first of an annual series of workshops for elevator managers was initiated last fall. This project is designed to present over a period of 3 to 5 years, on a continuing basis, a course of instruction in subject matter ranging from general management principles to advanced management theory and strategy.

Most of the managers are college graduates with 10 to 15 years of practical experience in the grain elevator business at the executive level. The advisory committee was concerned that men of this caliber would not attend a workshop on management principles and would send their warehouse superintendents or office managers. This was

Participants in a grain marketing workshop that was held at WSU discuss some of the uses of white wheat.

not the case, however. The participants were experienced managers who were very interested in modern concepts of management. Typical of the statements by participants on evaluation sheets was the following: "Most of us are more aware of the complete job management must do. We have too long set back and followed old, out-dated methods. The seminar will guide us to new and better management levels."

Directors of cooperative and other farmer-owned elevator concerns are receiving training in the role and responsibilities of a director in a program being carried on for all cooperative directors in the State by Agricultural Extension and the State Council of Farmer Cooperatives. As directors advance in this program, special work sessions are held to aid in relating subject matter to problems which are peculiar to the grain industry.

A recent survey of grain elevator firms indicates that grain handling and merchandising practices are changing rapidly to adjust to new market conditions. Managers are training their elevator operators and equipping their stations to segregate wheat by subclass or variety, quality, and condition upon receipt and to be in a position to blend, clean, or condition grain to meet market demands.

An excellent example of what teamwork can accomplish is the adjustment which the industry made to the revisions in the grain standards last year. Extension workers, leading growers, members of the trade, the State grain inspection service, and the Consumer and Marketing Service all worked together to inform producers and country warehousemen about the nature of the revisions and the adjustments necessary to prevent unnecessary downgrading of the wheat during harvesting and receiving at country stations. It is estimated that this educational program resulted in adjustments both in harvesting methods and at country elevators which saved growers over $1 million in grade discounts.

Largely as a result of Extension work which has been done with the grain industry, major areas requiring marketing research have been determined and considerably more research resources are now being devoted to this area. Recently initiated at Washington State University are projects in grain market structure, comparative costs of farm and commercial storage and feasibility of using Chicago Soft Red Winter Futures to hedge positions in white wheat.

It is difficult to assess the effectiveness of this or any other Extension program because the real yardstick of what has been done can only be measured by the actions of the people with whom we work. However, the spirit of cooperation, mutual understanding, and interest in marketing education which now exists throughout the industry should provide the basis for important strides in greater market development in the future, both domestically and foreign.

It is certain that the demand for wheat and wheat foods will continue to expand in the Asian areas. Two-thirds of the world's population live in these countries. Their per capita income and tradition is such that they depend on cereal grains for their food. In most of these countries, this demand is going to continue until such a time as the per capita income of the people allow them to purchase more luxurious food. This is unlikely to happen in most countries in Asia within the foreseeable future. In the meantime, the Pacific Northwest wheat industry will be working cooperatively and aggressively to increase its share of this huge market. □

The use of dialdehyde starch which was developed by the Northern Utilization Laboratory is what conveys wet strength to this facial tissue.

FES Utilization Specialists Work with Industry and Research

by LEWIS F. NORWOOD, *Assistant Director*
Division of Marketing and Utilization Sciences
Federal Extension Service

Many have seen the TV commercial with Harry James testing the strength of a facial tissue at the music end of his famous trumpet. Few realize, however, the contribution that Extension specialists have made to this and other new products for the expansion of markets for agricultural products.

Federal Extension Service utilization specialists are fulfilling a familiar role in extending and applying the results of research related to new products and processes and reflecting back to research workers the problems and opportunities for additional research which will contribute to the joint utilization-Extension objective of "finding new and expanded uses for agricultural products . . . thus providing the farmer new outlets for his crops . . . and the consumer new and improved products from farm crops."

Research to analyze farm products for their chemical constituents began when the Department of Agriculture was born in 1862. Specific research to find new and improved industrial, food, and feed uses for the raw products of the farm did not begin until after 1935.

In 1935, the Bankhead-Jones Act directed the Secretary of Agriculture to conduct scientific, technical, economic, and other research into the

laws and principles which underlie basic problems of agriculture in its broadest aspects. Among other things, this Act provided for a laboratory at Urbana, Illinois on the University of Illinois campus, to seek industrial uses for soybeans.

This facet of agricultural research was broadened to a full-scale thrust in the Agricultural Adjustment Act of 1938, which provided for a regional utilization research laboratory in each of the four major farm areas—Eastern at Philadelphia; Southern at New Orleans; Northern at Peoria, Illinois; and Western in Albany, California (near San Francisco). They were completed and in operation by April 1941.

There has been a steady expansion in the Department's utilization research and development program in the past 10 years. For instance, funds for program activities have risen from $9.6 million in 1956 to nearly $30.2 million in 1965. Research emphasis at the regional laboratories has been concentrated in the broad categories of cereals and forage crops; cotton and wool; fruits and vegetables; oilseeds; new and special crops; and poultry, dairy, and other animal products.

FES utilization specialists are now working closely with all four regional research laboratories to extend research developments and to speed up their application. Utilization specialists do not, however, assume the responsibility for extending all of the regional laboratories' research, but have selected special products, processes, or equipment for giving emphasis. These areas of emphasis are usually selected by the specialist in cooperation with the Director of the Regional Utilization Research Laboratory, the Assistant Director for Industrial Development, the Laboratory Chiefs in charge of the research areas served, and the representatives of the FES Administrator.

One of the first areas selected for Extension concentration was cereals and forage crops with particular emphasis on the expanded uses of starches. Wheat and corn get primary research and Extension attention by reason of their abundance and because chemically they possess valuable properties with industrial potential. Starch is one of the most versatile and plentiful constituents of grain. Corn is about 70 percent starch and provides the major economical source of this material. To further broaden the industrial market for starch products, utilization research is seeking to improve its properties for existing applications and to reveal entirely new uses.

Starches with superior ability to impart strength and with outstanding adhesive properties are valuable to use in sizing and coatings for paper. Scientists believe it may be possible to chemically combine starch with cellulose fibers or to develop starch as a fibrous element of paper itself. Some 41 million tons of paper products such as corrogated box board, bagging paper, and gypsum board are used in the United States today—and use is rapidly expanding. These products could provide an outlet for 40 to 100 million bushels of grain, if only 2 to 5 percent starch were used. It has been established that 1.2 billion pounds of starch were utilized by the paper industry in 1964 to improve their products. This also expanded the market for grain products.

A major breakthrough in starch chemistry has brought a versatile material known as dialdehyde starch—a product developed by the Northern Utilization Research Laboratory. This chemically-modified starch, now manufactured industrially, is already providing new and growing industrial outlets for abundantly-produced grain.

Kenneth R. Majors, FES Grain Products Utilization Specialist who works out of the Northern Laboratory in Peoria has responsibility for expediting the evaluation and subsequent acceptance by both processors and using firms of new cereal products developed at the laboratory with the objective of enlarging existing markets and opening new markets for grain products.

Majors has been giving considerable attention in recent years to acquainting paper and paperboard firms with new cereal products including dialdehyde starch, which has been developed at the Northern Utilization Laboratory. Special attention has been given to expanding the use of dialdehyde starch—this starch conveys wet strength (retains useful degree of strength when wet) to paper toweling, facial tissues, and the like—a quality that is desired by consumers in all household paper products. (Presence of wet strength is why the facial tissue is able to resist the pressure of Harry James' High C during the TV commercial.)

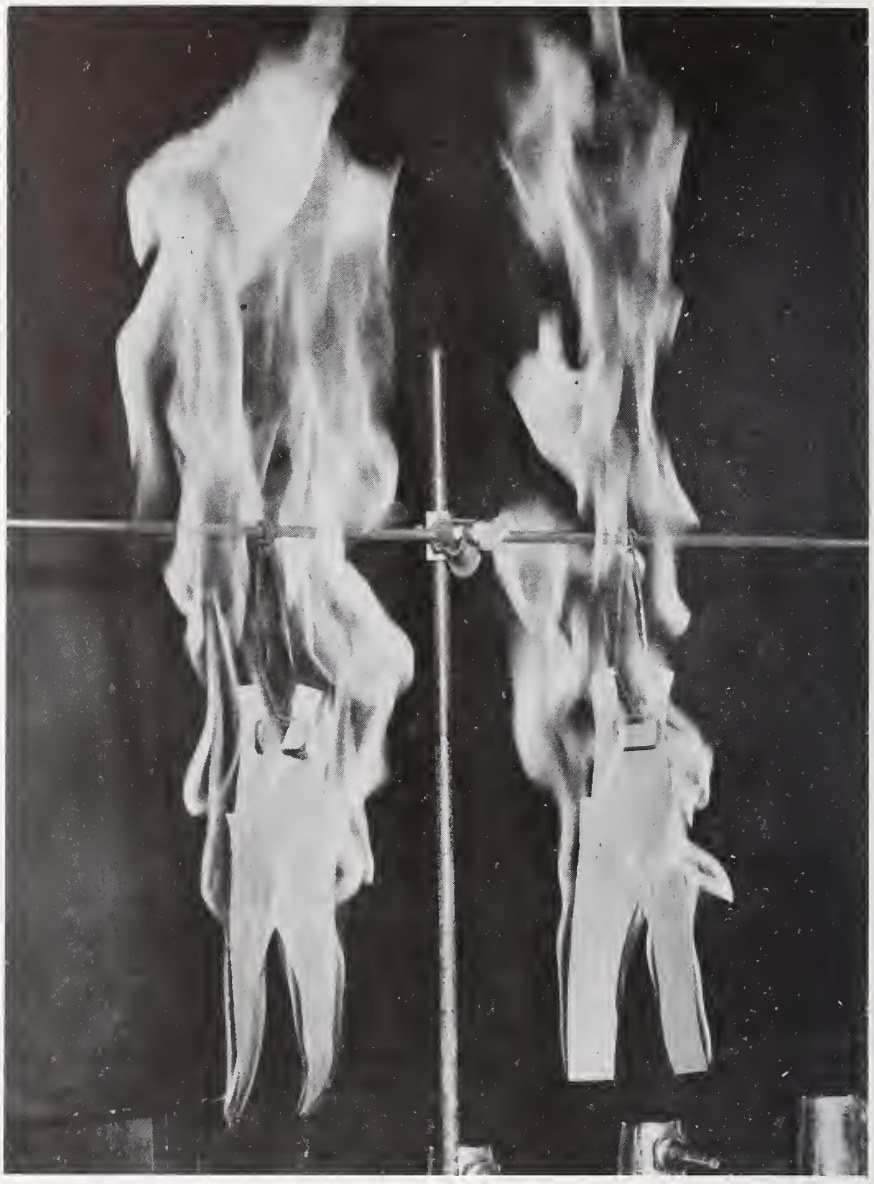
Still further, industrial outlets for dialdehyde starch are promised in paper coatings and in glues for southern pine plywood, a newly-developing industry which began commercial production in 1963. Majors is including southern pine plywood producers among his clientele this year.

One of the stiffest tests that utilization specialiists have is that of increasing the utility of cotton in competition with synthetic fibers tailored for special uses. Cotton represents a more than $2 billion-a-year cash crop for farmers. It is our Nation's most important farm-grown industrial raw material. With the emergence of syn-

thetic fibers, cotton has lost important markets. The synthetics gained a foothold because of their special advantages in certain uses, and heavy promotion by the synthetic fiber industry. Agricultural research has been working toward better utilizing the natural qualities in cotton and modifying the fiber to add other valuable properties.

Since 1941, science has discovered more new facts about cotton than during all the previous history of cotton fiber. The major part of this new knowledge came from the Department's research at the Southern Utilization Research Laboratory. Through chemistry, many improved properties can be imparted to cotton to aid in meeting the increasing competition of synthetic fibers. Widespread consumer acceptance of easy-care cottons provides an outstanding example of successful industry application of chemical finishes to aid cotton utilization. In recent years easy-care cotton finished fabric production has totaled about 2 billion linear yards annually. Easy-care cotton fabrics represent nearly 15 percent of current U.S. woven textile production and utilizes nearly a million bales of cotton annually.

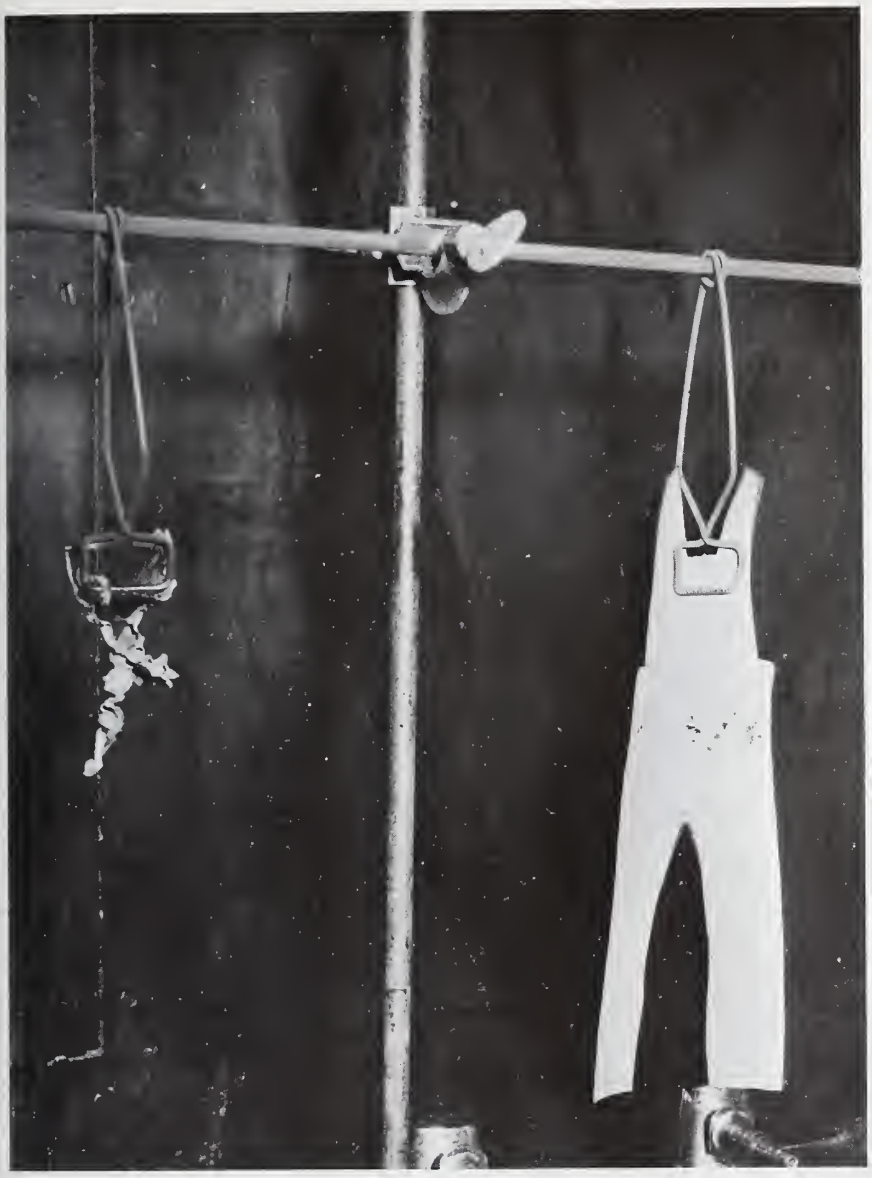
FES has two utilization specialists charged with responsibility for increasing the utility and market for cotton. Lawrence L. Heffner is officed at the School of Textiles, North Carolina State University in Raleigh and William J. Martin is at Clemson University, South Carolina. Both of the FES utilization specialists' programs are based on Southern Utilization Laboratory research findings. Heffner's responsibility is to assist management personnel of research and development programs in cotton chemical processing methods. In 1964, chemically-processed cotton accounted for about 60 percent of the total U.S. production of woven textile of all fibers. Heffner's major emphasis is concentrated on extending research for imparting improved luster, strength, stretch, easy care, abrasion resistance properties to cotton.



The material on the right was given flame-resistant properties.

Martin is also striving to improve the competitive position of cotton by aiding operators of textile mills to reduce costs and improve product quality through the use of improved mechanical processing methods and equipment. He is helping management personnel of these mills to evaluate the SURL's opener-cleaner as a means of improving efficiency in the mills' opening room and as a vehicle for blending. Martin is also assisting management personnel to evaluate the fiber retriever aimed at improving labor efficiency and reducing waste and evaluating alternatives for establishing greater efficiency in the yarn and spinning process.

The significance of cotton utilization work and its benefit to producers is evident from the potential for stretch cotton fabrics. It is estimated that the potential for stretch fabrics is more than 2 billion yards—comparable to wash-wear. Such a potential, if realized, would require over



The material at left is completely burned; the treated remains in tact.

a million bales of cotton annually.

In the fruit-and-vegetable category the development of frozen orange juice in cooperation with the Florida Citrus Commission was one of the most notable achievements of the utilization laboratories. The retail value of frozen orange juice concentrate today is more than $300 million a year. Utilization research has supplied information for improving freezing techniques, equipment, and storage information to help processors, distributors, retailers, and consumers maintain the original high quality of frozen foods.

Continuing study in this field has led to other developments, including dehydrofreezing. This process combines two established methods of food preservation—drying and freezing. It offers an economical method of preserving fruits and vegetables, while contributing to high food quality.

Potato processing has expanded very rapidly in recent years. In 1940, less than 2 percent of the potato crop was processed. Today, approximately one-third of all the potatoes used for food are consumed in the form of chips, frozen french fries, dehydrated mashed potatoes, and other products. Further expansion of processing is expected. The growth of potato processing is credited with reversing the previous steady decline in consumption of potatoes by virtue of the appeal of convenience products to the consumer and thus has had a very significant impact on the economic well-being of the potato industry.

Irvin C. Feustel, FES Fruit and Vegetable Utilization Specialist at the Western Utilization Research and Development Division laboratory in Albany, California (fruit and vegetable utilization research is also done at the Eastern and Southern Utilization Research Laboratories), has been specializing in potatoes and is providing assistance to processors and prospective processors of frozen and dehydrated potato products in solving technological and marketing problems related to plant feasibility and costs, raw material suitability, adoption of new or improved processing technology, and quality and storage stability of products.

The results of utilization research on other fruit and vegetable commodities are also being disseminated to industry. Notable among these efforts is Feustel's close cooperation in the organization of national commodity research conferences which serve to keep the industry collectively informed of latest developments in production, marketing and utilization, as well as to provide a forum for discussion of problems on which further research is needed. Commodities presently covered in this manner include potatoes and dry beans. A conference on apples is in the planning stage.

Unlike the grain and cotton utilization specialists where few, if any, State utilization counterparts are employed, Feustel spends considerable time supporting State specialists, especially with problems related to the

A chemist at the Southern Utilization Laboratory demonstrates soaking cotton cloth with an experimental wash-wear resin. He is wearing a wash-wear shirt that was washed and dried more than 20 times without ironing.

suitability of raw commodities for processing and how new technological developments might be applied in their particular areas. The State specialists in turn serve a very important function in disseminating this information to their respective industry clientele.

To help round out FES's utilization program and to utilize the limited resources devoted to this program more effectively, an Agricultural Marketing Act contract has been awarded to the University of Maryland for the purpose of testing methods and procedures for coordinating economic and technical information in the extending and application of dairy utilization research.

Wendell S. Arbuckle and Leonard Blanton of the Maryland Extension Service will work closely with the Eastern Utilization Research Laboratory in Philadelphia as well as with State Extension specialists in completing the requirements of the contract.

The dairy products processing industry is encountering many changes resulting from the adoption of new technology in product quality control, automation of many processes, introduction and test marketing of many new milk products.

The dairy contract appears to be most timely as USDA scientists are now attempting to develop a method for producing a high-quality, dry, whole milk. Their achievement thus far is a whole-milk powder that reconstitutes instantly in cold water, it has the full flavor of fresh milk, and retains its flavor for several months under ordinary refrigeration. Their objective is a powder that can be stored at room temperature for several months without flavor change.

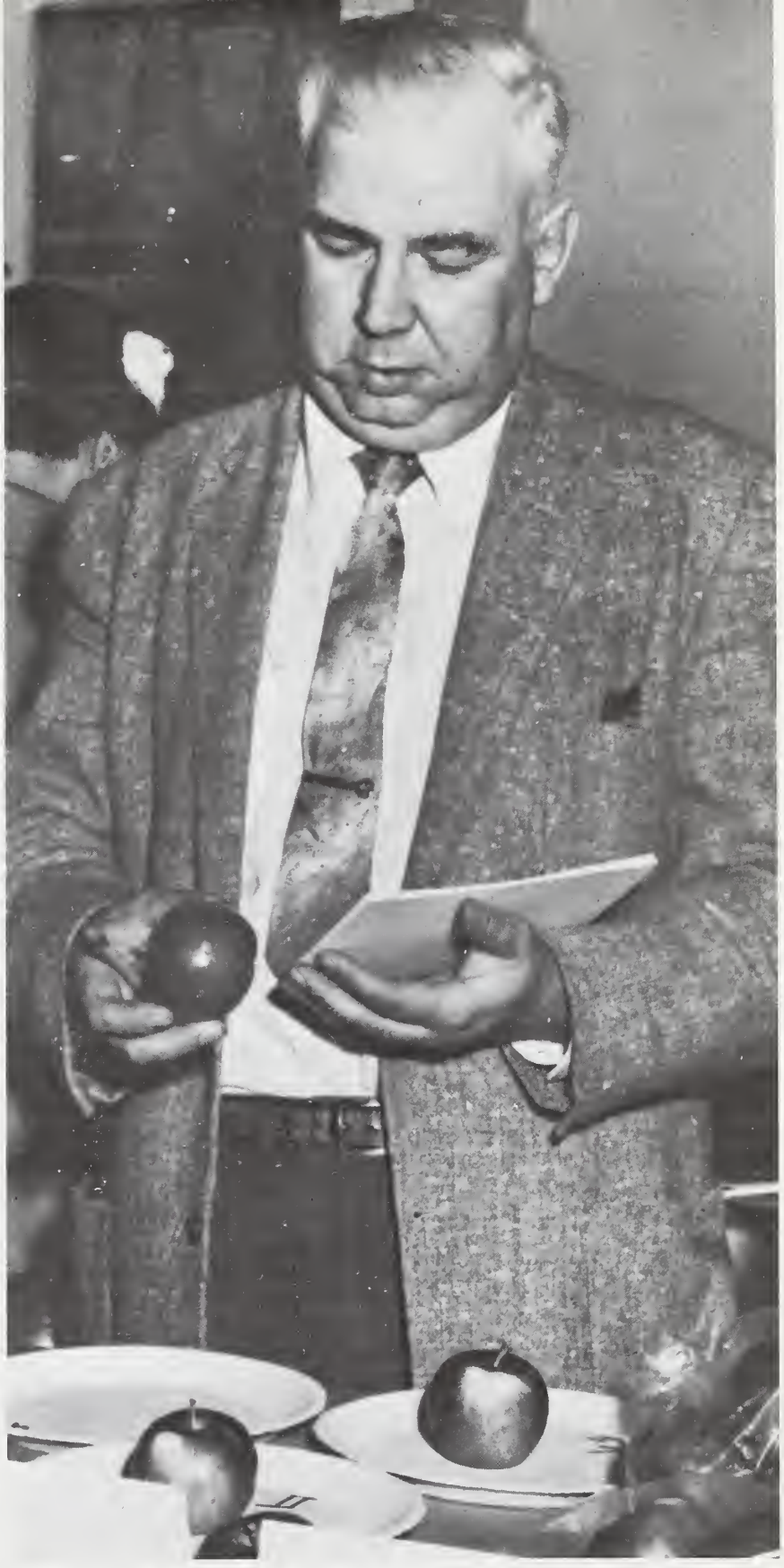
Successful large-scale production of dry whole milk would provide consumers (domestic and foreign markets) with milk at lower costs. The resulting increase in consumption could lead to substantial increases in the use of feeds and forage.

There are 30 Extension dairy technology specialists employed in the States. Most of the State specialists' educational work is concentrated with dairy industry firms on problems related to the marketing and moving of milk to the consumer.

Although FES's utilization program is still relatively new—less than 10 years old—its contribution in extending the research of the regional utilization laboratories is widely recognized by industry groups and other government agencies. In addition, utilization research workers recognize the importance of extension specialists conveying to them the need for additional research to improve old products and opportunities for developing new and better products and procedures. □

Market Tests Accelerate Commercialization Of New Processing Technologies

by W. SMITH GREIG
Extension Marketing Specialist
Michigan



FLAKE DRYING, dehydrofreezing, essence recovery, foam-mat drying, explosive puffing, freeze-drying, and irradiation are becoming common terms to fruit and vegetable processors. These new processing technologies mean new food products. New food products may cause: (1) increases in demand for particular products; (2) changes in comparative advantages among processing areas, and result in economic development in those areas. Market structure changes may also occur when products historically marketed fresh begin being marketed in processed forms.

Fruit and vegetable processing has had the most rapid growth of any agricultural processing industry except poultry. Now, over half of the commercial crop of fruits and vegetables in the U. S. is processed. Fruit and vegetable processing has increased at a rate of 4.9 percent per year since 1947 while population growth has been around only 1.7 percent per year.

Dehydration is the most rapidly-increasing fruit and vegetable processing technique, followed by freezing, pickles and sauces, and canning. Much of the increased processing is from the adoption of new processing technologies. However, the technical

aspects of some new processing methods are often available for years before commercialization is actually begun.

Are there ways of speeding up and helping guide this commercialization process? One way is through market tests to determine market potentials for new processed products.

Many of the new fruit and vegetable processing technologies have been developed by the Regional Research Laboratories of the USDA. Personnel at these laboratories develop the technical and engineering aspects of a new processing method, and often develop engineering cost data. Similarly, the Economic Research Service often conducts some tests of market potentials.

However, there is often much applied work which can and should be done by State or local groups in adopting these data to local conditions, and in supplying supplemental information to prospective processors. Involvement of local groups in the process of market testing increases and maintains their interest and is a key force in increasing their knowledge concerning the feasibility of utilizing a new processing technology. Some examples of market development work we have done at Michigan State follow:

Potatoes: After the potato flake process was developed by USDA personnel at the Eastern Regional Research and Development Division, and before any commercialization, a series of market tests was conducted in Michigan involving local groups. (An initial retail sales test was conducted by the USDA in Endicott-Binghamton-Johnson City, New York. This was the first market test conducted on potato flakes.) Two potato growers' associations furnished the raw potatoes and a potato chip manufacturer sent the potatoes to the Philadelphia Laboratory which processed them into flakes. Consumer preference tests were conducted comparing potato flakes to other dehydrated potato products. The institutional market was estimated through a demonstration-interview technique in 200 hotels, restaurants, and institutions; a package was designed and a retail sales test and elasticity of demand market test were conducted.

Two grower groups, the Michigan Potato Industry Council and the Michigan Department of Agriculture, actively participated in the development of these market tests, both in the planning stages and in partially financing the tests.

The results of the market tests were published in three separate publications and distributed nationally and internationally. In less than a year's time there were few Michigan growers or processors who were not familiar with the process, the product, and the results of the market tests. An initial attempt to process potato flakes in Michigan failed. However, a new plant to process both potato flakes and frozen french fried potatoes is now under construction.

In the U. S. as a whole, millions of hundredweights of potatoes are now dehydrated by the potato flake process each year. Per capita consumption of potatoes, after a long decline, has increased nearly 10 percent in the past 10 years. This increase in consumption is largely associated with increased processing, including dehydration as well as potato chips and frozen french fried potatoes.

Apples: Market tests were conducted on dehydrofrozen apple slices using the product from the first commercial processing line in the country. The dehydrofrozen products are one-half the weight and volume of slices frozen normally. Thus, packaging, storage, and transportation costs are reduced by at least one-half resulting in considerable savings over the cost of the added dehydration step in processing.

Apple pies made from dehydrofrozen apple slices were compared to pies from normally-frozen apple slices through a consumer preference panel. Results were highly in favor of the dehydrofrozen slices. After this initial test the market potentials at the hotel, restaurant, and bakery level were estimated by a use test in a sample of Detroit bakeries and institutions. In these tests the dehydrofrozen samples were very acceptable but the dehydrocanned samples were judged inferior to normally-canned slices. These tests were conducted in 1960.

By 1964 approximately half of the apples frozen in New York State were processed by the dehydrofreezing process. The initiator of the first commercial line has indicated that the work on market potentials "really made the market" for the dehydrofrozen slices.

Apple Juice Concentrate: As a part of a USDA study of market potentials for super-concentrated apple juice, a Michigan processor was selected to supply the super-concentrate. This processor had concentration and essence recovery equipment but had never processed apples before. Several thousand cases of 6-to-1 apple juice concentrate were prepared for the market test. For this process the juice is reconstituted by adding 6 cans of water to 1 can of concentrate. In the essence recovery process the volatile constitutents driven off in the concentration steps are recaptured and added back to the concentrated fruit juice. This processor last year processed nearly a million bushels of apples into apple juice concentrate. Much of this new processing operation may be contributed to his involvement in a market test.

Onions: Working with the onion industry and using products from a processor in New York and one in Tennessee, the institutional market potentials for frozen diced and other onion usage in nearly 1,000 hotels, restaurants, and institutions, a large potential for a factory-processed onion ring was discovered. Based on these results and from work with industry groups, a small factory to process french fried onion rings was developed in Michigan. A publication on the processing potentials for onions was widely distributed in the U. S., and requests for copies were received from 10 foreign countries.

The increased interest in the potentials for onion processing in Michigan has accelerated the interest in an onion breeding program to produce varieties more adaptable to dehydration and for french fried onion rings. The locational advantage to Central and Eastern markets which Michigan would have over California in onion dehydration is lost because of the present higher dry matter content of California-grown varieties.

Blueberries: At the request of the Michigan Blueberry Growers Association and in cooperation with the Eastern Regional Research and Development Division of the USDA, blueberries were experimentally explosively puff-dried. In the explosive puffing process, partially-dehydrated fruit and vegetable products are heated in a container with a quick-opening lid. When the lid is opened after heating, the products expand and become porous, which makes them rehydrate quickly—this makes them fast and easy to prepare by the housewife.

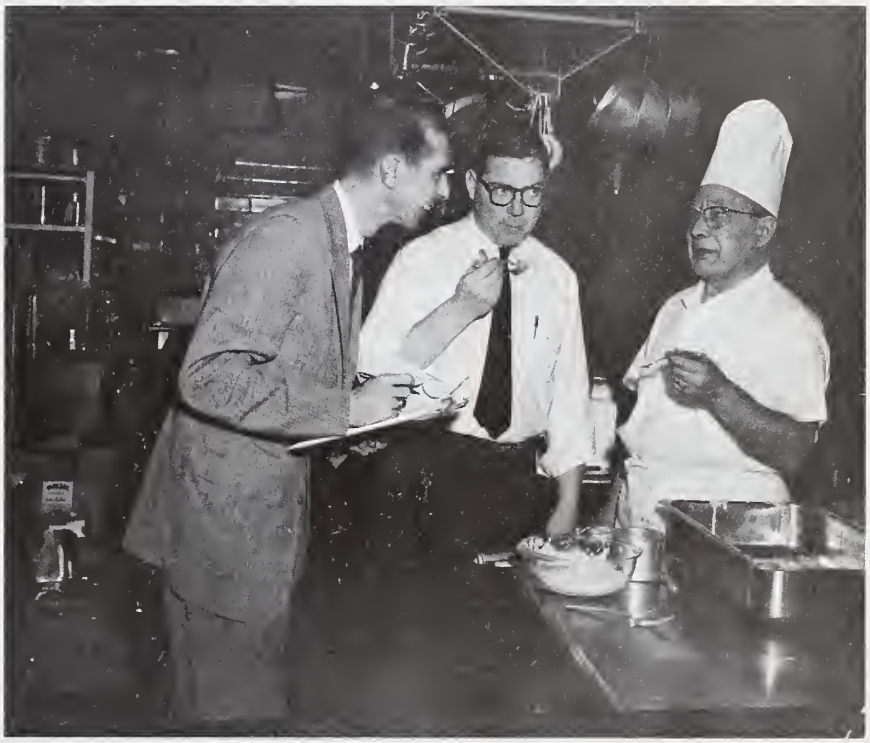
The explosively-puffed products were incorporated into muffins by the home economics department at Michigan State University and compared to muffins made with normally-canned blueberries in a consumer preference panel. The explosively-puffed blueberries in muffins were just as acceptable as canned blueberries. One objective of the tests was to see if the dried blueberries from the explosively-puffed process could be directly incorporated into a dry muffin mix rather than the current system in which a small tin of canned blueberries is placed with the dry muffin mix.

In contrast to the positive results obtained for dehydrofrozen apples, pies made from dehydrofrozen blueberries did not turn out to be as acceptable as pies from normally-frozen blueberries. The design of the particular tests did not permit us to determine the reasons why the dehydrofrozen pies were not as acceptable. It could have been the stage of technology, it could have been the particular reconstitution methods used, or perhaps the pie recipes should be changed with the dehydrofrozen products. Perhaps slight modifications of any of the three would have yielded an acceptable product. Developments in processing technologies are nearly continuous. Thus, any market tests are more or less screening tests of acceptability at a *particular stage* in the development of the technology, marketing explosively-puffed carrots.

As yet there has been no commercialization of the explosive-puffing process for blueberries but the process looks good for some purposes. Fruits and vegetables shot from guns will probably be a reality in the near future. One California processor is now marketing explosively-puffed carrots.

These are examples of work primarily on market potentials for new products. Other parts in the area of new processing technologies in which economists or marketing specialist may work effectively are feasibility studies, plant location studies, and economic-engineering studies. Recently at Michigan State University we have been involved in some linear programming transportation models of the effect of new processing technologies on future locations of the fruit and vegetable processing industries. If new dehydration or concentration technologies are adopted, the freight rates are reduced causing changes in comparative advantages. These freight changes can be integral parts of feasibility studies of the potentials for new processing technologies.

In each of these examples, involvement of county agents and local industry groups was essential for effective Extension efforts. In fact, county agents and district marketing agents were instrumental in initiating some of the projects and in maintaining industry interest. The involvement of farmers and local industry groups takes many forms. It not only provides a ready market for the information developed, but it also assures that the problems attacked are the relevant ones as far as grower and industry groups are concerned. □



The institutional market was estimated by interviews with chefs.

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From The Administrator's Desk

The first of last month, Dr. Robert J. Pitchell reported for duty as Deputy Administrator of the Federal Extension Service. He brings to that post outstanding experience in administration, education, and program development.

Prior to joining our staff Dr. Pitchell was Program Director of the Staff Training Program for Project Head Start with the National University Extension Program.

Previously he was President of Roosevelt University in Chicago, and before that a member of the faculty at Indiana and Purdue Universities. At Indiana and Purdue he was associate professor of government. He was also associate director of the Institute of Public Administration at Indiana. Dr. Pitchell is the author or co-author of numerous tax and educational reports which have had wide use in rural areas.

During 1963 he served as Legislative Assistant to Senator Birch Bayh, while on leave from his position at Indiana University. Earlier he was Director of the Indiana Commission on State Tax and Financing Policy.

Dr. Pitchell holds an A.B. degree from Fordham University, and a Ph.D. in political science from the University of California (Berkeley).

He served as an officer in World War II and the Korean conflict. He is a member of the American Political Science Association, American Academy of Political and Social Science, American Society for Public Administration, and various higher eduation associations.

Dr. Pitchell fills the vacancy left by John A. Cox, who completed a year's on-leave assignment and returned to his post as Director of the Cooperative Extension Service in Louisiana March 19.

Dr. Pitchell's native State is New York.

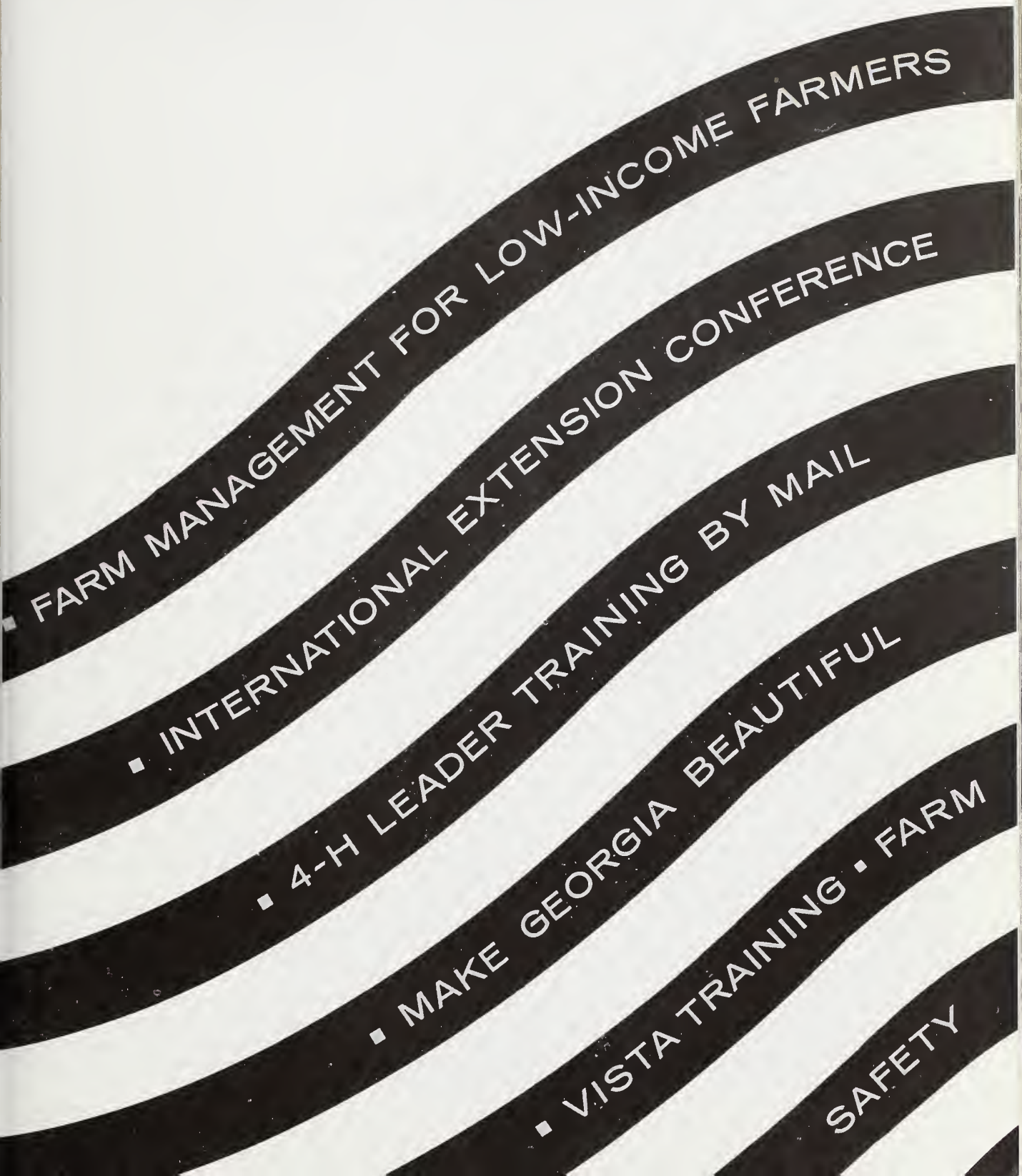
I know you join me in welcoming Deputy Administrator Pitchell to the great educational venture of Cooperative Extension.—Lloyd H. Davis

Dr. Robert J. Pitchell

EXTENSION SERVICE

REVIEW

U.S. DEPARTMENT OF AGRICULTURE ✳ NOVEMBER 1965



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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*
Federal Extension Service

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EXTENSION SERVICE
REVIEW

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EDITORIAL

Significant information bears repeating.

Here are some facts and figures from USDA's "Background On U.S. Agriculture" (Leaflet No. 491—Revised June 1965) that show the tremendous thrust of agriculture in the Nation's economy:

- Farming employs six million workers. That's more than the combined employment in transportation, public utilities, the steel industry, and the automobile industry.
- Three out of every ten jobs in private employment are related to agriculture.
- Six million people have jobs providing the supplies farmers use for production and family living.
- Eight to ten million people have jobs storing, transporting, processing, and merchandising the products of agriculture.
- The United States is the world's largest exporter of agricultural products.
- Farmers spend nearly $30 billion a year for goods and services to produce crops and livestock. And they spend another $12 billion a year for the same things that city folks buy—food, clothing, drugs, furniture, appliances, and other products and services.

The facts and figures cited are just a few among the many that are in the leaflet. The others are also significant. All told they add up to an impressive and objective picture of our Nation's agriculture. This is a picture that needs to be kept before all of our people.—WAL

Guiding Principles Featured at International Extension Conference

by JOHN L. PATES, *Extension News Editor, South Dakota*

CULTURAL differences between countries which dictate varying educational methods, but a united concern for helping people farm and live better, characterized discussions at the International Conference of Extension Leaders at the South Dakota State University in early August.

Seventy-five agricultural and extension leaders from 43 countries spent a solid 2 weeks at South Dakota State University, Brookings, sharing principles of informal adult and youth education. After July orientation sessions in Washington, D. C., they traveled to Brookings via Ohio and Indiana where they observed county Extension workers in action. On their way back to Washington after the 2-week seminar they visited Iowa State University, viewed Extension work with low-income groups in St. Louis, Missouri, and studied rural resource development work in Paintsville, Kentucky.

Djaffar Rassi, former director of Extension in Iran, summed up the feelings of many participants saying, "Education principles are the most important foreign aid the United States can offer."

South Dakota Extension Director John T. Stone, general chairman of the conference, outlines major objectives of the seminar:

"The first was to provide those with extension-type education leadership responsibilities in various counties an opportunity to get together and become personally acquainted. A second objective was to identify, describe, and define basic educational, operational, and organizational principles which may have universal application for the administration of extension programs anywhere in the world."

Throughout the conference discussion leaders as well as participants were quick to point out the wisdom of sticking to guiding principles rather than trying to transplant specific techniques from one country and its culture to problems of another.

Discussions revealed some of the real problems which face these education pioneers. These problems are well expressed in the seminar youth committee report.

"The major resource of every country is its people. So long as this resource remains underdeveloped, all other resources of the nation must be less fully utilized. Inadequate education, low levels of nutrition, poor health and sanitation, disease, and other problems continue to plague the people of every nation. All countries must continue to search for ways to help every citizen reach his highest potential. Extension can and must serve these needs through rural youth programs."

The report went on to point out that the educational work of worldwide extension through rural youth programs such as 4-H, 4-C, and 4-S is a major means of supplementing the efforts of schools and other developmental agencies in preparing young people for responsibility in a complex, changing world.

Similar needs were faced realistically by the home economists. Granting that principles in education are important, the ladies discussed roadblocks to carrying out educational programs with women. They wrestled with questions such as the need for research to determine problems that exist and the need for training and education to develop leadership.

Recognizing the cost involved, the group recommended that countries continue or at least begin simple studies and evaluations on which to base programs. These may develop and eventually culminate into real research projects in different home economics areas and can help determine the best teaching methods. So important is research to the furtherance of good home economics programming it was recommended that this topic be the focal point of any future international conference dealing with the "home" aspect of extension work.

Dr. Stone said a third objective was to develop some proceedings from this conference that would "help facilitate a continuing exchange of ideas and pertinent information among extension leaders."

Such a report is being made. It includes a brief status report of extension programs in many participating countries; it will list major educational programs and objectives; it will include charts to help interested countries set up an organizational procedure; it will list titles and job descriptions of key extension leaders and it will include common professional terms used in different countries.

In his talk Dr. Stone suggested that such a summary might include recommendations for improving the effectiveness of agricultural, home economics, and youth extension programs throughout the world.

The conference participants recommended the establishment of a worldwide extension organization. The sectional report of Extension administrators suggests that such an organization would accomplish three primary goals: It would promote and improve the exchange of ideas, experiences, techniques, methods, and assistance in the fields of extension work. It would help strengthen and advance professional qualifications of extension workers throughout the world. It would help develop a greater concept of extension work as a scientific profession. The administrators appointed a committee comprised of one representative from each of the five continents represented to study the formation of such an association. □

Teaching Farm Management To Low-Income Farmers

by CHARLES R. PUGH, *Extension Economist*
In Charge of Farm Management and Public Affairs
North Carolina

This article is based largely on deliberations of the Southern Extension Farm Management Committee.

EDUCATION is universally agreed to be the core of any permanent solution to the poverty problem. There are overwhelming circumstances that require the Cooperative Extension Service to apply its teaching skills in agriculture in this direction:

1. Low-income people lack the resources for private investment in education. Therefore, public-supported educational avenues, often informal in nature, are called for.

2. There is a general social commitment, as voiced through recent public programs, to alleviate the poverty problem. The Economic Opportunity Act and the Appalachian Regional Development Act are just two of a myriad of examples.

3. The incidence of poverty in rural areas is greater than in nonfarm areas. According to the 1960 Census of Population, 47 percent of the rural farm families in the United States received less than $3,000, compared to 21 percent of all families. Obviously there is no single income figure that clearly distinguishes between destitution and prosperity. Yet, after an adjustment for differences in costs of living, the preponderance of low incomes in rural America cannot be overlooked.

The experience of Extension in working in agricultural education is well established. The challenge presented is to mobilize a comprehensive educational program to focus on the total problems of rural areas.

A logical first step in planning an appropriate educational program is to identify the characteristics of low-income farm people. Briefly, the following factors are commonly associated with low-income farmers:

1. The concentration of low-income farms is in the South. (The Southern region is herein defined as the States of Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia.) Table 1, derived from the 1959 Census of Agriculture, shows that 32 percent of all farms in the South were categorized as Classes V and VI, compared to 26 percent in the Nation. In addition, the South has a large share of part-retirement

Common characteristics of low-income farmers are shown above: older ages that inhibit shifts in jobs, a low educational level, and limited resources for farming.

farms. (Farmers in Economic Classes V and VI have farm sales of less than $5,000, yet depend largely on agriculture for their income. Farms grossing less than $2,500 and operated by persons 65 years and older are classified by the Census under noncommercial farms as part-retirement farms, and therefore are excluded from Classes V and VI.)

Table 1. Farms by Economic Class, 1959

	South		United States	
	Number	% of Total	Number	% of Total
All farms	1,570,735		3,707,973	
Commercial farms	879,297	56	2,416,017	65
Grossing less than $5,000	508,061	32	966,631	26
Class V	269,892	17	617,677	17
Class VI	238,169	15	348,954	9
Noncommercial farms	691,438	44	1,291,956	35
Part-retirement	218,597	14	404,110	11

2. Operators of low-income farms tend to be older than the average farm operator. A relatively large share of the operators of Class V and Class VI farms are nearing retirement age. In the South, 31.2 percent of these low-income commercial farm operators are between 55 and 64 years as compared to only 26.6 percent of all commercial farm operators. By definition, part-retirement farmers are over 65 years of age, yet are dependent upon sales of farm products as a major source of income.

3. The educational level of low-income farm people is below average. According to the 1960 Census of Population, 8 out of 10 (81.5 percent) rural farm males in the South with 8 years of school or less had net incomes under $3,000. Of those who had completed 4 years of high school or more, only 4 out of 10 (41.4 percent) reported incomes under $3,000. These data indicate the association of poverty with low educational achievement.

4. The physical resources available to low-income farmers restrict their income potential in agriculture. As shown in Table 2, the quantity of land and capital on Class V and VI farms in the South is less than 40 percent of the level of all commercial farms.

5. As implied in current discussions of the "cycle of poverty," low incomes may induce a sense of despair, which may affect the motivation of future generations. The concern embodied in many development programs, such as the Economic Opportunity Act, is to provide a stimulus for self-improvement. For example, a reduction in school dropouts may help assure better training of youth for employment opportunities.

Table 2. Characteristics of Farm Resources by Economic Class of Farms in the South, 1959

	All Commercial Farms	Class V and VI Farms
Average size of farm, acres	331	127
Cropland harvested per farm, acres	82	31
Value of land and buildings per farm	$31,918	$12,308

These characteristics of low-income farmers imply that an appropriate educational program must reach people in older age groups who have below-average educational levels and must recognize the limited productive resources which they currently have available.

It is frequently stated that "what counts isn't what you say but how you say it." Such may be the case for an educational program for low-income farmers. The content of relevant subject matter may not be different in kind from topics appropriate to the most progressive farmers. The distinctiveness of a program for low-income people probably lies in the context in which information can be effectively utilized and the severity of problems facing people in poverty.

In studying educational possibilities with low-income farmers, the Southern Extension Farm Management Committee listed some of the questions facing people in agriculture. In turn, the committee considered special applications to educational work with low-income farm people. The summary of the findings which follows may suggest a framework for educational programs on a broad front.

Are the best opportunities in farming or in other occupations? Improvements in agricultural technology mean that

Demonstrations on low-income farms may attract the interest of others. The All-Practice Demonstration seeks to combine all recommended practices in one project.

less manpower is required for the production of farm commodities. Therefore, one adjustment which will be made by many farm people is to seek nonfarm jobs on a part-time or full-time basis. Those on low-income farms who are young enough and can respond to training may especially consider this alternative.

Extension agents and specialists can assist other agencies in making people aware of the growing job opportunities, their location, training needed, and where such training can be obtained. Guidance in systematically evaluating employment alternatives for low-income people is especially appropriate. The Career Exploration 4-H project pioneered by farm management specialists, embraces the type of subject matter which should be emphasized with younger low-income farm people.

How can adequate resources be obtained? Many low-income farm people will probably stay in agriculture. Due to their low resource base, their progress requires an expansion of the size of farm operation. Educational work can emphasize the many methods which might be employed to expand farm resources and the conditions in which each is suitable.

Farm management specialists and county agents have provided training on many methods of acquiring resources. With respect to credit, educational programs have been focused on investing funds in the types of farm activities which yield the highest returns. People with limited resources should note that hired machine work and contract farming are techniques for acquiring use of resources owned by others. Estate planning may be used to transfer property between generations and prevent farms being split into successively smaller units which would aggravate the poverty problem within agriculture. A final alternative is rental of land which permits the low-income farmer to concentrate his limited capital on machinery, livestock and operating expenses.

How can resources be most effectively used? Similar to other farmers, low-income farmers need information to help them choose the more profitable techniques of production, better enterprise combinations, and use of idle or underemployed resources. The record of the Extension Service in encouraging more efficient rates of production is well-known. In turn, farm planning can be taught to show low-income farmers how to figure costs and income associated with changes in their use of their resources.

The All-Practice Demonstration has been used as an effective educational technique in North Carolina. This approach embodies the use of all relevant production practices on a given commodity. Initially, Extension personnel, research workers, and interested industry representatives plan the components of an All-Practice Demonstration. Subsequently information is provided to county agents to use in setting up the demonstration.

For example, a notebook was given to agents and pe-

A strawberry production and marketing project is underway in one county under the Economic Opportunity Act.

This group is seen viewing a soybean All-Practice Demonstration conducted by a former Extension agronomist.

riodic revisions and additional material have been added to give guidelines on All-Practice Demonstrations in swine. Experience in some fields has shown that the deliberate choice of a low-income farmer to demonstrate recommended practices increases the interest of neighbors of the same economic class.

The use of intensive enterprises on low-income farms fits the resource situation of this group. For example, a strawberry production and marketing project has been an integral part of the comprehensive development program in Craven County, North Carolina. This county has engaged in a wide range of projects under the Economic Opportunity Act. Special educational work on the production of strawberries on low-income farms has been focused on expanding the volume of business on farms with limited acreage.

These examples of working with low-income people to improve their resource use emphasizes the necessity of identifying low-income people as individuals. Inasmuch as they are often not involved in typical lines of communication such as publications, radio, and attendance at meetings, educational work on an individual basis must be aggressively conducted.

How can business management skills be improved? Farmers who have produced little for sale may be inexperienced in activities of the business world. Yet, to improve their economic position, they especially need to keep and analyze records, make long-term plans and be able to execute necessary legal documents.

Simple record systems may encourage the habit of record keeping and develop skills in business analyses. Better records can help identify needed changes in the farming business and provide a tool for better management of the limited family income.

Extension assistance to low-income people in farm planning is a challenging area. The past performance of low-income farmers gives them little basis for knowing the type of production that might be expected under good management. In turn, due to poor education, such farmers may not be able to learn complicated planning techniques. Yet, they can profit from an analysis performed by Extension agents if the plan is developed in simple terms and periodic follow-up provided. Budgets such as those prepared in many States showing resource requirements for specified income levels can serve as a point of departure.

Another example of education to improve business skills is training schools on income tax. Information on filing returns has helped many older operators on low-income farms qualify for Social Security. Continued efforts to improve business skills are essential to improving the financial position of farm people.

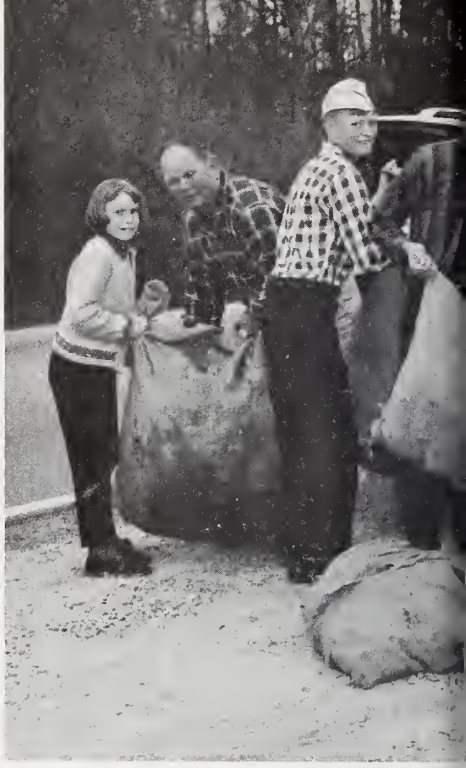
In viewing the previous questions as relevant to low-income farmers as well as others in agriculture, it is noted that the primary distinction depends upon how the information is presented. Educational programs must cope with the circumstances which low-income people face. Much of the experience to date has shown personal contacts to be advantageous. However, Extension resources may not be adequate to simultaneously work with all low-income farmers intensively.

In allocating Extension resources, it becomes necessary to make a hard choice between intensive work with a relatively small number within a county or within a State with the expectation of moving on to others at a later date. Obviously there is a possible byproduct where progress achieved by one low-income family provides a stimulus to improvement by others.

The alternative to individual work is to experiment with group educational devices and make some breakthroughs on getting low-income people to participate in group activities. It is recognized that a total development effort such as planning on a community, county, or area basis can benefit low-income people by generating new economic activity. Therefore, group and individual educational work can complement each other.

The problems of low-income farm people are not attributable to any single source. It, therefore, follows that educational programs must be imaginative and focus on the myriad of problems encountered by individual families. In this manner, low-income people will be convinced there is a genuine educational effort to help them. □

Educational materials for All-Practice Demonstrations are disseminated for livestock as well as for crops.



The opportunity to do some Extension teaching during "Make Georgia Beautiful Week" was not overlooked. Above, a county agent shows 2 4-H'ers how to properly plant a seedling. Below, because this young lady is developing an interest in beautification at an early age, the idea will probably stay with her all her life.

how extension is helping . . .

Make Georgia Beautiful

THE University of Georgia Cooperative Extension Service and the Georgia State Department of Industry and Trade teamed up January 24-30, 1965 to sponsor and conduct "Make Georgia Beautiful Week."

The program, needless to say, did not make Georgia a "perfectly beautiful" State. So now January 1966 has been declared "Make Georgia Beautiful MONTH."

Thomas G. Williams, Jr., head of Extension's landscape department, and Bill T. Hardman, director of Industry and Trade's tourist division, described the new program as "an extension and an expansion" of the week-long effort.

Although the earlier try was not 100 percent effective, it did (according to reports from county agents) achieve these tangible results: 413,762 dogwood trees planted; 94,272 other ornamental trees set out (an unexpected, but pleasant, side effect); 937 miles of streets and highways "policed;" 362 truckloads of litter picked up.

Not bad, when you consider the goals of "Make Georgia Beautiful Week" were merely to plant 300,000 dogwoods and have an "anti-litter day" on Saturday.

In Troup County 10 teams—each composed of four 4-H'ers and one leader—"policed" Federal highways and picked up a truckload of trash each mile.

Extension workers reported more requests for subject-matter information.

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

The intangible results may be even more significant. The program helped Extension and Industry and Trade develop a closer working relationship and it enabled both agencies to reach a Statewide audience with something that falls into the same category as better schools, churches, and motherhood. Nobody was against "Make Georgia Beautiful Week."

Certainly not the Georgia press. Each of the State's approximately 200 weekly newspapers and 30 dailies ran an average of four stories and one editorial. Columnists on the larger papers got in on the act too. And many editors ran full pages or special supplements, taking advantage of the promotion to sell "tie-in" advertisements to nurseries.

The agents' reports indicate 2,331 organizations and clubs cooperated in the campaign. An estimated 136,499 people were involved.

"Best public relations for Extension I have ever seen," said Johnny Stowe, county agent in Polk County.

"Planting dogwoods and picking up trash is going to help," wrote the editor of one weekly newspaper. "But if this special promotion gets us to thinking beautiful thoughts about our beautiful State," he added, "we are likely to start acting that way."

He wound up his editorial this way: "And we suspect that's what the Extension people and the Industry and Trade folks had in mind when they selected the 'Make Georgia Beautiful Week' theme."

Mr. Williams credits county agents and Extension home economists for the success of the campaign. Working with 4-H members, homemaker groups, garden clubs, civic clubs, chambers of commerce, and other organizations at the community and county level, they got the job done.

But the agents had plenty of ammunition with which to do it. "Make Georgia Beautiful Week" promotion kits, including ideas and suggestions for organizing and conducting the dogwood planting spree and the anti-litter campaign, were prepared well in advance. Also included in the kits were two "fill-in" (localized) news releases, a suggested editorial, a feature on dogwoods, and "how-to" leaflets on using dogwoods in the landscape, planting them, and controlling insects and diseases. Nearly 100,000

copies of the educational material were distributed to the public.

The kits were passed out to agents at the annual State Extension Service conference in October. Williams was given time on one of the general assembly programs to plug "Make Georgia Beautiful Week," and then members of the "Beautiful Week" committee met with the county workers in district groups to explain how to get maximum mileage out of the kits.

The Georgia Forestry Commission cooperated in the program by agreeing to make its 300,000 dogwood seedlings (the original planting goal) available at a special low price of 3¢ each. When the Commission's supply was exhausted and some counties had not filled their needs, a "run" was made on dogwoods at nurseries in Tennessee. Well over 100,000 seedlings were shipped in from the Volunteer State. Still there were not enough dogwoods to go around, and this probably led to that pleasant side effect—planting 94,272 other ornamentals.

In most counties a 4-H, civic, or garden club purchased a supply of the dogwoods and was in charge of distributing them during the week. In Cobb County several thousand seedlings were "heeled in" at the fairgrounds, and County Agent Ernest Wester arranged for 4-H'ers to be on hand to give demonstrations on proper planting methods when people came by to pick theirs up.

The effects of "Make Georgia Beautiful Week" were in evidence long after the special observance. An automobile dealer in Athens, after he had observed 4-H'ers participate in the anti-litter campaign, called the county Extension agents and asked that he be allowed to present litter bags to all 4-H members in the county.

The "anti-litter day" was held on Saturday to climax the entire "Make Georgia Beautiful Week" program. Thousands of 4-H Club members became a "task force" to "police" highways all over Georgia. They picked up trash, cans, bottles, and anything else that marred the landscape.

Eighty 4-H'ers and 25 adult leaders from Bibb and Jones Counties met at the county line and cleaned the 15 miles of U.S. Highway 129 between Macon and Gray, the county seats. Five State Highway Department trucks hauled away three loads of litter apiece. One city garbage truck from Macon was filled four times. Three adult local 4-H leaders used their pickup trucks, each hauling four loads of litter.

"Anybody who can keep on throwing trash out, after seeing these kids pick up after us, deserves a trashy society," declared the editor of one of the local newspapers.

In most counties each 4-H'er was responsible for one-half to one mile of highway. Adult leaders would put out two club members about a mile from the city limits, drop off two more a mile further down the road, and so on to the county boundary. Obeying the law and following the recommended safety practice of facing the traffic, the youngsters covered both sides of the road, depositing the trash at designated points along the way.

In Troup County, where E. T. Evans, Jr., is county agent, 10 teams, each composed of four 4-H members and one adult leader, "policed" the Federal routes and picked up one truckload of trash for every mile of highway.

City streets, vacant lots, parks, church and school grounds, and public property were not neglected on "anti-litter day." While senior 4-H members and their leaders were patrolling the highways, junior members were cleaning up in town.

During "Make Georgia Beautiful Month" next year, however, all the 4-H'ers will work inside their own communities and city limits, and will leave the "policing" of State and Federal roads to Highway Department personnel. No youngster was hurt during the anti-litter campaign this year, but many parents, leaders, and Extension workers didn't "breathe easy" until the day ended and all the kids were off the highways.

"Make Georgia Beautiful Week" gave us a head start in the national program for natural beauty, according to Williams. And "Make Georgia Beautiful Month" was being planned before the big national push for beautification began. The success of the program a year ago is expected to be small compared to the 1966 effort. "The national emphasis has given us added incentive," Williams stated.

Seven other State agencies and organizations have pledged their support to the upcoming program, and have been represented at several planning meetings already held in Atlanta. They include the Georgia Forestry Commission, State Highway Department, Georgia Nurserymen's Association, Garden Club of Georgia, Women's Club of

In many counties dogwood seedlings were "sponsored" by civic organizations and commercial firms. A bank official in Clarke County purchased 1,000 dogwoods and then passed them on to 4-H Club members for distribution.

Bibb County and Jones County 4-H Club members meet at the county line to pick up the 15 miles of U.S. Highway 129 between the two county seat towns of Macon and Gray.

Georgia, Associated Industries of Georgia, and State Department of Education.

Williams said the emphasis will again be on tree planting and anti-litter campaigns. But many counties, just as Clinch County did this year, are expected to come up with alternate programs that fit their needs better.

Instead of planting dogwoods and picking up litter during "Make Georgia Beautiful," Clinch Countians devoted their efforts to moving and clearing away auto junkyards within the city limits of their county seat, Homerville. One such area was completely cleared, according to County Agent Howard Harrison, and others were vastly improved.

Several agents say their counties will tackle the removal of abandoned, rundown houses and barns (shacks) during "Make Georgia Beautiful Month" in 1966.

The Forestry Commission will again have an estimated 300,000 dogwood seedings for distribution during the oncoming planting season. Forty thousand redbud trees are available too, and most of these are expected to be planted as a part of the "Make Georgia Beautiful Month" effort.

In addition, the Forestry Commission will have nearly 49 million seedlings of 22 other species of trees. Some of these—particularly cedar and Arizona cypress—might have good landscape use in screening junkyards and trash dumps, according to Williams.

Lists of seedlings available for planting this winter, along with instructions on how to order, have been distributed by county Extension agents to organizations and individuals interested in the beautification program.

The planting of crape myrtle and magnolia, not grown in Forestry Commission nurseries but available from commercial firms throughout the State, is also encouraged.

Program ideas and suggestions, including the best of "Make Georgia Beautiful Week" and some new ones, have been prepared for county agents and Extension home economists. Their offices, Williams said, will serve as "Make Georgia Beautiful Month" information centers in the counties. In nearly all cases the agents are coordinating local efforts.

Beautification has long been a State policy in Georgia, and the Extension Service—through community improvement programs, 4-H landscape projects, and work with garden clubs—has been trying to do something about it for years. But Extension really got going during "Make Georgia Beautiful Week," January 24-30, 1965. The momentum is expected to pick up considerably during "Make Georgia Beautiful Month," January 1966. □

Programming 4-H Leader Training

by MARIAN O. LARSON,
Assistant State 4-H Leader
Minnesota, in cooperation with
Extension Agents in Aitkin
and South St. Louis Counties

"WE DON'T HAVE TO WORRY about missing a meeting because of the weather. It's fun to expect something in the mail and get it."

"This type of training is very good as I think most of our leaders are involved in other organizations or working and time is very precious. This studying can be done at any time and the material saved for reference."

These comments from two South St. Louis County 4-H Club leaders are similar to those from leaders in 12 other Northeast Minnesota counties who participated in an experiment in programmed learning for organization leaders of local 4-H Clubs.

In South St. Louis County 80 4-H leaders enrolled in the basic course for 4-H leaders. Sixty-six percent completed all 7 units. Aitkin County had 56 beginning the program but only 18 had completed at the time the evaluation meetings were held.

In the northeast section of Minnesota volunteer leaders frequently reside 30-40 miles from the county seat and find difficulties in attending meetings. "I am housebound with three preschoolers and usually lack transportation so meetings are difficult for me," is typical of many community-minded friends of 4-H who are interested in working with young people.

Research studies point out the basic needs of first year 4-H Leaders. For that reason units containing the information identified by leaders as being the most needful were included:

4-H Club Work. What are clubs, the roles of various leaders, and some historical facts about 4-H.

The New 4-H Club. The step-by-step procedure for one successful method of organizing a club—building community interest, the first meeting, duties of officers.

The Club Meeting. Planning for variety and balance, conducting the meeting, the leader's role with meetings.

Projects and Records. Learning by doing, project selection and record-keeping.

Planning Program. Involving members, parents, and leaders; planning for year-round activity.

Parent and Community Support. Worthwhile ways in which parents can assist the local club, relationship between club and community.

4-H Demonstrations and Recreation. Why 4-H'ers demonstrate, planning the demonstration, recreation in the local club.

Preliminary to launching the course, the county Extension agents had introduced it and explained its operation to the leaders through personal contact (individually or at meetings), by correspondence, or by telephone.

This 4-H Club leader finds the next unit in her mailbox.

Ideally, a pattern was stabilized in this County Extension Office with mailings to the leaders on a given day. Leaders were urged to establish a specific time to devote to the course. Realistically, however, enrollees liked the flexibility of being able to do it at their own convenience. Some designated after breakfast when the youngsters had left for school and father was at work, as the ideal time. Others preferred evenings.

Each unit included some special learning experiences, for example, completing a checksheet rating the monthly meeting or the program planning process. In addition, questions pertaining to the topic were included with each unit. These were guides to comprehension rather than test questions and connected the content to the local club and community. After completing this form, the leaders returned it to the county Extension office with any comments or questions.

The forms served as a progress report to the agents and gave participants an opportunity to ask many questions about that portion of the course or about club work in general. Thus, agents had a chance to focus on the individual and county situation and answer questions which often leaders hesitate to ask in a public meeting.

"Can two members of one family hold office in the same year?" asked an Aitkin County 4-H leader. "Do you have any information that would be helpful in getting boys and girls to express themselves more freely?" "Should we have project meetings for all projects?" "I wonder what more I could have done to help a boy or girl who dropped out of 4-H." "When is the best time to start a new club?" "We have a problem with our meetings not starting on time. The same two members are late every-time. What can we do?" "Is there a bulletin on proper clothes for all occasions?"

These problems are pertinent to the people. A local leader expressed her views on the value of feedback between agent and leader when she said, "your answers to the various questions we asked really gave the most concrete facts."

The leaders' reactions to programming their training varied considerably with tenure and the leadership structure within the club. New leaders, on the average, felt the whole course was helpful and have kept each lesson for reference in the future. One leader said "it's hard to single a part as most helpful. I'm a newcomer, so all was beneficial. In my role as a clothing leader, the parts on projects and records, and 4-H demonstrations were of most direct interest to me."

"Having been in 4-H helped, but this course brought the programming up to date," said another novice.

A more experienced leader stated, "It is good to review the way a club meeting should be conducted—might be in a rut," and one who had already received the award of the gold clover for 10 years of effective leadership said, "I liked it because I didn't have to run to town (16 miles) and I got just as much out of it."

Mr. and Mrs. Verle W. Raatz, Aitkin County organization leader and project leader respectively, work together.

What do Extension agents think? Mrs. Mavis McGuire, Aitkin County Home Agent, claims that new leaders felt this was excellent material and the more experienced leaders felt it was a good review. They especially liked the program planning lesson.

In South St. Louis County, Ken Neeser, Acting County Extension Agent, asserted that the leaders liked being able to take the course at their own convenience and without attending meetings but would like more specific helps for project leaders. (This program was developed for organization leaders but was used by project and activity leaders as well.)

Where does this programmed learning go from here? In South St. Louis and Aitkin Counties, and in the other Northeast Minnesota counties, it will continue to be a basic component in the training program of new 4-H Club leaders. Meetings combined with the home study approach will be seriously considered. Leaders have identified a need for meeting together also to share ideas and methods. A meeting at the outset and at the conclusion would probably increase the impact of the program.

Other strengths of this type of leader development worthy of note include the flexibility in the timing. A series of meetings usually given at a specific time invariably encounters conflicts with other activities in the community. The "at-home course" can be given to available leaders and repeated as additional new leaders are added to the rolls. It is a ready reference to keep for constant referral as new problems and situations arise. Additional references are cited for each unit including readings in the *Minnesota 4-H Leaders' Handbook* and other Extension publications.

On the minus side, timing might also be a problem. In Aitkin County, this past year, the weather played a subversive role. There were days when the enrollees found it impossible to get the mail because of the heavy snows and then the flood waters.

Another weakness noted was the lack of personal contact with fellow leaders and with the Extension agents. Closely related to this was the time lapse from question to answer as this procedure was also handled with the assistance of the Post Office Department. The procedure was also quite time consuming for the Extension staff as each leader's report had to receive individual attention. The agents checked the leader's understanding of the information, responded to questions, and sent additional subject matter that was requested.

Someday someone may find the ideal recipe for leader development—be it programmed learning, television training, leader lessons, individual visits, or a combination of these and many hitherto unheard of methods. But programmed learning for 4-H leaders will surely be expanded. This type of home study training may well become one of the significant methods of the future. □

We Are Responsible for Farm Safety

by RALPH E. PATTERSON, *Agricultural Engineer*
Division of Agricultural Science, Technology, and Management, Federal Extension Service

ARE WE REALLY working to reduce farm accidents, or just giving lip service to safety? What do we say when asked, "What are you doing to make farm living and working conditions safer?" Honestly now, what are YOU doing? Too often this is a "hot potato" to be dropped immediately or a "buck" to be passed. Surely, you wouldn't reply that John Doe is the "Safety Specialist" or chairman of the safety committee and you have nothing to do with safety.

SAFETY IS EVERBODY'S BUSINESS. Safety should be a part of all Extension work and all Extension programs. Yet, too often, it is left out completely or added briefly as an afterthought. We rationalize like the non-voter and say it probably won't make any difference anyway. But it has been proven many times under many circumstances that where there is an active safety program, there the accident rate is reduced. Also, where there is no accident prevention program, the accident rate does go up.

One example is shown in Minnesota: Farm accidents were cut in half in the 15 years from 1949 to 1964. How? By a well-planned, coordinated safety program under the leadership of a full time safety specialist, Glenn Prickett. The entire Extension staff in Minnesota working with all individuals and organizations interested in farm safety did it. Safety programs do pay. Another example from Georgia indicates they have reduced the number of drownings approximately 50 percent this year over last year by an aggressive coordinated water safety program.

Growing two blades of grass where only one grew before is very important but helping the farmer grow them SAFELY is also very important. And we are responsible. How does a man benefit if all his barns and granaries are filled but he is killed filling them?

How can we better fulfill our responsibilities? Some suggestions which have worked in other States are:

- Plan to include specific safety suggestions in every program.
- Include a safety slide in every subject-matter slide presentation where feasible.
- Include safety in every subject-matter publication.
- Consult with the safety specialist or safety committee for suggestions in specific subject-matter area or county.
- Use mass media to alert and remind farm families how to work and live more safely.
- Cooperate with other agencies on all national safety weeks.

National safety weeks of importance to Extension and to farmers are:

Poison Prevention Week—Third full week in March—Designed to reduce accidents caused by all types of poisons, including agricultural chemicals. Sponsors: National Clearing House for Poison Control Centers and USDA.

Spring Clean Up Week—No specific week nationally but usually in May—A clean farm is a safer farm. Sponsors: USDA and National Fire Protection Association.

Safe Boating Week—Week containing July 4—All types of safety relating to this rapidly-growing recreation. Sponsors: National Safety Council, United States Coast Guard, and others.

Farm Safety Week—Last full week in July—concerns all types of safety on the farm. Sponsors: USDA and National Safety Council.

Fire Prevention Week—Week containing October 9 (anniversary of Chicago fire)—Each year concentrates on one specific subject relating to fire prevention plus some general ideas on fire prevention. Sponsors: USDA and National Fire Protection Association.

Specific safety week kits containing information, ideas, news releases, posters, and other helps are available for each week.

Two current specific safety projects receiving national emphasis are the "Slow Moving Vehicle Emblem" developed at Ohio State University and "Drownproofing," a method of survival floating. The first is now well underway and the latter is being developed specifically as a part of the 1966 safety emphasis on recreation in 4-H.

Be assured that practicing safety and including it as a vital part of subject-matter presentations does help prevent accidents. We are responsible for teaching "THE SAFE WAY."

When we hear or read of a fatality or accident in our area ask, "What could I have done to prevent it?" Then do it to prevent similar accidents. But better yet let us start now to improve our programs safety-wise. □

Extension Helps in Vista Training

by F. W. HOWELL, *Extension Information Specialist, Montana*

Top, a VISTA trainee reads to a group of Indian children from Busby as her partner looks on. Bottom, Mrs. Rose Medicine Elk shows this trainee how to make Indian fry bread.

BECAUSE of its experience in working with Indians and its competence in adult education, the Cooperative Extension Service of Montana State University, Bozeman, was selected by the VISTA Program of the Office of Econmic Opportunity to train 44 VISTA trainees for volunteer work on Indian reservations.

These trainees requested work with Indian people when they signed up to become Volunteers in Service to America.

Those selected as volunteers from among the 44 trainees at the conclusion of the training program are now working on Indian reservations in Minnesota, South Dakota, Arizona, New Mexico, North Carolina, Florida, Washington and Montana. The assignments were in response to requests from the Indian tribes for help in the areas of home management, health, and sanitation, recreation, youth, and adult education, preschool programs, and community programs.

The training was in three phases. Phase One was an on-campus session at Bozeman for 9 days. This included understanding Indian culture, methodology of working with other cultures and sources of information for sharpening technical skills.

Phase Two was field training on Crow and Northern Cheyenne Reservations for 3 weeks. Trainees lived and worked in Indian villages to enhance their understanding of methodology of working with Indians and to help them determine needs as the Indians see them.

Phase Three was again on the MSU campus for 5 days for final training and assignment. □

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From The Administrator's Desk

We Ought To Say "Thanks"

We in the Federal Extension Service have many responsibilities that we can carry out only with the cooperation of State and county Extension workers—responsibilities to the American people through the President and through the Congress.

As you do your job you are helping us in FES carry out our responsibilities—and now and then you are called on for some special effort. We in FES ought to say "thanks" more often than we do. I would like to get caught up and say:

Thanks to those agents in 733 counties who during the last year have recognized a special responsibility and opportunity to be of service and have helped groups develop Community Action Plans under the Economic Opportunity Act.

Thanks to those agents who on short notice helped get "Project Head Start" going.

Thanks to those workers who helped some needy young people see their opportunity in the Job Corps or obtain training and employment in the Neighborhood Youth Corps (3,045 Neighborhood Youth Corps youth were employed by Extension last summer).

Thanks to those workers in over 400 counties who are going through a change of offices to comply with the Civil Rights Act.

Thanks to the thousands of Extension workers whose work has been directly affected by the Civil Rights Act, for facing squarely the necessities of change and going about it with responsibility and good judgment.

Thanks to the agents who have invited additional groups of agents to membership in their associations.

Thanks to the workers who through pilot projects or in their regular work have been trying out new ideas, seeking ways to serve new needs or carry out old objectives better.

Thanks to those who have recognized the special problems and needs farm and rural people have today and who have taken initiative to do more about them.

Thanks for giving special attention to the special problems of low-income people, the aging, the handicapped, people struck by disaster.

Thanks for so carefully reporting those statistics in that lengthy and complex annual statistical report.

Thanks for so quickly and so cheerfully providing all those extra reports and statistics we have asked for lately.

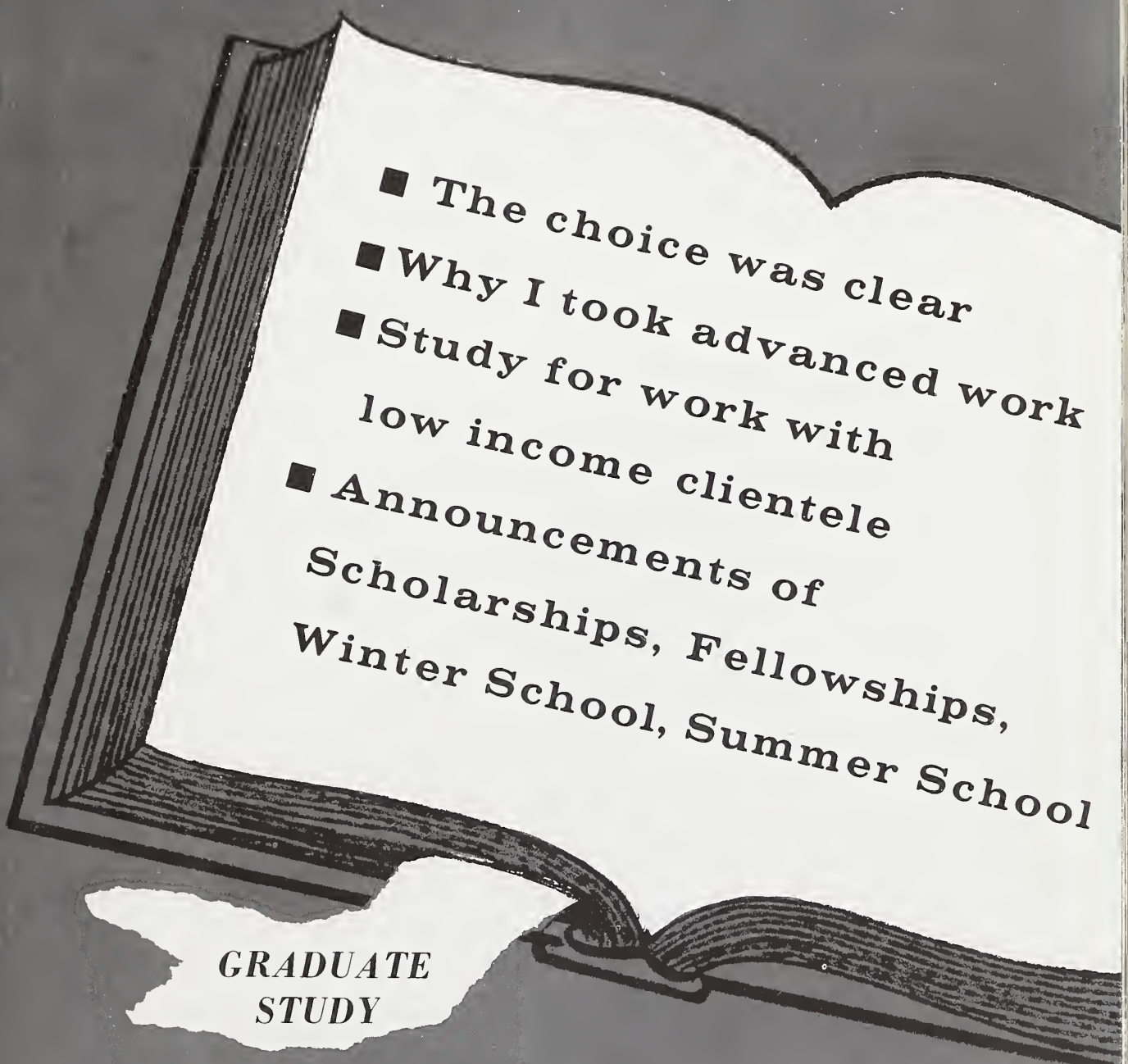
Thanks for "going the extra mile," for not waiting "for John to do it."

Thanks for the many things that make Extension a vibrant, dynamic, responsive and responsible organization—
Lloyd H. Davis

EXTENSION SERVICE

REVIEW

U S DEPARTMENT OF AGRICULTURE ✳ DECEMBER 1965



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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

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EDITORIAL

The American people are investing billions upon billions of dollars in education.

How well is the investment paying off?

Here is an answer that I think rings the bell. It is from an address by Director Lowell H. Watts of Colorado entitled "New Dimensions In Extension Education." He says:

"Research has indicated that education has been responsible for approximately half of the increase in economic output in the United States during the past fifty years. The investment we make in education is, therefore, not only a matter of helping individuals but of providing an investment in economic growth for our entire economy. Failure to put knowledge to effective use or failure to use our manpower to its best advantage because of inadequate training or retraining of that manpower will seriously limit the growth potential and rate of achievement of this Nation."—WAL

The Choice Was Clear

by ALLAN D. HALDERMAN
Extension Agricultural Engineer
Arizona

IN MANY WAYS, it would be easier to stay on the job—certainly there are plenty of interesting and challenging things which need to be done. Then why back to classes? Would they really help in dealing with the practical problems which confront an Extension specialist? Why spend the time, money, and effort to move a family to a new location for a year? It takes a lot of doing to make all the arrangements.

Still, there is that feeling that maybe you're getting behind the times. Recent scientific developments in your field have been coming thick and fast. There are new ideas which you're beginning to hear about but don't know whether or not they are anything you can use.

Well then, suppose you just take a little time each day or week to keep up to date? However, you've tried that and somehow, other things take precedence. It takes time to review and examine fundamentals before you can really understand and evaluate a research study or feel competent in the application of a new method of analysis.

But what if you do go back to school? It's been a long time since you took those basic courses. You know the advanced studies will be tough. You'll be up against real competition from younger students.

For me, the choice was clear. As an agricultural engineer working with irrigation, I'm concerned with water from its source to final use in the fields of Arizona. This means I need some knowledge of water resources, water conveyance, hydraulics of irrigation, and soil-water-plant relationships. Each of these is pretty much a separate field of study.

Water resources involves surface and ground-water hydrology, wells, water quality, pumps, and power units. Water conveyance is concerned with canals, structures, pipelines, and farm ditches. Hydraulics of irrigation deals with movement of water over land and into the soil and with sprinkler irrigation. Soil-water-plant relationships are important in determining when to irrigate each crop and how much water to apply. Most of these subjects require some familiarity with statistics and engineering economics—and what about the computer techniques being adopted so widely?

Right or wrong, I decided to try to learn a little more about each of these—a little more about water.

When you reach this point, you look around for the best place to get the training you want. I chose Stanford University because of the leadership of their faculty in the field of water resources management. (Besides that, the climate is wonderful and we didn't need to buy heavy winter clothes for just one season!)

It took a lot of review that first term—a lot of sweat over assignments, examinations, term papers, and oral reports—but it was fun! One of the exciting things is the exposure to different ideas, concepts, and philosophies —from both faculty and students.

It was well worthwhile. Many times since I've returned, I've used what I learned during the year. Maybe it's in working with a farmer helping him consider engineering and economic factors of a conservation practice. It may be in analyzing the extent of ground-water resources in a given area. The statistics and computer work are helpful in discussing implications of research studies with professional associates. It's difficult to say which subject was the most helpful—they all were and will continue to be.□

Why I Took Advanced Work in Public Affairs

by R. A. MABRY, *Area Extension Director, Kentucky*

THE "explosion" in population and the simultaneous "explosion" in technological advancement are creating problems both social and economic that are new or at least more intense than any the American people have had to face in the past. As each sector of the economy becomes more dependent upon the other and as specialization increases, society will become more and more involved in social and economic regulations and aid.

It is now difficult for an individual "to live alone" or for society to exist as cultural islands. The world is becoming smaller, and as effective geographic boundaries shrink, public and private *decisions are becoming more complex and more group decisions are required.*

Everyone is involved in making public affairs decisions: farmers both large and small; the educated and those with little formal education; tradesmen and specialists; the rich and the poor. If such diverse segments of our society are to establish goals effectively, appraise alternatives and make choices, they must understand and be able to communicate.

Decisions made in the area of public affairs affect all of us to a greater or lesser degree. Because of the increasing interrelatedness of all segments of society it is imperative that public policy decisions be made by an informed public.

The Land-Grant Universities and Cooperative Extension systems were created to extend the horizons of knowledge, and to help people seek new knowledge and values with newly discovered information. We in Extension have the responsibility of helping people apply knowledge in the solution of their social, economic, and technological problems. This is just as true for problems that must be solved through public action as for those requiring only individual initiative.

In public affairs education ours is not the usual objective of getting people to select a certain course of action but instead, the objective should be one of informing those who have a voice in shaping policy, the general public as well as influential leaders. We should try to see that our clientele have information based on fact, rather than on sentiment or tradition, so that they can make well-reasoned decisions.

If we in Extension are to perform the role of informing our clientele on public issues we must be adequately trained to interpret the situation and issues. We must continually be aware that our objective in this area is to educate not indoctrinate.

There were many reasons why I chose to take additional advanced work in the area of public affairs.

(1) Public affairs education was a relatively new subject matter area for Extension, at least in Kentucky.

(2) My undergraduate training, taken 20 years ago, provided little background for conducting a present-day public affairs educational program.

(3) Recent graduate work for an M.S. degree was in the area of Extension education. This gave me excellent background information for working with individuals and groups, as well as methods for planning and implementing programs. However, there was still a need for further training to gain confidence and competence in conducting an effective program in public affairs education.

(4) The demand by local leaders and clientele groups for additional information concerning public policies and issues had steadily increased.

(5) The broad scope of public affairs and the controversial nature of some of the issues make it imperative that we in Extension have as much knowledge of the subject as possible. It is also important for us to understand some of the possible pitfalls and how to avoid them.

(6) An important advantage of taking advanced work is that it allows one to get away from the regular routine. There is greater opportunity to evaluate what we have been doing.

(7) The study and close association with other professional workers, professors, and students serves to broaden one's outlook and helps provide inspiration and renewed energy for work in the future.

My decision to take advanced work in public affairs was influenced greatly by the trend toward increased social and economic legislation. The demand for information in the broad area of economic development was increasing each year. Also, I attended a district inservice training public policy workshop for county and area Extension workers the previous year. The workshop created a desire for further information. Furthermore, it served to emphasize the opportunity for Extension to perform a greater service for its clientele through public affairs educational programs.

My tenure in the Agricultural Policy Institute at North Carolina State was a full and rewarding experience. I am indebted to the Kellogg Foundation, sponsors of the Institute, for making it financially possible for me to participate. Because of this training I have a much better understanding of what should be included in a public affairs educational program.

However, a successful policy educational program must

be built around issues of interest to the clientele to be served. Upon my return to McCracken County I talked with leaders and Extension planning groups. Interest in information concerning public policy issues was evident. The formation of county and community discussion groups to consider such issues as rural zoning, the farmer and public recreation, factors affecting prices of agricultural products, proposed agricultural legislation and legislation designed to stimulate economic growth were included in the county Extension plan of work. Plans were also made to develop mass media programs designed to create an awareness of what is involved in public affairs and policy making.

I no longer work directly with lay people in a subject matter area as a County or Area Extension Agent. However, as a result of my experiences at the Institute, I will be in a much better position to help develop public affairs programs in the Louisville Extension Area.□

Increased Competencies Through Advanced Study

by ADABELLE SHINABARGER
Home Demonstration Agent
Washington County, New York

HOW MANY TIMES have you wondered which of the many films, filmstrips, and printed materials available for teaching consumer economics are really informative and unbiased? Evaluating teaching materials to find out if they are suitable to help people make intelligent decisions is a big responsibility.

I especially enjoy teaching consumer education and have found many opportunities to include this kind of information in newsletters, news articles, training schools, and individual contacts. And even though homemakers were receptive, I wondered if I were doing the best teaching job possible. So when I learned that a course called *Resources for Consumer Economics* was being taught in summer school at Kansas State University I decided to check further.

Because it is necessary for an Extension home economist to know and understand marketing concepts and terminology if she is to be knowledgeable in the consumer economics field, I also was interested in another course offered at "K" State—*Consumer Marketing and Policies*. But being interested in and actually deciding to undertake advanced study for even such a limited period as 4 weeks are two very different things. With the State Leader's encouragement, I asked for the study leave which enabled me to increase my understanding and update my knowledge of consumer economics.

It was a productive 4 weeks in spite of the typical July weather in Manhattan. The instructors, Dr. Stewart Lee of Geneva College, Pennsylvania, and Dr. Richard Morse of Kansas State, are well known in the consumer economics field. Most of the students were affiliated with Extension, but homemaking teachers, high school business teachers, and a home economist in business also were in the classes. Extension personnel came from Maine to Washington; we talked shop and compared programs over colas at the student union after class.

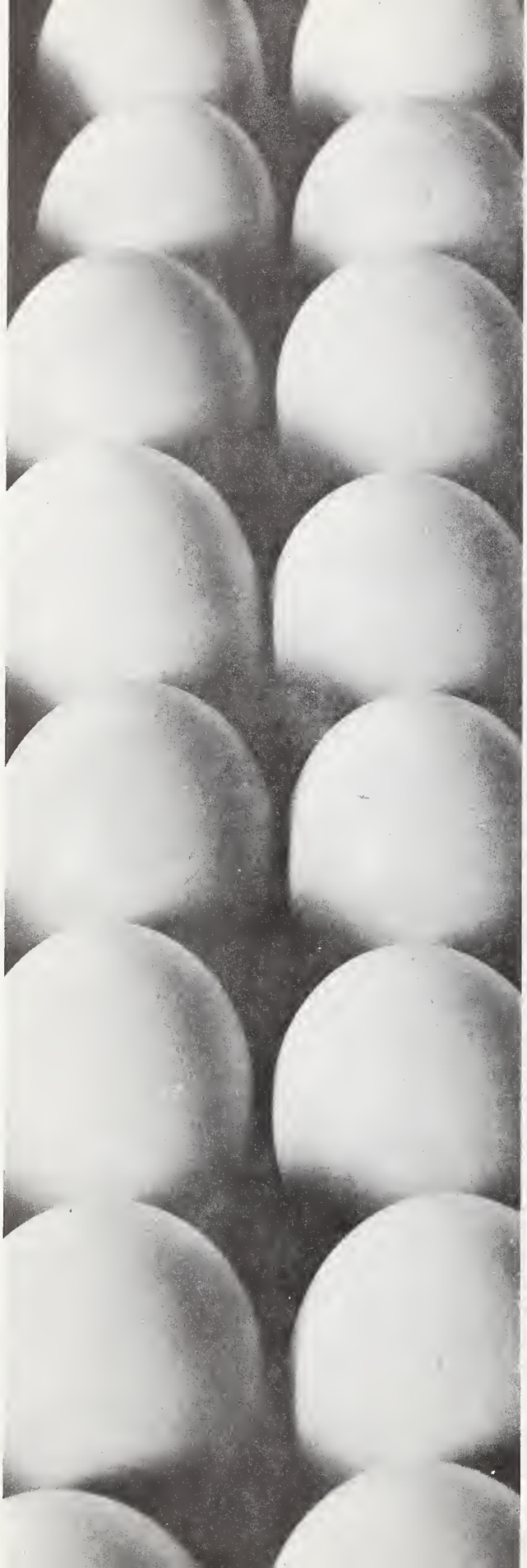
The summer's study increased my understanding of consumer economics and I feel more confident in developing meaningful programs in consumer education. The extensive collection of consumer education resource materials that I compiled has proved valuable. I used the materials as an exhibit when I reported on my study experience at a meeting of the local Home Economics Teachers Association. Those teachers concerned with teaching money management and credit more effectively are eager to use these materials.

I feel I have improved in my ability to identify needs, understand how choices are made, and reach consumers with information they may find useful. This has been particularly helpful in preparing news releases containing consumer education information. Currently, Washington County in cooperation with several neighboring counties, is sending a letter series to young marrieds. My increased ability in identifying needs has helped me in preparing more meaningful letters for this group.

I have become more observant. For example, I am more aware of pending consumer legislation. This undoubtedly is due in part to increased interest in consumer problems, but I think it goes much further. Development of a keen sense of observation has contributed to my personal growth.

Consumer education is an endless job. In this land of plenty we have a variety of ever-changing choices unequaled anywhere. Herein lies the confusion and the need for consumer education. Extension home economists stand a good chance of being in business for a long time by being alert to consumer needs and developing dynamic, effective programs to serve them.

Advanced study prepares one to meet this challenge with additional knowledge, vision, fortitude, and inspiration—ingredients required in any program which is to be effective.□



Become an Expert —And Stay One

by LOUIS H. RUGGLES
Regional Agricultural Specialist
Massachusetts

AS POULTRY SPECIALIST for the Northeast Extension Region of Massachusetts, I need two types of confidence—my own confidence in my abilities and the confidence of my clientele. Both were among the rewards of my recent graduate work.

The opportunity for graduate work came when the lay leaders and administrators of the Extension Service responded to a request from agricultural leaders for specialized agents. They created the specialist role through regionalization of commodity programs and then provided the county agents the means to gain the advanced degree work required for these roles. The Department of Agricultural and Food Economics cooperated by setting up convenient classes for the agents. Usually after 3 or 4 years to complete the course work, each agent is allowed a 5-month leave to do a thesis dealing with a problem within his commodity.

My background in poultry husbandry was a good start for a county agent, but today's demands from the commercial poultry industry on the Extension Service turn more to economics. The many and involved production, marketing, and business alternatives available in this area, combined with the professional competence of the producers, makes for complicated questions requiring well-researched answers.

Both the course work and the thesis project which I completed in the Department of Agricultural and Food Economics at the University of Massachusetts prepared me to fill this demand. It made me aware of new problems, new approaches to old problems, and brought

the realization that a head-full of general recommendations answered very few of them.

My plan of work revolves around improving the decision-making abilities of my producers and then supplying them the information with which to make decisions. Vital decisions are being made daily as the Region is expanding in market-egg production, attempting new production techniques, developing new methods to market their eggs, and trying to keep up with their urban neighbors. Important also to the welfare of my producers are the decisions being made by those allied industries supplying their inputs and buying their outputs. These people are not neglected in the Extension program.

The programs are carried out through general poultry meetings, more formal classroom approaches, technical articles, applied research, and a good deal of consulting work, all performed by the agent. It's evident that little of this would be effective without the industry's confidence in their agent.

Back on the job after finishing my thesis, I found myself with renewed enthusiasm. .I organized and taught a series of seminars to two groups on decision-making functions and tools. Requests have since come in from participating students for help in partial-budgeting.

It was my thesis project, however, that really got some mileage. It was an evaluation of several egg marketing alternatives available to local producers. So far, it's been the subject for five producer meetings, an article in our State's poultry Extension publication, an Extension bulletin, and a paper before the Poultry Science Association.

As a result of the thesis and the resulting publicity, I am now considered the "expert" on egg marketing, with continuing requests for consultation from producers and marketing agencies. It provides guidelines for selecting the optimum marketing method for various farm sizes. It, in combination with a fellow specialist's thesis, will help identify the least-cost marketing system to move eggs from the hen house to nearby stores. This will help our producers capitalize on their nearness to markets and remain competitive with other production areas.

A real attraction for graduate work is the opportunity for an Extension worker to come in out of the field and sit down, undisturbed, with a thesis project. Experience will bring forth a well-defined problem of economic importance. Although I was on leave from my Extension duties, the thesis is my best piece of Extension work. Its success and my exposure to other research work have whetted my appetite for continuing some applied research projects.

Also of importance to my future program were the working relationships which I established with the resource people at the University. The results increased my confidence enough so that I plan to remain the "expert" even if it means sweating out another thesis-size project.□

The author helps out while visiting a typical Massachusetts family farm egg-processing room.

SCHOLARSHIPS-FELLOWSHIPS

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 1967.

The States eligible for this award will be determined at the annual Chicago committee workshop scheduled for early this month.

Announcements will be sent to all men agents in the States designated in early 1966. 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 57580.

NACCA-Sears Roebuck Foundation Scholarship

Members of the National Association of County Club Agents are eligible for graduate scholarships sponsored by Sears Roebuck Foundation. These scholarships are to be used for summer or winter Extension schools or other graduate study. Deadline for applications is January 1, 1966. They may vary from $100 to $200.

For further information and applications contact Robert A. Stodola, NACCA Professional Improvement Committee, Box 537, West Bend, Wisconsin 53095.

Grace Frysinger Fellowships

Two Grace Frysinger Fellowships have been established by the National Association of Extension Home Economists 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 and 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. Henrietta Clark, Home Economist, Courthouse, 205 Market, Warrensburg, Missouri 64093.

The University of Chicago-Kellogg Fellowship-Internships in Continuing Education

Five fellowship-internships of $5,000 each will be available for the 1966-67 academic year for graduate study and service in continuing education at The University of Chicago.

These awards have been established under a grant from the W. K. Kellogg Foundation. Each award has two parts (a fellowship phase and internship) covering a period of 4 consecutive quarters of graduate study and intern training. The fellowship, which carries a total honorarium of $2,500, provides for full-time study for two quarters. The internship, which carries a total stipend of $2,500, provides the student with guided work experience in a residential center for continuing education or in a related program. The period of study may begin in either the summer or autumn quarter of 1966.

The kind of person who will find this experience most educative is the relatively inexperienced person who desires to pursue a career in continuing education, possibly in conference management or residential adult education, and who wishes to work toward a Ph.D. or M.A. degree. Selection will be based on the candidate's academic record and his potentiality for developing his leadership.

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: William S. Griffith, Chairman, Fellowship-Internship Committee on Continuing Education, Department of Education, University of Chicago, 5835 South Kimbark Avenue, Chicago, Illinois 60637.

National Association of Extension Home Economists Fellowship

One fellowship has been established for home demonstration agents by the National Association of Extension Home Economists. This fellowship is for the purpose of professional improvement through advanced study.

The fellowship is $1,000 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. Henrietta Clark, Home Economist, Courthouse, 205 Market, Warrensburg, Mo. 64093.

J. C. Penney Scholarship for Home Economists

An annual scholarship of $2,000 has been established by the J. C. Penney Company to provide an opportunity for Extension Home Economists who have shown competence and achievement in home economics Extension programs to receive additional professional improvement through graduate study at the Master's or Doctoral level.

The award is contingent upon the following provisions:

a. That the grant of $2,000 be used in graduate study aimed at an advanced degree.

b. That a short, expense-paid trip

to New York follow the study period.

c. That after the training period is completed, a brief report is submitted to the J. C. Penney Company and the National Association of Extension Home Economists.

d. That the study period must be started within 12 months after the award is granted.

e. That the study period should consist of a minimum of 9 months.

f. That final award winners are not eligible to apply again. This does not include applicants who do not receive an award.

Application for this award should be made on the prescribed application form provided to applicants through the State Extension Director's Office.

Farm Foundation Scholarships in Public Agricultural Policy

The Farm Foundation is offering 100 scholarships of $100 each (25 to each Extension Region) for county agricultural and home agents attending the 1966 Regional Extension Summer School courses in public agricultural policy. Thirty scholarships of $100 each are available for the 1966 Regional Extension Winter School course in public agricultural policy.

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.

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 or July 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, agri-business, successful Extension Service programs, and rural development and research projects.

This 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 57580, is National Chairman.

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, Federal Extension Service, 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, 1966. Deadline for applications is March 1.

Rockford Map Publishers Graduate Scholarship

Extension Youth Agents working in Minnesota, Wisconsin, Michigan, Illinois, and Pennsylvania are eligible for the $100 graduate scholarship offered by the Rockford Map Publishers Company. It is for summer or winter Extension schools or travel study or other graduate study. Deadline date for application is January 1, 1966.

For further information contact Robert A. Stodola, NACCA Professional Improvement Committee, Box 537, West Bend, Wisconsin 53095.

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.

Postdoctoral fellowships are also available for study or work in the mathematical, physical, medical, biological, or engineering sciences; anthropology; economics; geography; the history and philosophy of science; linguistics; political science; and sociology. Also included are interdisciplinary areas which are comprised of overlapping fields among two or more sciences.

For information write to the Fellowships Section, National Science Foundation, Washington, D.C. 20550.

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 responsibilities 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 1966, 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. Fellowships are also provided by Sears-Roebuck Foundation, S. & H. Foundation, Inc., John Deere Foundation, and General Motors Corporation.

For information write to Dr. S. D. Staniforth, Acting Director, National Agricultural Extension Center for Advanced Study, University of Wisconsin, Madison, Wisconsin 53706.

Michigan State University Graduate Assistantships in Resource Development

The Department of Resource Development, Michigan State University, offers five graduate assistantships to students working on master's degrees. Three research assistantships of $2,300 and two teaching assistantships of $2,300 are available. Students devote half their time to departmental research or teaching assignments for 9 months. A maximum of 16 credits (research) or 12 credits (teaching) 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.

National Agricultural Extension Center for Advanced Study Scholarships in Supervision

Up to 20 scholarships of $300 each are available for Extension workers enrolled in the 4-week graduate level course in Supervision of Extension Programs. The course is to be offered at the Summer Session at the University of Wisconsin, June 20 to July 15, 1966.

For further information contact Dr. S. D. Staniforth, National Agricultural Extension Center for Advanced Study, University of Wisconsin, Madison, Wisconsin 53706.

Fellowships, Scholarships, and Assistantships in Extension Education

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. 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.

University: of Wisconsin: A limited number of research assistantships—$243 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.

The Ohio State University: Two research assistantships ranging from $2,400 to $3,600. A limited number of University Fellowships on a competitive basis—about $2,000 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.

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.

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 20742.

Sarah Bradley Tyson Memorial Fellowships

The Woman's National Farm and Garden Association offers two $500 Sarah Bradley Tyson Memorial Fellowships. These fellowships are for women who wish to do 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, 1966, to Miss Violet Higbee, Kingston, Rhode Island 02881.

Farm Foundation Extension Fellowships

This foundation offers fellowships to agricultural Extension workers, giving priority to administrators, including directors, assistant directors, and supervisors. County agents, home demonstration agents, 4-H Club workers, and specialists will also be considered. Staff members of the State Extension Services and USDA are eligible.

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.

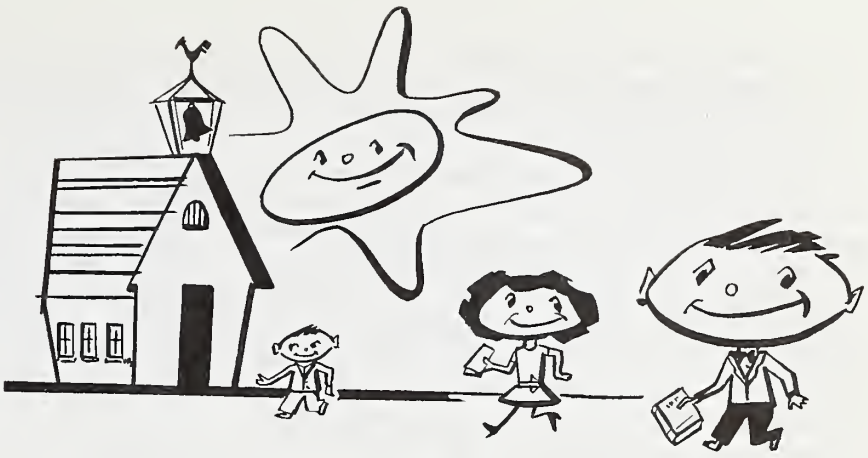
Applications are made through State Directors of Extension to Dr. Joseph Ackerman, Managing Director, Farm Foundation, 600 South Michigan Avenue, Chicago, Illinois 60605.

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

Farm Foundation Scholarships for Supervisors

The Farm Foundation will offer 10 scholarships of $200 each to Extension supervisors enrolling in the 1966 summer supervisory course at Colorado State University. Scholarships will be awarded to no more than one supervisor per State.

Applications should be made by March 1 through the State Director of Extension to Dr. Carl J. Hoffman, Education and Training Officer, Extension Service, Colorado State University, Fort Collins, Colorado 80521.



WORKSHOPS-SCHOOLS

Workshop for Adult Education Administrators

The Department of Education at The University of Chicago is offering a unique opportunity for administrators of university adult education programs in the form of a 3-week workshop at the Center for Continuing Education beginning June 27, and running through July 15, under the direction of Professor William S. Griffith. One of the notable features of this workshop is the breadth of experience represented by the participants who come from Cooperative Extension, general university extension, evening colleges, and other university adult education units.

The exchange of views among members of the workshop group brings about a better understanding of the many and varied aspects of the total field of adult education. Individual study on personal administrative problems will be emphasized, and will be supported by excellent library facilities and a well-informed complement of resident and visiting staff from such areas as university adult education, government agencies, and professional and private organizations which have far-reaching interests in adult learning.

A number of $300 fellowships are available through a special grant from the Kellogg Foundation for the purpose of supporting those who are presently engaged in or preparing for work in the field of university conferences and institutes.

Program announcements are available from Wayne B. Ringer, Program Coordinator, Center for Continuing Education, The University of Chicago, 1307 East 60th Street, Chicago, Illinois 60637.

National Extension Workshop in Community Resource Development

The National Extension Workshop in Community Resource Development will be held at Michigan State University, July 11-22, 1966. This is the second consecutive National Community Resource Development Workshop to be held at Michigan State University. The Workshop will consist of seminar sessions on concepts, methodology, content, and the sharing of experiences in Community Resource Development. Nationally recognized consultants as well as participants will be leading the seminar sessions. No formal courses will be offered. The Workshop will be on a non-credit basis.

Additional details relating to costs will be announced later. For additional information, contact Dr. William J. Kimball, Workshop Coordinator, Department of Resource Development, Michigan State University, East Lansing, Michigan 48823.

National Extension Summer School
Colorado State University
Fort Collins, Colorado
June 13—July 1, 1966

(Instructors to be announced)

Socioeconomic Factors in Resource Development

Low Socioeconomic Groups

The Changing Role of Extension Specialists

Research Designs for Extension Education

Supervision of Extension Programs

Principles in the Development of Youth Programs

Urban Extension Seminar

Public Relations in Extension Education

Human Behavior in Extension Work

Principles in the Development of Agricultural Policy

Extension Communication

The following course offerings are designed especially for international students or students going into foreign work.

Environmental Barriers to International Teaching and Communication

Development of Extension Programs Abroad

Principles in Development of International Youth Programs

A series of educational dialogues with leaders in American and international adult education will also be offered.

For further information write Dr. Carl J. Hoffman, Director, National Extension Summer School, Colorado State University, Fort Collins, Colorado 80521.

Fifth Western Regional Extension Winter School
University of Arizona
Tucson, Arizona
January 31—February 18, 1966

Agricultural Policy (*Dr. Wallace Barr, Ohio*)

Agricultural Marketing (*Dr. Raymond O. P. Farrish, Arizona*)

Philosophy and Principles of Extension Education (*Dr. Marden Broadbent, Utah*)

Audio Visual Aids in Extension Education (*Dr. Raymond L. Klein, Arizona*)

Basic Evaluation Adapted to Extension Teaching (*Mrs. Laurel K. Sabrosky, FES, retired)*

Procedures and Techniques for Working with Groups *(Dr. Courtney B. Cleland, Arizona)*

Farm and Ranch Management (*Dr. Charles Beer, FES*)

For further information write Dr. Kenneth S. Olson, Director, Room 303-H, Agriculture Building, University of Arizona, Tucson, Arizona 85721.

Graduate Study Immediately Useful

by EUGENE F. DICE
District Extension Agent in Community Research Development
Michigan

RESEARCH results obtained during my study leave were directly applied to field situations almost immediately after coming back on the job. This early application was most successful in designing ways of assisting county agents in their work with local groups in Economic Opportunity activities. I sincerely believe that the additional tools, or methods, picked up in this advanced study program will be important aids over a long period of time. The implications have bearing both upon agents as a training function and their publics and groups as an educational device.

I feel that my reasons for wanting to do advanced degree work are the same as the reasons put forth by others. Essentially they are based upon one's assessment of both personal and professional circumstances: the self and the job.

I was, prior to taking time out to go back to school, an agent in an urbanizing county. My job was to work

on nonagricultural problems and programs. While handling some of the urban horticultural programs, I was also working with the total urban, suburban, and rural public on community and resource development problems.

My background for this position was a boyhood on a farm, vocational agriculture in high school, farm management as a bachelor's degree major, and extension education master's major. Both economics and sociology were strong minors at the college level. Thus my college background majors were not directly related with my urban responsibilities, nor for that matter to urban horticulture responsibilities. But the area in which the need for more advanced training seemed evident was twofold: it involved first the technical subject matter of resource development and the educational methodology of community development (adult education).

It seemed to me while working with both farm and nonfarm groups that the best approach was being developed under the Resource Development Program area.

It was possible to obtain the approval of two departments at the University of Michigan for a joint degree in education and conservation. Half the course credits needed for the Doctor of Education degree were in the area of adult education while the other half were in the area of conservation and development of natural resources. The foreign language requirement, of course, was not valued as credit but had to be met. The research project for the dissertation was a conservation subject with educational methods being tested.

The real question which got me going on a research problem was, generally, why is there such a disparity between the technical knowledge of resource experts and the actions of civil and political bodies? (Why for example, do people put up with disease-bearing open sewers in suburbia even after the health and land use experts tell them that their children will get sick?)

Then the next question that followed was: can an educational program be designed which will aid the average citizen in changing his position or stand on an issue important to his community? This led to asking what a stand or position is made up of. From then onward, the process developed into a model like testing soil and recommending fertilizers according to formula.

It was decided that position or stand taken on an issue is made up of a formula consisting of at least five ingredients. Those identified for research are: an ideology, an attitude, a disposition to act, a perception of appropriate action, and a perception of facts. A shortage in any one of these may be the important key in blocking positive action just like the shortage of nitrogen, phosphorus, potash, lime, or water can block growth of a plant even if all others are present in sufficient quantities. Most likely, positive action results from some kind of balance among all five.

A gardener can go to his supplier and ask for fertilizer, or he may ask for a specific formula like 6-24-12. We reasoned that an agent or specialist has two similar alternatives in preparing materials for his clients. He can provide them with prepared information or with a prepared learning (educational) experience.

If, for example, a project in providing farm-owned recreation for a community is stalled by lack of action, the ingredient of "perception of appropriate action" (knowing what to do and how) may be the most important part of the educational formula. This then, rather than general information on the subject, would guide the agent in planning an educational program.

There are many desirable results of this kind of advanced study. One of the best, from a professional standpoint, is a greater appreciation for the need and opportunity for more effective resource development activities, the great scope of events that shape the destiny of rural agricultural events, and a greater understanding of the complexity of our society. From a subject-matter standpoint, the conservation content is really more development than conservation of resources, and provides a more technical attitude on which to base programs and activities. These technical aspects may now be shared with fellow field workers in county and regional programs. This should result in more effective resource development programs.

Another contribution resulting from the advanced degree program is a better concept of training needs among members of a staff. Resource development, for most field workers, is an unfamiliar field. Reluctance often accompanies the unfamiliar. The need, therefore, is to evaluate the training needs from a standpoint of attitudes and idealogies as well as for perception of facts and how to proceed. The careful planning of a training program following such an evaluation will achieve the dual results of staff time efficiency and attainment of overall objectives in resource development. This has been proven in the involvement of the field staff in Economic Opportunity Act programs in the State. Perception of appropriate action was a prime ingredient planned into the training process that moved the agents into action.

It seems to me that we need to assume a posture in Extension which provides that a portion of total commitment reside in the area of resource development. To do this, a reasonable percentage of the staff will need greater competence in the subject matter of resource development. This, by the same reasoning, calls for more advanced degree work on part of dedicated and able Extension workers. Professionally, we shall find it mandatory to possess high-level competencies, nurture and support imaginative yet practical research and convey knowledge to our various publics through efficient and effective learning experiences. These, I believe, were concrete results of advanced study.□

Advanced Study For Work With Low-Income Clientele

by WANDA A. GOLDEN
Home Demonstration Agent
Wise County, Virginia

THERE ARE MANY REASONS for enrolling in graduate courses. Let us not ignore the fact that an advanced degree is a status symbol. It is definitely a firm step up one's professional ladder.

Intellectual curiosity is another motive. Facts are recited during demonstrations and talks; but these facts are the result of research done by someone else. One of the most rewarding aspects of a graduate program is the introduction to research and research methods.

Advanced study which follows experience in the field is especially meaningful. An awareness exists; this creates a receptive atmosphere for learning. The student is able to take new information and apply it to a past situation.

There is the challenge of mastering subject matter. The ability to speak with authority gives substance to both the educator and her information. Advanced study programs provide an introduction to resources. This is the time to learn who the leaders are in your field; the trends in research; the types of programs underway. This is the time to find out what's going on in your profession—to be in control of the information which passes through your hands.

A period of advanced study gives one the opportunity to listen, read, think, and concentrate on a selected field.

Home management tends to be personal and intangible; therefore, it is not always popular with program planning committees. Many agents do not know how to present management on a down-to-earth level. They may not know the types of information needed nor where to obtain it without a long delay.

Having worked in so-called "depressed areas," I know how much this information is needed. Less than spectacular response to programs convinced me that I must be short on facts and/or technique. These factors, coupled with a real desire to broaden the county Extension program, are the basis for my personal decision to take advanced work at the University of Tennessee.

"Management" denotes the art or act of handling, directing and *being in control;* but, printed and spoken material regarding our low-income population is conspicuous in the use of the terms "helpless, dependent, weak communications, and *inability to cope.*"

Good management procedures are developed as a result of practice in making decisions and choices. This development can evolve only when a family has information about its resources and alternatives. Sensing and seeing success will insure the survival of these practices. Unfortunately, the marginal consumer has little sense of control over his resources. Success is too often measured in the ability to obtain the bare necessities, if that.

Management is inherent in every activity which affects the home, whether it be associated with food, clothing, housing, or family economics. This situation presents both an opportunity and an obligation to the home economist.

The greatest obligation of a county home agent is to reach the people. Organized meetings and workshops reach many but what about the others? How many agents have tried to serve the obvious need of this marginal population and felt frustrated when their programs showed too few results for the amount of time expended? This brings us to other obligations. Know the people; know their needs. More than anything, know what you're talking about and how to talk about it. Good intentions are not enough. This is the greatest argument that can be advanced on behalf of advanced study.

If this sounds more philosophic than practical, perhaps it is meant to. Study beyond the undergraduate level stresses theory. Knowledge of concepts is the key to application of facts and figures.

Study will not spell out a recipe for teaching low-income groups. Rural sociology points out who they are and how they came to be this way. Family relations and psychology courses build an understanding that leads to ease in counseling individuals and working with small groups. Remember, these people are socially isolated. An educator must often seek them out and go to them. Subject-matter courses provide the foundation for actual teaching. Term papers and research reports furnish an exercise in organization, execution, and evaluation.

Advanced study is more than a meter of learning how and what to teach. It's absorbing resource material and knowing how to communicate it. We are endeavoring to assist a special group of consumers; products and programs are constantly changing. Being up to date is a necessity in the field of home management and family economics.

The professional who has been involved in a study program has much to offer fellow workers. In the field of management teaching for low-income groups, she can contribute: (1) Subject matter for agent use, (2) Subject matter information adapted for use by this group of consumers, (3) Resources—books, bulletins, tapes, and speakers, (4) Program outlines and ideas for presentation, (5) A helping hand in training programs, and (6) Cooperation with other agencies.

I believe that Extension programs can, and should, stress: (1) the management aspect of every subject-matter phase; (2) the individual nature of management; one answer will not satisfy the needs of all who ask the same question; (3) reaching audiences of both sexes; every adult should have access to information on credit, insurance, consumer rights and responsibilities, and decision making that leads to satisfaction of needs; (4) long and short time goals. People who live from week to week are not inclined to plan for an uncertain future. Small successes today create interest in bigger victories tomorrow.□

Technical Revolution in Agriculture Demands Professional Development

by RAY CAVENDER, *Chairman Extension Resource Use Division, Alabama*

A rapidly-changing social and economic environment calls for constant assessment of the needs of the emerging system by public institutions.

Extension has always prided itself on its ability to adjust to serve the educational needs of rural America and the interests of national goals. Meeting this challenge has necessitated shifts in organizational structure, program orientation, and staffing.

Today, Extension faces a new generation of problems. They are concerned with agricultural adjustment and efficient resource use, both human and physical. These problems are largely an outgrowth of the technological revolution in agriculture which is yet to reach its peak. They involve the changing relationships between people and their resources and the more traditional aspects of low productivity. It is the latter area where Extension workers have focused much of their professional development program.

In approaching agricultural adjustment and resource use problems Extension must help people to obtain more complete and efficient use of their total resources. An essential part of adjustment and resource use activities with family farm and ranch units and areawide efforts involve information-gathering projects. Reliable facts which depict the current situation and outlook in terms of opportunities, potentials, and personal desires are the basis for rational decision making.

Encouragement from Director Fred R. Robertson and a personal feeling of inadequacy motivated me to take additional formal study in agricultural adjustment, resource use, and public policy. It was my good fortune to participate in the special 1-year study program at the Agricultural Policy Institute at North Carolina State University, Raleigh. This study gave me a better understanding of the adjustment problems facing people in agriculture, how public policies influence adjustment needs; and techniques for analyzing the forces affecting resource use and incomes in agriculture.

Courses taken emphasized the economics of production, pricing and marketing, public programs affecting agriculture, and how groups influence public policy. A major portion of the work was in the Department of Agricultural Economics. Courses were also taken in Political Science and Rural Sociology.

Why include public policy and sociology in a study program with emphasis on agricultural adjustment and resource use? Public policy may be either a facilitating or restricting factor on the efforts and desires of people to make adjustments in traditional resource use patterns. The ability to interpret and communicate policy implications is vital in providing effective Extension leadership. Likewise, the competence to assist people in understanding the existing leadership and influence structure is helpful in securing maximum support for adjustment programs.

The Extension worker who sees his role as a merchandiser of postal card prescriptions may encounter frustration in a professional development program of the above nature. There are few specific answers where agricultural adjustment and resource use problems are concerned. However, one can acquire a better appreciation for their complexity. And one can develop the ability to make application of economic and social principles, processes, and techniques to problems facing people in agriculture.

I am finding my educational experience extremely helpful as I endeavor to give educational leadership to Extension programs concerned with adjustment and resource use problems of Alabama people. However, personnel with the training to help people integrate information from many disciplines are needed at all levels of the Extension organization. Assisting individuals and groups to formulate and study alternatives to overcome adjustment and resource use problems will become an increasingly important Extension function. Gearing up to provide this kind of leadership is the immediate challenge facing Extension and the professional Extension worker.□

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From The Administrator's Desk

You and Your Future

An organization is its people. The future accomplishments of the Extension Service will be determined largely by the abilities of the Extension staff. It is appropriate that we dedicate this issue of the Extension Service Review to the subject of professional improvement.

As I see it, the administration and the staff share a responsibility for professional development—for, after all, the management of the organization has responsibility for maintaining and developing the competency of the organization, and we as individuals have responsibilities for our own personal development.

As we think about our individual professional development, let us be sure to think about the programs of the future. The training we plan and initiate today will only bear fruit in the programs of future years serving the needs of people in the future. We must do our best to anticipate the future role of our organization in the society of the future and the kinds of people that this organization will need. Let us also study our own individual aptitudes and talents to determine where, and with what training we can make our greatest contribution in the future. Within the Extension Service of the future there will be a place for people with many specialized competencies. Current trends indicate higher degrees of specialization in function and training. Each of us has his own special set of interests and abilities.

As we consider our needs and opportunities for training, let us think about how the two fit together.

As educators we will need high levels of competency in the knowledge to be taught as well as the techniques of teaching—and both are changing—both are areas deserving our attention as we plan our own professional development.

When we consider the wide range of responsibilities of the Extension Service, the many kinds of special roles in which Extension workers serve, and the infinite variabilities in our own talents, it seems obvious that training and educational programs for Extension workers must have infinite flexibility if they are going to adequately serve the individual, the Service, and the American people.

I believe that each of us is the best judge of his own needs and opportunities and should take responsibility for planning his own professional development.

Each of us must constantly grow and develop if he is to make his full contribution and live a rewarding life. To stand still is to fall behind, relatively.—*Lloyd H. Davis*