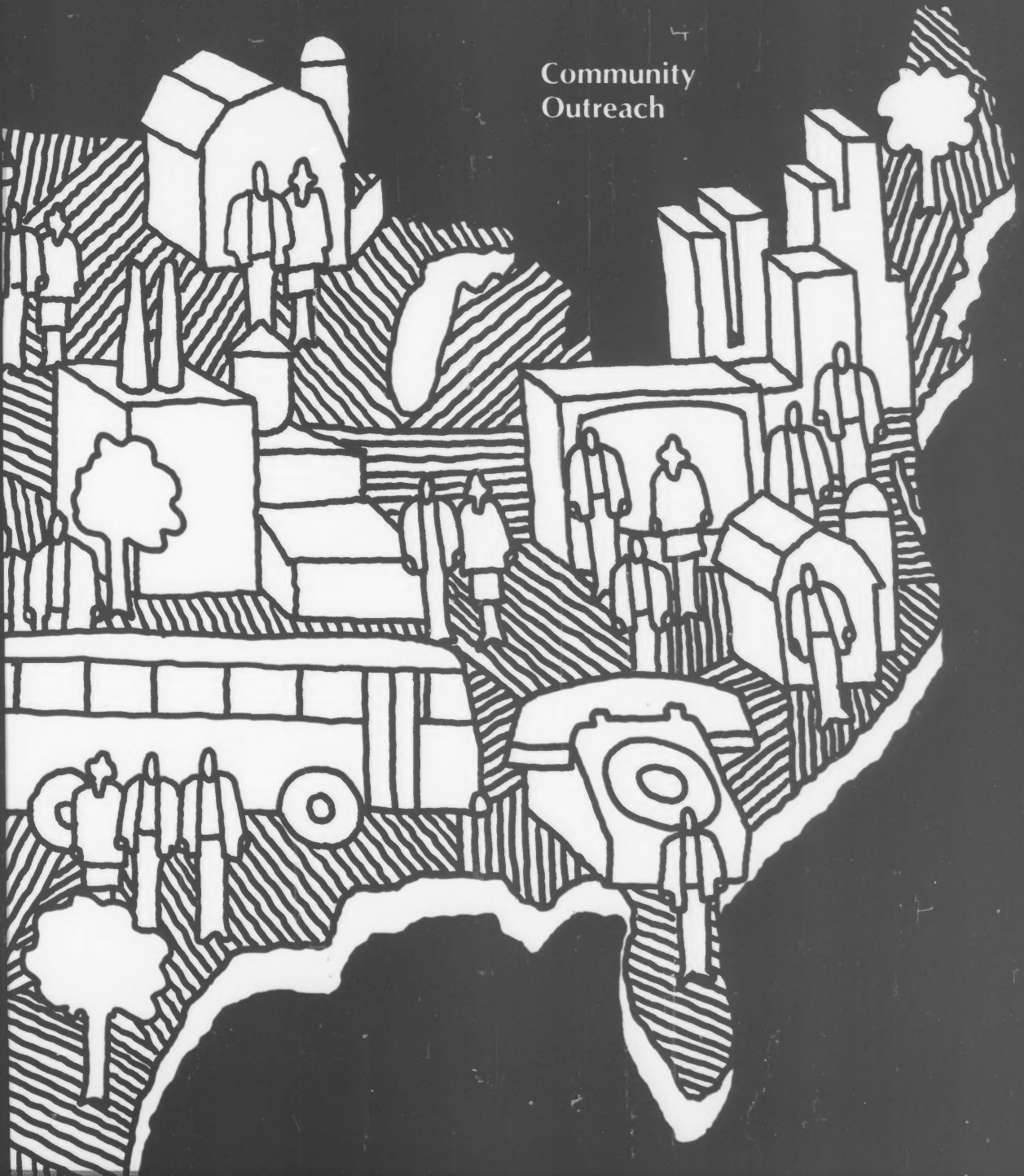


Spring 1981

United States Department of Agriculture
Science and Education Administration

extension review

Community
Outreach



review

Key Ingredients for Community Development

Helping local communities improve their job and income opportunities, strengthen their problem-solving capabilities, and enhance their services and facilities are the objectives of Cooperative Extension's Community and Rural Development (CRD) programs. Needs relating to these public sector concerns are why Extension has made CRD one of its major emphases.

For communities to achieve these objectives requires five essential ingredients. As noted in the following discussion, Extension's educational responsibility relates directly to four of the essential ingredients and indirectly to the fifth.

The **first** essential ingredient if communities are to truly achieve their goals and be the kinds of places where people want to live and work is for them to have capable leaders comprising a broad, viable leadership base. Extension has been a master at teaching leadership skills since it began. The complex arena in which today's community leaders must operate requires the best of skills. Extension has a responsibility to give special attention to providing training and enhancing experiences which will further develop these leadership skills and broaden the community's leadership base.

A **second** essential ingredient is for communities to have effective community organizations and local government structures. Most community decisions come up through a group and are finally acted on by local government. If the group and structure doesn't exist or isn't functioning, don't expect much to happen. Extension has a lot to offer in helping groups know how to organize and function and in training local officials and strengthening local governments.

A **third** essential ingredient is for the community to have knowledge and understanding of its opportunities. What's possible? How are other communities handling the problem? Is it technically and economically feasible? What's the impact? Who pays, who benefits? These are the kinds of questions community leaders are asking. We have a whole host of research projects and analytical models that can help communities understand their options in order to be in a position to make better decisions.

Adequate capital is the **fourth** essential ingredient. Although Extension does not fund projects, it can help in identifying alternative sources of funds and in mobilizing local resources. As more authority and responsibilities are shifted back to the local level, communities are going to be challenged to accept and make the most of this opportunity.

Technical assistance, the **fifth** essential ingredient, is needed to support community projects. Here again Extension has an opportunity to provide such help directly, as well as to help the community link to technical assistance available through skilled people from federal, state, and local agencies and the private sector.

Extension is only one of many who can contribute to each of the above essential ingredients. But it is an important contributor and, as many other assistance programs are cut back or phased out, communities are going to have even more need to capitalize on their own capabilities and mobilize their own resources.

Extension workers in county, area, and state offices often know "what" must be done in communities. It is frequently another matter, however, to grab hold of "how" to address these problems. Extension agents and specialists need "handles" to catch hold of "how" to do Extension CRD effectively.

Some catchable handles are held out for our consideration in this issue of *Extension Review*. Some of these ideas could provide the "how" for your CRD programs — *John S. Bottum, Deputy Administrator, CRD, SEA-Extension.*

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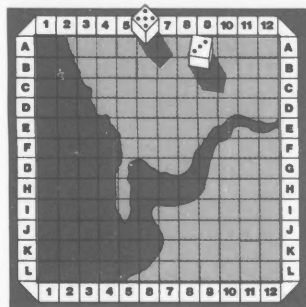
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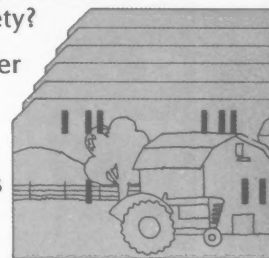
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Extension Outreach In Boston's Chinatown

Susan Mitchell
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Three times a week the men and women arrive at Suffolk County Extension Service offices in Boston. They talk with animation in their native Chinese dialects until Marilyn Lee-Tom arrives. Then, the bilingual workshop begins.

"You are looking for a job. Ask me for a job," Lee-Tom says to one of her students.

"I am looking for a job," the student replies in a quiet, hesitant voice.

"What kind of job? Do you have any experience?" Lee-Tom asks. After a brief pause, the student replies, "I am looking for an easy job."

Lee-Tom smiles, and there is quiet laughter from some of the 30 other people. Then, in rapidly spoken Chinese, she explains that a person doesn't ask for an "easy job," but instead asks for a job that "does not require any experience."

"I am looking for a job that does not need any experience," the woman then replies.

The men and women in this beginning/intermediate bilingual workshop range in age from early twenties to late forties. They are all immigrants to this country from Vietnam, Hong Kong, China, Taiwan and other places in Southeast Asia. Some of them already have jobs, but often only the jobs that are traditionally open to non-English-speaking immigrants—restaurant work for the men and garment factory work for the women.

Although they bring much of their Oriental culture with them, Southeast Asian immigrants to Boston's Chinatown need help adjusting to their new Western environment. Marilyn Lee-Tom (left), home and community program specialist, Suffolk County Extension, provides a helping hand to residents there through programs and workshops on language, crime prevention, consumer education, health, nutrition, housing, and gardening.

The individuals who don't have jobs yet are usually the more recently arrived immigrants. They are anxious to learn English as quickly as possible in order to get such jobs as bank clerk or secretary.

Lee-Tom is the Home and Community Program Specialist for the Suffolk County Cooperative Extension Service in Boston, Mass. Her primary responsibility is to provide Extension educational information to the 15,000 to 20,000 residents of Boston's Chinatown, the fourth largest in the Nation.

Language Barrier

Lee-Tom focuses on the traditional Extension concerns of meeting the needs of people by giving them up-to-date information on a variety of topics. She could communicate all the necessary information in Chinese, but Lee-Tom realizes that her clients need to learn English to deal with the world outside of Chinatown.

Lee-Tom teaches the regular, bilingual workshops so that her clients can learn English words and sentences that will allow them, for instance, to return defective merchandise, or apply for a job, or communicate with a doctor.

"My goal is to try and help them in their transition from a totally Asian culture to the Western culture," Lee-Tom says. "I'm not trying to change their identity; I'm trying to help them deal with the problems that come up in living in this country," she explains.

The immigrants face many problems in trying to adapt to the United States. Their main obstacle, of course, is the language barrier. This

leads to problems with finding jobs and housing, as well as with shopping or conducting other business outside the supportive Chinatown environment.

Each year Lee-Tom surveys her bilingual workshops to find out what issues they want to focus on and learn about. Her most recent survey indicated that her clients need information on health and safety (such as poison prevention, and over-the-counter drugs,) consumer rights, labor and immigration laws, insurance, and crime prevention.

Lee-Tom writes fact sheets in Chinese on these topics, designs her bilingual workshop teaching plans to cover these areas, and organizes special one-time programs or workshops with guest speakers on some subjects.

Lee-Tom also notes needs that her clients have, but do not directly mention. For instance, when she started with the Suffolk County Extension Service as an EFNEP nutritionist, Lee-Tom noticed that many of the women in her cooking classes talked with each other about problems they were having at home adjusting to living in the United States, especially in coping with feelings of isolation and learning to deal with doctors and schools and other institutions.

When her position changed, and Lee-Tom became an Extension agent in the home economics department, one of her programming efforts was to set up a support group with Asian women. The group met weekly to discuss differences between Oriental and Western cultural expectations and how these differences were affecting relationships in the women's families.

Speaking both English and Chinese, Lee-Tom teaches a class on what it takes to be "smart" consumers in the United States. Through such bilingual education, students can learn English and citizenship at the same time.



Lee-Tom worked with the group for a few weeks to help establish guidelines and develop an understanding about the purpose of a support group. Since then, the Asian women have taken on the responsibility of the weekly meeting themselves, coming to Lee-Tom occasionally for advice on guest speakers.

Residents of Chinatown hear about the Extension programs through word of mouth, brochures, leaflets, and posters.

Housing Problems

Perhaps the greatest problem Asians face in Boston is the housing situation. Unfortunately Chinatown is in an area that is bounded by Boston's theater district, the Southeast Expressway, the Tufts New England Medical Center, and numerous governmental buildings.

Each of these districts is growing and encroaching on Chinatown. As the real estate is becoming more valuable, apartment buildings are torn down to make way for new construction, or rents are increased to reflect a growing demand for housing by people who work in the area.

The housing problem is something that is impossible for Lee-Tom to attack directly. "It would be nice if I could wave a magic wand and come up with suitable housing at a reasonable price for everyone who wants to live in Chinatown," she says.

However, as part of a pilot project called the Citizen Involvement Training Project (CITP) Lee-Tom is working on community organization in Chinatown. The emphasis is on helping Chinatown residents organize themselves to tackle the housing problems.

CITP is a special project, sponsored by the Massachusetts Cooperative Extension Service, funded primarily by a Kellogg Foundation grant, and designed to help Extension agents learn how to meet the needs of communities through a range of social intervention skills.

Community organization is an especially challenging goal because of the cultural differences in Eastern and Western societies. "Traditionally, people in the Asian community do not want to make a fuss," Lee-Tom says. "They would be willing to move out rather than stand up for their rights, but there is no place for them to move."

"Also," she continues, "when they have problems with landlords—or any kind of institution—they feel inhibited, as if they don't have a right to question or make complaints. It requires a lot of teaching to help them understand that they have rights as consumers. At first, they are usually shocked they can do something like challenge the gas company or a landlord," she says.

Other Programs

As part of her Extension outreach effort, Lee-Tom has organized educational programs on tenants' rights, including a forum that featured a tenants' rights lawyer and an individual from the Chinese Tenants' Union. In addition to her Extension activities though, Lee-Tom spends time after work serving on the Chinatown Housing Task Force and various community boards.

Charles Yergatian, director of the Suffolk County Extension Program, credits Lee-Tom with the success Extension has had in reaching out to the Asian community. "She knows the community well, and is respected by the community members," he explains. "She tailors her educational activities to meet the most pressing needs of the Asian people."

Lee-Tom, who speaks three dialects of Chinese, grew up in the Asian community here. "I immigrated from Hong Kong when I was 5 years old. When I was growing up, there were no special social services for my family to turn to. We relied on a network of family and friends when we had problems," she says.

Unit pricing is an important lesson for the new immigrant. At a supermarket, Lee-Tom shows students how to get the most for their money by examining unit prices and product labels.



One example of where Lee-Tom's knowledge of the community and how to reach it paid off involved a crime prevention workshop. Crime is a major problem in Chinatown, with people frequently being robbed at home, or mugged on the streets. At one time, another agency tried to run a crime prevention program in the Castle Square Project near Chinatown, where half the population is Asian. Only a few people showed up though, and the agency told Lee-Tom, "There is no problem with crime. If there was a problem, people would have shown up."

But Lee-Tom knew better. She rang doorbells, distributed leaflets in Chinese, and told everyone she knew that she would run a crime prevention program. "By doing that kind of thing, that draws a crowd. When we had the Castle Square workshop, we drew 200 people," she says.

Primarily, the workshop opened up communication between those tenants and the police department. "The Asians living there had already taken on the responsibility of locking their homes," Lee-Tom says. "Some had even bought guard dogs and window bars. The police discussed the effectiveness of those types of security measures and made some more suggestions. But the police also came away with an understanding of the needs of the people and soon after that, the foot patrol in the area was increased," she says.

Since the 1960's, the population of Chinatown has doubled, and "Chinatown proper" now is populated by predominantly elderly and newly arrived immigrants—two groups with very acute needs.

"What's unique about the Extension program is that our services are very broad," Lee-Tom says. "We deal with adolescents, we deal with the elderly. We deal not only with health problems, but with naturalization and any other problems that come up," she says.

Other special workshops and topic areas that Lee-Tom focuses on in her Extension efforts include:

American labor laws—including discussions on minimum wage requirements, what unions are and how they operate, and working condition regulations.

Health care workshops—including discussions with dentists, nutritionists, social workers, doctors, and pharmacists about health issues.

Right: Making a house call. Lee-Tom instructs a new mother concerning health care and nutrition for her infant.

Lee-Tom teaches Asian gardeners about nutrients they must add to infertile city soil in order to grow vegetables native to China.



Environmental adjustment—in which Lee-Tom takes groups on trips in and around Boston to familiarize them with the subway and bus system and introduces them to such low-cost or no-cost social activities as visiting parks and museums.

Newly arrived immigrants—including programs which introduce them to, and familiarize them with, community services.

Immigration and naturalization—includes discussions with agency officials who explain the laws and procedures. "Many of the immigrants don't feel comfortable until they are citizens here," Lee-Tom says, explaining the high interest for this topic.



Chinatown residents are concerned about security and crime prevention. Because there is only one monthly newspaper in Chinatown, Lee-Tom must visit residents personally to inform them about Extension's crime prevention program.

Urban Gardening

Although Lee-Tom is the person primarily responsible for programming in the Asian community, the Suffolk County Extension Service Urban Gardening program has tried to meet the special needs of Asian gar-

deners as well. Of course, they have needs similar to those of other urban gardeners—how to make the most efficient use of a tiny plot of soil in the inner city.

Chinatown gardeners are generally meticulous, often spending long

hours watering their plants and plucking insects off by hand. They usually grow the special Chinese vegetables, such as bok choy, that are an integral part of their diet but are expensive to buy here. However, many of these vegetables are members of the cabbage family and prone to clubroot, which withers up the roots and at least reduces productivity, if it doesn't kill the plant.

Last summer, Patrick Chow, a student, worked with the gardeners in Chinatown. The Urban Gardening Program already had a fact sheet written in Chinese on clubroot, but when Chow read it, he discovered that it was aimed primarily at people with container gardens and recommended sterilizing soil in the oven.

"No wonder we were not getting a lot of response from people in the Asian community," says Stewart Jacobson, urban gardening coordination. "They must have thought we were crazy to recommend they bake all their garden soil in the oven."

Chow rewrote the clubroot fact sheet with recommendations for applying lime and wrote a fact sheet on using fertilizers. He also worked with the Asian gardeners in the community, conducting garden clinics, giving pH test demonstrations, and answering questions about any gardening problems.

Suffolk County Extension Director Yergatian says he will continue to support his staff's activities to reach out to Chinatown residents. "We are making a concerted effort to reach all of Boston's special populations," he says. "We feel we are reaffirming Extension's tradition of reaching out with specific problem-solving and educational information to the people who need it most." □

The Challenge of a New Audience— State Legislative Staffs

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A new audience for Cooperative Extension—members of New York State legislative staffs—boarded a chartered bus early one morning last summer. They spent the day viewing trends and problems in land use, local government, housing, economic development, and community services in an expanding rural-urban county.

Before the tour ended that day, these staff members talked to a wide variety of individuals owning land, working in local government, and making community decisions. They saw a great number of changes and trends in land use and community services, all of which have an impact on their job in a much larger decision making sphere.

The legislative staffs, rather than legislators themselves, were selected for a special tour because these staff members have the primary responsibility to research and develop legislation.

Purpose

The tour shared with legislative staffs problems faced by community leaders, farmers, and local government officials. The tour committee hoped that the variety of stops on the tour and visits with resource people would give staff members a much better understanding of problems at the local community level. Thus, the staff members could deal with these problems better when they formulated policies for legislation.

The 23 tour participants visited with:

A county supervisor, and former state legislator, who described the changes during the past decade in a formerly rural-suburban community. The supervisor discussed trends in land use, the vast decrease in the number of active farms in that township, and conflicting pressures on all community services, especially education.

A father-and-son fruit operation, well managed, but now facing increased urban pressures, including development of a large housing complex adjacent to their orchard.

A vegetable and fruit grower marketing through a large roadside market operation, who described escalating land costs, increasing taxes, vandalism, labor problems, and the impact of shifting land uses in a former rural community.

The co-owner of a large agribusiness, providing fertilizer, seed, lime, and herbicide services to not only farmers but community groups and local governments in a 19-county area.

The group also visited a solar-heated/cooled town government office building to discuss how local governments are meeting the service needs of residents while trying to stay within manageable budgets and increased operating costs.



Participants

Tour participants were New York State Senate and Assembly staff members from the agricultural, environmental, consumer, and local government committees and staff directors for individual legislators. These people advise senators and assembly members on various aspects of economic development, land use, housing, and community services. They are responsible for research into existing concerns, problems, and possible solutions relating to a variety of community factors. Based on the best knowledge obtainable, they assist in developing policies that result in legislation impacting on community problems and concerns.

Planning and Implementation

To insure its success, a considerable amount of planning went into the tour. Involved were representatives from the College of Agriculture and Life Sciences at Cornell University, representatives from the state legislature, and county Extension personnel.

The committee visited with all speakers at the stops before the tour to explain its purposes and the topics they might cover with participants. A "dry run" of the tour route was made several weeks in advance to finalize timing and transportation routes and make final luncheon arrangements. The staff developed a tour booklet as a reference for use during and after the tour.

Evaluation

Participants could express their reaction to the tour by completing an evaluation form. Comments on the evaluation form included:

"The tour was an excellent opportunity to leave the government world behind and hear what the real farmer is actually thinking. Material was presented in such a way that even one who isn't familiar with agricultural problems could easily understand."

"Tour was excellent in content and personalities. It was very informative to hear farmers speak of their problems and attempts at solutions."

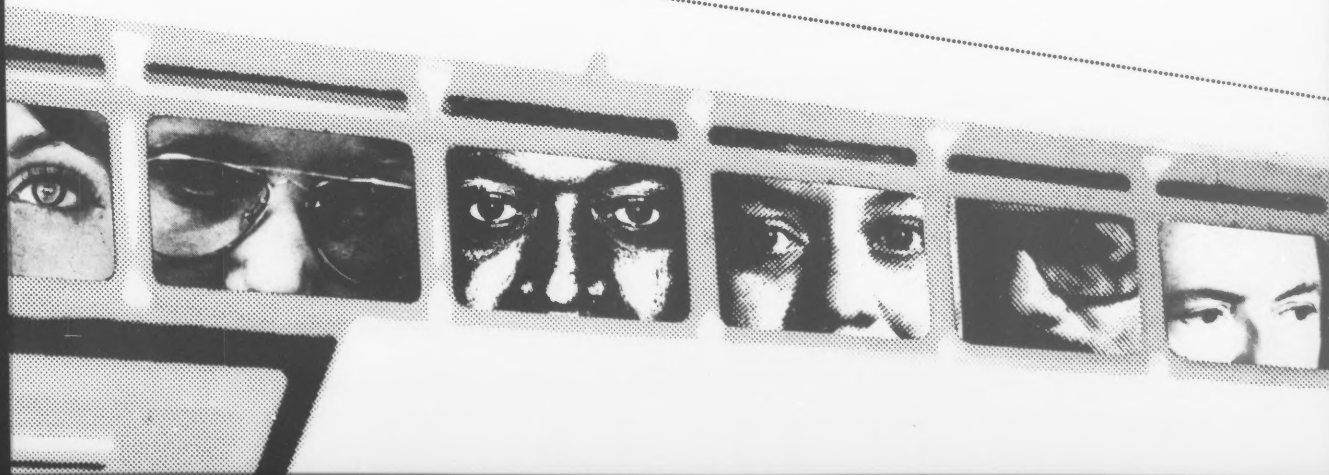
"All the people we spoke with were very willing to discuss both strengths and weaknesses of their situations—I was impressed."

"One major strength of the tour is that through participation my awareness of the concerns of the agricultural community has heightened."

Implications for Cooperative Extension

As a result of tours held in the last 3 years for New York State legislative staff members, it is evident that Cooperative Extension has both the resources and the ability to carry out educational tours for this key audience.

Cooperative Extension can provide an educational base through unbiased information to decision-makers. By identifying and building on opportunities to work with legislative staffs, valuable educational inputs can be made into public policy decisionmaking. □



Extension Teleconferencing in the 1980's

Stu Sutherland
SEA Information
Washington, D.C.



Travel has always been "a part of the job" for Extension agents and specialists as they reach out to people in the communities of county or state—or when they interact with counterparts in subject-matter areas at regional and national meetings.

Think, for a moment, about what you have heard lately regarding ever-tightening travel budgets. Then, think back to that last national meeting you attended and the amount of time you spent away from the office and family. Think, too, about costs incurred for that one meeting with the round-trip ticket, hotel bill, and food.

An estimated 600 Extension educators from across the country had similar travel costs on their minds when they got together last November for a 2-hour give-and-take conference. They watched and listened to a panel of experts who discussed and questioned some ideas concerning different ways to hold "get-together meetings" in the future.

One of the unique things about this particular conference was that very few of participants traveled any great distance from their office to take part, and it didn't take a big chunk out of their travel budget to attend. The topic for the conference is the title of this article, and the key word "teleconferencing" tells you how it was held.

All systems are go, and SEA-Extension's teleconference is on the air. Appalachian Community Service Network (ACSN) program director David Crenshaw (center) and crew monitor the signals at WETA-TV's station control room in Northern Virginia.

Panel participants included Lorne Parker, director of instructional communication systems, University of Wisconsin Extension; Cordell Hatch, coordinator, Radio/TV/AV, The Pennsylvania State University; Hal Morse, director of the Appalachian Community Service Network; and Ann Rideout, associate director, Connecticut Cooperative Extension Service. Betty Fleming of SEA-Extension, Family Education was moderator and USDA liaison for the project. Family Education, SEA-Extension, and the Appalachian Community Service Network cosponsored the program.



Teleconferencing is the next best thing to being there. Above top: Ted R. Holmes, communications division leader (left) and Denver T. Loupe, vice chancellor/director, Louisiana-Extension, participate in the conference from Louisiana. Above: Helen E. Bell, home economics program leader, Pennsylvania-Extension, listens in from her home state.

"Live" and "Active" Sites

Those 600 Cooperative Extension participants, the majority of whom are involved in Home Economics Education, gathered at 54 "live" sites (mostly at cable or public broadcasting stations) to watch a live television program that originated from a public broadcasting station television studio in Virginia. A studio audience of about 75 interested and involved government officials and other guests watched the five-person panel live as they appeared before the TV cameras.

The broadcast had a special network all its own, with pictures and sound beamed up and down through two satellites for viewer-participants in almost all of the states.

Planning such a network began several months before the actual broadcast with more than 1,000 phone calls to locate and confirm viewing sites in 49 States and Puerto Rico. (A 2-hour video tape of the program was shared with staff in Guam, the Virgin Islands, and Hawaii.)

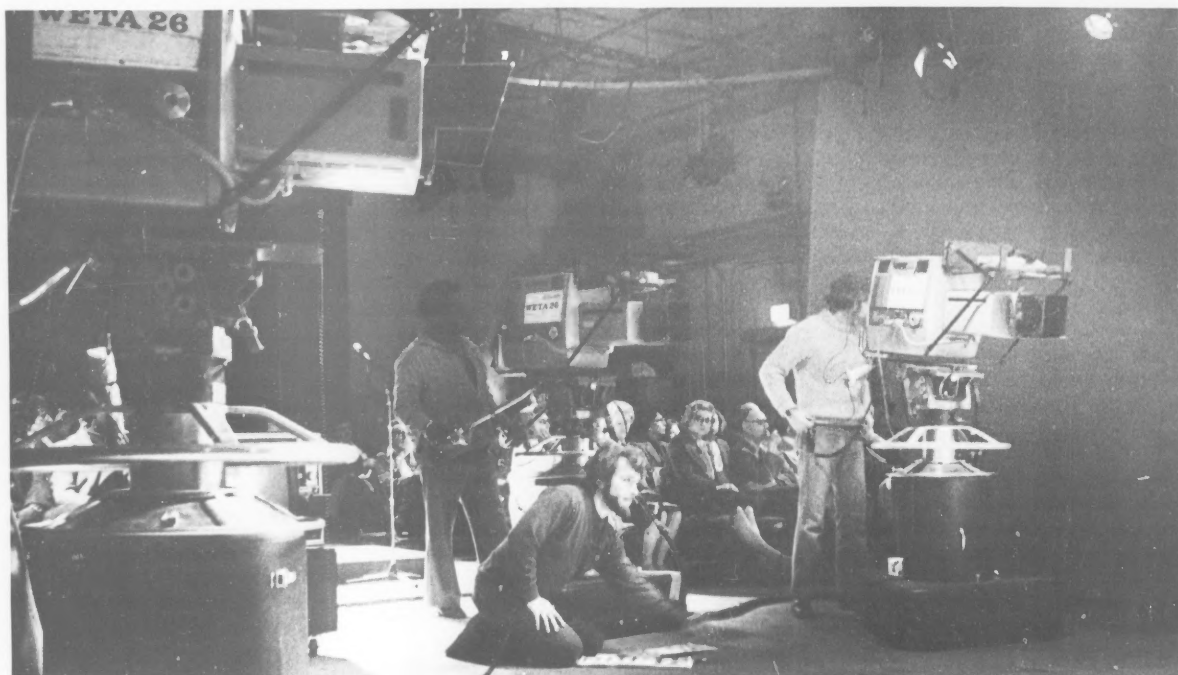
If the conference's purpose had only been to inform and instruct potential Extension users about teleconferencing, the 54-live-site network would have been enough. However, another aspect of the learning event went a few steps beyond one-way communication. This second purpose involved presenting as complete a demonstration of the use of the medium as was practical, so two-way communication—audio interaction—was planned for members of the 1981 Extension Committee on Organization Policy (ECOP) Home Economics subcommittee.

Thus, at 11 of the live sites, special amplified microphone equipment was provided so that the subcommittee members could take an active part in various segments of the broadcast, specifically during question-and-answer sessions. The 11 locations were designated as "active" sites. This did not mean that other people could not take part in question-and-answer sessions—call-in participants from live sites were included in the broadcast, and a few questions were asked by members of the studio audience at the originating broadcast location.

The equipment and connections to the active sites required a different audio network. The second network involved coordinating "land-line," or telephone-delivered, voices with satellite-delivered video. It even required the development and installation of some new audio delay electronics, since two satellites were involved, to accommodate a "double hop" time problem. The full audio network was pretested for equipment and procedure checks 10 days before the broadcast. With the exception of one active site, Nebraska, which had technical problems, all active sites asked at least one question during the November 20 broadcast.

Opposite: With teleconferencing, Betty Fleming, SEA-Extension Family-Education-Washington, D.C., can be in two places at once.

California Extension Staff view Fleming live from their receiving site at Channel 6, Sacramento (top), while SEA and USDA staff and guests at the Virginia studio watch in person (bottom).



The ECOP-Home Economics subcommittee members at the active sites were also involved in two other primary parts of the broadcast. During the program opening, they were polled by location from east to west to help show the national scope of the coverage. Near the end of the program, subcommittee members were polled again for an instant analysis segment of the broadcast—a very quick, but effective feedback that directly related to the concept of this pilot broadcast.

Feedback

The instant feedback was only a small part of the total evaluation planned for this first-of-its-kind national conference. An evaluation factsheet was sent to participants in advance, and 40 states responded after the telecast. Twenty-eight found the teleconference useful, while 12 said it had been somewhat useful. Nearly all who responded wanted more teleconferencing opportunities. Participants judged the op-

portunity to “see and feel” teleconferencing as the most useful aspect of the pilot broadcast.

As a part of the evaluation process, participants were asked if they had questions about teleconferencing that were not answered. Respondents’ questions were generally in three categories: The need for more information about costs and cost effectiveness; the methods involved, including the development of software and in-house training; and



organizational processes needed to implement future teleconferencing at state, regional, and federal levels. They also wanted to know what help would be available from the federal level.

Costs

Many of the questions on cost have to be answered with a few qualifications. For the pilot national teleconference, a summary of costs shows a total figure slightly over \$21,600. That total was offset by \$5,000 of "seed" money provided by the SEA-Extension Family Education staff. The Appalachian Community Service Network cosponsored the teleconference, using some funds from a public telecommunications grant. The grant enables them to encourage government and other groups to try this form of communication.

Based on an estimated participation of 600 people, the average cost per participant comes to \$36. That is a rather startling per person cost—compared to the cost of your last trip to a national meeting. However, some costs do not show up in the total figure.

Costs involved in setting up two networks for this one broadcast would be necessary if a similar state or regional network was already in place. Other variable costs include the complex equipment involved and time-use charges for satellite and other services.

As communications technology advances, teleconferencing should become cheaper and more readily available. For example, the rapid expansion of cable television is greatly increasing the ability to deliver satellite signals to selected parts of the country.

But even if they become cheaper and easier to use, video teleconferences are not the answer to every communication problem. By their very nature, they are not suitable for fast-breaking news discussions—except for commercial network news, which has sufficient budget and equipment.

Other Methods

There are many other variations of providing distant education to people in long-distance meetings.

The other general type of teleconference, in its many forms, would be an audio teleconference, which is essentially a sophisticated conference call. Audio teleconference equipment is less expensive than video equipment. Fees, such as telephone line connections and line-use charges, are also less expensive. When the equipment is in place, as it is in many states, participants find it

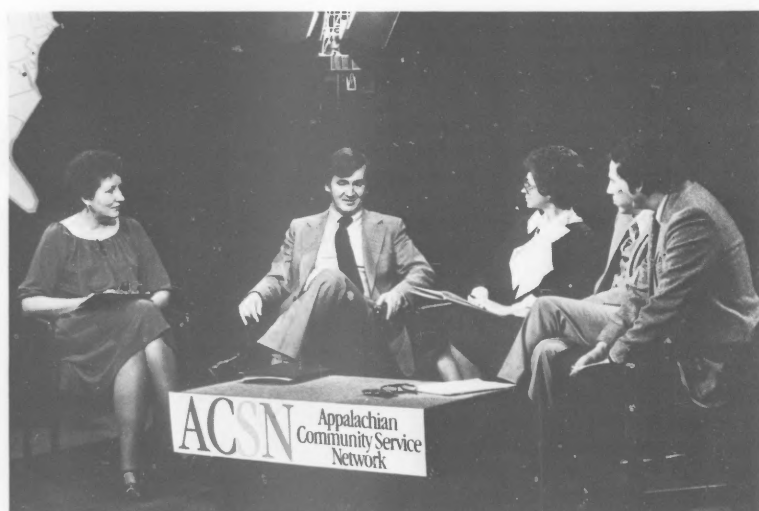
easy to use, and audio conferences can be set up very quickly.

A pilot project on audio-teleconferencing in Vermont has demonstrated that portable conference telephones, equipped with amplifiers and microphones, are both an economical and satisfactory substitute for face-to-face meetings and workshops.

Vermont figures indicate that the cost for an Extension specialist to conduct an evening workshop in a county averages about \$214, while actual cost to install a portable unit in a county office is a \$50 one-time charge—an evening half-hour conference call costs about \$5.50. The specialist stays "on campus" and conducts the workshop from his or her office with a phone call.

Another advantage is the use of outside speakers otherwise unavailable. During a Vermont workshop on community development, an expert addressed the session via phone from her home in Montana.

Where some visuals are mandatory to an audio teleconference—such as an explanation of a scientific finding, for example—methods and equipment such as slide sets, film, or video tape are available. "Electronic blackboard" equipment is also available so that a diagram drawn at one location can be seen by audio-teleconference participants at another location. A form of television called "slow scan" video, which shows a new picture every 30 seconds, can be used when limited dissemination of visual information is required.



Spontaneity was the key to easy interaction between panel members in Virginia and participants at the 54 receiving sites across the country. From left: Fleming, panel moderator, awaits ACSN program director's signal—indicating a question from one of the sites—as panel members Hal Morse, ACSN, Anne Rideout, Connecticut-Extension; Cordell Hatch, Pennsylvania-Extension; and Lorne Parker, Wisconsin-Extension, continue their discussion.

Advantages and Disadvantages

All forms of teleconferencing have advantages and disadvantages. Cost effectiveness can go either way, depending on both equipment and the time and travel involved in conferences. Potential users should carefully evaluate needs and goals to determine what teleconferencing application best serves their purpose.

The November national video teleconference event has generated a great deal of interest and activity. Those who planned and executed it, as well as those who viewed and participated in it, learned much from the experiment.

Evaluation opinions on the conference were mixed. Some wanted the broadcast to be longer to allow for more question-and-answer time, and some felt it should have been shorter. There was general agreement that some of the visuals used

were ineffective and should have been redesigned for a video broadcast format. Some participants felt that more visuals should have been used, or that the broadcast could just as well have been an audio teleconference reinforced with slides.

This evaluation of the video teleconference will enable those involved in future teleconferencing to better plan and execute all phases of their conference or educational activity.

Future Plans

Activity here in Washington on teleconferencing continues since the broadcast. A selected group of people from various parts of SEA, who were among the live studio audience, participated in a critique discussion the next day. Out of their deliberations came the decision to hold a short workshop in late January for further discussion. At the workshop an analysis of the November teleconference was presented,

including some of the initial evaluation and feedback from participants as well as suggested future activity.

The report is undergoing serious study, and steps are being taken within SEA to seek out or anticipate the kinds of meetings and conferences that might lend themselves to some type of teleconferencing application.

Answers are being sought on equipment and facilities—both available and planned—and their costs. Answers are also needed to questions concerning software development, training, and the cost effectiveness of any step that is considered.

In short, the book on teleconferencing has not yet been written, but we know a lot more now than we did before November 20, 1980.

We Need Your Help

You can help us write the book. We would be most interested in your ideas and about your experience with teleconferencing. Won't you take the time to write us a note with your comments, suggestions, and questions?

Betty Fleming, SEA-Extension, Family Education, Room 5407-S, USDA, Washington, DC 20250, is especially interested in your comments about further programs for Family Education. Eldon Fredericks, SEA-Information, Room 436-A, USDA, Washington, DC 20250, is devoting time to all applications of new technology to improve communications.

Please contact either of them. A copy of the teleconference evaluation report has been sent to each State Leader for Home Economics. □

Teleconference Technique Turns Out Nebraska Dairy Producers


Dan Lutz
Extension Editor
and
Foster G. Owen, Don J. Kubik
Extension Dairymen
University of Nebraska-Lincoln



Providing effective Extension educational programs for Nebraska dairy producers is often difficult. Spiraling travel expenses, sparsely located dairy farms, and relatively few Extension dairy specialists have forced the staff to select only a few, more densely populated dairy areas for meetings.

To solve this problem, the Nebraska staff developed a modern communications approach to conduct 20 to 25 all-day meetings in a week's time. This has been accomplished by holding several meetings simultaneously.

At the primary meeting location the program is presented "live." At the other meetings, or "satellite" locations, synchronized slide-tape presentations are shown simultaneously with the live meeting. Using this method, the staff has reached one-third of the dairy families who produce two-thirds of Nebraska's milk in a single week's period of time.



This system is easily adaptable to many types of programs, using equipment generally available in county Extension offices. Based on this experience, the potential for increased effectiveness and efficiency is good. The Nebraska system is outlined here to assist other Cooperative Extension Services with planning future programs.

Program Presentation

As many as six meetings per day were held. At the live meetings, the program followed exactly the same time schedule as that for the satellite meeting's tape-slide presentations.

Twice during the day's programs a conference telephone connection was made among all the meetings being held that particular day. The conference telephone connections were for two 30-minute periods following the morning and the afternoon programs. During these periods, questions were received from all meetings and were directed by a moderator to the specialist in each subject area. The specialist's response to questions was carried over the telephone network to every satellite as well as in the live meeting.

For primary meetings, amplifiers were used on the tape players to provide necessary added volume. The tape players and speakers were also used for added amplification of the conference telephone reception at the larger meetings. The equipment needed for this program was readily available, since all Nebraska county Extension offices have the tape players and carousel-type slide projectors. They can easily be synchronized for this type presentation.

Conference Telephone Network

The conference telephones were either loaned by the University telephone office and moved from location to location with the tape-slide set, or rented from local telephone companies. This program delivery system was relatively trouble-free. A few tapes parted, but these were mended on the spot and the program resumed.

Command slides instructed persons running the program when to change tapes and slide trays. At the beginning of the slide set, the speaker appears, introducing himself. At the conclusion of each talk, the speaker indicates who the following speaker will be for the next program event. The staff previewed the dairy training sessions for the meeting hosts prior to carrying the program out into the state. And some county agents and dairy plant field staff, although unfamiliar with the program, hosted certain meetings. With the programmed instructions, these staff members successfully conducted the program at the satellite locations.

Any lag-time between presentations and the beginning of the question-and-answer sessions was utilized for accumulating questions on cards and for making necessary announcements.

The program consisted of a 1½-hour session in the morning and another similar session in the afternoon each day. After each session, the live meetings were linked with the satellite meetings for the live question-and-answer session. The conference telephone and amplification arrangement allowed all persons to hear questions and answers from each of the linked meetings, regardless of location.

Certain staff specialists could not attend all of the live meetings. At these times the specialists were on the phone line in their Lincoln offices so that they could answer directly questions from conference participants. This allowed certain research-teaching faculty, who could not otherwise participate, to contribute their expertise.

Question-and-Answer Sessions

All conference telephone calls originated at the University of Nebraska switchboard in Lincoln. A test telephone hookup was established before the morning program each day. This test time also served as a short orientation period for those responsible for running the various satellite meetings. The conference call for each question-and-answer session was established about 15 minutes before the conclusion of each half-day session, allowing the hookup to go live as soon as the last meeting site's program concluded.

During the question-and-answer session, all persons at each location could ask questions using the microphone on the conference telephone, or they could write their questions on cards. Only two or three questions in succession were allowed from a specific location. This resulted in a continuous rotation between meetings.

One staff member at the primary location served as the moderator and kept the system operating smoothly. Interaction was strong and most morning question sessions were concluded for lack of time rather than questions. Remaining questions were carried over to the afternoon session. The costs for the conference telephone call for the question-and-answer sessions was about \$4 per 30-minute period per location.

The conference telephone system functions more smoothly if at least one individual in the program is familiar with its operation. Each location has a back-up telephone so that conversations regarding any problems that developed could be resolved while the network was being established. The telephone system was very successful—communication was lost partially only twice during the 100 conference calls held over the 2-week period.

The phone system intrigued the audience, and the interaction of dairy producers—some separated by nearly 400 miles—seemed to add appeal. Conversations seemed more relaxed on the second usage and the conference telephone developed a warm personality.

This technique has been used a second time with only one modification—one staff member was present at each location each day and ran the program and conference telephone. This was even more trouble-free than the live-satellite organization. This procedure will be repeated in the fall of 1981 for another set of meetings

The following Nebraska faculty staff participated in the program: Phil Cole, Extension dairyman; Larry Larson, physiologist; Franklin Eldridge, animal geneticist; Stan Waller, food technologist; Duane Rice, Extension veterinarian; Dennis Erickson, animal pathologist; Earl Dickinson, head, Department of Veterinary Science and Irv Omtvedt, head, Department of Animal Science; Gerald Bodman, Extension agricultural engineer; Jim Randall and Bart Stewart, Department of Agricultural Communications; and Dorothy Johnson, University Telecommunications Center. □



Acting Without Words

Wayne Brabender
Information Specialist
University of Wisconsin—Extension

For years, 4-H agents have gone to school to recruit new 4-H members. Agents could talk to elementary students about 4-H during classes and answer their questions.

Now the school doors are closing in Wisconsin. Because of tighter curricula, school administrators are saying "no" to organizations that want promotion time with students.

But Kermit Graf, 4-H and youth agent in Walworth County, has "mimed" his way back into local schools. Last October he made an offer to school officials that they couldn't refuse. In exchange for some teaching in the basics of theatre, he wanted a chance to promote 4-H.

The response to his "Mime in Your School" proposal was overwhelming. During the following 2 months, he gave over 100 performances in 25 public and private schools for 3,000 kids—nearly half the elementary school children in the county.

What is Mime?

Mime is one of the oldest theater art forms; in Greek, the work means "to imitate." Graf calls it "acting without words."

In mime, the actor's face is painted white and his eyes and mouth are accentuated with red and black lines. Movements of these parts of the face are exaggerated to help the actor communicate with the audience.

Graf, 28, minored in theater at the University of Wisconsin—Milwaukee, where he was introduced to mime during an acting class. He later studied with Reed Gilbert of the Wisconsin Mime Theater.



Each of Graf's "Mime in Your School" performances lasted about an hour, and class sizes ranged from 20 to 50. Schools selected the classes that participated. Sometimes it was just a creative writing class, other times all the third graders. One school wanted all the kids to see his program, so Graf gave nine perform-

ances in a single day—one every hour

A Typical Performance

At St. Mary's Grade School in Burlington, Graf presented a typical program. He opened with these four mime skits:



"The Mad Doctor"—Graf pretends to cut open a patient with a scissors and take everything out. He pulls out the intestines and swings them around his head like a lasso. He uses his own hand to represent the patient's heart.

Sixth grader Adam Verzal said, "I knew he was a doctor because of the coat he wore. That was the only prop he had. He faked everything else."

"Man in the Box"—Locked inside an imaginary box, Graf feels all around for a door, then makes his hand into a saw to cut his way out.

"Weight Watcher"—Graf-the-dieter is hungry. He tries not to eat, but soon ends up digging into the refrigerator with great relish.

"You could tell what he was doing by what he did with his hands," said first grader Billi Breitstrecher. "And he moved his eyes funny."

"The Babysitter"—Baby bites the sitter's finger and wets on his lap. He's about to kill the kid when the baby's parents come home.

After these four skits, Graf involved each participating class in theater games. The older St. Mary's students tried exercises that actors often use to relax before going on stage. In one exercise they acted as though they were hanging over a clothesline. Graf gathered the younger children into a circle, where they pretended to pass around a hot potato, some runny green slime, and a 100-pound bag of sugar. All the St. Mary's students were asked to stand in pairs and pretend they were in front of mirrors. One student would move part of his body while the other would follow the motions.

Graf's mime show impressed the St. Mary's kids, who said they told their parents about the program. Eighth grader Buffy Schiestle, who wants to major in drama in college, said, "It's neat the way he did it . . . you could understand without any props or words."

St. Mary's principal, Sister Joselda Kuhl, said, "It's amazing how much the children picked up without words. They were impressed by the show. It was a good experience."

After each of his performances, Graf briefly described 4-H to the students. He asked those already in 4-H to raise their hands and tell what they did in 4-H. Graf then directed the kids interested in joining 4-H to talk to any of the current members. "This really made the 4-H'ers feel important," Graf says.

Graf estimates that 200 new members were recruited through his mime program this year. One 4-H club reported that 20 new families had joined 4-H as a result. In one school district, he noticed a marked increase in the number of older members.

Another important side benefit was the personal contact he had with school faculty, who found out that "4-H is more than taking a cow to the fair," he says. Some teachers still call him for more information on 4-H. Others have since served as resource people for county 4-H activities.

And then there was the special day he performed for all 200 kids at the Wisconsin School for the Deaf in Delavan. "Kids at other schools would say 'thanks' after my performances," said Graf. "But the deaf children, especially the little ones, came up to shake my hand and they were doing little mime things for me in appreciation."

Graf will share a description of his "Mime in Your School" program, as well as two booklets he's prepared on improvisation and theater games. Single copies are free. Contact him at Walworth County Courthouse, Box 1007, Elkhorn, WI 53121; phone, (424) 723-3838. □

Industrial Development— Citizens Plot a Community Course

Guy Webster
Extension Information Specialist
University of Arizona

One big challenge facing the small towns in Arizona is a shortage of jobs. Many other rural communities in the Southwest and nationwide face the same problem and hope for the same solution: economic development.

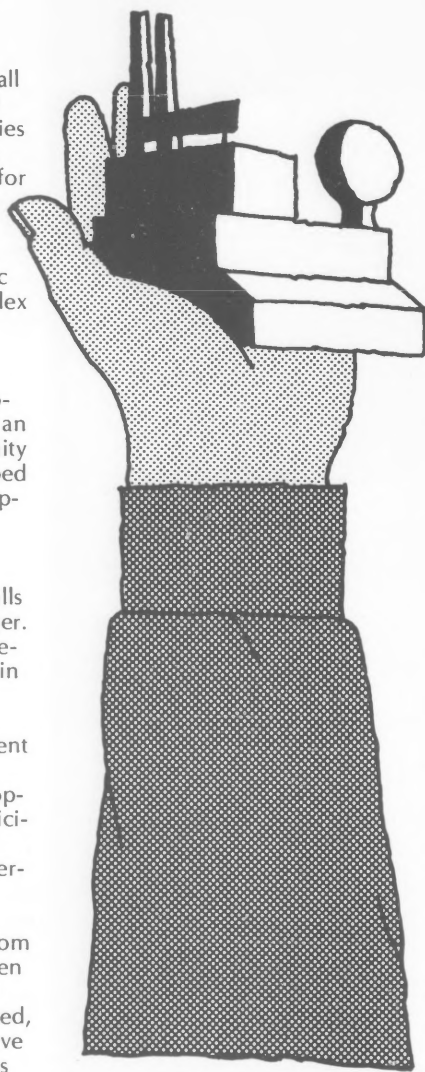
Most have learned that economic development can be a long, complex process.

Four years ago, Edward Parmee, an Extension community development specialist, was meeting with an Eloy, Arizona, group on community improvement projects. He described to them a new economic development course tailored to Arizona towns.

"That sparked our interest," recalls Len Fuller, former Eloy city manager. So Parmee arranged for the three-part, six-session course to begin in Eloy.

The Arizona industrial development course does not start with an assumption that industrial development is right for every town. Participants examine the conditions of their own town and consider alternatives for economic growth.

By 1980, 302 community leaders from 42 Arizona communities had taken the course. Several of the towns where the course has been offered, such as Kingman and Payson, have since attracted outside businesses and industries that mean a lot of new jobs. For other towns, success has been a better understanding of the strengths and resources available in their communities.



"Some courses about industrial development are presented as a kind of game plan—you learn the rules of the game and how to win," says Parmee. "This course helps you see whether you should pursue economic development at all and what kind of industry fits the needs of your community. It focuses on the community and its people rather

than on the game of industrial development: the tricks, the strategies, the scores. This is a broader and healthier orientation."

The course introduces theory about economic interdependence on a local level, in industrial site-selection, and how to plan local promotion to attract new industries. Unlike others, this course focuses the theories upon conditions in the participants' own town through assignments and group sessions. It stresses the diversity of the total community's needs.

A day-long workshop based on a detailed case study of an Arizona town caps off the course. In it, participants apply principles learned from the textbook, guest speakers, and group sessions to some practical community decisionmaking.

Development

The Arizona course grew out of a 1973 regional pilot project, the Rural Industrial Development Correspondence Course and Workshop. Both used the 220-page text, *Bringing in the Sheaves*, by John R. Fernstrom, former national leader for the Extension economic development program.

Following evaluation of the pilot project, University of Arizona (UA) community development specialists Edward Parmee, Rudy Schnabel, Robert Lovan, and Eldon Moore revised the initial correspondence approach. They prepared a structure of workbook materials and group sessions to supplement the text, plus the case study workshop, based on a real Arizona town, to culminate the course.

Schnabel has incorporated the Extension course into a three-phase industrial development process. Education is the first phase. "But the process is incomplete if you just stop there: what good is it?" Schnabel says.

Phase two is establishing a legally and fiscally responsible industrial development corporation, representative of the total community. Phase three is organizing and training a sales team to be the action group for impressing industrial prospects and broadening community support.

The phase-one course includes information about the later phases, although some communities provide industrial development organizations before members go through the educational phase. UA Extension specialists assist communities with all three phases.

Schnabel and Parmee wrote a series of 10 "Community Guide" information packets about industrial development. The guides outline criteria for judging what kind of industry, if any, would fit a community, and steps of organizing for industrial growth. They are available from any of the six Extension Community Development offices in the state.

Schnabel particularly emphasizes the potentials of home-grown industries that fit local resources or needs and of service industries, which are creating more jobs nationally than manufacturing industries are. His tenth "Community Guide" focuses on home-grown industry.

Successful Communities

Many towns where citizens have taken the Extension course have success stories to tell.

Community leaders in Casa Grande used phase-three material to train a sales team which has helped attract three industries with more than 300 new jobs to the area.

The town of Gilbert at the edge of the Phoenix metropolitan area has followed all three phases of the program. With a population of 5,000 and climbing, Gilbert is trying to manage the type of future growth the town will experience.

Twenty community leaders completed the Extension industrial development course beginning in 1979. They and others then formed and incorporated the Gilbert Economic Development Association. Last winter, Schnabel helped train a sales team, recruited primarily from the course participants. The team works closely with the planning and zoning commission and the chamber of commerce.

People who took the course in Kingman became a strong force in the Chamber of Commerce's industrial development effort. "We learned that industrial development is a pretty involved task. You don't just put up a sign and 2 or 3 weeks later break ground for a factory," says former Kingman Chamber of Commerce leader Alan Rings.

Within 5 years, however, the industrial development effort added more than 100 jobs to the economy of the 7,500-person city. New industries included a uniform maker, a carpet factory, a shop that builds and repairs automobile turbochargers, and a woodworking plant that manufactures furniture for hotels in Las Vegas, Nevada.

In Payson, Magnaphase Industries has purchased property for a 50- to 100-job electronics plant. City Manager Jack Monschein attributes some of the momentum for industrial development of the Extension course offered in Payson 3 years earlier. Schnabel is now working closely with a temporary task force appointed by the mayor to investigate ways to improve Payson's economy.

Accreditation

Undergraduate or graduate college credit is available from the University of Arizona or Arizona community colleges for completion of the course. Both the Arizona Real Estate Department and the American Industrial Development Council have accredited the course.

Frank Mangin, of the Governor's Office of Economic Planning and Development, says "One of the greatest values of the Extension course is that it is done *in* the community. It is complementary to the work we do. Of course, a lot depends on the person who puts on the course. Those [Extension] guys are really good at this."

Measuring the success of industrial development work is difficult, Mangin continues. "A good prospect for a town may only come down the pike every two or three years or so. The rest of the time it may not make much difference. But if you don't have this type of group, you may blow the opportunity when it comes."

The spinoff benefits may be just as important. "The lessons learned in organizing the promotion of industrial development have many other applications in community improvement," says Mangin. □

The Local Government Dilemma

Theodore J. Maher
Program Leader, Local Government
SEA-Extension



Part-time leadership in thousands of local governments can no longer rely on hunch and intuition in understanding citizen needs, allocating budgets, estimating revenues, locating physical facilities, or delivering services.

Sharpening strategies for community and economic development has become a bigger task than advertising a hospitable tax climate. For the "citizen politician" it is a complex balance of labor supply, social services, energy resources, and environmental protection. The ability of rural communities to attract jobs and business investment and to develop a better quality of life for citizens is in large measure related to local government capacity to furnish health care, water, sewerage, recreation, education, roads, energy, emergency medical care, law enfor-

ment, fire protection, and other services. Dominating the whole local government scene is the ends-means squeeze—the fact that many localities are in or approaching financial trouble. The Cooperative Extension Service has responded. Arizona, among other state Extension operations, has set up collaborative projects to get at the facts, issues, and options for dealing with problems of economic growth and total community impact.

At the same time and with growing frequency, technical issues appear on local government agendas. Racing against short lead times, strapped for professional staff support, confronted with high turnovers and an overload of demands for decisions, local governments have particularly acute problems in delivering the performance that is expected.

Local governments need help. Fundamentally, they need professional assistance of the all-purpose kind. They need problem solvers who are able to identify alternatives, to talk the local officials' language and meet deadlines. Many local governments, even the larger ones, do not have the ability to search for solutions short of hiring consultants. Because they lack staff, decisionmakers find it difficult to take advantages of cost-saving opportunities. This situation adds up to an immense demand on the part-time or volunteer management that exists. It brings into question the adequacy of community institutions, local methods of decision-making, and access to adequate information sources.

The 1970's saw a strong general movement within the Extension system toward community and rural development efforts culminating in a rural development policy and a flurry of allied "capacity building" activities. Some striking examples include, work being performed at Oklahoma, Florida, and South Carolina Extension offices to develop computer-based systems for assessing the costs and benefits of alternative local service delivery arrangements in emergency medical care, refuse collection, and others. The list could go on.

Circuit-Rider Concept

Another approach to capacity building gaining increasing popularity, is for a number of small communities to share the cost and the time of a circuit-riding manager. If effectively organized, this shared-administrator model can provide professional and technical help and quicken the pulse rate of change. Research performed by the International City Management Association indicates that the circuit-rider approach is most appropriate for

jurisdictions under 10,000 in population and most prevalent in those under 5,000.

The circuit-rider concept is compatible with the stresses faced by community leadership in local governments and it is well suited to the opportunistic play of issues on the local agenda. A mayor in Pennsylvania explores the possibility of acquiring a demonstration grant for garbage incineration. Officials in a Nebraska town must find solutions to street paving, sewer, and growth problems. Local leaders in a Colorado town have to find some answers to percolation problems in the town's sewer lagoon. Many elected officials have problems with solid waste management, inadequate tax resources, land-use management, and others.

With competing citizen needs and contradictory opinions coming from various sources, how does the local official obtain objective advice on which to base decisions? The circuit-rider system favors a flexible, issue-oriented arrangement where organized information and technical assistance are matched to the immediate action needs of localities.

Circuit-Rider Case Examples

Because of these advantages, local governments are beginning to utilize circuit-riders, although the scale is modest and experimental. In Colorado, North Carolina, and Nebraska, there are lively circuit-rider programs that link councils of governments and local governments in dealing with growth management, zoning issues, financial management, and capital programming. In Oklahoma, the State Department of Community Affairs coordinates and helps pay for five circuit-riding managers. Some Maine communities have been pace setters in contracting with a private firm for the

professional services of a circuit-riding manager. The Cooperative Extension Service in Pennsylvania offers localities consultation on establishing and operating a circuit-rider program. In Massachusetts and other states, a circuit-rider program has broken the ice for regional cooperation on solutions to problems shared by the localities served.

At the Oklahoma State Cooperative Extension Service a new variation on the theme has been created through the use of circuit-riding "technology agents." Rather than employing a generalist manager, cities in four states utilize a "technical" person, backed by Extension, to deal with science- and technology-related local issues.

The Extension Role

As local governments deal increasingly with problems of choice, a system for getting at better information can reduce uncertainty and contribute to decisionmaking. This is what lies behind the circuit-riding concept. As far as it goes, it has some potential for assisting local leadership. But that potential, as things now stand, is quite limited. For the most part these shared administrators lack adequate linkage to state-of-the-art research and informative programs bearing on user needs. Lacking this connection, innovation and local officials are poorly coupled and therefore the circuit-rider will be less effective. Moreover, many communities don't know how to get a circuit-rider program initiated.

There is a role for Extension in all of this. It can be a four-part initiative that provides for:

- An Extension consultant relationship with communities on initiating a circuit-rider program. The

SEA-Extension Community Resource Development (CRD) staff in Washington, D.C., has assembled a packet on circuit-rider programs and features.

- Action on the part of Extension to bring local governments priority needs to the attention of experimental stations and other university research resources. Research results could be exchanged using workshops and training sessions. In Missouri, Extension and Cooperative Research have linked to generate a steady stream of "science and technology guides" based on common community needs.

- An affirmative policy by land grant institutions to share information on current innovation with circuit riders and their communities.

- Building on the Oklahoma State University model, pilot efforts could bridge the public and university sectors and focus the skill of the Extension and the research community in support of circuit-riding technology agents, who are dealing with more specialized service delivery needs.

This would be community and rural development defined in a very direct and operational sense with the decisive factor being the joint participation of Extension, local governments, and circuit riders in training, information sharing, and research support activities.

(Editor's Note: For information on the circuit-rider packet contact Bob Lovan, SEA-Extension, CRD Staff, Rm. 5048-South Building, USDA, Washington, D.C., 20250 (202-447-5004). Also, Bonnie Tilson, International City Management Association, has conducted workshops and is developing a training package for agencies serving circuit riders, (202-828-3685.) □

Disappearing Farmland— A Kentucky Quest



Going . . . going . . . It's not gone—but Kentucky's farmland has been "going" for quite a number of years.

That's the concern of Michael J. Greene, research associate with two departments in the University of Kentucky College of Agriculture—the Department of Agriculture Economics and the Department of Rural Sociology.

Greene is using a mockup of the rural countryside to point out what has been and is happening to Kentucky's farmland.

The scale model layout starts with the initial farm tract, complete with house, barns, and other out-buildings that comprise a typical farmstead. He then adds the "encroachments"—new roads, shopping centers, subdivisions, and the like—and what's left is a graphic example of the "disappearing farmland."

Although involved in a National Agricultural Lands Study, Greene is looking specifically at what is happening to farms in Kentucky.

And when he displays the model countryside "it makes people take notice," he says. Greene has set up the display at the Kentucky State Fair, the Governor's Conference on Environment, and for the Kentucky Association of Conservation Districts. Each time "it has been a real eye-opener," he says.

"The past decade has been exceptionally hard on farmland not only in Kentucky, but across the Nation," says Greene. "The energy crisis has had a big impact on U.S. agriculture. Energy costs involving farm production have skyrocketed. That fact not only covers the cost of operating

farm machinery, but energy fuels are needed in the production of farming equipment. Many fertilizers and chemicals used on the farm have energy fuels as the basis of their manufacture—so all the costs have gone up."

But the energy crisis isn't the only thing that has affected farming. Fewer people are going into agriculture—many young people face the impact of inflation on the cost of establishing new farming operations.

The result—the U.S. farmer is older than he or she was a decade ago.

These problems and others facing agriculture were researched by the National Agricultural Lands Study group, in which Greene was a participant. The study, initiated by USDA and 12 other federal agencies, analyzed the factors contributing to reduced estimates of available farmland in the United States, as reported by the Soil Conservation Service in its 1977 national resource inventory.

"Urban sprawl" is a major culprit in the encroachment into the farmland scene. Ten years ago, urban sprawl—or movement of people from urban areas into suburbs and rural areas—was mainly noted in the large urban regions of the populous Northeastern United States, but it gradually spread southward.

Since 1967, 760,000 acres of productive Kentucky farmland have been paved over for urban use or idled in anticipation of additional urban sprawl. Green says the total acreage is equal in size to the combined areas of six Kentucky counties. The Kentucky Soil Conservation Service estimates that approximately a third of the total farmland loss was prime agricultural land.

"Loss of prime farmland in Kentucky, as in other states, is related to population growth," Greene says. Most of the Kentucky counties with the greatest percent loss of prime farmland also had the greatest percent gain in population.

A big question posed by the situation is "What can be done?"

"One thing that can be done to halt the disappearance of farmland is to develop programs to better manage growth and change," Greene says.

The farmland preservation programs in effect in other states are based on existing zoning regulations and tax mechanisms, which have been "fine-tuned" to protect farmland from urban sprawl, Greene says.

"Since these basic programs already exist in Kentucky," he says, "local communities already have available to them the elemental tools for farmland preservation."

Greene stresses the importance of the public's realizing the need to preserve farmland and that efforts to assure preservation lie at local levels.

He noted also that much of the Nation's economy is dependent on agriculture. "That's the main reason we must be concerned with our disappearing farmland and with the preservation of that farmland.

"But we should also be concerned about our heritage and our family ties to the land," Greene says. "Every day, with each new subdivision, highway, or industrial park, we lose a little more of where our strength comes from." □

County Communications— Western Style

*Betty Fleming
Communications and Family
Education Program Leader
Washington, D.C.*

An Extension agent needs communications skills, both to develop programs and let the public know about them. Extension offices serving three western cities—Las Vegas, Phoenix, and Dallas—have additional help to meet their communications needs. They have communication specialists!

Las Vegas

With a population of 465,000 and a throng of 4 million tourists from all over the world each year, Las Vegas offers a real challenge for the Clark County Cooperative Extension Service, located 1 mile south of the "Strip." Jack Wise, county communications specialist for 13 years, helps the 41 other county staff members meet this challenge.

"Jack provides built-in communications training support for our agents," says Dick Bitterman, agent-in-charge. "We're more visible—we're more effective because of Jack," he says.

To support the work of the Clark County staff, Wise, a former agriculture agent himself, maintains media contacts, trains agents to use the media, writes news releases, and produces radio tapes, TV visuals, and slide sets. But, perhaps Wise's most important contribution is that he encourages other agents to include communications in their program planning. And county home economics agents see this as a plus in an urban setting like Las Vegas.



"Jack nudges me to do more TV and radio," says Dorothy Skovgard, Extension home economist. "When I came on this job a year ago out of college, he broke me in with the media. He makes you think there are no bounds to what you can do," she says.

"I do a monthly price index, checking prices on 50 food items at five supermarket chains. I report this, with Jack's help, to all the TV, radio and newspaper outlets in town," says Carla Fears home economist. "This even appears on evening TV news shows. When there's a radical change in prices, I'm often asked to do TV or radio spots. Jack sets those up for me and helps with TV visuals."



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Katherine Everson, home economist and past president of the National Association of Extension Home Economists, has been on the Clark County Extension staff for 20 years. She sees Wise's contribution as an asset. "Visuals are a must with the vast number of textile finishes, fibers, and other information knowledgeable consumers need to know. Jack has been very helpful in designing and making these available for use with homemaker clubs and TV," she says.

Wise has also helped with special image-building programs. Among these are: *Solo-gram*, a singles' newsletter, partially financed by the Las Vegas Department of Recreation; two regular radio programs, a 30-minute talk show and a 1-hour call-in show; television spots; and Sunday newspaper supplement stories.

"There are a lot of steps that can be taken to make the urban agent's job more effective," says Bitterman. "And having a communications agent is one big step."

Phoenix

There are five Extension home economists in Maricopa County, Arizona, home of Phoenix and more than half the state's population. And they have two good things going for them—communications wise. Marsha Foerman splits her time between home economics and 4-H communication and home economics programming. She's been there 4 years. Bob Halvorson, a 25-year communications veteran and former agriculture agent, does everything from artwork to news writing, in addition to his photography, radio, TV, and liaison work.

Foerman's position is one the county office fought for, Ivan Shields, county director, recalls. "We had two county home economists who had their own media contacts and did their own stories. They wanted help in getting more visibility and reaching new audiences. The job evolved into an information position," Shield says.

There are 32 radio stations, 6 TV stations, and 58 daily, weekly, and monthly publications in Maricopa County. Foerman and Halvorson work hard at keeping good contacts with them—a full-time job because of frequent personnel changes at media outlets.

Halvorson gathers information from the other specialists on staff and is a well-known spokesman for Extension on early morning radio and television shows in the county and throughout central Arizona.

Foerman selects a key topic for programming such as mobile homes, energy conservation, microwave cooking, or family money management and plans a campaign, using media and direct contacts to accomplish her goals.

Sometimes, the high visibility on these programs results in a landslide effect. Six hundred people attended microwave meetings, and Foerman is planning a new series, featuring small groups hosted by someone with a microwave oven. To supplement this, Foerman is writing a series of stories on microwave cooking for local papers.

"Microwave cooking is big here because it's so hot and the microwave is an energy efficient way to cook without heating up the house," says Foerman. "Also, retired people—those who cook for one or two—and working women favor the method."

In addition to her own selective programming efforts, Foerman supports other home economists on the staff by doing regular news releases, radio spots, and occasional feature articles.

Foerman, Halvorson, and others on the staff are concerned about Extension's image in urban areas. "They used to see us as a recipe service," Foerman says. "Now, we direct them to the library for most recipes. Our Extension county home economics programs give priority to such areas as nutrition, managing family resources to fight inflation, inter-family relationships, and child development."

But it is getting harder to get urban media coverage of rural stories, Halvorson says. "When I want to get a story in the Phoenix paper, I send it to Tucson," he laughs. "It then goes to the wire service and comes back to Phoenix."

Every year, the whole office works on a Science Open House in which several nearby USDA agencies and Extension open their doors to the public. "We have a new angle each year," says Foerman. "The main purpose is to educate local high school and college students and their families about science careers and current research. Last year, more than 1,000 people came," she adds.

With Maricopa County Extension's growing staff—70 at last count—there is an increasing need for better internal communications. Halvorson says that agents don't inform him of upcoming meetings. "Half the time, if I want to know what's going on, I have to go to their meetings. And then, it's too late to publicize it," he says.

Both Halvorson and Foerman say they would benefit from improved internal communications in their work. It's an item on the agenda

Dallas

Next city on our western tour is Dallas, eastern anchor of the 3-million population Dallas-Fort Worth "Metroplex." Dallas' population is well over 900,000 and Texas now records 14.1 million citizens.

Harold E. Clark is the area communications specialist for the Extension staff at Dallas' Texas A&M University Research and Extension Center. He also supports the staffs of 50 Texas counties. Most of the 18 Extension staff members at the center work in area or state specialist positions.

Judy Edwards, for example, is a District Extension Director, covering the eastern part of the North Central District. She supervises the work of 37 agents—both agriculture and home economics—in eight counties, including Dallas.

With Clark's help, Edwards prepares high visibility home economics programming, which helps nearby Extension staffers, for the research center, and for Texas A&M.

A program Edwards piloted recently, "How To Be A Texan Crash Course," introduced newcomers to the foods, clothing, language, vegetation, and climate of Texas. Newcomer clubs, companies with new employees, and the Chamber of Commerce were contacted. Clark assisted with radio, TV, and newspaper coverage. There were three meetings in the series, and about 400 people attended each night.

Edwards and Clark also teamed up to do a pilot series of "Bread Fairs" with the Wheat Flour Institute. Nearly 800 people came to the Dallas field house where they lined up to learn how to make a loaf of bread.

To kick off this event, Edwards and Clark held press conferences in both Dallas and Fort Worth. They invited media representatives to see a live demonstration of "breadmaking in a bag" and eat a light lunch served with Texas wine. More than 35 media people came, many of them brought by local agents. Media packets were distributed and many stories resulted.

"A key to the success of these programs is agents' involvement," says Edwards. "We couldn't get the media people to a press conference without the good groundwork they lay with their personal contacts," she says.

Clark also helps prepare *Centerview*, a newsletter containing input from both the center and Texas A&M. It's sent to 1,000 people in Dallas and Fort Worth.

Although Clark prepares about 200 press releases each year and many radio public service announcements, his philosophy is: if the media do the story they'll use it. Therefore, most of his efforts are designed to encourage media to do their own stories.

Are *Extension Review* articles on communications options like these in the West useful to you? Let the author know. Contact her at SEA-Extension, Family Education, Rm. 5416-S, 14th and Independence Ave., Washington, DC 20250. □

Handbook Simplifies Law for Chancery Clerks

Barry W. Jones
Mississippi Cooperative Extension Service
Mississippi State University

The old, brick courthouse dominates the square of the small, Lexington, Mississippi trade center, which serves a county covered two-thirds by hills and one-third by delta.

One wing of the imposing structure opens into a deep, wide room. To the right, through a waist-high glass window, is the office of Joe Moore, chancery clerk of Holmes County.

Moore's office exists by virtue of state legislation. The diversity of extensiveness of the functions state statutes dictate to this office, along with 81 similar county offices, make it one of the most complex in Mississippi county government.

The statutes, intended to both charge and guide the duties of the chancery clerk, have been passed down by the state legislatures for more than 100 years. By those holding the office they are called "the code," and it can, as one newly elected clerk describes wistfully, "makes a man feel lost."

The Handbook

On a warm, late spring afternoon, Moore sits behind his desk leafing through a reference book that had rested on a shelf within arm's reach of his desk. Moore says he uses the *Mississippi Chancery Clerk's Handbook* frequently to find his directions to "the code."

The handbook is an appropriate symbol of a new day in Mississippi local government when chancery clerks, like many other locally elected officials, are seeking, achieving, and demonstrating professional improvement to their constituencies.

It also serves as a published example of a new role for the Mississippi Cooperative Extension Service (MCES). Through years of work and through local county governments

in carrying out traditional Extension educational programs, people in Mississippi local government are now calling on MCES to provide educational programs that will help them govern better.

The handbook was developed by the Center for Governmental Technology at Mississippi State University (MSU), a special projects office within the Mississippi Cooperative Extension Service (MCES). It was researched, written, and printed by staff members of the Mississippi Judicial College and MCES.

"The Chancery Clerk's Handbook, in addition to being a reference publication, is an organization and shortening of the code," says Kathy Sage, an MSU program assistant who edited and wrote parts of the handbook.

Chancery clerks are elected and must learn their new duties on the job. "It is impossible for new clerks to have any background in the kinds of duties chancery clerks perform," Moore says. "Not even a person with a law degree could imagine the variety of duties that comes with the job. If a new person gets bogged down in the first few months, it may take him or her years to untangle the mess," he says.

Moore worked up to 80 hours per week his first year in office, spending 30 to 40 percent of his time looking up and studying parts of the code.

Newly elected clerks Bob Freeman and Thomas Tolliver, Jr., echo Moore's view. Freeman is chancery clerk of Greene County, Tolliver of Wilkinson County. Both are advocates of the handbook, which has eased the anxiety of their early days in their new positions.

Freeman picked up his Handbook last fall at a workshop for newly

elected clerks and found it the only resource that could give him insight into the clerkship before he took office. "The previous administration didn't let us in even one day before we took office, and on our first day, people began asking us questions. We were just about as lost as we could be," says Freeman.

"People would come in and ask for my advice," Freeman says. "I could find things pretty fast because I had gone through the Handbook and marked the things I needed to know in order of priority."

Tolliver has used the Handbook as a rapid reference and to help him establish fees for the oil, gas, and mineral leases that his county is heavily involved in. Tolliver, a former teacher, also uses the Handbook when called upon to explain the workings of county government to high school or junior high students.

Irl Dean Rhodes, chancery clerk of Rankin County since 1964, uses the Handbook primarily as a textbook for training and refresher courses for his nine deputy clerks. "We meet once a week and try to read through at least one section of the Handbook," Rhodes says.

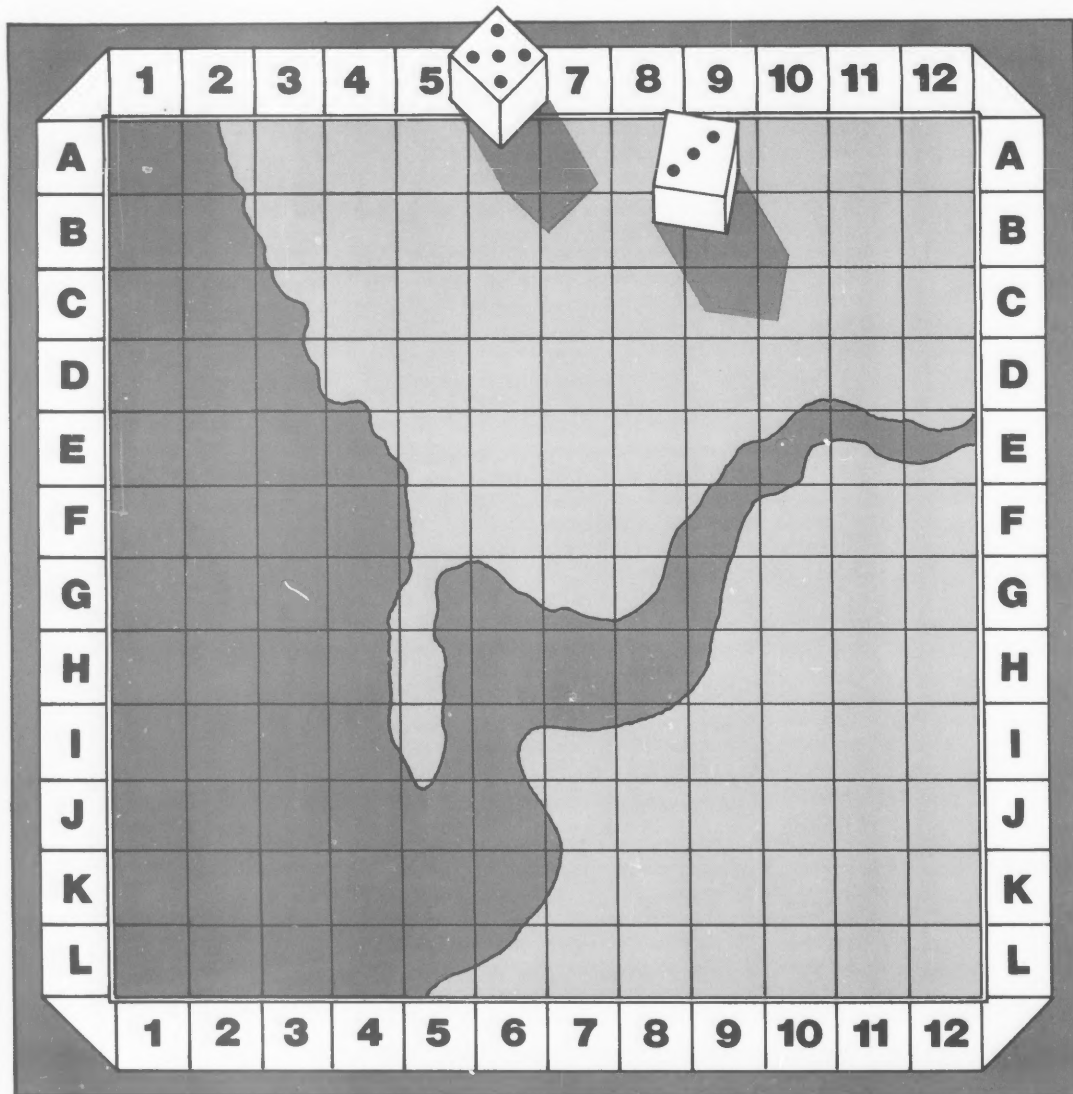
A personnel program for the Rankin County government has been established by Rhodes' office from guidelines and procedures listed in the Handbook.

The *Mississippi Chancery Clerk's Handbook* was born from a request made by Jerry Clayton, Lee County Chancery Clerk, when he was president of the state clerks' association.

Now, each Chancery Clerk's office in the state has at least one copy of the Handbook. It is proving its worth as a reference work, and for some clerks, like Freeman, Tolliver, and Rhodes, it has served as a source book for widely ranging projects. □

Community Planning—A Trade-Off

Leonard J. Calvert
Communication Specialist
Oregon State University



If you hear an Oregon State University (OSU) Extension Service specialist say "let's play a game," don't expect pick-up sticks. They're about to involve you in an exercise that challenges the way you think.

When it comes to public policy and social issues, there are as many answers as there are people involved. Each brings his or her own values, beliefs, and experiences to the discussion. Each may even believe there's only one right answer.

However, as Extension educators know, there seldom is only one answer. The teacher's task is to get people to see the question through the eyes of others and then get them to agree on a solution that best meets individual and community needs.

Gaming techniques are helping Oregon Extension staff members do just that.

Land-use Planning

Land-use planning concepts are taught with a simulation game called "Trade-Off." In development for more than 3 years, "Trade-Off" challenges the players to develop a community that's healthy "environmentally, economically, and socially."

Charlotte T. Harter, Extension economic education specialist and director of the OSU Center for Economic Education, says that "farmers, business people, local planning officials, homemakers, and others who have played the game find that developing a healthy community is harder than it sounds."

For instance, groups in two Oregon counties put together their communities only to find they had forgotten to provide for schools, fire protection, and in one case, sewers, even though they agreed upon such issues as protection of farmland industrial development areas.

Each game is different, notes Harter, one of the game developers and leader of many gaming sessions, "because the players bring their own values to the roles they play."

And the roles may be very different from those they play in real life. Real estate developers find themselves serving as planning commissioners, homemakers become industrial developers, and a farmer may play banker.

The game forces them to look at development differently, and the players begin to understand not only what's involved in land-use planning, but also why it's important and

why it's difficult to agree on how an area should develop.

OSU's game involves a board that may be used to simulate a coastal, valley, or high plains area. Each player starts the game with \$10,000 in play money. In the first round, players buy and develop land without rigid controls, much as happens historically. Development is subject to economic, environmental, and natural hazards.

Unique to this simulation are reports on the impact of players' action on the community's economy, including income and jobs.

In the second, and subsequent rounds, players continue to buy and sell property and decide on development. However, any player may challenge a proposed development and may even force the planning commission to hold public hearings. The game continues in this vein through succeeding rounds.

Development

Several people and agencies assisted with the production of "Trade-Off," their interest sparked in part by Oregon's state land-use planning laws.

Begun by a graduate geography student with a small grant from 4-H Community Development funds, the game involved Extension geographers and resource economists in its development. Additional funds came from Chevron, the 4-H Community Development program, the Oregon Council on Economic Education, and the Oregon Department of Land Conservation and Development through an implementation grant under the Coastal Zone Management Act of 1972.

Newer Game

Like "Trade-Off," a newer OSU game, "Sex and Aging" also spurs a lot of discussion among the players. In fact, that's the main purpose of the game, explains Vicki Schmall, Extension gerontologist who led in the development of the game for 2 years before its final production.

"The idea is to get people to talk about their reactions to everyday situations involving older adults and sexuality, to help them understand their own attitudes and beliefs," she explains.

The player draws a card from one of four stacks labeled "crisis and conflict," "relationships," "daily challenges," and "issues." Then the player reads the card aloud and tells what he or she would do if faced with the real-life situation described.

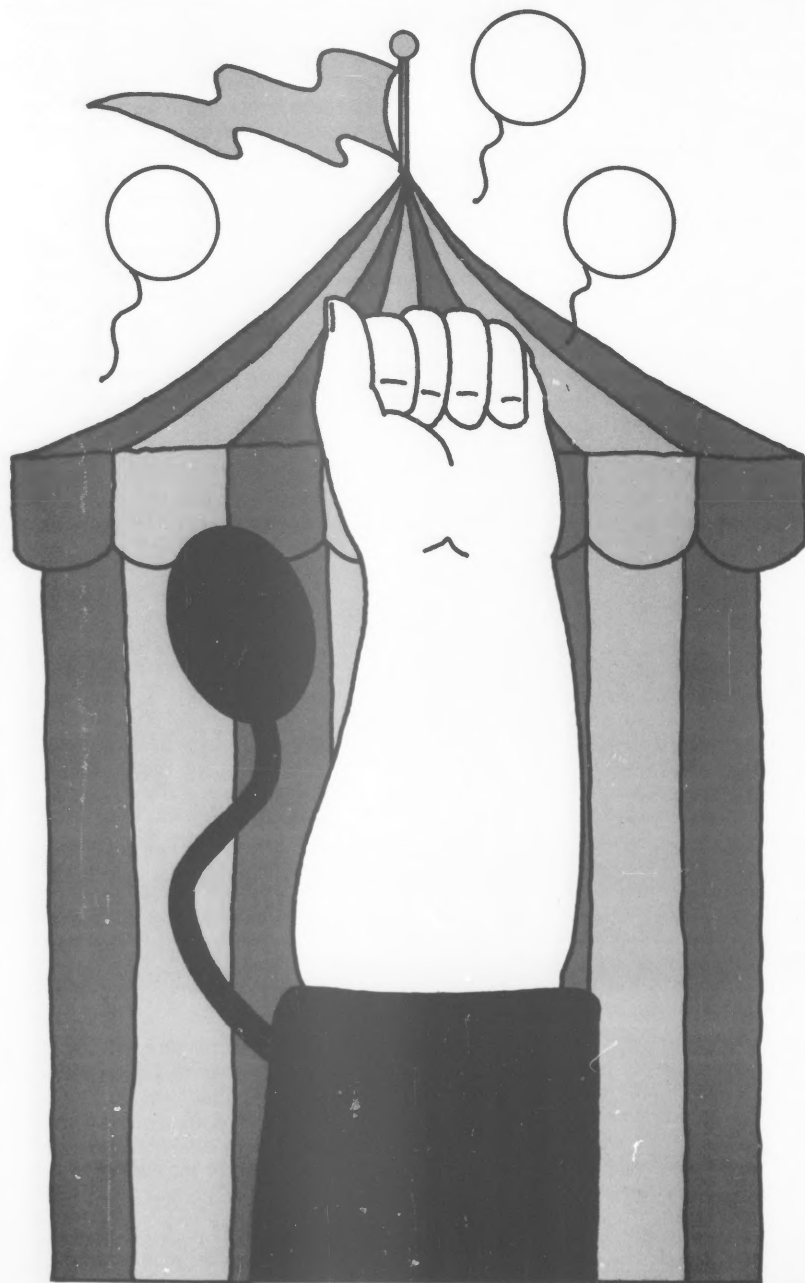
Schmall has found the game to be a useful tool in workshops and meetings of people who deal with the aged because it stimulates active participation.

People are more willing to discuss a particular situation in a game setting "because the example is impersonal," Schmall says. "They aren't talking about themselves, their relatives, or their clients."

Both of the games are copyrighted and for sale. For additional information, write to Trade-Off, or Sex and Aging, Extension Service, Oregon State University, Corvallis, OR 97331. □

Nutrition Fitness Fair: A Community Gets Involved

Ernestine Ivans
Home Economist, Tulare County
University of California



How do you make a community aware of health and fitness? You get it involved. And, that's just what the Tulare/Kings Nutrition Council members did.

This group of health professionals coordinated the biggest event of its kind ever held—a Fitness Fair which involved participants from all parts of Tulare and Kings counties in California.

The Tulare/Kings Nutrition Council includes nutritionists, dietitians and others interested in community nutrition. Among the membership, 13 different agencies, organizations, and hospitals are represented. The purpose of the council is to provide better nutrition and health habits for the residents of Tulare and Kings counties.

At the time of its coordination, the Fitness Fair seemed an enormous undertaking for the small group, but they were determined. They had tackled projects and problems before and had succeeded.

Now it was time for the council to expand by reaching out into the community to get others involved in nutrition education. The Fitness Fair would focus on preventive health care measures. The theme would

spotlight the problems of heart disease and obesity in the Tulare and Kings areas.

A study of the Tulare County social profile cited heart disease to be a leading health problem. The problem of obesity in children and adults in the two counties appeared to exceed the national figures. This had been a concern of health professionals for some time. Through the Fitness Fair, the Council sought to promote behavior change that would lead to improvement in health and well being.

To accomplish this goal, the Fitness Fair had to present an opportunity for individuals in the community to participate in "learn-by-doing" activities. Participants would learn how to eat healthfully, be enlightened consumers, and adopt a fitness activity into their daily life.

How the Community Got Involved

Weekly meetings were held at the Tulare County Cooperative Extension office in Visalia months in advance of the fair. Members visited local newspapers and radio and TV stations to promote the coming event. Businesses, nonprofit organizations, advisory boards, and local schools received flyers explaining the big day. Everyone in the community was becoming involved.

The numbers of people committed to work on the project kept growing. Representatives from the YMCA, Junior Women's Club, 4-H, The American Heart Association, KONG Radio, the Tulare County Health Department, hospitals, and other organizations were recruited to plan and make the Fitness Fair a success.

With this increased work force making contacts and getting others involved, the participants soon proliferated to include: Elementary school board members, elementary school students and band members, 4-H members, local service club members, senior citizens, local business people, and others from different non-profit organizations.

Tulare County Cooperative Extension sought publicity for the fair through newspaper feature articles, radio public service announcements and interviews, and a local TV news feature. The Tulare County Cooperative Extension Home Advisor newsletter carried the notice a month in advance to 5,000 members on the mailing list.

The Big Day Arrives

The Fitness Fair was a fun-packed, information-filled day of activities to promote fitness and health. A "fun run," complete with trophies and awards, began the day. More than 250 runners participated in the run sponsored by the YMCA. A children's theater, staffed by 4-H junior leaders, provided films, talks, and shows on nutrition and fitness.

Other activities included cooking demonstrations, fitness demonstrations, square dancing, karate, senior citizen's disco, and aerobic dancing. Speakers from the Cooperative Extension staff gave workshops on "nutrition and the athlete" and "the dangers of stress and how to reduce it." A puppet show encouraged children to practice good nutrition habits.

Businesses and non-profit organizations participated in providing information on good health. To encourage better dental health, the

Dental Association held a toss-for-floss contest. An underwater-body-weighting tank was set up to check lean body mass. The local Fire Department demonstrated CPR equipment and taught the use of pulmonary resuscitation. Various fitness tests, including blood pressure checks, alerted participants to possible health problems. Sensory food testing was also conducted. The Status of Women Organization surveyed Fair attendees to get at some of the health needs of county residents. To round out the big day, dietitians and nutritionists were on hand to answer questions and hand out nutrition information and recipes.

Elementary school bands scheduled throughout the day provided music to welcome participating crowds, a local restaurant prepared and sold "nutritious" snacks, sandwiches, and beverages. Door prizes and awards donated by local merchants were presented on the half hour throughout the day.

Success For All

People from all parts of Tulare and Kings Counties attended, and more than 1,000 people participated in some way. Over 200 elementary school students entered the poster contest with their own artistic renditions of a nutritious snack. The number of commercial and nonprofit information booths represented 30 different business agencies and organizations.

Now that the Fitness Fair is over, the Council is busy planning next year's event to be even bigger and better. Getting the community involved paid big dividends—to both the council and the health and fitness of county residents. □

Common Cents Workshops

Betty Eyler
Extension Home Economist
Arlington County, Virginia



Mary Ann Hewitt, right, Montgomery County Extension home economist, explains a budgeting technique to a workshop participant.

Reaching USDA employees with information is a challenge. You often compete with many other agencies and organizations that are all trying to get some "essential" message to their target audience—USDA employees.

Despite these problems, members of the Metropolitan Extension Council (MEC)—composed of Extension home economists from Virginia, Washington, D.C., and Maryland—wanted to alert USDA employees to the fact that Extension has good, valid money management information to help them fight inflation, and, in the process, raise the awareness level (visibility quotient) for Cooperative Extension Home Economics and SEA-Extension in the Department.

Money Management

The Council developed a series of two "Common Cents Workshops" on money management for USDA employees during National Consumer Education Week last fall. They had successfully pilot-tested the workshops with SEA employees.

SEA-Extension Family Education staff and MEC teamed up with the Agricultural Federal Credit Union to sponsor the "Common Cents Workshops." A display, flyer, and an article in the *Ag Reporter*, a USDA house publication, got the word out to employees. In addition, key representatives from 10 agencies promoted the series to their agency employees. These representatives had attended the pilot sessions and said the "Common Cents Workshops" were excellent.

Approximately 230 USDA employees from several agencies attended the two workshops. Mary Ann Hewitt, Montgomery County, Maryland, Extension home economist, conducted the meetings, which focused on family budgeting and important papers and credit.

Feedback

The feedback sheets filled out by participants at the second session were enthusiastic. Many went out of

their way to say thank you or express appreciation in other ways. "It was a good thing to see other people concerned about money management," commented one participant. "Sometimes you feel alone looking after the loose ends in budgeting, economizing."

"I wish this type of workshop had been available earlier in my marriage," said another participant. "I could have avoided many errors."

Of the 113 people who completed feedback sheets, 63 said the credit information was most helpful to them. Twenty-eight people said the budgeting information was the most useful topic covered.

Sixty-four people said they'd definitely contact Extension for more information. Many others said they might contact Extension at some future time.

After the "Common Cents Workshops," the head of the credit union of the Beltsville Agricultural Center called to ask how they could hold similar meetings for employees there.

MEC members feel they gain from combined efforts such as this one. As one said, "It's great in-service training!" All the MEC members have related activities going on in their counties and cities. And their efforts are shared nationally through this article and through a packet of program materials developed for the "Common Cents Workshops" pilot project, which was distributed to all state leaders of home economics. □

An Extension Role in Occupational Health and Safety?

Hans H. Johnson
Health Educator
and
Rodney D. Peterson
Economist
Colorado State University

Since its inception, Extension has demonstrated a serious interest in the health and safety of rural citizens.

Today's expanding agricultural and industrial technology, with its accompanying myriad of new health and safety hazards, underlines the necessity for maintaining this interest. Extension has an important role to play in developing good information and technical assistance in the area of occupational health and safety (OHS).

Many of Extension's programs are designed to assist the agriculturist and rural citizen in adjusting their internal operations for making maximum use of today's expanding technology.

There is little that Extension education can do today without raising questions and concerns related to impacts on human health, safety, and welfare, or on general environmental quality. In fact, it is difficult to identify an Extension program that does not and/or could not have a health or safety dimension.

In 1970, the Occupational Safety and Health Act (OSHA) was passed "to assure so far as possible every working man and woman in the Nation safe and healthful working conditions and to preserve our human resources."

Little consideration was given in the Act to small firms and agribusinesses with less than 100 employees. These companies do not have the resources to hire experts or to implement health and safety programs, even though an estimated 60 percent of the Nation's work force is employed by small firms, many of them located in the rural sector.

Kellogg Grant

In 1977, the W.K. Kellogg Foundation awarded a 5-year grant to the Institute for Rural Environmental Health at Colorado State University (CSU). The grant's purpose was "to demonstrate a land grant university's capability to deliver occupational health and safety education and consultation services to agriculture and small business."

A major part of the project is to determine a cost-effective means of delivering OHS services to small companies. As the project continues, careful records of costs and results are being maintained, and alternative methods of providing OHS services are being studied.

The first approach investigated by program staff for delivering such services to small businesses and agriculture was providing on-site consultation services. Small business operators were asked, via a variety of promotional techniques, to call or write the program staff to obtain a free consultation visit. Only the plant sites of those business owners or managers who have made requests receive the OHS service.

During 1978 and 1979, 70 small agribusinesses were served. A safety engineer and an industrial hygienist met with the owner or manager, then conducted a walk-through inspection of the workplace environment.

Significant problems were identified, catalogued, and pointed out to workers and management. These included unguarded machines, faulty wiring, and probable harmful airborne materials. If harmful gases, vapors, noise, or aerosols were present, sampling was performed with technical equipment to assess the potential exposure hazard to workers.

The cooperating plant manager received a report detailing hazards and specific remedies to relieve those problem areas. In addition, a questionnaire included with the written report sought opinions from the plant manager. Responses indicate that the survey teams were courteous, professional, and helpful.

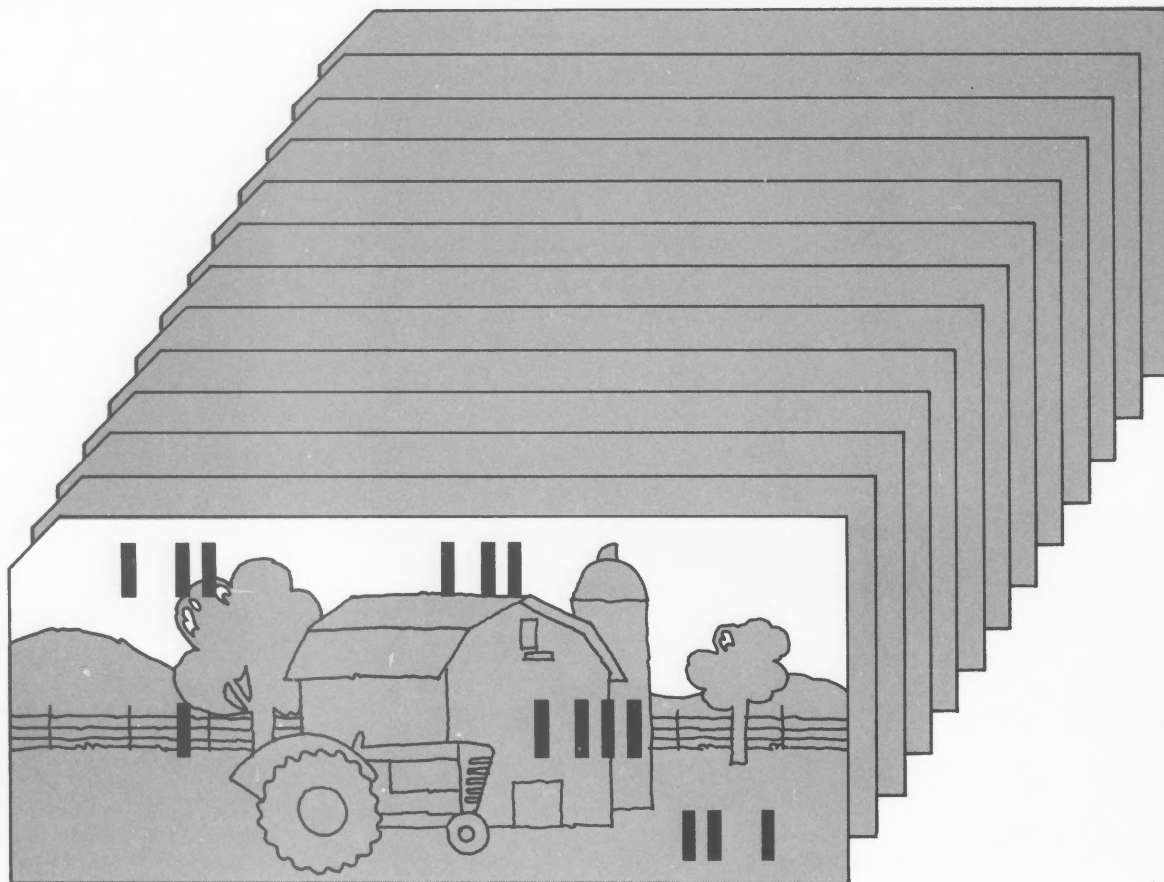
Follow-up

Approximately 1 year after submission of the initial written report to the cooperating plant manager, another follow-up questionnaire was sent. This inquiry probed the extent of identified hazards reduction. Preliminary results suggest that nearly all of the hazards have been corrected. In addition, an indication was sought of a reasonable fee a plant manager would pay for such health and safety consulting services. An average of \$250 for one visit was reported.

The primary purpose of the Kellogg project is to determine the feasibility of Extension providing OHS services to small firms in rural areas. On the basis of the study's results so far, it appears that a subsidy of approximately \$600 would be necessary for each OHS consultation. This \$600 balance against the potential thousands of dollars lost to worker illness and injury—in the form of loss of wages, productivity, good health, work time, skilled workers, and of higher medical and insurance costs—is a small price to pay. □

Computer Lists Target County Mailings

J. J. Feight
Agricultural Editor
North Dakota State University



Dale Siebert, Ransom County Extension agent, North Dakota, had a problem common to many county Extension agents—the continual hassle of keeping mailing lists updated.

"No single source of information about mailing lists is available except from the producers themselves," Siebert said in his "Search for Excellence" presentation at the 1980 annual meeting of the National Association of County Agricultural Agents.

"Since most of my county mailings are done on a commodity basis, I was particularly interested in having a producer list for each commodity. This would eliminate the need to send unnecessary material to those having no use for it," he said.

Economical Approach

Siebert also wanted to find a fast, economical way of addressing envelopes for bulk mailings. Most available addressing systems are costly, in both initial purchase and in making necessary changes and corrections. Many still use stamped, metal plates, which are expensive to maintain and change (up to \$5 a plate). Because of the cost involved, many envelopes were hand-addressed—another costly and time-consuming task.

Compiling accurate mailing lists was Siebert's first challenge. After weighing alternatives, Siebert decided the easiest way was to ask one volunteer in each township to correct and update a list of producers from that township. The most recent county atlas supplied a list of names for each township.

Siebert developed a form so that all each producer contacted had to do was to check the commodities raised opposite his or her name. Each township volunteer also deleted any names of producers who had stopped farming and added new farmers not listed to the bottom of the list.

Originally concerned over the response he would receive, Siebert reported that "we received a 100-percent return from all the townships in the county."

From the completed township questionnaires, Susan Froenks, office secretary, compiled a complete list of county farmers and a commodity selective list of producers by crop or livestock enterprise.

Once these mailing lists were completed, Siebert researched a better method of addressing envelopes. After contacting several office supply companies, he decided the cost of additional addressing machines was beyond his county budget limits.

Computer Program

Siebert next contacted F. Charles Humphrey, assistant director for communications for NDSU Cooperative Extension, and D. J. Miller, CES coordinator of programs and staff development, to explore the possibility of using the NDSU computer to print mailing labels transferable to envelopes.

Miller and Carol Tschakert, computer programmer, indicated that such a program was both economically feasible and possible. However, a computer program for the project needed to be developed.

Commodity groupings included small grains, beef, sheep, hogs, dairy, sunflower, corn, irrigation, sugarbeets, and potatoes. Also included was the *Courier* (Extension Agricultural Economics) newsletter. The county 4-H, homemaker and community development mailing lists were also revised and entered into the program later.

Each producer was assigned an identification number, and a computer card then was punched for each individual. Once this material was programmed into the computer, a printout was checked for mistakes and duplication. The whole process took several months to finish. "However, since this was a trial program," said Siebert, "there was no cost to the county, which certainly fit into my budget." Siebert updates the lists every 2 years.

"Since completing the new mailing lists, the amount of mail returned with wrong or incorrect addresses has been reduced to practically zero," said Siebert. "One or two sets of mailing labels are kept on hand for each commodity, so there is no unnecessary waiting time for printing."

Savings

Siebert figures the cost of the computerized labels is about ½ cent a piece. "This system is fast, efficient, and economical. Unnecessary mailings are avoided, and our county office saves both postage and time in preparing bulk mailings," said Siebert.

The McHenry County Extension office has adopted a plan similar to that developed by Siebert with similar results. Mailings now take less than half the time as before. Emmons County uses computerized mailings lists to reach 4-H leaders in addition to commodity groups. They update their leader lists every year in the fall after new 4-H clubs are formed.

One area agronomist is also using computer listing in a six-county area, and all pesticide certification lists in the states are computerized. □

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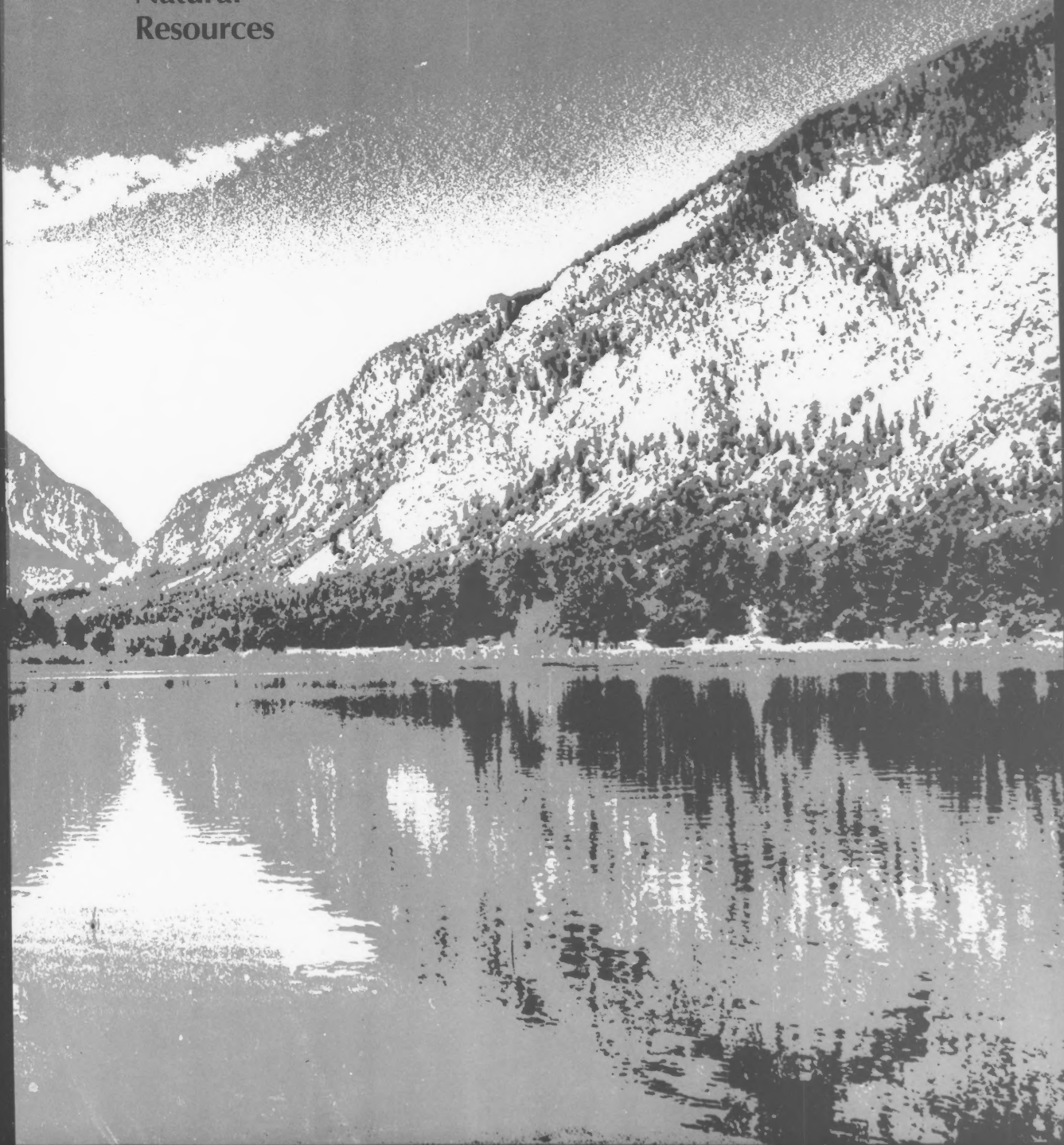


Summer 1981

United States Department of Agriculture

extension review

Natural
Resources



review

Dependence on the Land

Some years ago, John, our youngest son, then a sixth grader, and I were returning home from a conservation school for teachers. John had attended every minute of the 2-day session which I had been helping teach.

John had quite a yen for notebooks. For this trip, he had a new short-hand notebook which my secretary had given him. During one of the long periods of silence in our ride, I decided to quiz him on what he might have learned.

Without a moment's hesitation he wrote, "Man is dependetsetes on the land." Sparkling, and to the point! Although the spelling was wrong, his idea was right. I could only hope that the teachers had drawn the same conclusion.

Too often, many of us, particularly we who live in large cities, forget that man is dependent on the land and upon the many, many things that make up the land and come from the land.

In 1908, opening a Conference of Governors, President Theodore Roosevelt said "the prosperity of our people depends directly on the energy and intelligence with which our natural resources are used. It is equally clear that these resources are the final basis of national power and perpetuity."

In 1908, population of the world was less than 2 billion. The U.S. population then was about 92 million. Today, the world population is 4.5 billion and the U.S. population is almost 230 million. Predictions for the year 2000 place the world population at 6.1 billion and the U.S. population at 259 million.

One acre of arable land supported one person in 1970. In 2000 the same acre will have to support four people. Cultivated land can be expected to increase only 4 percent because the best land, worldwide, is already under cultivation.

Our Nation has an ample land base for its current and projected population, *if the land is used wisely*. But the American people continue to be wasteful of our most basic resources and forego opportunities to increase production of natural resources, even though such actions could be accomplished in ways that are environmentally sound and economically efficient.

The latest long range projections of supply and demand of natural resources point consistently to some of the same basic conclusions:

- Production farm and forest land is being lost to urban and other non-agricultural uses at a rate of 3 million acres per year. One third of this loss is prime agricultural land.

- Loss of soil fertility, through accelerated erosion, is equivalent to the annual loss of another 3 million acres removed from production.

- Although air and water pollution is gradually yielding to controls, no lessening of protection can be tolerated.

To maintain food and fiber production to meet expected domestic and international demands, the reserve farm land in the United States will have to be brought into production by the year 2000, *if it is still available*.

- Because of inadequate protection and management, the Nation's forests are producing less than 50 percent of the fiber of which the sites are biologically capable.

- The Nation's rangelands are producing less than half of the forage of which the sites are capable, with resulting losses of benefits of fish and wildlife, domestic livestock, soil stability, and water yields.

- Long-term investments in the production of natural resources are not being made at a level necessary to keep pace with expected demands for these resources.

- Opportunities exist to greatly increase production of renewable resources from farm, forest, and rangelands to meet nearly all reasonable projections of future needs.

The social and economic well-being of a Nation depends on possessing adequate supplies of natural resources—food, fiber, minerals, and energy at affordable prices. The environmental well-being of a Nation depends on managing the soil, water, land, and associated resources in ways that assure, in perpetuity, the availability of those resources to future generations.

Our basic needs for food, shelter and clothing are provided by soil and water. Ultimately, the existence of the human species depends upon how well natural resources are managed and protected.

My son and I rode the rest of the way in silence. But I did some deep thinking. The boy had a good understanding of the natural community relationship. He had begun to realize that he was only a small part of this wonderful world of nature. The idea of sharing it with others, with reason and understanding, was there. Nurtured, it could grow to help solve the frightening problems of our times—overpopulation, pollution, and the mad clamor to make money in spite of what happens to the environment.

I wonder? Will there ever be enough people that really understand man's total dependence on the land?—
Merrill (Pete) L. Petoskey Deputy Administrator Natural Resources

(Editor's Note: The American Forestry Association, 1319 18th St. N.W., Washington, D.C. 20036 recently sponsored a National Conference on Renewable Resources. A publication, "Key to the Future—Renewable Natural Resources," highlights the conference. Part of the philosophy expressed above came from this report. If you are interested, limited numbers of copies can be obtained by writing the above address.) ■

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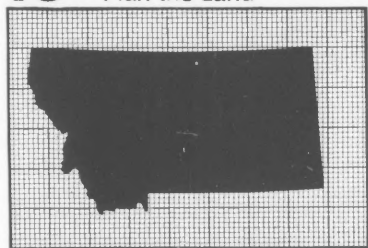
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extension review

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Science and Education

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Extension Service

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Small Ponds and Lakes: Big Resource in Georgia

George Lewis
Fisheries Specialist
University of Georgia Extension Service



Privately owned ponds and lakes are an important recreational and food resource in this country. A national survey of hunting and fishing conducted by the U.S. Department of Interior in 1977 estimated that 9.1 million anglers fished an average of 10 days each in farm ponds that year. That was about 19 percent of all fishing in 1977.

A Georgia survey estimated that 51 percent of the 571,285 licensed anglers in that state fished at least once in a privately owned pond. Of the 9.8 million fishing trips these anglers made that year, 4.1 million were to ponds and lakes smaller than 50 acres.

There are no accurate estimates on the importance of freshwater sport fish to the family diet, but these figures suggest that fish are an important part of what many rural and urban Georgians consume at the dinner table.

Like a scene from a Norman Rockwell painting, two boys enjoy the tranquility of a Georgia pond and wait patiently for a catch using long switches as fishing poles.

Observers predict that privately owned ponds and lakes will become an even more important resource for family recreation and food. There are several reasons for this. Large public lakes and reservoirs built in Georgia in the past 40 years have

helped meet the increasing demand for fishing, but most of the prime sites for reservoir construction have been used. Also, economic and environmental constraints make it doubtful that there will be a significant increase in public waters in the future.

By the year 2000, one survey estimates, there will be a 39 percent increase in the public demand for freshwater fishing. As energy becomes less available and more costly, how will this need be met? With local ponds and lakes. They not only will become more important for recreation and food—but for dollars as well.

Georgia already has nearly 60,000 privately owned farm ponds and lakes totaling 144,000 acres of impounded water. Unfortunately, most of these ponds and lakes are improperly managed—or not managed at all. The Georgia Extension Service is out to change that.

Small Pond Management

First step—to determine why Georgia pond owners do not practice proper pond management. A lack of knowledge about the capability and potential of their ponds for fish production and recreation was one important reason.

One of the first priorities of the Georgia Extension Service fisheries program was to reach pond and lake owners with promotional and educational material that would make them want to manage their ponds properly and give them the necessary information with which to do it. We wanted to educate our clients on the recreation, food, and economic resources of a pond, and the management procedures they need to carry out to receive full benefit from these resources.

However, no two Georgia farm ponds are alike. Because of this diversity in ponds—and in management problems, available resources, and goals of the owners—educational program direction is best determined at the local level. For this reason, the primary focal point of our program is the county Extension agent.

Agents are encouraged to include sportfish pond management as a part of their overall county Extension program. A county program, of course, must be based on the wants and needs of landowners and on the available land and water resources in the county.

Agents are encouraged to seek information from the landowners and help from other agencies such as the Soil Conservation Service and the Georgia Department of Natural Resources in identifying problems and areas for future development.

To support these county programs, agent training in fisheries management is essential. In the past 3 years, four agent training programs have been presented in three of the five Georgia Extension Service districts. Comprehensive 2-day training programs are scheduled in all five districts next year.

In addition to training, an agent resource publication, *County Agent Fisheries Update*, is prepared and mailed to county offices as new subject matter becomes available. Each issue of *Update* covers a specific area of fisheries management.

To further encourage county fisheries programs, the publication *A Guide for County Program Planning in Aquaculture-Fisheries Management* was made available to all county offices. This publication is designed to help county staffs develop, organize, and improve county fisheries programs for landowners.

We also prepare a quarterly newsletter, *Fish Pond Notes*, and send it to county agents for distribution to their clients. More than 6,000 copies of this newsletter are being mailed by agents to interested landowners in their counties.

We also conducted 38 county short-courses and workshops at the request of county agents in the past 3 years. More than 1,700 landowners attended these meetings. Subjects covered varied from general pond management to specific subjects such as aquatic weed control.

Another aspect of the program involves work with individual county agents and landowners to help identify aquatic weeds, diagnose fish diseases and parasites, analyze water samples, and advise on water quality management and pollution abatement.

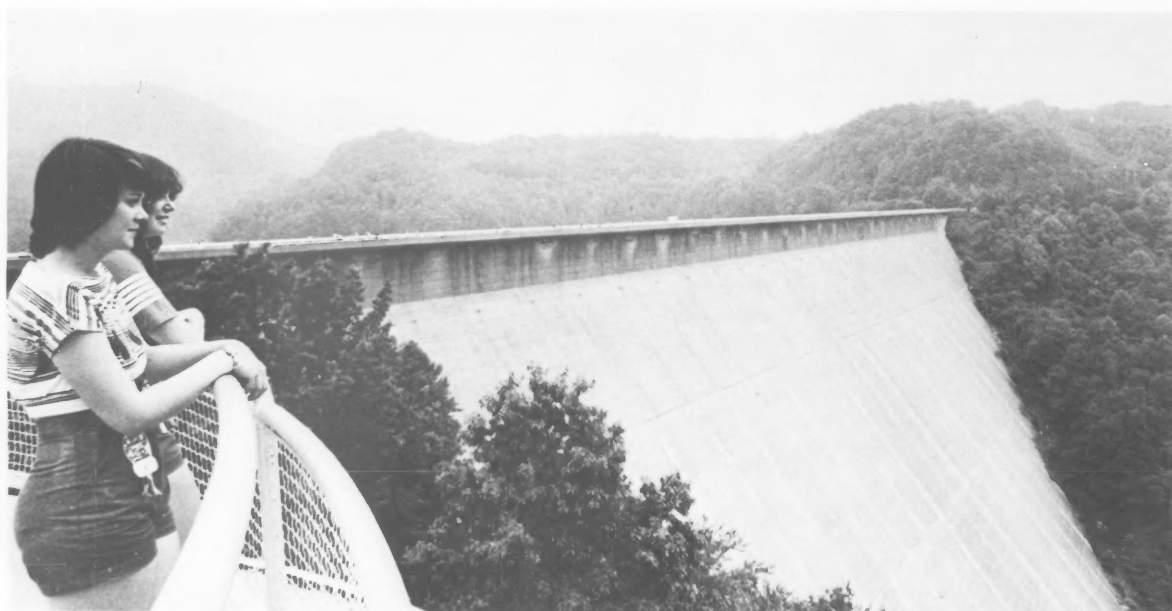
4-H'ers Participate

The Georgia fisheries program also includes 4-H. A wildlife conference, marine science conference, and a natural resource adventure (raft trip down the Ocmulgee River) are held each year, and fisheries management information is presented during all three week-long events. In 1980, more than 9,000 Georgia 4-H'ers were enrolled in wildlife projects, and many of these dealt with fish and fisheries management.

Georgia's more than 60,000 farm ponds and lakes covering 144,000 acres are a big resource. Our goal is to get their owners to manage them with the same interest they manage their corn, cotton, soybeans, peanuts, swine, and beef and dairy cattle. ■

Conservation Conference Develops Leadership

*Jimmy Tart
Extension 4-H Youth Education
North Carolina State University*



Two participants at the 4-H conference take time from their busy schedule to tour Fontana Dam.

"Use America's water and air, but please give them back clean and pure. We can't depend on someone else to get the job done."

That was the message from an Alabama teenager who spoke to some 250 4-H members from seven states at the 4-H Regional Resource Development Conference at Fontana Village, North Carolina, in June.

Her message would have pleased the conference organizers back in 1955. When the 4-H conference was conceived, it sought to teach delegates how to take an active role in conservation and wise use of the region's natural resources.

Since the first conference in June 1956, more than 5,000 teenagers,

ages 14 to 19, have attended. Two 4-H'ers from each of the 125 counties in the Tennessee Valley Watershed Area are invited each year. Returnee delegates, two per state, are also selected to attend.

The conference, which completed its 26th year in June, is held at Fontana Village, a resort located on the southern edge of the Great Smokies National Park. The site is surrounded by the natural beauty of mile-high mountains, hardwood forests, and clear, freshwater streams. Only a couple of miles from the Village is Fontana Dam, the highest dam in eastern America and the Tennessee Valley Authority's largest at 480 feet.

During the 4-day conference, the delegates meet and share ideas with youth from other states, and gain a better knowledge and appreciation of their natural and human resources.

They also learn how they can play greater roles in the conservation and wise use of resources, and explore career opportunities in resource conservation and management.

Sponsors

The conference is sponsored each year by the Agricultural Extension Services in the seven Valley states, the Tennessee Valley Association (TVA) of Test-Demonstration Farm Families and the Tennessee Valley Authority. Participating states are Alabama, Georgia, Kentucky, Mississippi, North Carolina, Tennessee, and Virginia.

The association is composed of farm families who conduct educational demonstration programs with the Agricultural Extension Services and TVA on wise resource use. Members live in 125 Valley counties in the seven states and provide scholarship funds for delegates to attend the conference.

TVA, a government-owned corporation, was created by Congress in 1933 to help solve the Valley's economic problems.

The 4-H conference was conceived by the Association's Board of Directors. "It wanted to provide recognition for youngsters between state and national levels, tying everything together with a common denominator," explained Denver Robinson, the former North Carolina district Extension chairman.

Extension's Role

The Extension Services play a major role in agricultural resource development in the Tennessee Valley.

Extension personnel recruit 4-H'ers and volunteer leaders to attend the conference, arrange transportation, and serve as workshop instructors. They also provide followup, visiting demonstrations, and opportunities for delegates to share what they have learned at the conference.

The Cooperative Extension Service in each state takes its turn on an annual rotational basis in serving as host for conference planning, leadership, and promotion.

During the week, delegates participate in workshops to learn the Tennessee Valley's resources: soils, forestry, atmosphere, water, minerals and energy, wildlife, and human. Extension specialists and university professors serve as instructors and place heavy emphasis on wise resource use.

Leadership Development

The returnee delegates play important roles. A returnee delegate from the host state presides at general assemblies and serves as president of an executive council made up of previous delegates.

Returnees help plan the conferences, help get delegates to group activities, deliver talks on conference themes, and serve on

evaluation committees. They also attend a twice-daily leadership workshop.

Over the years, the returnee delegates have expressed their concerns to other 4-H'ers on numerous topics, including drugs, teenage marriages, divorce, apathy, overpopulation, environmental quality, conservation, strip mining, and pollution.

"It's a great forum for teaching awareness, conservation, and wise use of natural resources and developing leadership," says Robinson, who has attended 23 of the conferences.

"The delegates publish a daily newsletter and gather information for news releases to newspapers back home," he said. "I've seen young people who have attended the conference become outstanding leaders and I've hired many of them for county Extension agent positions. ■"

Wildfires Tame Prairie Grasses for Grazing

William S. Sullins
Assistant Extension Editor
Kansas State University

Trail bosses, herding steers into the tallgrass prairie of eastern Kansas more than a century ago, learned that their animals preferred grass burned by wildfires over unburned grass. The animals also gained weight better on burned grass.

Soon the trail bosses were demanding that landowners burn the rangeland before they would graze their steers at trail's end. Thus, quite by accident, began a concept that, with some exceptions, has been perpetuated and refined by each generation of ranchers since.

Why do steers gain weight better on burned pastures? One school of thought centers on nutrition. Burned rangeland grows faster and is more accessible to grazing. New growth on burned acres is more nutritious than the unburned mix of new and old growth.

Today, more than ever before, tallgrass prairie ranchers use fire as a management tool to control unwanted vegetation. For hardly any investment, they burn approximately 1.5 million acres of prairie each year and increase their beef production by about 12 percent. Ranchers are thus using a natural environmental phenomenon, fire, to their advantage and on their terms. In most instances, the best managed Flint Hills rangeland is that where fire is used in a precise and systematic manner.

Promoting Safety

That has not always been the case. As settlements grew in the early days, some areas stopped burning because uncontrolled fires were destroying property and even taking lives. In those areas, woody plants such as redcedars, oaks, and dogwood began to invade and cause brush problems in the tallgrass prairie that persist even today.



Above: This fire, near Manhattan, though small, top-killed all of the brush in the burn area. Left: Jim Hoobler, Kansas county agent and course participant, carries a drip torch as he helps conduct a practice burn.

Be it a wildfire or a "prescribed" or controlled burn, the danger to life and property still exists.

Safety comes first, says Paul Ohlenbusch, the Extension range and pasture management specialist who conducts a program in prescribed burning education at Kansas State University (KSU), Manhattan. Some landowners and managers, he says, sometimes think accidents happen only to others.

Ohlenbusch's Extension program stresses that burning rangeland involves more than striking a match and standing by as the blaze moves across a vast expanse of land.

Regulations administered by the Kansas Department of Health and Environment must be followed, but Ohlenbusch says they are fair and reasonable.

He has tailored his educational program to three audiences—the public, public land managers and technical assistance personnel, and landowners and producers.

Ohlenbusch includes the public because "it has long been taught that fire is taboo." Wildfires are destructive, he stresses, but adds that prescribed burning can be as safe as any other management practice.

"If people know why ranchers burn, they aren't overly concerned when they see large clouds of smoke billowing up from the countryside in April," says Ohlenbusch. "They need to be assured that no one is harming the environment and that burning, in fact, improves the state's largest renewable natural resource—its rangeland."

To inform the public, he appears frequently on radio and TV programs and works with university writers on news releases. The state's newspaper and magazine editors have been particularly receptive to news items on range burning in spring. Public burning demonstrations are also held to promote the safe and effective use of fire.

Land managers are another important audience. They are usually public employees of the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and state fish and game commissions. They also include advisors to landowners, such as county Extension agents and Soil Conservation Service personnel, who want to understand better how to use fire.

For that group, Ohlenbusch and Jim Kunkel, Extension specialist and teacher of rural fire training at Kansas State, conduct the Rangeland Fire Behavior Shortcourse each spring. Part of the course's philosophy is "if you don't know how to put out a fire, don't start it."

To help the participants learn, Kunkel has adapted the state's basic course for volunteer firefighters to his sessions. Ohlenbusch discusses

equipment, safety, ignition techniques, and control methods adapted from various sources. Others with special talents are also asked to help teach. Weather permitting, short-course participants conduct outdoor burning demonstrations where, under supervision, they start and put out range fires.

Ohlenbusch also offers county burning schools for ranchers and landowners with help from local Extension agents. Materials used in these schools are adapted from the Rangeland Fire Behavior Shortcourse.

Ohlenbusch thinks the educational efforts add up to a well-informed public and a better-prepared clientele. Complaints are minimal each year, and this spring, which was unusually dry and windy in Kansas, ranchers put aside their burning activities. That was an indication to Ohlenbusch of their growing concern for safety.

In promoting effective use of burning, he can point to nearly 60 years of range burning research at Manhattan. For nearly 30 years K-State work has shown that more beef is obtained when burns are conducted just as grass greens up in April. Earlier burning, he stresses, results in no extra beef because pastures produce less forage and are slower to resume growth after a fire.

Burning in the Future

What does the future hold for range burning?

Ohlenbusch has already seen the use of prescribed burning spreading into the mixed prairies of central Kansas. Its main use there is for brush control and grazing distribution with cow-calf operations.

"In the areas where fire is being introduced, we must be careful to ensure that the public will accept it," cautions Ohlenbusch. "Sloppy use of fire anywhere that escapes on a regular basis can destroy any potential for its use because of public pressure."

In addition, he says, prescribed burning is being used as a land management tool with increasing favor by the Army Corps of Engineers, Kansas Fish and Game Commission, and other agencies because of its effectiveness and low cost.

Ohlenbusch and Kunkel have trained agency personnel in Kansas, Oklahoma, Nebraska, Iowa, Missouri, Texas, Colorado, Arizona, North and South Dakota, and Minnesota. To date, 150 persons have been trained in five schools.

They are undecided on future schools. Competition for time during late March—the ideal time for conducting fire behavior training—is increasing. Priority will be given to county level schools and volunteer firefighter training. Several alternatives are being considered, including developing materials and training instructors within the agencies, conducting beginner and refresher training sessions within agencies, and moving to a classroom-only setting in winter. ■

Alabama Tree Farmers— It's Christmas 365 Days A Year

Fred Holemo
Extension Forester
and
Kenneth Copeland
Information Specialist
Auburn University Extension Service

In the last 5 years, 500 Alabama farmers planted 1.5 million Christmas trees. Although that may not sound like a lot to growers in the West or Midwest, it's a major accomplishment in Alabama—a state known for producing mostly cotton, soybeans, peanuts, and timber.

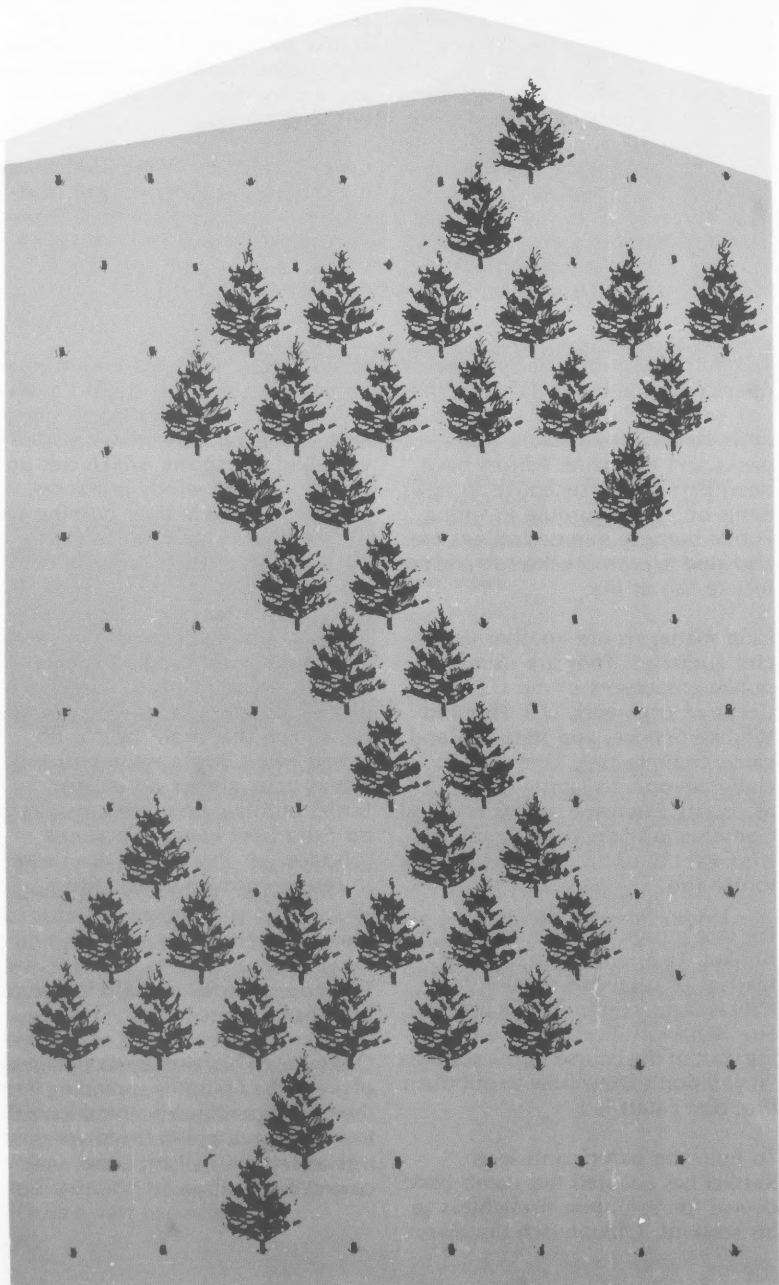
It also proves that Christmas trees will grow in Alabama and that there is a great future and potential for further development of this industry in the state.

What motivated Alabamians to plant trees? The answer is simple. It is partly the use of Extension techniques that have worked for almost 75 years—that is, to identify a potential area, design an educational program to develop it, to set up demonstrations, and then to use those demonstrations to encourage other growers.

Why Christmas Trees?

Also the market is there. More than 300,000 trees are bought each year by consumers in Alabama. Most of these are grown in the West and Midwest. Supplying this market would add \$4 to \$5 million to Alabama farmers' income.

The climate and other advantages are also there. Because of a longer growing season Alabama farmers can grow a seven-foot tree—the size most people prefer—in a third less time than can farmers in the West and Midwest. Alabama growers can also provide fresher trees to other Alabamians. Local customers can decorate the tree the same day it's cut. In many cases, trees produced





out-of-state are cut 6 to 8 weeks before Christmas.

A 1975 survey revealed that Alabama had 12 growers with less than 100 acres of trees. Fewer than 10,000 trees were being produced. But those few trees yielded some valuable information—that Christmas trees can be grown successfully in Alabama.

Education Spreads the Word

One of the first steps in the Extension education program was to spread the word about the potential for Christmas tree production. Although it offers farmers another source of income, we had to convince growers that it's not a get-rich-quick scheme. Much labor is required.

First we prepared a bulletin describing all phases of Christmas tree production. Later, we published detailed information on tree planting, shearing, controlling unwanted vegetation, and insect and disease control. Today we have a very comprehensive package for both new and established growers. Almost 400 copies of the packet were distributed during the first quarter of 1981.

Another early task was to spread the word that Christmas trees could be grown in Alabama as a profitable land-use alternative. This was accomplished through 24 county meetings, 5 area events, and 4 state meetings. Numerous newspaper and magazine articles and TV news spots also featured Christmas tree production in Alabama. A slide-tape program on Christmas tree production was made and has been used widely throughout the state.

The Christmas tree program has received good support from the Agricultural Experiment Station at Auburn University as well as A & M University at Huntsville. At Auburn, extension review/summer 1981

the Experiment Station's agricultural economics group conducted a study describing the state's Christmas tree market. The soil testing lab developed a set of recommendations for Christmas tree production, and the zoology and entomology department is researching how to control the Nantucket pine tip moth, a major Christmas tree pest. Extension's Information office has provided support for these efforts.

In conducting these educational programs, we've worked closely with the growers and used their farms as "show and tell" places to promote the best techniques for growing Christmas trees.

A state association of Christmas tree growers' was formed in May 1978, and has 100 members.

Wise Operation

One operation used in Extension's demonstration program is owned by Jack and Larry Wise of Coffee County. "Growing Christmas trees is like raising cattle," Larry says. "You have to see after them constantly."

This has been one of the points we've stressed in this educational effort. Many people thought that you could plant Christmas trees and forget about them until harvest.

"If you're not interested in lots of hard work and if you don't have the time to spend with them, leave Christmas tree growing to someone else," Larry emphasizes. "Many people abandon the project because they can't wait four to five years for their first payday."

The Wises planted 1,600 trees in 1978, 2,600 in 1979, and an additional 500 in 1980. They will plant about

1,500 this year. Some trees are planted in 6-by-6 foot rows, giving 1,200 trees per acre. Some are planted in 8-by-8 foot rows, for a total of 680 trees per acre.

The Wises grow 7-foot trees in 3 to 4 years and stagger their planting to have trees ready for sale each year, says Coffee County Agent Coordinator Tom Casaday.

Jack Wise reports that they've found the 7-foot tree to be the most popular size. He said, "We sell our trees for \$2.75 a foot—\$19.25 for the 7-foot tree. We figure that it costs us about \$4 to grow a tree, which gives us a \$15.25 return for our labor, land, machinery and managerial abilities.

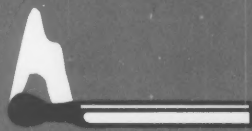
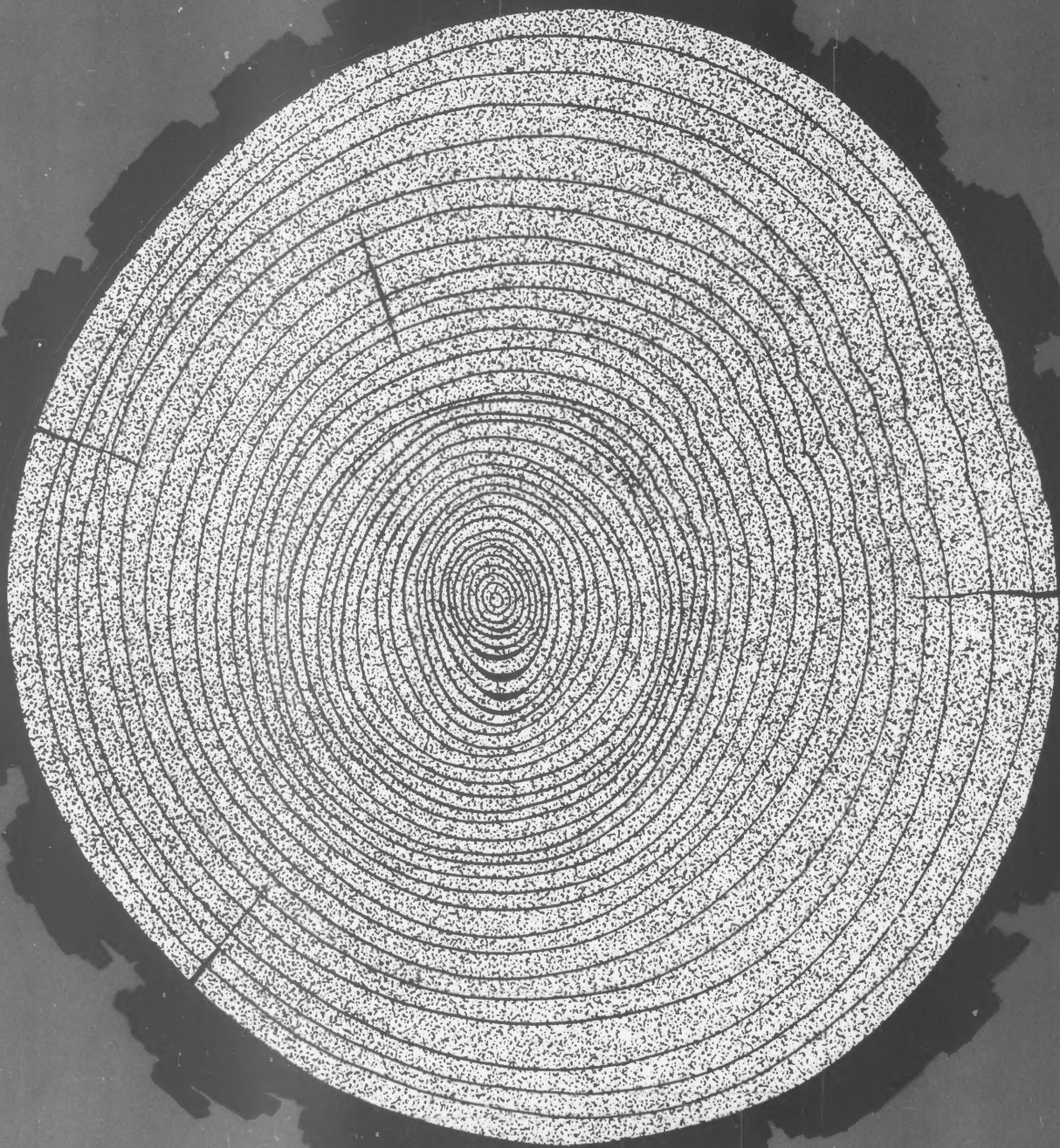
"We figure we have the edge in the Christmas tree market," he said. "We can grow a tree in a third less time than people in the West and Midwest. We can provide our customers with fresher trees and we don't have all those shipping costs.

Shearing is very critical and must be done at the right time. A good rule of thumb is to shear the tree when you get a foot of new growth. Usually this is twice a year—in April and in August.

Marketing time is a big day for the Wises. To sell trees last year, the Wises let customers come to the farm and pick and cut their own trees.

"Advertising pays," said Jack. "We used television, radio and newspapers. We've also found that having a picture of a nice tree in the ad sells our business.

Until now Alabama producers have been thinking mainly about filling the tree needs of Alabama consumers. But, in the future, Alabamians like the Wises may be exporting trees as they do cotton, soybeans, peanuts and timber products. ■



Burning Wood— Connecticut Style

Arland Meade
Extension Editor
University of Connecticut

As an energy-conscious America searches for alternate fuel sources, the wood burning stove has become a permanent fixture in thousands of homes in the same way its ancestor, the pot-bellied stove, did years ago.

Like any tool, the use of a wood stove requires a number of considerations, the most important of which is safety.

In Connecticut, for example, the Cooperative Extension Service stepped to the front with educational activities to show would-be wood burners how to use the stoves efficiently and prevent injury, loss of property, and perhaps save lives.

At the start of the program, in the mid-1970's, there were no funds or special staff for the program. However, two agricultural engineers on the Extension staff developed and conducted the program as their time allowed. Their audience—both rural and urban homeowners, are within Connecticut and across state lines.

Edward Palmer and John Bartok attacked the problem with enthusiasm. "Selling" their service was no problem, as various officials and the public heard that Cooperative Extension could help. Interest was keen in utilizing readily available Connecticut woodlots to replace some of the imported oil. The Extension engineers used several media to announce meetings and services available.

Interest Grows

The first forum for teaching was the public meeting. Palmer and Bartok assembled about 150 slides—mostly photographed by Bartok. The team also used stoves, wood, tools, and guests with special expertise in forest management, fire prevention and insurance.

The slide set on wood-burning principles, methods, and safety has become so popular that during the last few years at least 40 sets have been duplicated and sold to other Extension services and users across the Nation.

A 32-page book called *Burning Wood*, published by the Northeast Regional Agricultural Engineering Service (Extension), closely follows the story as presented by these slides. As of July 1981, 200,000 copies had been sold.

Presentations using the slides last two to three hours. There is no recorded tape; the lecturer narrates the slides as an illustrated outline and presents the material to suit the particular audience.

In 1975 Bartok and Palmer conducted seven meetings where attendance ranged from 85 to 250 per session. The next year they conducted ten sessions for 935 participants, and 20 meetings in 1977 attracted 1,530 participants.

Public meetings began in 1975. They were so popular that meeting space became a problem. Among the participants were fire fighters, fire marshalls, building inspectors, and other public employees.

Other states sought instruction from Bartok and Palmer. They collaborated with Rhode Island and New Hampshire in producing a video tape. It was aired on public television and used widely by groups. Out-of-state training sessions were conducted by these agricultural engineers—largely by Bartok, as Palmer retired late in 1978.

In 1978 the U.S. Department of Energy gave Connecticut a grant to conduct a pilot project for energy conservation. The Extension Service received more than \$300,000 through the State energy division to establish a joint program.

Extension was then able to employ a staff with a part-time engineer, a coordinator, and about nine field workers called "energy associates." They worked from county Extension offices but soon acquired their own identity as Energy Extension Service. These agents included wood burning among their many energy-saving and alternative energy programs. Also, they published a newsletter with 20,000 circulation. Soon citizens in Connecticut began to conduct their own meetings using the prepared slide set.

Wide Spectrum of Participants

Joint meeting sponsorship with civic and regulatory agencies has included: Fairfield County fire marshalls, the American Legion, the League of Women Voters, the Civic Center Energy Fair, the Waterbury Regional Planning Agency, the State Building Inspectors Association, Northeast utilities, Energy Extension Service, and the Woodbury Public Library.

Cooperation with many corporations, dealers, and civic agencies has been important. Without this, the tiny Connecticut staff could never have reached so many clients during the past 5 years. Not only are meeting places made available at no cost, but materials are provided for demonstrations either at meetings or advertised on television shows. The varied aspects of teaching people how to obtain and use wood for fuel has brought Cooperative Extension favorably to the attention of thousands of people.

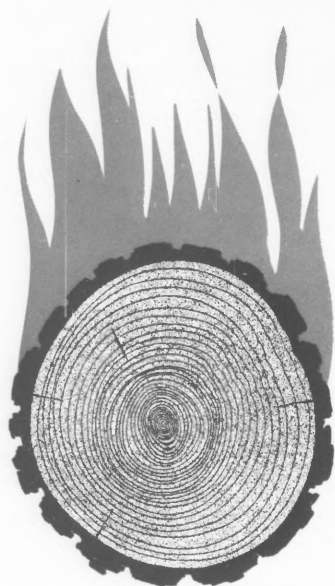
The energy agents and state specialists keep in touch with manufacturers and sellers of stoves and furnaces. These merchants want a good safety record for their wares, not only for their own sake but to reduce the likelihood of more restrictive government regulations. In any case, they feel that prevention of trouble through education is better than trying to legislate safety. Regulatory officials are highly involved with the Extension workshops and lectures, both as learners and contributors.

What portion of the energy agent's time is devoted to teaching the use of wood for fuel? A small part, and no precise statistics are available. Connecticut does not have a specialist or field worker assigned full time to wood as a fuel. There are now six energy field agents at five locations, and an energy leader at Storrs. The program's effectiveness has been a product of alert young agents, substantial on-the-job training, individual initiative, and cooperation with many agencies and organizations.

Paul Signore, an urban agent, categorizes clientele mostly into two types: those who cannot or will not do anything for themselves other than acquire facts, and the do-it-yourself ones who want to accomplish with their own hands. Both types are accommodated in meetings or other contacts.

Valuable Exchange of Ideas

Connie Lawler, an agent in rural Litchfield County, surveyed 500 clients in 1980 and found that 35 percent used woodstoves—an increase of 13 percent over the previous year. Another agent found that rural people more often have unsafe installations than do urban people. Extension education is clearly needed they say.



Energy agents cross county lines at will, as they think statewide and help each other. Agents ask each other to present a program or one aspect of a program. All work with the state program leader at Storrs, Bruce Wilbur. Each agent has much latitude to develop programs according to local needs and her or his aptitudes or interests.

Bill Duesing and Paul Signore refer to their meetings as seminars—they find that others like to contribute information and experiences. They teach techniques of maintenance, about equipment, and the many do's and don'ts. When they hold seminars in places of business, the dealers know in advance that they will talk about their equipment from an unbiased viewpoint, and may point out deficiencies as well as advantages.

Most requests for wood-burning educational sessions are routed to the energy associates. They note that emphasis is changing from basic woodstoves to either more elegant and expensive stoves or to wood-burning furnaces for central heating.

This trend is supported by the sale of 50,000 copies of *Wood Furnaces and Boilers*, printed by the Northeast Regional Agricultural Engineering Service.

Interest in burning wood and Extension's training and teaching sessions has attracted space and time in the media. When the city of Groton announced a meeting for fire fighters for a number of towns, the media promoted and covered it as important news. Although CES announces meetings, the press comes to the agents more than in other fields, reports energy agent Duncan Bailey.

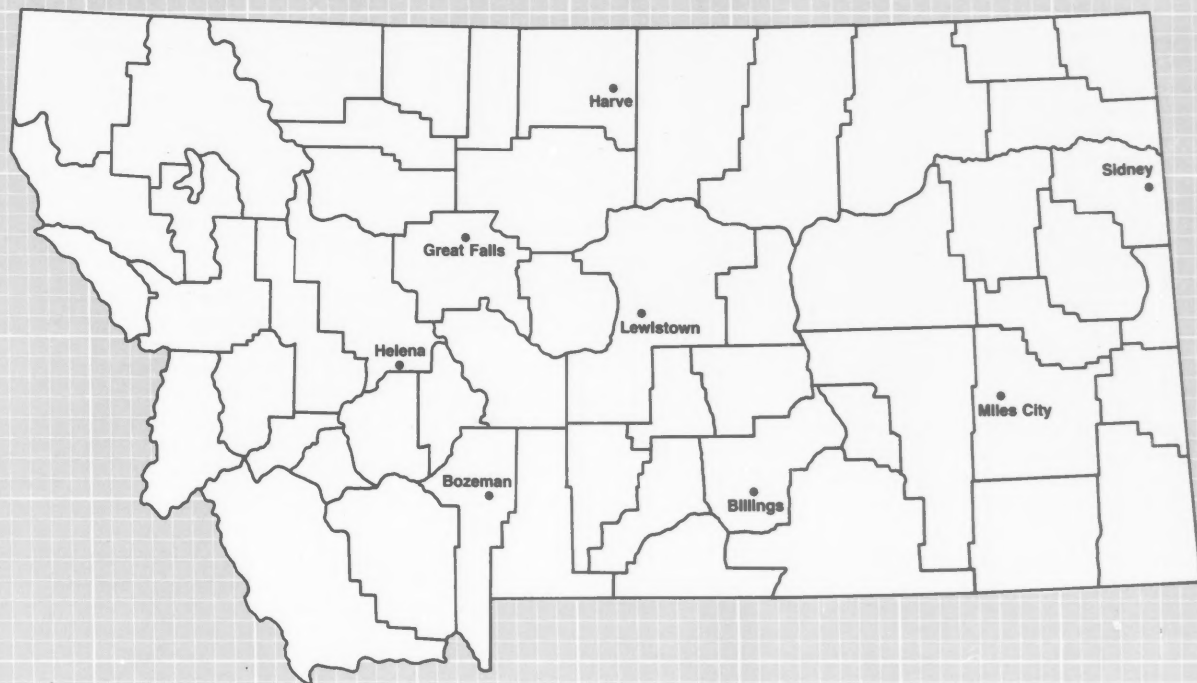
Television has been helpful. Programs about wood burning have been on cable and on three commercial stations, usually with John Bartok as chief advisor. A cable station carried a complete do-it-yourself segment to take people through every step of wood stove installation for safety. Connecticut's largest commercial TV station carried a presentation as a serialized segment.

Some of the informational literature from the program is duplicated by others; and Energy Outreach provides large quantities of printed information to the public. A stove installation checklist, for example, is routinely distributed by fire departments to all who ask about permits for installing stoves. Fire departments and fire marshalls have come to rely on Cooperative Extension for unbiased, practical information.

The information-spreading circles on wood-burning programs continue to expand. ■

A Quicker Way to Plan the Land

Greg Northcutt
Experiment Station Editor
Montana State University



Imagine dividing the entire state of Montana into 18,000 adjoining blocks of land, each covering eight square miles. Describe the land resources of each block in terms of 20 different characteristics, such as soil types and vegetation, dates of first and last freezes, growing season precipitation, and annual water use. Now you have some idea of the vast amount of information compiled on Montana's land resources.

It's the kind of information needed to manage land for its most productive use—whether it's growing crops, constructing highways, or building housing developments, and it's all been filed neatly away in computers. The trick is to pull out just the information needed to solve quickly a particular land management problem.

Jerry Nielsen, a soils scientist with the Montana Agricultural Experiment Station, and Bill Schafer, a soils specialist with the Montana Cooperative Extension Service, are teaming up to tackle that task.

Delivering the Data

"Soil inventory information like that provided by soil surveys, is the single most useful source to properly manage land," says Nielsen. "But it isn't enough. The job also involves other resources—geology, climate, vegetation, and wildlife. All interact and must be identified and evaluated. The computer can do this, by comparing thousands of bits of information gathered from all over the state. And it can do the job in a fraction of the time we can by hand using tables, calculators, and map overlays."

Nielsen says that many profitable land use alternatives are slipping by. The information has been collected, says Nielsen, but it is just not in a readily available form.

He says the increasing competition among states for water is one example.

"Some areas of the country, claiming they need more water, boast of how much wheat they can produce per acre of land," he says. "But, in terms of the amount of water required per bushel, few states can match Montana's efficiency. Once Montana farmers get a crop up, they can produce seven bushels of wheat per

acre-inch of water. By contrast, a differing climate limits Kansas wheat farmers to producing only about half as much with the same amount of water. Those in New Mexico, Arizona, and California produce even less wheat per unit of water.

"Our job is to deliver information such as this to those in Montana who manage the land so they can use it to the most productive advantage," Nielsen adds.

Working with AGNET

Nielsen would like to work with various federal and state agencies to develop this computerized delivery of land resource information. One idea is to utilize the AGNET computer programs which are available through county Extension agents.

"Let's say a farmer is considering planting safflower for the first time," Nielsen explains. "He could use an AGNET program, such as FLEX-CROP, to compare the soil and climate of his area with that needed to successfully grow safflower. In a matter of minutes, he could determine if safflower offered a reasonable profit potential."

"That's where soils specialist Schafer comes in. He's designing computer programs to provide such land management decisionmaking information in a fast, easy-to-use manner.

"We want to develop programs that will enable farmers, civil engineers, urban planners, and others who need the information to get it through AGNET," says Schafer. "Once the programming is perfected, there are many practical applications."

For example, Schafer notes that researchers have already used the computer to map areas of the state where, because of certain land resources characteristics, summer fallow doesn't pay.

In addition, the computer was used to select the site of the Western Triangle Agricultural Research Center near Conrad. Analysis revealed this particular location to represent a large part of this area of the state in terms of soil and climate.

Other Possibilities

"We've also prepared computer maps depicting those areas in the state that have growing conditions similar to the Experiment Station's farm near Bozeman as well as the seven Research Centers throughout the state," Schafer adds. "This can help farmers more accurately apply research results to their own situations. And, we could use the computer to generate similar maps for the state showing where certain crops are best suited."

A Quicker Way to Plan the Land

Other decisionmaking possibilities involving such land resource information include recropping, fertilizing, and weed control management.

Schafer notes one other. "Because of increased housing development, county planners in the Flathead River Basin are concerned with on-site waste disposal areas," he says. "The computer could aid in designing and locating septic tanks in this area by analyzing information on soil permeability along with other factors affecting soil drainage and water quality."

Nevertheless, despite the potential, the proof of this approach to delivering land resource information will come with the actual computer programs. And those, says Schafer, should be completed this year. (Editors Note: Reprinted from the Winter 1980 issue of *Focus on Montana Agriculture*.) ■

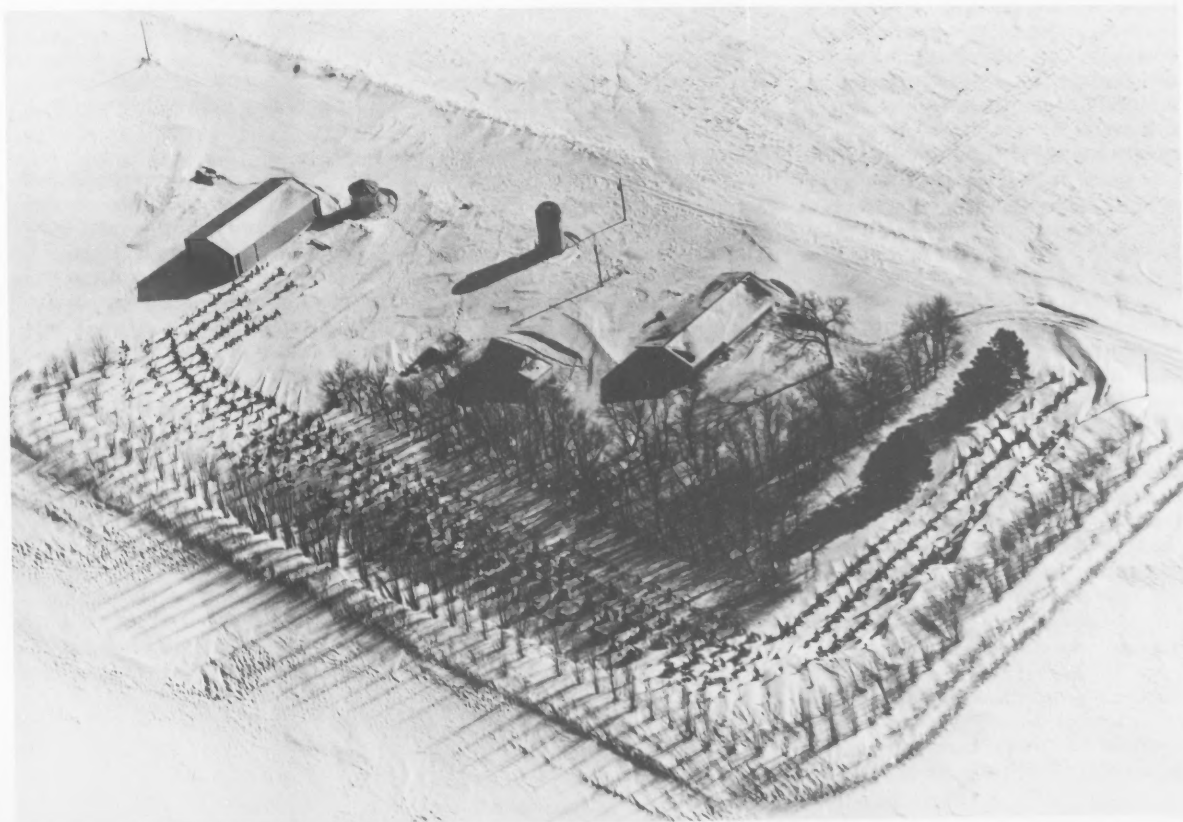
Gail McClure
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Shelterbelts— Wooded Islands of Wildlife

Birds and other wildlife are important symbols of relief to farm families who spend week after week looking at the silent, barren landscape of a Minnesota winter.

"That's one reason it's important to manage wildlife populations properly in rural areas," says Richard Yahner, a wildlife scientist who studies avian and mammalian

Right: This farmstead, unprotected from the elements, leaves a barren winter environment. A shelterbelt, below, protects the farmstead from wind, dust, snow, and cold, and may reduce energy bills by as much as 30 percent if properly designed and maintained. The trees and other plants also attract beneficial birds and small animals, creating a more pleasant winter landscape.



populations in shelterbelts, which are wooded areas planted around a farm to protect buildings and livestock from the weather.

"Wildlife management has to be done within the economic constraints of farmers. A farmer can't just turn productive land over to wildlife," says Harold Scholten, who does forest research and Extension work with shelterbelts and field windbreaks throughout Minnesota.

Yahner agrees. "Basically, we're talking about a whole new environment on today's farms," he says. "Wildlife habitats have been fragmented in recent years with intensive agriculture, and windbreaks and shelterbelts have become wooded 'islands' surrounded by extensive fields of crops, pastures, and natural prairies. These islands provide food and shelter for many birds and mammal species. My research is attempting to gather base-line information on the ecology and management of wildlife communities associated with these man-made woodlands."

Saving Wildlife and Energy

"It's true about the new environment," Scholten says. "Most of the windbreaks and some of the shelterbelts were first planted immediately after the Dust Bowl of 1934 to prevent soil loss."

Researchers now face the challenge of how to best design and manage these established windbreaks and shelterbelts by thinning, pruning, and replacement.

Ideally, a properly planted and maintained shelterbelt can last 70 years or more. It can protect livestock and farm buildings from wind, dust, snow, and cold, and reduce energy bills by as much as 30 percent. It can also provide adequate cover and food for a delicately balanced wildlife community. However, a poor shelterbelt can create many headaches for a landowner. Research is under way to identify and test the best species and strains of trees and shrubs for use in shelterbelts and windbreaks.

The Agricultural Experiment Station, the Soil Conservation Service (SCS), the Plant Material Center in Bismarck, North Dakota, the Agricultural Extension Service, and the College of Forestry are working together on this project.

"We're doing this through known seed sources so that results can be identified and duplicated," says Scholten. "We're looking for good replacement trees, and we have one that shows a lot of promise—the Siberian larch which is hardy, disease resistant, and grows well in alkaline soils. It seems to be developing as a good alternative to hardwoods for field windbreaks and for use in farmstead shelterbelts."

New Growing Methods

The process of testing and recommending new varieties will take at least 10 years, researchers say. At the same time they are looking at more efficient methods of handling nursery stock. Often, hardwood trees were preferred because they grew faster and could be planted as year-old, bareroot seedlings. Conifers had to be transplanted and they were 3 to 4 years old before they could be planted permanently. Even then, it often took conifers a number of years to show substantial growth.

Now, research is finding another way. Conifers are grown in containers in greenhouses. Researchers plant seeds in January and in August. They set the seedlings outside to harden off. The seedlings go through several light frosts in the fall, then they are covered with wood shavings during the winter. In the spring, they are planted in the field.

In a SCS belt of two rows of ponderosa pine at one experimental plot, one row was transplants and the other row was container seedlings grown in 6-inch pots. After 7 years, the transplants averaged three feet tall and had many blanks or missing trees. The container-grown pines had a survival rate of more than 90 percent, and were about 10 feet tall.

New Design Needed

One of the greatest needs says, Scholten, is a better shelterbelt design.

The standard eight-row shelterbelt has a row of dense shrubs on the side of the prevailing winds, followed by a row of tall shrubs or medium-size trees. Rows 3 and 4 are usually tall deciduous trees, and rows 5 and 6 are tall conifers. Rows 7 and 8, those closest to the farmstead, are usually shorter, denser conifers.

"I don't know what the perfect design would be, I just know we haven't found it yet," Scholten says. "What's good in one situation is not always best in another."

For Yahner, one essential design characteristic would be for a shelterbelt to have a complex vegetative structure where birds can feed and

roost. It would have a herbaceous lower layer, middle or understory growth, and a canopy overstory. Tall deciduous trees, such as green ash and poplars, are important to warbling vireos, northern orioles, and other songbirds. Conifers, particularly spruce, are ideal nesting sites for robins and doves. Shrubs like honeysuckle and viburnum afford cover and food for pheasants, dark-eyed juncos, and gray catbirds, to name a few.

Proper Spacing Essential

Space is the design element that most concerns the two researchers. "Within rows of trees, there is always a tendency to plant too close," Scholten says. The sooner the lower branches of adjacent trees begin to touch, the earlier the farmer gets protection from wind and snow. However, it is not long before touching becomes crowding. Crowding causes the lower branches to die from shading, which eventually self-prunes the tree, causing the shelterbelt to lose much of its value.

Scholten recommends that trees in a well-established shelterbelt be 16 to 20 feet apart and staggered from row to row so gaps fill in as the trees grow.

In older shelterbelts, where crowding has occurred, it's often necessary to remove trees within rows or entire rows of trees to achieve the desired spacing. However, farmers often leave a few dead trees as foraging and nesting sites for insect-eating birds such as woodpeckers and chickadees.

Forest research has shown that, if space is limited, it is better to reduce the number of rows than to crowd trees. Also, it appears that the extent of the perimeter is more important than the width of the belt for attracting wildlife. If two shelterbelts are of equal area, a long narrow one appears to be more beneficial to wildlife than a shorter, wider one.

Scholten also advises farmers to "allow an interval between rows of at least 4 or 5 feet greater than the width of the cultivating equipment." Since shelterbelts require careful cultivation to get established, allowing space for equipment is essential.

A Delicate Balance

Animals can present problems in establishing shelterbelts. Unless fenced out, livestock can defoliate and break off young trees. Rodents sometimes gnaw off the roots of conifers. Jack rabbits are troublesome in southwestern and western Minnesota, where they have been known to snip off or debark young trees.

"But don't try to eradicate the small mammals in a shelterbelt," Yahner cautions. "It's easy to adversely affect the avian population too. The two are held in a delicate balance."

He explains that eliminating small mammals such as voles from a shelterbelt may remove a major food source for fox and weasel. These predators might then feed on birds and their young. One aspect of Yahner's research is to examine the nesting success of birds in relation to predator and small mammal density.

Yahner says that small mammals found in shelterbelts, such as white-footed mice, meadow voles, and shrews, are adapted to natural habitats and seldom venture into farm buildings and cause damage.

The house mouse, on the other hand, inhabits farm buildings and consumes stored grain regardless of the presence of a shelterbelt.

Scholten says that when he recommends mulching young shelterbelt plantings with ground corncobs, farmers are often hesitant for fear of attracting mice. "But I see no evidence that cobs attract mice if weeds and grass are controlled and the belt is properly cultivated," he adds.

Yahner and Scholten recommend frequent cultivation between rows of a shelterbelt until the trees and shrubs are well established.

They say that family vegetable gardens and row crops such as sweet corn can be grown between the rows of trees, and suggest leaving some cornstalks and excess corn standing during the winter for wildlife food and cover.

Although he says that careful cultivation is a must in the beginning, Yahner adds that farmers should not continue to mow beneficial wildlife cover once the planting is established. He also suggests that corn, sunflowers, or sorghum be grown adjacent to mature shelterbelts and that several rows be unharvested. "It's one of the ways farmers can return some of the food and shelter that have been taken from wildlife," he says.

During meetings with constituent groups around the state, University officials learned that farm families wanted help in managing wooded areas. Their request was taken forward and funded by the legislature. Today Yahner's research is beginning to amass useful knowledge that can benefit wildlife on Minnesota's farms. (Editor's Note: Reprinted from the Winter 1981 issue of *Minnesota Science*.) ■

Natural Resources 4-H— New York's Experience

The 1970's was a decade of environmental awakening for Americans. And nowhere is this more evident than in 4-H. Over the last 10 years, we've seen the awakening of a giant—a giant reservoir of enthusiastic interest in Natural Resources 4-H programs among both youth members and adult volunteer leaders.

4-H In Century III recognizes the potential of such programs, recommending that "the 4-H environmental improvement program must have high priority and resource allocation must be commensurate with the needs." This recommendation should lead to the attainment of many Century III objectives for 4-H nationwide, including a 100-percent increase in volunteer leaders. Our optimism stems from our experience with the Natural Resources Youth Program in New York.

New York's Program

During the 1970's, the Natural Resources Youth Program in New York underwent many marked changes. It was transformed from a fragmented and poorly serviced programs into a series of program areas having defined objectives. A philosophy was developed early on.

Much of our energy was first spent producing essential materials in environmental education, fisheries, wildlife, forestry, and recreation. We attempted to make these new materials both scientifically sound and challenging to youth.

A major thrust of the new program was aimed toward two low participation audiences for 4-H in New York—teenagers and males, both leaders and youth. We used the "introduction" of our new materials to initiate contacts with county staff and volunteer leaders.



As the basic elements of the program were put into place, our attention shifted to program implementation through leader training, teen leadership development, establishment of county program development committees, and an overall 4-H agent advisory committee. The results were rewarding. Youth participation increased dramatically during the decade, although overall 4-H enrollment in New York showed a slight decline over the same period. However, enrollment for our program grew from about 10,000 youth annually in the early 1970's to over 60,000 youth by the end of the decade.

4-H Agent Survey

This skyrocketing youth involvement in 4-H Natural Resources programs caused 4-H agents to seek additional programming assistance and educational materials. As the long-

Birdwatching, or "birding" as many aficionados call it, is as relaxing and interesting for kids as it is for adults.

term programming and budgetary implications of meeting this burgeoning demand became clear, our 4-H agent advisory committee requested guidance through a formal polling of their peers. Consequently, we developed a mail questionnaire to obtain 4-H agents' evaluation of current programs and their preferences for future programming in Natural Resources. The survey was conducted among all 63 county 4-H agriculture agents statewide and was completed in early 1980; 81 percent responded.

What's in store for the Natural Resources 4-H program in the 1980's? Ninety percent of the agents foresee youth participation increas-



Ice fishing is the stuff of which childhood memories are made. A young man gets some pointers from a 4-H volunteer on the fine art of catching fish from an icy lake.

ing in Natural Resources 4-H projects. Nearly three-quarters expect the same trend in volunteer leader participation.

The agents' participation predictions are heartening, but what is the overall priority they place on Natural Resources compared to the many other 4-H programs offered by Cooperative Extension in New York? We asked agents to rank agricultural program areas according to the priority they believe these should have for program support through the 1980's. Natural Resources was ranked second only to energy conservation programs.

Problems and Potentials

The motto "more with less" echoes our situation regarding Natural Resources 4-H programming. Limited budget appropriations combined with double-digit inflation make it difficult to maintain current programming efforts. Expanding programs by using existing Extension funds is nearly impossible, regardless of the documented demand for particular programs. Given this condition, it would be easy to view the mushrooming demand for Natural Resources 4-H programs as a problem rather than as an opportunity to reach a larger audience with our youth development mission.

But, such a pessimistic view is unwarranted. While it's clear that the traditional approach of taking our needs to our administrators will have to be abandoned, we've found that there are many opportunities to expand. The potential for acquiring outside support from natural resource management agencies and private organizations is vast.

In New York we have worked with the U.S. Fish and Wildlife Service (USFWS) and the New York State Department of Environmental Conservation (NYSDEC) in developing Extension program materials on a contractual basis. We have received grants from private foundations to maintain and accelerate ongoing programs. We also have received support from a whole host of commercial firms, often in the form of technical expertise or equipment for specific programs.

Cooperative youth program efforts have been undertaken with NYSDEC and New York Sea Grant. These agencies are committed to developing environmental awareness in youth, but like Extension they have budget limitations. By combining efforts we increase our efficiency and accomplish mutual educational objectives which would be impossible individually.

Cooperative Efforts

One example of how we've meshed Extension programming interests with those of other organizations is the development of a regional education program on predation and northeastern birds of prey for the USFWS. Under contract with USFWS, we prepared two major Extension bulletins (one a 4-H Activity Leaders' Guide) and two slide/tape sets. Several private organizations assisted by providing slides and reviewing manuscripts. The NYSDEC also cooperated by providing color paintings of hawks and owls.

Another recent effort was a joint venture between Extension, NYSDEC, and New York Sea Grant. As part of our 4-H fisheries program, we prepared a "Guide to the Freshwater Fishes of New York." Early in the conceptualization of this 144-page field guide and identification key, we envisioned its potential

use by NYSDEC and Sea Grant. These organizations enthusiastically cooperated in the project by providing information, reviewing manuscripts, and underwriting initial publication costs. Additionally, a private foundation contributed funds for illustrations in the guide. Now, 1 year after its release, over 6,500 people are using the guide and learning more about our freshwater fishery resources.

A private foundation also has supported our wildlife program through a separate small grant. With this money we are producing a series of circulars about "New York's Wildlife Resources" and using these as a basic information resource for the wildlife management portion of our 4-H Shooting Sports Program. The *New York Sportsman* magazine has cooperated by running summaries of these under a special column, "Notes on New York's Wildlife," giving the effort even greater impact statewide. The National 4-H Council has also helped in our wildlife program by supporting an effort to compile, index, and annotate current wildlife Extension/public information literature.

Outlook

4-H programs in any subject area have potential for making significant progress toward meeting Extension's 4-H youth development goals for the 1980's. We see our greatest potential in youths' and leaders' widespread interest in Natural Resources programs. Perhaps our experience in responding to this growing audience can assist others as we all strive to meet documented educational needs with quality programming. ■

A Tale of Two States

Penny M. Frey
Assistant Editor
Vermont Agricultural Experiment Station

An article in the Spring 1979 issue of *Extension Review* sparked the beginning of a two-state, multi-media nutrition education project between Vermont and Nevada.

Barbara Gunn, Nevada state Extension specialist for health education, read in *Extension Review* that nutrition materials from a Vermont project were available. She then called Karin Kristiansson, the Vermont Extension multi-media specialist. Gunn was writing a grant proposal and wanted to use the materials as part of a nutrition education project to reach food stamp families.

Kristiansson, meanwhile, had teamed up with Aline Coffey, Vermont Extension specialist in foods and nutrition, to write a proposal for a project to develop and test new nutrition materials geared toward low-income consumers. Using a multi-media approach with television, newsletters, direct teaching, and telephone aides, their goal was to reach large numbers of food stamp recipients and find out which teaching methods were most effective and least expensive.

Gunn, Kristiansson, and Coffey decided to pool their ideas, resources, and expertise to try a daring new approach to the project—a cooperative venture between two vastly different states almost a continent apart. If the project were funded by SEA-Extension, it would give the codirectors a chance to find out if urban (Las Vegas, Nevada) low-income consumers differ from rural (Vermont) consumers when it comes to understanding and using nutrition information. It would be like conducting two projects without the double cost.

The people at SEA-Extension agreed to fund the project, called "Good Food—Good Times." Work began immediately with Kristiansson and Coffey in Vermont developing newsletters and television programs for both states. Evelyn Johnson, SEA-Extension, served as project liaison.

The Project

An important feature of the project, says Kristiansson, was that all materials and letters sent to participants were personalized. Because Aline Coffey was a familiar face and name to some 100,000 Vermont viewers of the popular daily Extension television show, "Across the Fence," her name appeared on all direct mail information.

In Las Vegas, the 15-minute television segments produced in Vermont were expanded to 30-minute shows by Jack Wise, Extension communications specialist, who added local resource persons to regionalize and personalize the programs. The codirectors say this helped make the participants in both states feel good about being part of the project.

Who were the participants? They were several thousand food stamp families living in either urban Las Vegas or rural areas of Vermont. Their circumstances were varied. Some were single mothers with young children, some elderly couples. Some lived in trailer parks, others in housing developments, and still others in mountain cabins. What they shared was their need for information about feeding their families nutritious meals on a budget.

Working with the state food stamp office in Vermont, Kristiansson sent out 17,000 program announcements to food stamp families, inviting them to join the Good Food-Good Times program. In Nevada Paige Keeter, project manager, sent out 7,000 invitations through food stamp offices,

working closely with Emma Yancy, Clark County EFNEP coordinator, who was instrumental in enrolling the Nevada participants.

Enrollment cards immediately started pouring in from more than 6,000 people in the two states. Pre-tests were sent out, and in Vermont nearly 3,000 people took the pre-tests and formally enrolled in the project. In Nevada, nearly 700 enrolled.

The participants were divided randomly into three educational system groups and a control group. The systems were set up to check the effectiveness and costs of various multi-media combinations for teaching nutrition information. Once each week, participants in SYSTEM 1 watched television programs, received weekly newsletters, and talked to a nutrition aide on the telephone once a week to discuss their questions or successes.

In SYSTEM 2, participants were exposed to the same television programs and weekly newsletters, but had no contact with a nutrition aide.

Participants in SYSTEM 3, were taught the same information directly by a nutrition aide, either in the participant's home or in a small group setting in the community. This last system is the traditional EFNEP method of teaching.

However, the project was geared more toward multi-media approaches to information than it was geared to just *nutrition information*. The co-directors were looking for more efficient and less costly ways to get needed information to consumers. They also wanted to find out how many participants actually changed their eating and

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COUPON

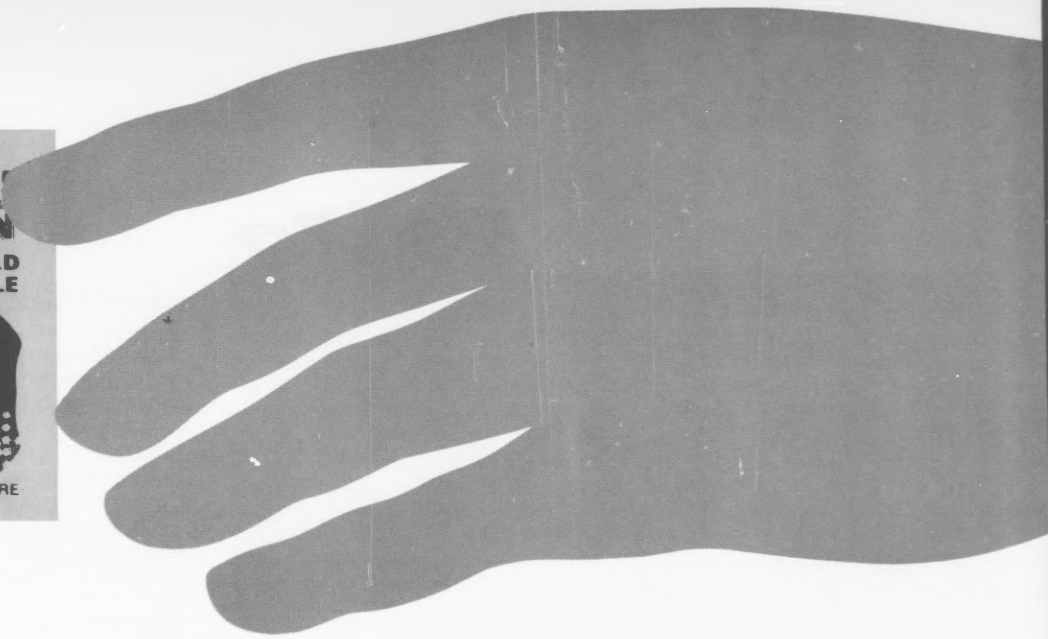
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food preparation and shopping behavior as a result of the program. Did the participants feed their families less sugar, more protein, and generally more nourishing meals?

The material covered in the newsletters was geared toward low-income food budgets. It included lessons on how food affects our lives, how to save money when shopping and cooking, how to cut calories, and how to get the most protein, vitamins, and minerals in the diet for the least money.

Results

The results of the project, after much evaluation, confirmed a few of the project directors' beliefs. A comprehensive evaluation system, designed by Robert Honnold, associate director of the Extension Service in Vermont, made extensive use of computer technology.

Working with Charles Bigalow, coordinator of computer services, and John Aleong, Vermont Agricultural Experiment Station statistician, Kristiansson was able to evaluate and assess many variables of the project, such as where the participants lived (urban or rural), their ages and education levels, and the effectiveness of the various teaching approaches.

The project results showed that one-to-one instruction or small group instruction conducted by teaching aides—the traditional EFNEP way of reaching food stamp recipients—is indeed a very effective way of teaching nutrition principles. Unfortunately, because of travel costs, aide time spent traveling, and the relatively small client load per aide, it's also the most expensive method of teaching.



Every system in the project showed positive results in learning and changes in participants' nutrition behavior. The winner of the cost-effectiveness race was the combination of the weekly television shows and the direct mail newsletters—SYSTEM 2. SYSTEM 2 included no personal contact by aides, thus its costs per participant family were low.

SYSTEM 1, which included television, newsletters, and telephone aide contact, also had significant learning, but the costs for this system were higher than for SYSTEM 2 (although not as high as for the direct teaching—SYSTEM 3).

Kristiansson points out, however, that every information program would be different and should be tailored for the needs of the consumers. If, for instance, personal contact is necessary, telephone aides can reach consumers for lower cost and more efficiently than direct teaching aides who visit the home. In the Good Food-Good Times project, full-time telephone aides were able to contact between 135 and 180 participants on a regular basis, as compared to between 35 and 55 participants per direct teaching aide.

The Vermont-Nevada project co-directors are proud of the excellent data for evaluation they have collected that will be helpful to people developing similar projects. But they are also proud of the human results of their two-state venture.

One of the results of the project was that the Good Food-Good Times materials opened the door to Extension for many food stamp users. When asked at the end of the project whether they had received nutrition information from other sources before the project began, only a little more than one third of all participants in both states said they had. Of those, less than 9 percent had received it from Extension. So the doors were opened for this often difficult-to-reach audience.

An astounding 95 percent of the participants said they would like to continue in the project if it were extended. In fact, 2,600 enrolled in a continuing EFNEP nutrition education project in Vermont after Good Food-Good Times ended. In addition to the immediate help the food stamps were providing for their families, the participants were grateful for the nutrition information, which made them better consumers and better cooks in the long run. They said these were valuable lifetime skills.

Some participants had never been taught to cook certain meats or vegetables and had no confidence in their abilities to feed their families on the food stamp budget. One husband was delighted because his wife had actually cooked a turkey—her first one. He told the nutrition aide, "... this program has helped her out a lot ... she did a good job ... I think the program is helping a lot of people who don't know about nutrition with nobody else to teach them."

Another participant learned about consumerism for her large family. She reported, "I was always buying whatever was on the shelf without checking what was put into the stuff ... I learned different things about the vitamins and protein that to me were just automatically there."

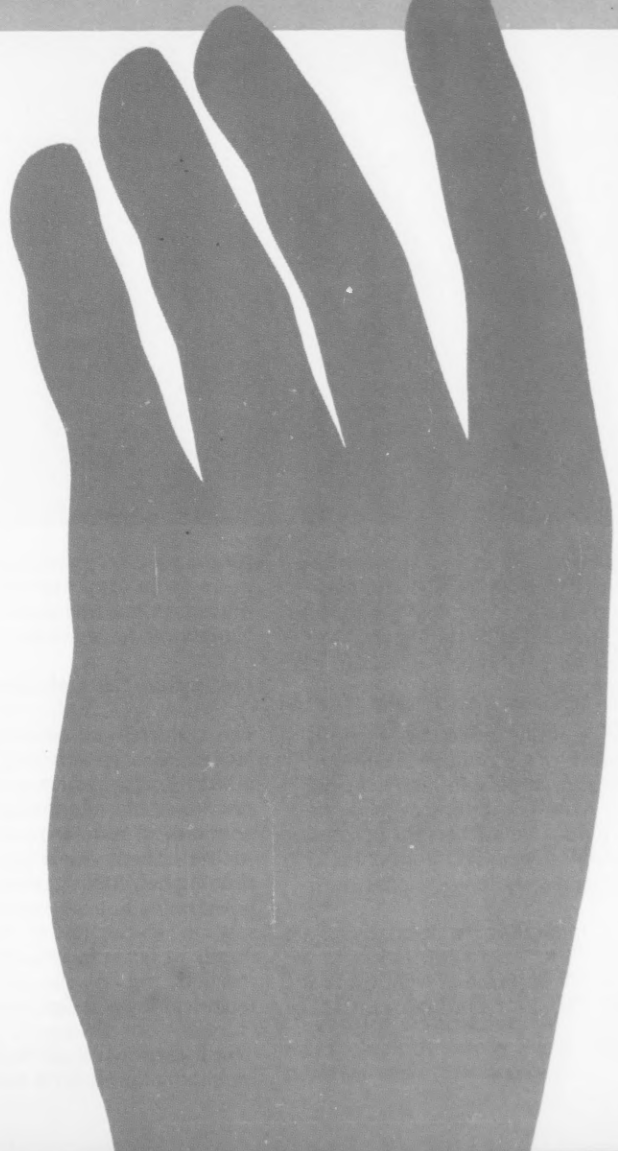
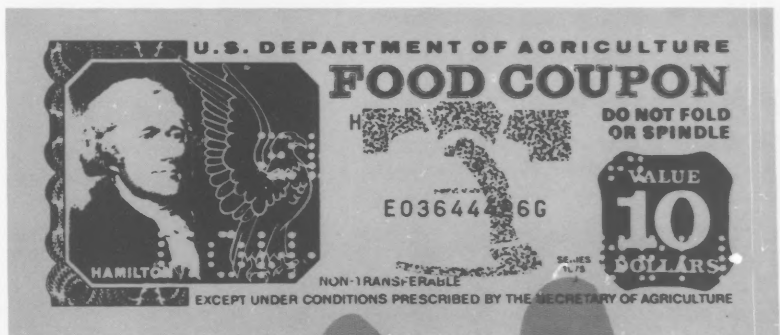
The motto of the program, according to Kristiansson and Coffey, was "Plan better, shop better, eat better, live better," and the far-reaching effects of this attitude extended beyond the 3,000 participants who were part of it. Depending on the system they were in, between 73 and 92 percent of the participants said they had discussed the Good Food-Good Times nutrition information with at least one other relative, neighbor, or friend.

Gunn reports that the two-state cooperation was good right from the beginning. "Nevada has a small, but hardworking, energetic, and creative staff," she said. "How nice it was to have access to the production and evaluation capabilities of Vermont."

Vermont co-director Aline Coffey says, "The Good Food-Good Times project has been an exciting and positive experience. It has provided an ideal opportunity for the Food Stamp Program and Cooperative Extension to work together toward a common goal."

Perhaps the project was best summed up by a participant who said the Good Food-Good Times program had given her a feeling of hope. "Because of your concern," she told an aide, "your phone calls, I'm doing a much better job of feeding my family and doing it as a labor of love now."

(Editor's Note: This article is a reprint of Vermont Agricultural Experiment Station Journal Article 459. The 56-page project report, *Cost Effectiveness of Three Nutrition Education Delivery Systems*, is available from Karin Kristiansson, 205 Morrill Hall, University of Vermont, Burlington, Vermont 05405.) ■



A Beginning for Young Farm Families

Paul Gwin and Jim Shaner
Information Specialists
University of Missouri



Politicians, educators, economists, ecologists, sociologists, and agriculturalists are all busy describing the problem of declining numbers of family farms. But few appear to have solutions.

Many people agree tax reform is needed to discourage business, professional people, and corporations from competing with farmers and would-be farmers for possession of land. However, changing tax laws is often a very lengthy process.

In the meantime, what programs are available to help keep farmland in the hands of farmers? Minnesota and North Dakota have loan assistance

programs to help young couples acquire farms. The Farmers Home Administration (FmHA) and Federal Land Bank have similar programs.

Motivation Through Education

The University of Missouri (UM) Extension Service is taking an educational approach to help beginners meet the technological and economical requirements for success. This knowledge, in turn, is proving helpful in getting young farmers loans from conventional sources. Regardless of the developments in tax reforms and loan markets, the couples will need the technical knowledge to succeed.

"The only way we can halt the trend (declining family farm numbers) is to

Karen and Fred Meyers, Jr., of Maywood, are typical of the many couples participating in the Extension Family Farm Development Program. This site, their third farm, has 36 more acres suitable for farming as well as more quarter-mile rows now that bulldozing work is complete. Program help came from specialists in interior design, horticulture, and livestock and agricultural engineering.

somehow get more young farm couples started in farming," says Tom Brown, an Ozarkian who is UM interim dean for Agricultural Extension.

In the Missouri Family Farm Development Program, the County Extension Council appoints a Family Farm Advisory Committee that helps



Left: Judy Weston "supervises" 90 sows, with 200 pigs in farrowing and 240 more in the nursery. They wean at 4 weeks and market at 40 or 50 pounds.



In their second career, Floyd and Judy Weston of LaMonte, worked closely with Dale Hagerman, (right), family farm development specialist, to "cost out" a new farrowing house. Hagerman's figures not only proved to the Westons that the confinement units would pay, but he helped them prove it to the lender.

an area Extension family farm specialist locate young couples in their county who can benefit from the program.

Missouri's 114 counties are divided into 21 areas with Extension specialists assigned to each. Eight of the areas have a family farm specialist, and plans call for other areas to have them soon.

The types of assistance given by advisory committees vary from county to county. One committee is arranging a series of workshops with sponsored lunches and taking the responsibility of getting young couples to the classes. The committees

often get help from bankers, PCAs, FmHA, and others in locating prospective student couples and sponsoring meetings for clients.

Family farm specialists get lots of help from the other agriculture, home economics, and youth specialists. The other specialists use their expertise to help teach short course subjects and assist the young couples with problems. The family farm specialist is the contact person who puts other specialists in touch with couples who need their help.

Educating Educators.

A train-the-trainer approach was followed in preparing the Missouri Extension staff for the Family Farm Development Program.

First a 2-year pilot program was conducted in five areas, starting in 1977. A state Family Farm Committee was formed with an Extension specialist representing each department in the Colleges of Agriculture and Home Economics, Extension Information and 4-H programs, and two specialists representing the field staff.

The state committee, guided by the pilot project, prepared a workbook that could be used to compare wide ranges of farming alternatives. They also prepared a manual outlining steps to take in a county to organize a Family Farm Program and do the teaching.

The preliminary teaching material was tested on the state specialists at a 2-day training session in 1979, held away from the campus in a rural area. Data and maps on a case study farm were sent to specialists in advance of the training meeting.

The first morning was devoted to touring the case study farm, meeting the farm couple, and becoming acquainted with their goals and operation. The rest of the seminar was held at a local motel.

After learning more about the family's financial situation, the specialists divided into teams. Each team was given a different problem.

For example, Team 1 was instructed to develop plans and budgets for a beef cattle system with a complementary poultry enterprise. Other teams were to feature cost and profit potentials with hogs, dairy, and grain as major enterprises.

Variations in plans for other things such as remodeling the old house or building a new one, and the wife keeping her job or contributing full time to the farm labor force, were included for comparison. All teams had to include family living and business cash flow accounts.



Teams worked on their plans through the afternoon and evening, then presented their results to the group the following morning. A specialist in each enterprise had to report on the farm's potentials in his or her subject matter area. The farm couples were guests at a noon luncheon where selected specialists presented them with a summary of five alternative plans and their profit potentials. The same agenda was used the following year in training field staff at seven locations over the state.

New workbooks were prepared for staff to use in short courses and visits with farm couples. Experience with their practice session helped the state specialists design the forms, tables, and other teaching materials.

Information specialists and editors, who also attended the state workshop, helped to design the workbook and a Family Farm Development Handbook. The handbook was filled with reference information from each department to help family farm specialists answer questions and solve problems they were likely to encounter as they worked with young couples. Cash flow analysis, computer records,

Emmett McCord, (left), family farm development specialist, talks with Gail Marble and son David as they walk toward Marble's new dairy barn built last fall. The Marbles raise goats on their 20 acres near Purdy. An accountant working with farm loans, Marble learned recordkeeping and tax pointers from McCord.



Left: Emmett McCord and Jerry Carpenter, (right) area agriculture engineer, discuss prospects for McCord's farming operation as they inspect two of his goats.

long-and-short-term planning, and computer use are emphasized in the program.

A recent addition to the tools for field staff developed by the state is a teaching packet for "Developing Farm Businesses for the 80s." It provides materials for teaching couples the long-range planning steps in a short course setting and helps cut time needed for individual assistance, although a great deal of individual work with couples is still involved. For that reason, the goal is to graduate couples to regular Extension programs in roughly 2 years and move on to new couples.

New Generation Faces New Challenges

Tom Brown says, "The farmers that Extension helped get started 30 years ago—the ones we grew up with—are ready to retire or slow down, and not all of them have children who will take over. So we need to get a new generation of young couples started on these farms to stabilize our family farm agriculture.

"It isn't as easy for young couples to start today as it was when we helped a lot of them start small and grow into businesses in the 1940s and 50s," he adds. "They have to jump in at a big enough size to be competitive. This means lots of debt. Stress on such families is tremendous—a normal commercial farm has half a million dollars tied up in land, buildings, and equipment. Beginners are lucky to start with \$50,000 and they have to find a way to run that up to the \$500,000 figure in a few years."

Gail Imig, new associate dean for home economics Extension, says that the trend toward specialization in Extension work to keep abreast of rapid technological change had tended to separate us. This family farm approach has been bringing us back together. We all focus on families' needs, help where we can, and call on our colleagues when their specialty is the one required.

Young farmers, Gail adds, are building a business and a family at the same time. "Every decision to spend time or money affects every other phase of the business and every family member. It's time we pooled our expertise and considered effects of individual decisions on overall farm and family elements." ■

State Leader on the Move— Naurine McCormick

Betty Fleming
Communications and Family
Education Program Leader
Washington, D.C.



Top: Naurine McCormick, assistant director for home economics with the Cooperative Extension Service at Ohio State University, confers with R.M. Kottman, dean of the college of agriculture and Extension director at OSU. Bottom: McCormick testifies on behalf of home economics at a recent Congressional hearing on the new farm bill.



With 23 years of Extension work under her belt and a total of 32 years in the home economics profession, you might expect Naurine McCormick to slow down or display signs of the fashionable "burnout" condition. But she "wakes up excited everyday," she says.

Naurine McCormick's official title is Assistant Director for Home Economics with the Cooperative Extension Service of Ohio State University. As such, she is responsible for statewide home economics programming; the interviewing and the motivation of a state, area, and county home economics staff; liaison with the OSU School of Home Economics, and more.



But, over the years, she has become known not only for the excellence of her work at home, but for her effectiveness and leadership in working with other states on a regional and national basis. She has held top jobs in many key home economics-related organizations in her state and around the Nation.

But McCormick is not overly impressed with this leadership role. She feels her priority task is "getting county people ready to teach." It bothers her that her busy schedule doesn't permit her to see more actual county teaching situations so she can personally judge whether the help she and state specialists give is on target. But, she'll also tell you proudly that she still tries to average two county visits a week.

McCormick takes time to offer some hints on infant nutrition to a young mother.

"If a vacancy is coming up, I go to the area or county office to get updated on programs," McCormick says. "I talk to supervisors, look at candidates' credentials, participate in interviews."



McCormick discusses multi-media techniques with Gary Nugent (left), head of information and applied communications for Ohio CES and Dale McClarren, video editor. Opposite Page: McCormick discusses food and nutrition at a planning session with aides.

Roy M. Kottman, dean of the College of Agriculture and Home Economics and director of Extension, admires McCormick's ability to mix and work well with people at all levels, her drive to do things a better way, her skill in communicating the Extension story, and the way she "champions" the cause for home economics. "She always looks for the reason behind the reason," he says.

How much of her time does it take to keep the over 100 state, area, and county home economics positions filled? She laughs and says, "I remember one time in 1978 when all the positions were filled. It lasted overnight.

"The most important thing I think we can do," McCormick says, "is to hire good people and, then, turn them loose within the structure, making sure they have respect for the system."

Every county home economist must write an annual plan of work. OSU's ten area supervisors write brief summaries of those reports but McCormick makes sure she reads the original reports, too. "I write a half page of notes on each one which I offer to share with all supervisors. They usually take me up on the offer. This means a face-to-face conference." Close contact with county needs and concerns enables McCormick to direct department chairpersons and state specialists' attention to key problems.

McCormick also scans the many county newsletters that cross her desk. She shares items with state specialists. Frequently, she'll write a note to a county home economist, commenting on a particular

program. A copy of that note always goes to area supervisors. In addition, McCormick and the state staff do 10 newsletters each year for county staff. These include up-to-date subject matter information and a cover letter from McCormick.

Looking Back

McCormick's rise to the top of her profession wasn't easy, especially since she combined roles in the days when it wasn't fashionable. Her husband's work took the family to different locations. She moved, of course, but she saw to it that there was a good home economics job waiting when she got there.

One relocation was a move to Mille Lacs County, Minnesota. This was McCormick's first contact with Indian families and their needs. "When I took my son in a playpen to Indian food workshops, I was more accepted," she says, fondly remembering those days.

After 2 years in Mille Lacs County, McCormick returned to Minneapolis where she taught nutrition at the University of Minnesota.

In 1960, the family moved again—to North Dakota—where McCormick became chairman of Food and Nutrition, College of Home Economics, North Dakota State University. She was in that job one year when the assistant director of Family Living for Extension retired and she applied and was named to that position.

During her 5 years in North Dakota, McCormick continued working with Indian families. She recalls going to reservations and working out contracts with the Bureau of Indian Affairs and other organizations.

In 1965, McCormick moved to Ohio where she became the assistant director for Extension home economics at the Ohio State University.



How Do Others View Her?

Lena Bailey, associate director with the School of Home Economics at OSU says Naurine McCormick is supportive of academic programs in many ways. "She serves on our Executive Committee and reports on Extension work in Ohio and other states. She has a grassroots feeling for programs and audiences and often brings us research ideas. She is interested in students and is always on the lookout for good Extension talent. She stays on top of the political scene. This has impact on Extension, OSU, and the profession of home economics," Bailey says.

Margi Griffiths, an area agent and former county home economist, works closely with McCormick. "I've come to her with a number of ideas and she's always been receptive, ready to go after the funds and resources to do the job," says Margi. "We piloted an assertiveness leadership project for 18,000 homemakers. It took travel, design help, and a lot of agents' time—all costing money. Some administrative people were concerned about it at first. But Naurine backed us all the way. Eventually, every area participated and the project was successful."

"We just don't have a handle on this yet" is a phrase that McCormick often uses, according to Kathy Cox, 4-H assistant state leader. "She just doesn't accept defeat."

George Gist, Extension associate director for OSU says McCormick's efforts bring credit to the home economics program and to OSU. "She's a major factor in the fact we've got a good home economics program," he says.

Thoughts On The Future

Where are the new Extension state leaders going to come from for the 80's, the 90's, and beyond? McCormick is concerned about this. "The movement upward in this profession is hit or miss. Not all women survive life at the top."

McCormick feels positive about the future of Extension home economics but she sees problems, too. "As travel budgets get cut, state leaders can't get to meetings they need to attend. Some state leaders are looking to the deans of home economics for support instead of Extension directors. Survival in the system (getting promoted) is the chief pursuit for some. This means there's a wider gap between state staff and field staff."

Down the road, McCormick sees a day when state leaders in the regions will elect representatives to the ECOP-Home Economics Subcommittee, the national leadership group. Now, Extension directors appoint members.

McCormick proudly says she hasn't missed an AHEA (American Home Economics Association) meeting since 1964. Not only does she take pride in her role as associate director, School of Home Economics, OSU, she takes a personal interest in enrollment of home economics students. "Their parents, especially the more rural folks, expect us to look

after their young people," she says. "It's good PR for Extension, for OSU, and for home economics."

It concerns McCormick that many home economic students, even today, feel "inferior" to other students. "Ag Economics students can go into veterinary school. Why shouldn't a home economics student be able to go into medicine or law?" McCormick feels accreditation attempts for home economics haven't worked well. "They're afraid of hurting feelings," she says.

"I'm concerned about some of our home economics teachers at the high school level," McCormick says. "Some are still making pine cone wreaths in class. That's a bad image for all of us in home economics." As a result, she encourages her staff to open meetings and training to all home economics educators.

What can Extension home economics educators do to build for a better tomorrow? McCormick suggests three things: Encourage state specialists to relate better to county problems and needs; Train program assistants to do the jobs that professionals can't do; Recruit people-oriented state leaders.

Helping Others Up The Career Ladder

What does McCormick advise county home economists to do if they aspire to be state leaders? In her own office, McCormick is grooming someone to move up an administrative ladder. Linda Roberts, a former county home economist, has been a program coordinator for McCormick for 3 years. "I function

as an assistant to her," says Roberts. "The demands on Naurine were so heavy, someone was needed to do legwork, liaison, and carry out projects for Extension homemakers."

McCormick knows how difficult the road up the career ladder is for women. "When an Ohio county home economist becomes county chairman, I let her know I'm on her team. I recognize she'll only be able to do half the home economics programs she did before. But, I also realize that she'll be more influential. That does something for home economics."

McCormick faces limitations in getting enough time to keep up with new trends in technology, research, and subject matter. "I tell my staff to keep me informed and they respond."

Looking Over Her Shoulder

As McCormick looks back at a long and action-packed career, she says her greatest satisfaction comes from seeing and OSU program "lead the pack." When an Ohio Extension home economist reports on a successful, innovative program at a state, regional, or national meeting, McCormick says everyone shares the satisfaction. "Let's face it," she says, "we all like competition. It keeps the motor running."

Frustrations come when McCormick sees field staff having trouble doing their jobs. "I feel we picked the best people. The crucial question is, why are they having trouble? I try to analyze the situation, do some problem-solving."

Another frustration is the amount of mass media that field staff are using in Ohio's heavily urbanized population, and the difficulty of being accountable for that activity. People would be staggered by the influence of our program if we only had mass media data in hand."

Advice For New State Leaders

"My strong suit is in bringing out the best in people. I also try to be an idea person and help others to share that idea," says McCormick.

She feels fortunate that she's an active participant in the decision-making process at Ohio State level. "I go to administrative cabinet meetings every week when assistant directors meet with the associate director.

How much attention should state leaders pay to budget? McCormick says, "If you're worrying too much about pennies, you can't do a programming job. State leaders certainly shouldn't try to keep the books. If they need more money, they ought to go to their administrators and make a case for it."

Would You Do It All Again?

Does McCormick have any career regrets? She finds it difficult to identify any. She says, "If I were starting over again, I'd go after a combination home economics-law degree—you know, to help homemakers determine their economic value. But I'd still work for Extension." ■

Local Decisionmaking— A County Gets Involved

Tom Lollis
Area Extension Editor
Savannah Valley District, South Carolina

The people of Lexington County, S.C., have taken a lion's share of the decisionmaking process into their own hands—with the help of the Extension Service Community Development Program.

Their achievements include building a hospital; creating a countywide rural fire protection system, a countywide ambulance service, an effective solid waste control system; and building an atmosphere that helps attract new industry.

Raymond Boozer, county Extension leader, says, "Over the nearly 26 years that I've been in Lexington Extension's office, the CD program has been involved in many important projects." He adds that the core of the CD program is composed of a committee of 70 men and women—doctors, farmers, lawyers, bankers, politicians, homemakers and representatives of public service agencies and institutions.

"A lot of people have been involved in these projects," says Boozer,—"the chamber of commerce and local politicians, for instance. I'm concerned about the organization and support. I do the legwork for the committee, and when the people get together once a month they discuss what they need to be working on. Extension acts as a catalyst."

Projects Get Results

The original study committee for the county hospital included two members of the CD committee. Boozer served three terms as a member of the hospital board. Since the hospital was built 11 years ago, its capacity has doubled from the original 125 private rooms, thus eliminating the need to depend on a neighboring county for most medical services.

Rural fire protection is one project for which the CD committee can take direct credit, says Boozer. In 1965, he and the presidents of the 14 community clubs in Lexington County were named to a committee to study the prospect for rural fire protection. Today, 17 fire departments provide protection to about 95 percent of the county's 143,000 residents. All but two municipal stations are volunteer firefighting units.

"Most property owners save more than what the system costs them in reduced fire insurance premiums," he says. The backbone of the volunteer fire departments are the community clubs which provide manpower and financial support for the acquisition and upkeep of equipment. The county provides buildings and one truck for each department and pays for building upkeep.

Community Club Activities

Boozer helped organize all of the local community clubs. They affect about 2,000 families in Lexington County and that is where the CD program begins—at the grassroots.

Club members are very active in a number of areas. "They are working with politicians," Boozer says, "to try to get the tax burden shifted from property to some other source of revenue for the local governments, such as sales tax to help the farmer. They're working for countywide water and sewer systems and take part in Extension beautification efforts which have won the county the Governor's Hall of Fame Award, the highest state award for beautification and community improvement. They persuaded the county to set up a sign department, and three-fourths of the roads in the county now have names."

Club activities are designed also to promote family togetherness and may be both educational and entertaining. One club sponsored a talent show for members, built a float for the Christmas parade, picked up trash in the community, sponsored a beauty contest, and raised money for the American Cancer Society and the Lexington County Education Foundation. Each club maintains its own building, which serves as the community's focal point.

One new neighbor's arrival attests to the county's attractive image as a good place for new industry. "Michelin is our plum for 1980," says Boozer. The French tire company is building a \$100 million plant near the county seat. ■

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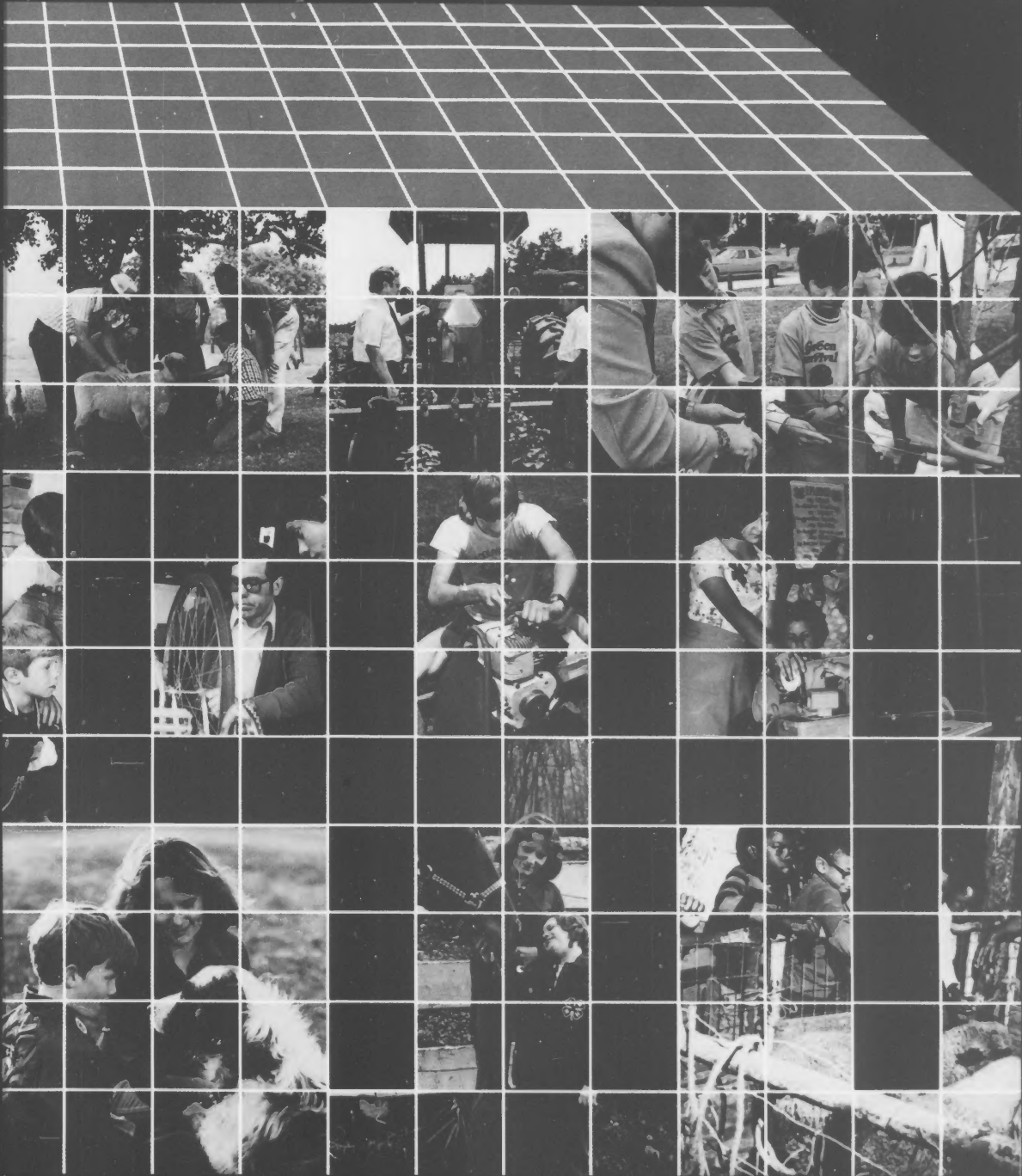


Fall 1981

United States Department of Agriculture

extension review

4-H—Something
for Everyone



review

4-H—Something for Everyone

Something for everyone—that's 4-H. No matter where you live—rural Iowa, downtown Atlanta, or central Africa—there's something in 4-H that just fits your needs.

"After half a century, 4-H gets to be a habit," says Clara Miller, 50-year 4-H volunteer leader from Kendall County, Illinois (see photo below).

Like Clara Miller, people of all ages benefit from 4-H activities, whether it's the 4-H leader who gains new expertise while helping kids, the blind Arizona resident who receives a 4-H trained guide dog as a companion, or the low-rider who attends a 4-H car-repair clinic.

This issue of *Extension Review* also takes a look at 4-H'ers planting "energy trees" and raising show horses in Michigan and a 4-H leader in Rhode Island and his computer-smart "Boolean bunch." 4-H'ers, their leaders, families, and communities—all benefit from their personal involvement in these activities.

We'll also see how North Carolina 4-H members put together an exciting visual newsletter that appeared at the National 4-H Congress in Chicago last month and how youth in California film "4-H Newswatch."

Young 4-H members in Mississippi live the roles of local government officials, in another article. Some still want to be lawyers after their experience; others found their mock "day in court" enough to convince them to try something else as a career.

Wake County, N. C., sixth graders visit area farms to learn the rewards and difficulties of farming in America, in a program called "Wake Up to Agriculture."

Secretary of Agriculture John R. Block, center, displays a 4-H flag for his outer office presented to him by, left to right, James Dutt, 4-H donor, Beatrice Foods; Grant Shrum, chief executive officer of the National 4-H Council; Mary Nell Greenwood, administrator, Extension Service, USDA; and Eugene "Pete" Williams, deputy administrator for 4-H, Extension Service, USDA.



These articles illustrate the range of subjects and skills taught in 4-H; for example, how participants get help in making vocational choices.

Agriculture has been and still is the main strength and base of 4-H and its programs. This informal educational program is conducted by the U.S. Department of Agriculture, state land-grant universities, and cooperating counties with support from the National 4-H Council and other private support. In the United States, almost 5 million kids from 9 to 19 participate in 4-H and thousands of adults are volunteer leaders.

Around the world, 4-H is also taking hold. Five million young people in 82 countries have adopted youth programs similar to 4-H. An international youth exchange program gives American 4-H members an opportunity to visit families and see programs in many other nations. In turn, local clubs in the United States host visits by youth from other countries.



Clara Miller of Kendall County, Ill., has been a 4-H leader for 50 years.

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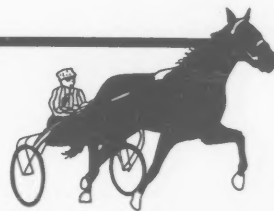
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John R. Block
Secretary of Agriculture

Anson R. Bertrand
Director of
Science and Education

Mary Nell Greenwood
Administrator
Extension Service

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Kids and Computers Speak the Same Language

Jeffrey A. Hall
Extension Agent
University of Rhode Island



A trio of young students take their turn in using the computer to perform a number of tasks.

If Michael Cardin had his own computer, he would program it to play Dungeons and Dragons and keep lists of information including the names of U.S. Navy ships.

Michael doesn't have his own computer, but he does belong to a 4-H computer club. Every other week, Michael and five other 4-H'ers get together to "talk" computer and learn the language of these electronic machines which store information and instructions; perform rapid and often complex calculations; and compile, correlate, and select data to solve problems.

Sound too complicated, too technical, or boring for an 11-year-old? "Not at all," says Michael, "it's fascinating and fun," with a little help from 4-H leader Peter Favolise.

Peter Favolise not only works with computers and teaches college students computer science, he also has a small computer system at home. He became intrigued with computers several years ago. Currently a software engineer, he programs computers for defense-related projects. He also devotes a lot of his free time to 4-H as a volunteer.

Family Project

Peter and his wife Mary, 4-H leaders for 8 years, have been helping youngsters with projects in photography, crafts, model airplanes, rocketry, and small animals. But the Favolises' 4-H involvement goes beyond club work.

Peter Favolise is a former president of the eastern Rhode Island 4-H advisory committee and has served on the state 4-H advisory committee. Mary worked as the superintendent of the Country Store at the Newport County 4-H Fair. For the past several years, the Favolises have hosted 4-H exchanges from Finland, Northern

Peter Favolise, a 4-H leader and college computer science teacher, retrieves information from his home computer.

Ireland, the Netherlands, and Norway, as part of the International 4-H Youth Exchange program. They are also foster parents. Two foster children live with them and their three children, John, 11, Kristen, 12, and David, 13.

Between work, 4-H, and his family activities, Peter Favolise somehow manages to find time to teach an advanced computer science course at Salve Regina College in Newport. When not teaching college students or 4-H'ers about these electronic minds, Peter uses his home computer and ham radio to send Morse code or he entertains himself by playing electronic number games.

He's not the only Favolise who spends his free time behind a computer keyboard. Ten-year-old John Favolise plans to follow in his father's footsteps. "Computers are fun," says John, adding, "I would like to work with them when I grow up."

The Boolean Bunch

John and two other 4-H club members are learning "Basic," the simplest and most elementary language of computers which enables the youngsters to solve mathematical problems and play number games.

"It's easy to teach and learn," explains Peter Favolise. "Their programming skills are developed by having them change instructions in existing programs and observe how these changes affect the results of running the program." Michael Cardin, although only in sixth grade, hopes to land a job in the field some day.

The three high school students in the 4-H club are learning a more difficult language called "Pascal," which requires them to design programs



more thoroughly. The computer club calls itself the Boolean Bunch, named after Boolean algebra. Members come from all over the State.

Eric Miller and Chris Asselin, two high school members from Warren, are taking a course called "An Introduction to Data Processing" at Bristol Community College. Chris, viewing the club as a great learning experience and good training, hopes to go to the top of the computer field. He and Eric plan to major in computer science in college and become analysts. A wise choice, according to Peter Favolise.

"The schools aren't able to produce enough people to supply the market, so trained people are at a premium and wages are above average," he says. "Typically, someone going right to work from college can earn \$20,000 a year with a bachelor's degree in computer science."

Bright Job Market

The 1980-81 edition of the *Occupational Outlook Handbook*, published by the U.S. Department of Labor, states that, in general,

programmers earn twice as much as the average earnings of all non-supervisory workers in private industry. Because of the degree of knowledge and skill required, systems analysts earn more. The handbook also states that high demand for computer programmers and systems analysts will continue over the next decade.

Though business and industry offer the most career opportunities in computer science, job opportunities exist with the Federal Government, educational institutions, and non-profit organizations.

Some of these jobs will probably be filled by members of the Boolean Bunch, thanks to volunteer leader Peter Favolise, who introduced a group of 4-H'ers to the world of computers.

(Reprinted from *In Touch*, May-June 1981, a publication of the College of Resource Development, University of Rhode Island.)

Friends in Need: 4-H'ers Train Guide Dogs

Guy Webster
Extension Information Specialist
University of Arizona

Richard St. Andre, a blind, retiree in Cottonwood, Ariz., says he's lucky to have a trained guide dog—a black Labrador named Bob.

St. Andre became Bob's keeper in 1978 after they finished training separately and then together at the Guide Dogs for the Blind headquarters in San Rafael, Calif. St. Andre began losing his sight just a few years earlier.

Bob was born and bred at the Guide Dogs for the Blind kennel, but he lived most of his first 2 years with the family of a California 4-H member. Guide Dogs for the Blind places its puppies with 4-H'ers for 12 to 18 months to accustom the animals to family life and to teach them basic obedience.

Now, St. Andre works with two Cottonwood 4-H members who are raising guide dogs. He helps them understand how important the dogs' behavior and skills will be to the blind people who will get the dogs later.

Though hundreds of 4-H'ers in other states have raised guide dog pups, Stacy Keesler and Kim Kallsen of Cottonwood are among the first 15 Arizona 4-H'ers to try it. Youngsters in six Phoenix families recently said difficult goodbyes to dogs they had lived with since June 1980. Earlier this summer, Chris Rivers of Yuma returned to San Rafael a prospective guide dog that she had brought with her when her family moved from California to Yuma last year.

Last April, eight 3-month-old pups arrived in Arizona from Guide Dogs for the Blind. Five Pima County 4-H'ers left the county fair just long enough to meet their charges at the



Tucson airport. Keesler and Kallsen went to Phoenix to pick up their pups. The eighth went to Ronda Robles of Yuma.

"People in several other counties have expressed an interest in the guide dog program, too," says Al Meier, the Extension 4-H specialist who has started and coordinated the program in Arizona. "I expect we'll have close to 20 pups in the State by next summer."

Meier says raising a guide dog is a rewarding project for 4-H members: "They are doing something specifically for another person. What they have spent a year and a half on, if the dog passes its professional training, will benefit someone for about 8 years or more."

Changing Masters

The dogs return to the San Rafael center when they are about 18 months old. They then receive 5



Top left: Kim Debolt, a 4-H member, gets a friendly lick on the chin as she and friends greet her guide dog puppy on its arrival at the Tucson airport.



Julie Wharton of Tucson encourages her guide dog pup to use stairs forbidden to other family dogs.

months of professional training in the specific skills needed by guide dogs. The 50 to 60 percent who pass the training are paired with selected blind recipients. The two train together for 4 weeks before leaving the school. The 4-H'er who raised the puppy is invited to the graduation ceremony, where he or she symbolically hands the dog's leash to the animal's new master. Guide Dogs for the Blind does not charge any fees to the people who receive the dogs. It is a nonprofit corporation supported by donations.

St. Andre was handed Bob's leash by 4-H'er Anita Zick of Ramona, California. He and she have exchanged several tape-recorded letters since then. Many guide dog users form long-lasting friendships with the 4-H'ers who raised their dogs.

"Working with 4-H has really benefited our organization," says Paul Keesberry of Guide Dogs for the Blind. The 4-H pattern of 1-year projects, the 4-H tradition of learning responsibility by caring for an animal, and the organized 4-H leadership all suit the needs for raising guide dogs.

"It's absolutely essential that the puppies are raised in a family atmosphere at this young age . . . Socialization is the number one concern," says Keesberry.

The Arizona 4-H'ers in the guide dog project range from 11 to 18 years old, and vary in their amount of prior 4-H experience with dogs. Some, such as Julie Wharton of Tucson and Dianne Lasher of Phoenix, raised and trained dogs as 4-H projects for several years before receiving their guide dog pups. Others, including Jeni and Tami Wofford, have had dogs only as family pets, not 4-H projects.

Keesberry or another representative from San Rafael delivers the puppies personally. They are 3-month-old German shepherds, Labrador retrievers, and golden retrievers.

Training by 4-H'ers

The 4-H families teach the puppies good behavior, starting with housebreaking and learning not to jump on people or furniture. The pups get used to the home environment and to other animals.

In 4-H families, the other animals may be numerous. When Kim Kallsen had had her guide dog pup, Abba, for 2 months, she said, "Abba has learned to get along with the sheep, but the sheep don't get along too well with her." Stacy Keesler's pup Allison liked to chase kittens, but just looked at the calf from a distance. Both Abba and Allison seemed to get along with St. Andre's tolerant Bob.

Julie Wharton had two problems with teaching her pup Aesop to climb stairs: It was scared to come back down, and seeing this newcomer on the staircase upset her family's other dogs because they are not allowed upstairs themselves.

The 4-H'ers are expected to introduce their pups to situations that might be distracting or frightening. As a guide dog, the animal will need to accompany its master anywhere without fear or hesitation.

The Woffords and their neighbor Becky Meyer took their guide dog pups often to Tower Plaza shopping center in Phoenix. Lindy and Mike Anderson, also of Phoenix, took their pup Quebec for a ride on Molly the Trolley around Scottsdale Center.



Above: A 5-month-old trainee, Allison (right) meets Bob, a working guide dog.



Brad Roachell of Tucson and his new pupil appear to share the same pensive mood during their first meeting.

Kim Kallsen says, "The first time I took Abba to a store, she freaked out when the automatic door opened. She wouldn't go in. I had to carry her in."

Learning to contact business proprietors beforehand and explain the guide dog training program has taught the 4-H'ers some lessons in community relations and cooperation.

Field Day Surprises

Group activities have supplemented the 4-H'ers' individual work with their dogs. Donna Anderson, the adult leader for the guide dog project in Phoenix, organized a field day at Roadrunner Park last winter. The local guide dog raisers took their pups through an obstacle course that included nearby ducks and cats, a chainsaw noise, a metal grating to be walked over, a person abruptly opening an umbrella, another stepping suddenly out of a mock telephone booth as the dog passed, and other surprises.

Local leaders Jane Dalton in Cottonwood and Pat Wharton in Tucson are planning similar field days. Wharton also plans activities to tie the guide dog training closer to the rest of the 4-H dog project. She hopes to establish a guide dog class for county 4-H dog shows. A separate class is needed because the obedience commands and standards that guide dogs must learn are different from those used for dog shows.

After training and loving her pup Patrina for more than a year, Jeni Wofford was not looking forward this summer to returning the dog to San Rafael. "I'll feel sad when we have to send her back," she said. "That will be the hardest part."



Quebec, a guide dog trainee, gets some pointers on proper restaurant etiquette from Phoenix 4-H'er Lindy Anderson, her trainer.

The family that raises a dog can choose to keep it if the dog fails its guide dog training. But for most of the 4-H'ers who raise the pups, their lasting satisfaction is in knowing that their job well done has helped make life easier for a blind person.

"Getting around with a cane is very slow compared to traveling with a guide dog," says St. Andre, who has tried both. "And I don't know of any cane that can lead you right to a door."

(Reprinted from *Progressive Agriculture in Arizona*, September 1981.)

Newsletters— Think Visual

Mark Dearmon
Coordinator
Visual Newsletter
Raleigh, N.C.

Printed newsletters are common to most conferences. They are handed out daily or at week's end.

These newsletters come in all sizes, shapes, and looks, sometimes with pictures. They're great to put in the files for a permanent record of the event. But more frequently, they end up in a large circular file common to most offices.

For the past 3 years, the North Carolina State University Department of Agricultural Communications has experimented with a new twist on the old newsletter theme. This one, called a "Visual Newsletter," is 100-percent recyclable. Slides for the Visual Newsletter are taken of conference activities and then combined with music and narration. The newsletter, presented to a daily or closing assembly, can be informative and entertaining. Properly produced, it can be one of the highlights of the event. And slides provide a complete record for later use.

North Carolina's Visual Newsletter debuted first at the 1978 national Convention of Agricultural Communicators in Education (ACE) in Asheville with the help of Clemson University. But it was not until the summer of 1979 that the idea came into its own.

At the 1978 ACE Conference, the presentation was made each morning at breakfast, reporting the events of the previous day. This meant long hours for the staff producing the "Visual Newsletter." The color slides were developed late at night in one of the hotel rooms. Staffers then sorted them, polished the script, and put the finishing touches on the entire presentation before they



Members of the newsletter staff select slides for the presentation.

showed it the next morning. With a great deal of teamwork and determination, the production of the show was a smash and has received standing ovations ever since.

Dr. Z

In March 1979, Associate State 4-H Leader Dalton Proctor approached North Carolina's Agricultural Communications Department about preparing a "special" multi-image slide program for the state 4-H Congress. The department staff developed a proposal for a three-screen, eight-projector Visual Newsletter and presented it to the state 4-H staff.

In an effort to involve 4-H'ers in the project, we suggested that several 4-H photography project participants be selected as staff to take the slides needed for each night's Newsletter.

Once the proposal was accepted, we sent applications to 4-H agents across the state in search of the best 4-H photographers. The resulting staff ranged in age from 12 to 19.

A great deal of planning was done before the staff arrived for training the afternoon prior to 4-H Congress. We considered the size and makeup of the audience of 1,000 4-H'ers and leaders and how we might most effectively use multi-image to inform, entertain, and motivate them.

We developed a character to narrate the Congress newsletters—Dr. Z, the computer that runs the projectors for the evening presentations. In the initial show, Dr. Z described its functions and capabilities to the surprised audience. Using Dr. Z each evening kept a thread of continuity from one show to the next.

The opening for each show contained music we selected in advance with our audience in mind. (Beware of copyright laws!) We produced a standard visual opening for the show and prepared other standard visuals, such as clovers and titles, largely in advance.

Matt Armstrong, newsletter editor, makes it look like a relaxing job as he selects slides for the program. However, he is only hours from deadline.

Keep Your Fingers Crossed

Seven 4-H'ers shouldered much of the responsibility for the success of our visual newsletter. They met with us for the first time on the afternoon before the 4-H Congress began and learned about the project. Each 4-H'er, equipped with 35mm camera and electronic flash, was responsible for taking slides of assigned activities during the next 4 days.

The young 4-H staff, warming to the idea quickly, became more enthusiastic after the opening night's show, which had basically been completed ahead of time.

Now, responsibility for success was squarely on their shoulders. They responded beyond our expectations.

Monday—The Premiere

Monday is registration day for 4-H Congress in North Carolina, when delegates and leaders from all 100 counties arrive in Raleigh. At least that's what most delegates do on Monday.

But it was a workday for the members of the Visual Newsletter staff as they snapped slides of others registering, checking in, and meeting old friends. They also helped set up the 9- by 36-foot screen at Scott Pavillion where the evening assemblies would be held. (The screen was actually three 9- by 12-foot screens joined together and masked to make one larger, horizontal screen.) Suspending the screen from the rafters proved to be one of the hardest tasks of the week.



A projector island was constructed in front of the screen 45 feet away. All aspects of the show were controlled from there. After a sound check (we tied into the house sound system) and alignment of projectors (two on each outside screen area and four in the center area), we returned to the studio to put the finishing touches on the Monday newsletter.

Delegates expressed considerable curiosity about the Visual Newsletter as they arrived for assembly. Until then, the newsletter had been given little buildup, so no one knew what to expect. But who wouldn't be curious over the sudden appearance of eight projectors and a wide screen?

The element of surprise worked well. As the show began, Dr. Z introduced herself as "the computer with something extra," showed off the capabilities of multi-image, and praised the members of the Newsletter staff to the increasingly curious audience. "Z" led into the opening theme with the magic words "Hit it

boys!", and the audience clapped in time to the music as images changed rapidly on the screen. The 4-H'ers shrieked their delight as they recognized themselves or their friends on the screen.

After the opening, Dr. Z provided a chatty narrative to accompany slides of events leading up to the Congress. In less than 10 minutes, the Visual Newsletter ended and Dr. Z had captured the attention of the audience. But the real test was yet to come.

Tuesday: The Acid Test

During Monday's activities, the staff shot 12 rolls of film. The first batch of finished slides was due from a lab at 8:30 Tuesday morning. (Film was dropped twice a day: 9 a.m. and 5:30 p.m., with pickup at 2 p.m. and 8:30 a.m. respectively.)

The first batch of slides was excellent although there were occasional problems—underexposure, dead flash batteries, and so on. Once they saw the results, the staffer's self-confidence increased and they want-



Dearmon (left) and assistant, make last minute adjustments before showing the "Visual Newsletter."

tion went smoothly overall, despite a missed film drop and some occasional photographic problems.

The only near disaster came on Thursday evening. Upon completing the 25-minute show, we found the computer (or Dr. Z) had been unplugged before the program had been stored on tape. We quickly redid the program in less than an hour from memory and production notes.

We carried in the three racks of projectors and set them up during the ongoing talent show. Later in the evening, they gave two standing ovations for the final edition of the 1979 Visual Newsletter.

By the end of the week, the newsletter had become the highlight of 4-H Congress. Participants rated it 4.88 on a scale of 5 on their evaluation forms. Dr. Z and staff were destined to return in 1980.

The 1980 Edition

Year two of the Visual Newsletter brought several changes designed to improve it and involve 4-H'ers further.

An editor and assistant editor headed up the staff and 4-H'ers received extra training. The idea worked well—so well, in fact, that the two editors produced the Wednesday newsletter largely on their own except for scripting. They even mixed the soundtrack and programmed the computer.

The staff grew to 10. Applications had almost tripled from those of the preceding year. Four members of the 1979 staff returned. In selecting

participants, we emphasized talent and involvement in 4-H photography projects. We let selected adult leaders observe the staff as they worked on the evening presentations.

Dr. Z, quite a celebrity, provided continuity from 1979 to 1980. Many 4-H'ers new to the congress in 1980 had heard of Dr. Z and the Visual Newsletter from their peers.

The only technical change in the 1980 newsletter was the addition of four more projectors for a total of 12. This format allowed us to use more sophisticated visuals on all three screen areas.

The week's highlight for the newsletter came on Thursday evening when it was announced that Dr. Z (Jan Christensen) and the newsletter's creator (Mark Dearmon) had received invitations to produce the first Visual Newsletter for the 1980 National 4-H Congress in Chicago.

At the 1981 congress the newsletter was produced by professional staffers and did not include 4-H members. This was necessary to allow 4-H'ers the opportunity to attend sessions and participate in all activities of the meeting without having to spend long hours producing the show. Also, the cost of sending a number of 4-H members to Chicago to produce the newsletter was prohibitive.

The result of the 1980 show at the 4-H Congress was a standing ovation and another invitation to produce the show the next year.

ed even more involvement. Tuesday morning, we added music and effects and, early that afternoon, sequenced and programmed the slides to synchronize with the soundtrack. Additional slides arrived soon after lunch and we finished the 8-minute newsletter at 4:00 p.m. The Visual Newsletter provided a look at 4-H Congress through the camera lenses of the 4-H staff photographers who took 90 percent of the slides.

The idea that looked great on paper proved to be dynamite on the screen. The entire eight-projector presentation, produced in less than 8 hours, was ready for the eager audience on Tuesday evening. Again, the response was overwhelmingly positive. The only complaint: "The newsletters aren't long enough."

Wednesday and Thursday—The Grande Finale

By Thursday, we were producing a 25-minute visual newsletter which was eagerly anticipated by the congress delegates and visitors. Produc-

"Celebracion de Jovenes"

Carole Connolly
4-H Youth Advisor
Solano County Cooperative Extension Service

The day they chose for the first "Celebracion de Jovenes"—Celebration of Youth—last spring was perfect. It was warm and breezy, with the sun casting strong shadows on the Dixon May Fairgrounds in Dixon, Calif.

But the two groups that met there that day were an unlikely combination—unlikely that is, until the leaders found they could be of great help to each other.

The Celebracion de Jovenes brought together members of the Street Life "low-rider" car club and a number of 4-H groups. Representatives from all sides of the event said it was successful in its main goal: to bring the Hispanic community together with 4-H because they had much to learn

from each other. Car club members gave demonstrations on auto maintenance and car body repair, which stemmed from classes taught by 4-H earlier that year on the same topics.

Something For Everyone

About 500 persons attended the celebration, also designed to generate revenue to help fund Migrant Summer School projects in Dixon and nearby Vacaville. Dixon has a large migrant population from May through October and many of these people, as well as year-round residents, had never been exposed to 4-H.

Early in the morning, 4-H groups set up about 20 displays and later began about 15 demonstrations on a wide variety of topics. These included: bicycle safety, rocketry, goat care, electricity, leathercraft, a petting zoo, and a bilingual display on guide dogs for the blind.

About 100 low-riders from Dixon and other nearby towns displayed their customized cars and competed in a car show. The car show, in which

about seven of the club members participated, was handled according to the regular rules of a low-rider event, the object of which is, through the use of hydraulics, to make the car jump as high as possible while remaining in one spot. Judges included the Dixon fire chief, a State 4-H youth advisor and a well-known low-rider judge.

Other members of the community pitched in to show their commitment to the project. The California Highway Patrol sent an officer to set up an information and recruitment booth, a local hospital representative discussed health careers with the young people, Regional Rural Health staffers set up a booth to check blood pressure, and Ballet Folklorico performed traditional Mexican dances. It was a day filled with education and fun.

Spreading the Word

Publicity for the event was well prepared. About 2,000 leaflets touting the Celebracion de Jovenes



were posted from Antioch to Sacramento and from Vallejo to Stockton. Notices were posted in area high schools and grammar schools. Newspapers, radio and television stations were contacted and, on the day of the event, they announced it through public service announcements or community events calendars. Representatives from the event also appeared on "Image," an Hispanic-oriented television show.

The celebration received favorable publicity in a feature article of the Vallejo (Calif.) Times-Herald. Bruce Rodello, a Cooperative Extension Service staffer, organized the event. In the article, he said, "We're trying to make the Hispanic kids more aware of what 4-H has to offer. It's an exposure thing . . . The car clubs are trying to show they are more family oriented than the street gang image

they have had in the past. I'm not aiming at these adults, I'm aiming at these little kids. They will associate 4-H with cars, crafts and a good time on a Saturday afternoon."

Hispanic Involvement

Eugene Mijares, an Oakland YMCA leader and a member of the Street Life car club said that it is important for Hispanics to assume their roles in the community. "4-H has been an organization that has long been overlooked when it comes to the involvement needed in the Mexican community. We too want to be considered a club that's trying to be a catalyst for getting people involved in the community."

From the planning stage through the closing of the show, the spirit of fellowship seemed to ride high. Many 4-H groups participated. Their members attended meetings of the car clubs to discuss details in planning the event. The groups contacted migrant parents' advisory committees.

A Total Team Effort

A Foundation Grant awarded to 4-H financed production of the car show and a neighborhood center in Sacramento helped to plan it. The Dixon 4-H clubs loaned the project \$200 to meet any unplanned expenses. Club members had earned the money through various fund raising events.

After the show, youth involved with the auto body class helped to clean the area and pack up the equipment, assuring that the 4-H would receive its cleaning deposit back.

The event was not much of a moneymaker but it left participants rich in goodwill between the 4-H and Hispanics. In fact, after all of the bills were paid, the program was left with a grand total of only \$25.33, but even those funds were slated for good use—to set up a strawberry patch at the Dixon Migrant Labor Camp.



The Winners— 4-H and Harness Horses

Jayne E. Marsh
4-H Information Coordinator
Michigan State University

What does it take to produce a winning harness racer?

Most experts agree that proven bloodlines and good conformation (structure) are musts. But can the way a foal is raised affect its racing performance? That's what Standardbred breeders and 4-H members in Michigan aim to find out.

"It's no secret that horses raised and cared for by 4-H members are among the best kept in America," says Don Price, general manager of the Michigan Harness Horsemen's Association. "We know that 4-H'ers know how to properly care for and raise their animals. That's why we decided to organize the 4-H Standardbred Horse Production project and give 4-H members a chance to use their skills," he explains.

Shared Project

4-H horse project members are raising Standardbred foals donated by breeders. After 1 year, the yearlings are sold at a statewide Standardbred auction. The members receive one-third of the selling price after expenses, with the remainder going to the breeder. The program is believed to be the first of its kind in the country.

The project was developed with the cooperation of the Michigan 4-H Youth Program, the Michigan Harness Horsemen's Association, and the Michigan Standardbred

Breeders Association. The Ralston-Purina Company provided participants with horse feed and helped monitor the horses' growth and development.

Last fall, four Michigan Standardbred breeders—Shiawassee Farms, Surbrook Farm, Downing Stock Farms, and Thomas Smith—donated 16 foals to be used in the project. Sixteen 4-H'ers, aged 15 to 19, were selected to participate and picked up their foals in October.

Though the young people all had previous horse experience, they attended a series of educational workshops held to acquaint them with proper Standardbred raising techniques.

Ken Gallagher, a Michigan State University Cooperative Extension Service equine veterinarian, briefed the youth on health maintenance, exercise, and foal care. A representative from Ralston-Purina and an experienced breeder gave the youth guidelines on nutritional requirements.

The young people kept detailed records on the horses' growth and development. They submitted these records monthly so breeders could be kept posted on the foals' progress. They also maintained accurate expense records to help them better understand the economics of the industry.

During the winter, the members worked to teach their foals stable manners, including how to lead, load, and ride quietly in a horse trailer.

Most trainers prefer to break their own horses to drive, so many of the 4-H'ers "ponied" their foals alongside other mounts to build up muscle tone.



Harness Racing Industry

It was not only the foals that learned how to make it in the harness racing business. Participants did, too, in a number of workshops about the racing industry.

"Though most 4-H'ers are familiar with the cost of keeping a saddle horse, few are knowledgeable of the economics of harness racing," says Dick Dunn, MSU Extension animal science specialist and 4-H horse program leader. "Racing has an impact on the state economy, and through the project, our 4-H members learned there's a great deal more to the Standardbred business than just taking care of a horse's basic needs."

The group toured a breeding farm, learned about artificial insemination (AI) techniques, and watched horses being exercised on a mechanical treadmill and in a swimming pool. Members also learned about harness careers by visiting county fair and pari-mutuel racetracks.

A trainer, a driver, a course clerk, a race starter, and a photofinish photographer told the youth about their jobs and their importance in the racing industry. The group also heard explanations of claiming races, training expenses, purse distribution, and betting procedures.

Ten months after receiving their foals, the young people exhibited their animals at a special 4-H Standardbred Horse Production Project Show. Robert O'Donnell, a Standardbred breeder from Grafton, Ohio, judged the horses on conformation and rated the 4-H'ers on their showmanship skills. The top



showmanship winner received an all-expense-paid trip to the Ralston-Purina Research Farm in St. Louis, Mo.

The show also enabled the young people to compare their horses to those of other members and gave potential owners and donor-breeders a chance to appraise the horses' condition and development.

4-H Yearlings

"I was really impressed with the quality of the 4-H yearlings," says James Downing, owner of Downing Stock Farms, who donated three foals to the program.

"There was a marked difference between them, in overall condition and manners, and horses of the same age and breeding I have on the farm. I was proud to have the 4-H foals representing my breeding operation," he says.

Bidders at the annual fall Michigan Standardbred Yearling Sale were also impressed with the horses. The yearlings sold for an average price of \$3,756.25—netting the 4-H members an average of \$1,252, less any farrier, veterinary, and other miscellaneous expenses they incurred during the year.

Don Kay of Kalamazoo, Mich., who purchased S. F. Miss Molly with his partner, Bill Wilkerson, of Marshall, says, "The fact that the horse obviously received a great deal of professional care certainly had a lot to do with our decision to buy the filly."

"Because she's so well mannered and conditioned, we can eliminate 3 or 4 months of preliminary training right off the bat," he explains.

"There's no comparison between the horses that received individual care and the ones that didn't. We feel we got a head start on turning the filly into a good race horse."

To Barbara Larsen, the 4-H'er who raised Miss Molly, the fact that the filly has promise is no surprise. In fact, she's sure her foal will be a winner.

"As soon as I got my foal home, I knew she was special. She had such a good disposition and was so willing to learn. We nicknamed her Misha, partly because her gracefulness reminds me of Mikhail Baryshnikov, the famous Russian ballet dancer, and also because Misha means 'perfect athlete' in Russian," she explains.

Kay and Wilkerson, who have three other harness horses in training, plan to race Misha on the Florida circuit. When Larsen and her family heard the news, they vowed to take a family vacation to Florida to watch Misha race.

"We've learned so much about the industry through the project," says Barbara's mother. "We want to follow her career. Misha has gotten the whole family hooked on the sport."

Program planners hope to interest more young people in the harness racing industry. "To keep the industry alive and growing, we need to expand," Don Price says. "We hope that, through the project, more young people will become involved. The 4-H production program is certainly a beginning."

Project Results

But will Standardbreds raised by 4-H'ers become better racers?

"Only time will tell," says John Aylsworth, Michigan 4-H Youth program leader and project coordinator. "When the horses are old enough to race, we'll find out what effect the program really has."

Several breeders and 19 more 4-H members have been selected to participate in the present Standardbred Production program. Five of the first-year participants have asked to raise foals again.

"I wish I could have had another foal to raise this year," says Larsen, a freshman preveterinary student at Michigan State University. "But 1 year taught me an awful lot that I can put to use in my veterinary studies. Besides, following Misha's career will be a thrill in itself. In my eyes, she'll always be a champion."

Energy Grows on Trees in Michigan

Jayne E. Marsh
4-H Information Coordinator
Michigan State University



Beating today's high energy costs isn't easy.

But thanks to a new "Energy Tree" program cosponsored by the Michigan 4-H Youth Program and the Michigan State University (MSU) forestry department, Michigan families may be able to grow enough firewood to become independent of outside sources of heating fuel in just 8 to 10 years.

The purpose of the new program is to test whether hybrid poplars can be planted and harvested as a wood energy source in Michigan.

4-H members, 420 strong, planted over 4,200 hybrid poplar cuttings in the spring of 1981. The young people are monitoring the tree growth and report their findings to the MSU forestry department.

"We have high hopes for the project," says Lowell Rothert, Michigan 4-H Youth program leader and energy tree project coordinator. "If the cuttings grow as expected, the young people can take new cuttings from this year's crop next year or the year after. That means thousands of hybrid poplars can be planted statewide in an effort to reduce the

state's dependency on scarce and costly energy resources."

Hybrid poplars show promise as an alternative energy source because they mature faster than hardwoods like oak and maple, cost less to grow, and can adapt to a variety of growing conditions. They also have potential to produce more BTU's per acre than most other trees.

According to Rothert, planting 2 to 3 acres of hybrid poplars per year (16 to 24 acres of land over an 8-year period) can supply enough wood to meet the heating needs of an average family for an entire heating season, provided the house is well insulated and an airtight wood-burning stove or furnace is used.

Also, the plantation must be well managed and clones (cuttings) from the best trees must be planted.

"If our tests show that hybrid poplars are as good as we think they are, our dependency on fuels other than wood should decrease," Rothert says. "If only part of our country's 500 million acres of commercial forestland was planted with hybrid poplars or other useful species like oaks or sycamores, our energy needs would be lower." He and the young participants are collecting information on which tree varieties are doing best and what insects and diseases are problems.

Besides using the wood for home heating, there are other potential profitable uses such as cattle feed, ethanol production, paper, and solid wood products.

Rothert says the energy tree program has been overwhelmingly successful with Michigan youth. He had expected to involve only 10 counties in the program but got so many responses that he expanded the number of counties to 21 and next year he expects to add 10 more counties.

"Contrary to popular opinion, our young people are very concerned about the energy crisis and their future. We hope to involve additional 4-H members in this project as the program continues," he adds.

Wake Up To Agriculture

Robb Deigh
Writer-Editor
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How many Cadillacs equal the value of one farm combine? Besides meat and milk, what other products do we derive from cattle? What makes a plant grow? What type of soil will yield the best corn?

Even if you spent your first few years in a Manhattan condo, if you are now a sixth grader in Wake County, N.C., you know the answers to these questions. That's because Jim Butler, 4-H, and a number of other people in and around Raleigh think that learning about agriculture is an important part of a young man or woman's education.

Two years ago, Butler, an Extension specialist in animal husbandry at North Carolina State University, helped start a program called "Wake Up To Agriculture." Each year, he and other adult leaders take a group of about 1,800 sixth graders to three area farms to learn more about the rewards and difficulties of farming in America.

Students range in experience from kids who, with a little financial backing, could probably start their own farm to kids whose only exposure to animals up to that point has often been the alligator on their shirt pockets. But they all travel together as the guests of gracious area farm-owners to learn about animals and livestock, plants and soils, agricultural economics, forestry and wildlife, environmental concerns, and 4-H.

Positive Response

"If we don't get the agriculture message out to the kids now, there are going to be some people in real trouble in the future," says Butler with an almost evangelical zeal. "The way people have responded to the program is absolutely unreal. It's all go. All of the farm families we visited have invited us back."



Fred Knott, Extension dairy husbandry specialist at N.C. State University's Randleigh Dairy Farm, explains to students the proper care and feeding of dairy cows.

On the farms, Butler divides his large group of students into six sections, each with color-coded name tags. At each of six "stations" the students learn how the owners care for and obtain the maximum yields from crops and livestock.

At the animal and livestock station, they learn how to raise livestock, which parts of an animal yield the various types of meat, and what byproducts are obtained. At another station, students learn how plants grow, what types of soil is best for various plants, how much you can produce on a given area of land, and how to visualize the approximate size of an acre.

Economics is stressed at a station in which the students study money and machines. Here they learn how much one dollar will buy of various products. To illustrate the expense of farm equipment, they are shown the Cadillac-combine equation.

Also important to their farm education is knowledge of forestry and wildlife. At this station, the kids learn to identify types of trees and wood, how to determine the age of trees, and how to take pondwater samples. They also study the wide variety of products obtained from trees.

In a section on the environment, students and instructors discuss chemicals that may be used safely in

crop production and how chemicals affect the delicate balance of nature in their area.

Representatives of 4-H are on hand to explain the spectrum of programs open to kids and families and to coordinate aspects of the day's visit.

Total Effort

"This program has been really a total effort with lots of support from everyone," Butler says. He adds that other visitors on the farm trips have included school administrators, teachers, principals, and other educators.

Butler first got the idea for the "Wake Up To Agriculture" program from a similar program he helped conduct for seventh graders in nearby Lee County. His enthusiasm and imagination have developed the program into what it is today. "I really can't see anything we would do to change it," he says. "But the ideal thing would be to have smaller groups."

Butler emphasizes the "hands on" experience the students get while on the farm visits. "You have to put a little pizzazz in the program to get hold of kids," he says. "We try to keep emphasizing the importance of agriculture on their lives."

Local Government Comes to Life

Barry W. Jones
Senior Editor—News Media
Cooperative Extension Service
Mississippi State University

A teen-aged boy peered through the bars of the juvenile detention center at the county jail. A surprised Missy Bell from Forrest County, Miss., watched him from the opposite side. The boy, in jail for armed robbery, had been in Missy's ninth grade class at Forrest County Agricultural High School.

"It felt weird to be touring the jail and see someone you know in there," Missy said. "We talked through the bars and he asked me to write to him and visit him." Missy, one of more than 30 students from five Hattiesburg area schools, toured the jail as part of a local government week program at their schools.

Missy campaigned for and won a seat as district attorney during a mock election. Coming face to face with her friend in jail gave Missy an indelible example of the kinds of problems a real-life district attorney faces daily.

The program, conducted in late January 1981, represented a first-of-its-kind effort in Mississippi to teach the functions of local government to youth. Fred Baker, a 4-H youth agent with the Mississippi Cooperative Extension Service in Hattiesburg, helped develop the idea.

Baker started working on the activity in 1980 when he received a letter proposing such a program from Tom Walker, a local government specialist with the Extension Service Center for Governmental Technology. Walker outlined a "Youth and County Government Week Observance" for youth agents in 82 counties as an activity to be sponsored by 4-H.

County and city officials involved in the program included the district attorney, county attorney, mayoral and council offices, chancery clerk, youth court judge, circuit clerk, sheriff, tax assessor and collector, supervisors, and boards of education.

Activities filled an entire week at each school. Students qualified, wrote speeches, and campaigned for local offices. Their reward was a visit to county or city offices. They delivered speeches before government classes, at school assemblies, or over school public address systems.

A Sense of the Job

Many of the participating students were surprised by the day's experiences. Michelle Briscoe, a ninth grader at G. L. Hawkins Junior High who wants to become a lawyer, said her day as county attorney made her want to be a lawyer even more.

Kim Greer, a ninth grader at Little Burney Junior High, said her day as the Hattiesburg mayor changed her mind about a local political issue: downtown renovation. "Before I went down to the mayor's office, I wasn't for downtown renovation at all," Kim said. "But when he explained it, I changed my mind."

"I had no idea being mayor was so hectic," said Lisa Taylor, another Hattiesburg "mayor" from Hawkins Junior High. Lisa presided over a mock city council meeting and helped decide whether to extend

fire protection to a particular part of the city. She and her council decided against the extension.

"I didn't expect the constant phone calls and interruptions," she said. "There is a lot of pressure and anxiety in government work. I learned one thing for certain. When I grow up, I'm not going to become mayor."

"The enthusiasm our public officials showed for the program made it a success," Baker said. "They were enthusiastic about having an opportunity to explain how local government works to young people." School administrators also welcomed the program, and a committee of teachers, public officials, and senior 4-H members began work. They decided to target the program toward the ninth grade because this age group studies local government and Mississippi history.

The Program

Using teaching materials from the Center for Governmental



Technology and a video presentation produced by the Mississippi Extension Service, students in the five schools spent a week studying the functions of local government.

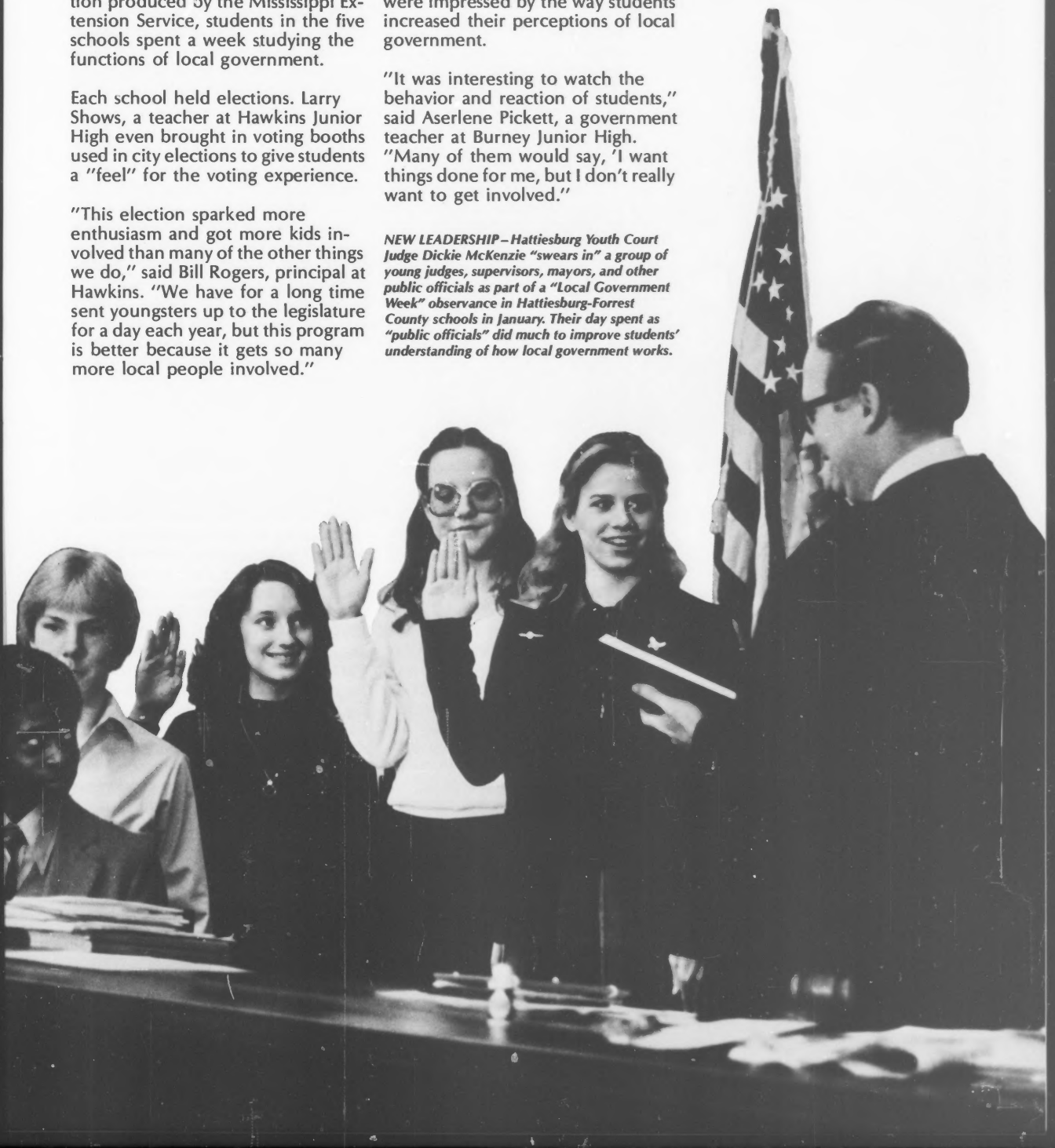
Each school held elections. Larry Shows, a teacher at Hawkins Junior High even brought in voting booths used in city elections to give students a "feel" for the voting experience.

"This election sparked more enthusiasm and got more kids involved than many of the other things we do," said Bill Rogers, principal at Hawkins. "We have for a long time sent youngsters up to the legislature for a day each year, but this program is better because it gets so many more local people involved."

Teachers working with the program were impressed by the way students increased their perceptions of local government.

"It was interesting to watch the behavior and reaction of students," said Aserlene Pickett, a government teacher at Burney Junior High. "Many of them would say, 'I want things done for me, but I don't really want to get involved.'"

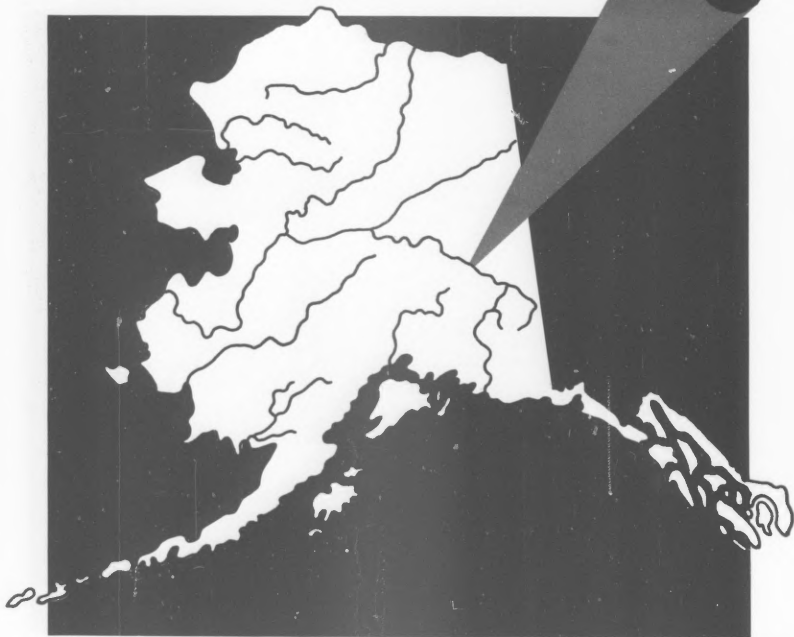
NEW LEADERSHIP—Hattiesburg Youth Court Judge Dickie McKenzie "swears in" a group of young judges, supervisors, mayors, and other public officials as part of a "Local Government Week" observance in Hattiesburg-Forrest County schools in January. Their day spent as "public officials" did much to improve students' understanding of how local government works.



Pioneer Farmers Forge Arctic Agriculture

Isabel Duffy
Public Information Specialist
S&E Information Staff, USDA

Delta
Agricultural
Project



Neither marauding buffalo, a 30-day crop-spoiling rain, nor an early frost discouraged a hardy band of pioneer farmers determined to make a go of it last summer north of the 64th latitude in Alaska. They brought in a respectable barley crop on 9,000 newly cleared acres and declared the newborn Alaskan agriculture a success.

The farms are part of 500,000 acres Alaska has slated for cultivation by 1990. These 2-year-old grain farms are located near Delta Junction, about 100 miles southeast of Fairbanks. Farmers there have cleared about 60,000 acres of land, with about 13,000 acres ready for harvest this fall. They expect to have about one-third of it in production next year.

The Delta Project, as it is called, has proven the farmers' ability to produce grain during Alaska's short but intense growing season beyond

the expectations of even the most ardent agriculturists. Farmers have grown barley yields of better than 70 bushels per acre, though the buffalo, rain, and frost on some acres brought last year's yield down to 35 bushels per acre.

Barley is an excellent livestock feed, and a growing number of farmers are acquiring livestock, according to Don Quarberg, the Delta Project agricultural agent for the Cooperative Extension Service. He says that four farmers now have beef cattle herds ranging from 30 to 200 brood cows; one farmer has 17 dairy cows; another has 60; and a third is accumulating a dairy herd. Also, one farmer is launching a hog-raising operation with 70 sows and plans to increase this number to 150 in another year.

Two More Phases Planned

Encouraged by what these new farmers have done, the state is planning next spring to offer additional acreage in an expansion to be known as Delta II. Soil surveys are under way to determine lands to be put on the block for Delta III.

The project was begun in August 1978 when state land east of Delta Junction and north of the Alaska highway was divided into 22 tracts and sold by lottery, with the stipulation that the land be used only for agriculture. The tracts averaged about 2,700 acres—larger than most Kansas and Nebraska wheat farms.

Here, a hardy group planted crops on land that had never been farmed and dealt with conditions that might have tried even the persistence and adaptability of their great-grandparents moving West in the mid-1800's.

Carol Lewis, a researcher at the University of Alaska Experiment Station, harvests test varieties of oats on plots near Delta Junction. Research is continuing to find grain varieties adapted to climatic conditions near the Arctic Circle.



A Partnership

However, this group has help their ancestors never had. Scientists with the Agricultural Research Service of the U.S. Department of Agriculture are working with state and university researchers in a continuing program aimed at dealing with Alaska's soil, climate, and short growing season, plus the needs for genetically adapted varieties, marketing expertise, and many other needs.

In one research project, two promising varieties of six-row barley introduced from Finland in 1978 performed well again in 1979 in trials near Delta Junction. Both varieties produced yields exceeding 100 bushels per acre at the test site. One variety, Hankkifa's Eero, is a dwarf type patterned after Green Revolution wheats and averages only 23 inches in height. The other variety, Paavo, averages 31 inches high, 5 to 7 inches shorter than most varieties

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grown by Alaskan farmers. Both varieties are early maturing and appear well adapted to conditions in interior Alaska.

However, the pioneers at Delta Junction found that even the new strain of barley planted in some of their tracts wasn't ready for the heavy rain that pelted the Delta area for 30 days during August and September last year, leaving a disappointing harvest for some. For others, a herd of some 300 marauding buffalo destroyed more than 900 acres of grain just before harvest. Early frost on August 1 damaged green barley kernels, causing crop loss for still others.

But today these farmers remain optimistic, along with the Extension workers and researchers sharing in the project. Quarberg says they feel the buffalo issue will be resolved, and they are prepared to deal with whatever comes along.

Occasional feelings of isolation on their tracts and lack of telephone and power service are relatively minor concerns to these dedicated people who want to make their big investment in the future of Alaskan agriculture pay off. "They want to see it work," Extension agent Quarberg says.

Transportation and Storage

Farmers need storage facilities and a transportation system to haul their produce to market. They need facilities to transfer grain from trucks to railroad cars at North Pole, a small town south of Fairbanks, and then from the railroad cars to ships at the Port of Seward. A ready market awaits their grain in the Pacific rim countries.



This bumper crop of barley forms a sweeping landscape in the interior of Alaska. Farmers leave uncut rows of trees every quarter mile as wind breaks to slow erosion.

A shipping terminal is under construction at Seward, and there is talk of a grain terminal in Valdez, the coastal town which is the southern terminus for the Alaskan pipeline. An Alaska farmers cooperative has expanded its grain storage facility by 6,000 tons to a capacity of 13,000 tons, and they are designing a broad transportation network to service the farmed tracts.

Alaska's new farmers know they must take great care to prevent the ravages of wind erosion. They are cultivating their fields of barley between berm rows composed of moss and fragments of spruce trees obtained from clearing the land. Rows

of standing trees are left every quarter of a mile to provide windbreaks, and the berm rows are burned during the fall and winter.

Ecology Concerns

Several areas of the Delta expansion project have been reserved for wildlife habitat. A greenbelt along the river in Delta West has been set aside to ensure that salmon spawning grounds will not be affected by siltation or human encroachment. On Delta East, headwaters of Clearwater Creek have been protected in the same manner. A historic peregrine falcon nesting ground and all lands within a mile have been reserved.

One aspect of agricultural development that could prove uniquely beneficial to Alaska is in control of both weeds and insects. Newly cleared land in Alaska has few weeds. Even older, developed farmland has only minor annual weeds that can be controlled with proper cultural practices and only minor use of chemicals.

Newcomers to this huge land, literally plowing new ground to give birth to a new industry in their new state, realize that agriculture has been developing for 200 years in the lower 48. But with USDA and the University of Alaska and research Extension people working with them to help this new child grow, the farmers say, "Come back in 10 years . . . you won't know it."



Locally-grown barley helps reduce the high costs of feed needed for over-wintering. This allows more Delta Junction farmers to acquire livestock.

International Ranchers Round Up Livestock Experts

Ralph Ward
Extension Communications Specialist
Texas A&M University



A Texas cowboy inspects a group of calves on a range during the International Ranchers Roundup.

Ten-gallon hats, cowboys riding the prairie, cattle rustling, and roundups—these scenarios of the "Old West" and its cowboys are an important link in our Nation's heritage.

Modern ranchers manage land and livestock vital to American agriculture and its growing export market. These ranch owners, ranch managers, and working cowboys from the more arid regions of the United States met last summer at the International Ranchers Roundup to share common concerns about ways to preserve their livelihood.

The scene was Del Rio, Tex., and, according to one of the participants, "It was like taking the entire Texas A&M Livestock curriculum in just 5 days. It was overwhelming."

Organized by the Texas Agricultural Extension Service, the roundup gave about 700 participating ranchers, agribusiness supporters, and industry leaders ideas to make individual ranching decisions easier and more profitable.

About 125 speakers—believed to be the largest gathering ever of experts for an educational program in the Southwest—represented 10 agricultural universities in eight states, eight state and Federal agencies, six producer concerns, two international organizations, more than
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two dozen prominent Texas ranches, and numerous commercial firms.

International Participation

Agricultural representatives from Mexico, New Zealand, and South Africa spoke on the ranching situations in their respective countries. They stressed the importance of trade with the United States. Mexico, in particular, said its U.S. market for agricultural products has been, in some years, larger than its domestic market. Mexican representatives also said they need U.S. technical help and cooperation in combating pests and diseases affecting livestock.

The meeting and festive occasion was headlined by some of the ranching industry's more respected speakers including USDA Assistant Secretary C. W. "Bill" McMillan, South Texas rancher and former Governor Dolph Briscoe, Texas Agricultural Commissioner Reagan Brown, U.S. Beef Breeds Council President Wendell Schronk, and Texas Cattle Feeders Association Past President Leon Miller.

Varied Program

Producers attended workshops encompassing the entire ranching operation including: better management of beef cattle, horses, sheep,

and goats; range resource use; ranch business; and wildlife. Participants received printed proceedings of the program at the meeting.

Two day-long ranch tours began and completed the roundup. The opening day tour of four progressive Southwest Texas ranches included demonstrations in wood and mohair judging at Rocksprings and climaxed with "Old West" entertainment at Alamo Village near Brackettsville. The Mexico ranch tour featured a visit to the 100,000-acre El Caballo Ranch where skilled technicians demonstrated techniques used in artificial insemination at the rate of about one cow per minute, plus stops at the Zaragoza Experiment Station and San Fernando Communal Ranch. A Mexican chariada (rodeo) in the neighboring border city of Ciudad Acuna ended the tour.

Positive Responses

"This information will provide ranchers with the tools to solve many of their ranch-related problems," stressed roundup coordinators A. L. Hoermann and Larry D. White, Extension Service livestock and range specialists, respectively. Both specialists are based at the Texas A&M University Agricultural Research and Extension Center in Uvalde. They planned the program and related activities which took about a year to organize.

Computer Mailboxes For Extension

*Stu Sutherland
Public Information Officer
Extension Service, USDA
Washington, D.C.*

*Eldon Fredericks
Head, Ag Information
Purdue University*

With computers hooked together to form communication networks, it's an exciting time for educators and communicators in Cooperative Extension. As more farmers, businesses, consumers and others use personal computers, the ways we can distribute education and information are almost unlimited. As new travel and other program restrictions are imposed, we may find that we hold the electronic key to Extension delivery systems—already!

Some of you may look back fondly to the days of returning to the office after a week or longer to find a foot-high stack of mail. What a way to be welcomed back! Much of your mail waited the full time you were gone without any responses to priority items. It would take another week just to wade through old mail while you handled some new project—needed yesterday.

Tomorrow's Mail Handling ... Today

Here's a different scenario to consider. You are attending a very important conference, halfway across the country from your office, and find you have an hour between activities. What a good time to visit your hotel room and check on the mail back at your office. The portable computer terminal you've brought along (about the size and weight of a briefcase) and a local phone call are all you need to access your electronic mailbox. Following step-by-step instructions, you provide a computer with your personal identification (ID) number and password, then relax as the computer delivers your mail. Your portable terminal prints a listing of mailbox messages stored in the computer for your attention.

Within moments you decide which messages need immediate attention. In most cases you can handle them with a single command to the computer. Another of your messages needs forwarding for someone else to handle and that also takes a single command. One message needs an immediate response concerning the conference you are attending. Following the instructions, you compose a response, edit it until it reads exactly as you wish, and send it instantly to another's mailbox—to be printed there at the addressee's convenience.

The remainder of the messages can be stored in your own set of electronic files to be retrieved later, but you are at least aware of them. Within your free hour, you have eliminated the possibility of facing a foot-high stack of mail on your return—and you are back in the middle of the conference activities once again.

Wishful thinking? No! It is possible today for a growing number of employees connected with universities within the land grant university system. At last count, 41 State Extension Services and 19 Experiment Stations had at least one electronic mailbox. In nine of those States, an information service, an agricultural communications unit, or an editor's office has an electronic mailbox and ID code. At your conference you could have prepared a news report on the meeting and sent it directly to the information office mailbox for almost instant release to the media in your home State—but more about those kinds of applications later.

For Extension staff, this computerized, rapid person-to-person communication network is known as the Cooperative Systems Mail Network. A very big plus to all concerned is that the network is accessible 7 days a week, 24 hours a day.



Thus, it provides a constantly available forum for the exchange of information, progress reports and results data, without disrupting daily routine and office activities. The system is ready at the convenience of those who use it. With a portable terminal, staffers can handle electronic mail anywhere there is a power source and a telephone.

Testing Computer Mailboxes

An electronic mail system like today's version takes a little time to grow, to be tested, and to be accepted. A pilot test of a similar system began in February 1979, using the University of Wisconsin TELEMAIL system. Twenty-two state Extension director's offices participated—the same states of the Extension Committee on Organization and Policy members and members of that group's legislative subcommittee. Joining in the test, too, was the Extension Service administrator's office at USDA and computer experts at the National Agricultural Library in Beltsville, Md.

During the test, a survey showed that the majority of state users felt electronic mail was a useful tool that should be expanded to all States. During the test, it also became apparent that users of a rapid mail transmittal system will become quickly disenchanted when the system has frequent recurring

mechanical problems. So, commercially available systems were examined carefully and found to have:

- adequate computer hardware to provide available access to the computer system without delay 99 percent of the time.
- more than one computer so that equipment failures do not cripple the system.
- a variety of features not available during the test.
- equipment with the capability of doing computer conferencing.

New System Begins

On April 3, 1981, all Extension directors and administrators in the land-grant system were notified that a commercial firm would provide the access needed for a flexible electronic mail system. Communications normally handled by memo, letter, or telephone can be communicated in moments with the new system. Electronic filing, electronic conferences, and interfacing with other communication devices like word processors is now possible via the system.

But even with all the conferencing and interfacing capabilities, it is still a system that provides users with both security and privacy—by the use of the ID and personal password that ensures the privacy of correspondence and electronic files. It is also possible to change a password, if needed, and there is no practical limit to the number of ID's that can be set up within any given State. The one thing to remember about identification codes is that each needs to be monitored for incoming mail on a regular basis, though (with permission) several ID's can be monitored on the same computer terminal if necessary.

Much more detail about the ID's and the use of the system are available to

each state as they join the new network—in the form of operating manuals and other support materials. Training on a regional basis is being arranged.

States join the system immediately after they send in a purchase order. The system was acquired under a Federal blanket agreement, so states who use it are actually billed by the U.S. General Services Administration after GSA pays the commercial firm. States are charged only for the amount of time they actually use the computer system, and may stop using the system at any time. Thus, they can keep control of the usage if charges seem to be getting out of hand. The amount of time people use the system within a state determines the cost. Some states have set limits on time of use and how many people can gain access to the network.

Mary Nell Greenwood (left), Extension administrator, and Mildred Guard monitor information being sent by telephone line into their portable computer. The telephone receiver is seen here plugged into its receptacle on top of the unit.



Keeping An Eye On Costs

The person keeping the closest eye on costs for the network nationwide is Jerry Paulsen, of the Extension Information Systems Unit, 5th Floor, National Agricultural Library Building, Beltsville, Md. 20705. He and another expert in the area, Juanita Williams, can be reached via the electronic mail system or by calling 301-474-9020. Williams is on assignment from the University of the District of Columbia.

The network has operated a little over a quarter of a year (at the time of writing) and early billings appear to bear out Paulsen's early-April estimated costs for a state to range from \$1,000 to \$1,500 per year. States that use more hours on the network computer pay more. Within the next year, as more participants find new ways of fully utilizing the network, and as more months of billing are studied, better state-by-state and nationwide average cost figures will be established and announced.

Washington Uses It

Inquiries from states wanting more information about the new network have included questions about how electronic mail is being used in the Washington, D.C. offices of Extension Service. As a part of the pilot test, Administrator Mary Nell Greenwood and other ES staff members, including the deputy administrators, had some early practice in the networking capabilities of such a system. They feel that the electronic mailbox system is both effective and useful and are making extensive use of it for communication among themselves—even for messages between the Administration Building and the South Building across the street. Many of the Extension program leaders use the network to communicate with their state counterparts.



Greenwood is distributing portions of the weekly ES "Green Letter" via electronic mail along with extensive use of the network to send important communications to state directors and 1890 administrators. The Community and Rural Development staff, headed by John Bottum, plans to use the network's computer conferencing capability to communicate with and develop materials in association with counterparts around the country.

The uses of electronic mail for program activities are unlimited. Routine program information can be sent to specialized mailing lists nationwide, or to program specialists within a state or regional area. Data on present program participation, perhaps needed for a Congressional hearing, can be collected on a nationwide basis in an extremely short amount of time. And in crisis situations, electronic conferencing will provide for a flow of instant information and dialog.

Information Offices Use It

How is electronic mail increasing the scope of Extension information offices and their communications activities? Eldon Fredericks, formerly in Washington on an assignment basis as a program analyst for the Science and Education Information Staff, reports on its progress. On November 15, Fredericks becomes head of the Departments of Agricultural Information and Audio Visual Production at Purdue University. He is also the president of the Agricultural Communicators in Education (ACE), with the bulk of the membership being made up of members of state and USDA information offices.

"With the Cooperative Extension Service, the Cooperative State Research Service (CSRS), and the Ex-

tension Service joint venture into electronic mail, we may have found the vehicle for a nationwide electronic information network. That's the good news. The bad news is that many information offices are now playing catch up as the new technology races along . . . but, we're getting there," says Frederick.

"Several State information units, including my former office at Michigan State University, as well as Purdue, Nebraska, and Oregon State University, have worked with computer transmission of news items to mass media for several years. These attempts have been reasonably successful, as experiments go. In most cases, the media like the opportunity to receive information electronically. Generally they like it because it saves labor for them by reducing or eliminating the retyping of stories which saves both time and money," he adds.

Building on this base, an interagency group including Fredericks, Stan Prochaska, GPA; Mason Miller, CSRS; Ovid Bay, ES; and Jerry Paulsen—who had initiated and developed the network and is now its system manager—began an interagency test service from USDA to nine state information offices. The states in the test—Indiana (Purdue), Michigan, Minnesota, Missouri, New Mexico, North Dakota, Oregon, Pennsylvania, and Texas—were selected because they had electronic mailboxes for their information or communications offices.

On September 8, USDA's office of Governmental and Public Affairs (GPA) added this group of land-

grant communicators to their routine distribution of daily summaries of media clippings and USDA news releases. The service—called AG a.m.—has been available to USDA officials and some USDA regional information offices for several years—electronically for the past year. Increasing the number of receivers cost nothing.

Mason Miller, communication scientist in CSRS, is doing some informal checking on this new service as it progresses. Miller visits with the participants via the electronic network about how the system is working. Communicators reply over the network.

Up to now, the applications have been primarily one-way. At least one state information officer intends to use the system to ask his neighboring information workers for help covering similar multistate outbreaks of disease, energy information or other subjects. He believes that by working across state lines the quality of information for the people of each state will improve.

Future applications may include the development, transfer, and storage of publications . . . or, maybe, they won't be publications, but manuscripts stored and retrieved as needed. There are many other applications to dream about, but instant information is becoming a reality and information staffs can help improve the quality by getting involved.

Instant information and instant education and dialog reach across the street or across the nation. These futuristic applications are being done today within the total nationwide land-grant university system. It is indeed an exciting and electric time to be a part of Extension work.

Estate Planning: Essential Education

Gayle Muggil
County Extension Agent
Montana State University

If you fail to leave a will, who will get your property? Will probate affect your heirs?

Montana residents are learning more about these questions as well as other topics including life insurance, trusts, and annuities through a study-at-home course offered by the state Cooperative Extension Service.

The course is designed to provide participants with an understanding of the need for estate planning regardless of their age, sex, marital status, or financial situation.

Agents report that the course, "Estate Planning For Every Montanan," has met with great success. In fact, more than 16,000 residents have participated in the statewide program. Extension sends them updated material as the laws change.

Wide Distribution

The 10-part series, begun 2 years ago, was written by Marsha A. Goetting, consumer education specialist with the Montana Cooperative Extension Service. Extension agents distribute the course materials at public seminars, fairs, workshops, through library checkout and, most effectively, as a mail-out series. The course is still being made available to clientele through local county Extension offices.

Goetting developed the course with assistance from many professionals including members of the State Bar of Montana who provided partial funding. Bar members also reviewed the lessons for legal accuracy.

An Aid To Understanding

The course is not a do-it-yourself guide. Instead, it provides participants with confidence to discuss es-

tate planning with a professional with greater understanding.

The estate planning lessons include:

- Where to begin.
- Who gets the property without a will.
- Property titles.
- Life insurance, annuities, and trusts.
- Gifts—a property transfer tool of estate planning.
- Federal estate taxes.
- Montana estate and inheritance tax.
- Probate.
- The personal representative.

Several months after the mailing of the course, a written survey is distributed to participants. Many positive results have occurred: more than a third of the participants reviewed their wills, 68 percent discovered that the Montana law of succession is not suitable for their property distribution, and 40 percent reviewed their life insurance program.

The series has been an effective way for Montana's Extension agents to work with clientele in a new approach to learning. It has helped the participants to understand estate planning and to make useful changes in their personal situations,

For a copy of the course or evaluation summary, contact Marsha A. Goetting, Taylor Hall, Montana State University, Bozeman, MT 59717.

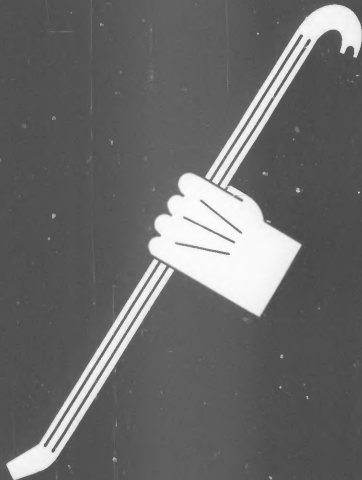
Don't Invite Crime

Jeanne Rumburg and Gregory Passewitz
Area Extension Agents
The Ohio State University

"Home Ransacked While Owners Attend Wedding," "Valuable Jewelry Stolen—Entrance Made Through Unlocked Window," "Tools Taken Through Open Garage Door"—Newspaper headlines like these were becoming too familiar to residents of Columbiana County, Ohio. Something had to be done.

The county, nestled close to the Ohio River and Pennsylvania, is predominately rural with a scattering of urban centers. Its population has been noticeably affected by unemployment caused by the closing of steel and related industries. The situation has helped trigger an upswing of crime in the area.

This raised the question, "What can Extension, specifically home economists, do about this problem?" The Homemakers Council representing 11 homemaker groups with more than 200 members, wanted answers on how to protect themselves and their property, as well as ways to make their communities safer places in which to live.



The Columbiana County Extension Homemakers Council and Extension Home Economics Committee members, during the 1979-80 program planning sessions, discussed the rising crime rate. One of the leader lessons for 1980-81 resulted from this discussion and was directed toward preventing crime.

Advice From Police

Home economics agent Jeanne Rumburg worked with Canfield Area Center, Community and Natural Resource Development (C&NRD) agent Gregory Passewitz to develop a plan. With the support of the Homemakers Council, the agents contacted the county sheriff and county prosecutor for information on the steady rise of crime in the county, and to explore ways the homemakers could become involved in making their families and friends aware of the problem. Also, both agencies were asked to participate in a county-wide workshop, entitled "Don't Invite Crime."

Rumburg developed a leader lesson on "Don't Invite Crime" with input from Passewitz. This lesson included an overview on the rise of rural crime, the cost of crime for all families, and ways to discourage burglars both at home and in the community. The lesson was made available to leaders of homemakers groups and taught in their respective clubs throughout the county. The leader lesson was also made available to Extension Homemakers Councils in the four counties surrounding Columbiana.

Handout materials for each participant in the workshop included a home security inventory, a checklist to determine how to improve home

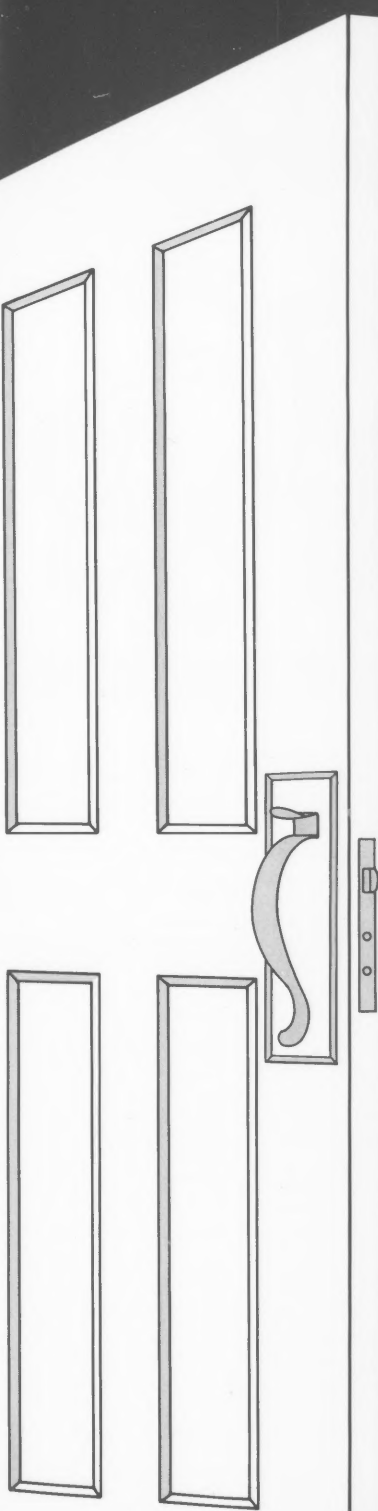
security, a section on door and window locks, an illustrated guide of lock types for the home, a section on burglar alarms and how they operate, a household inventory pamphlet to be used to list the contents of each room, and a guide to safeguarding property against burglars. Passewitz prepared the handouts with assistance from the National Crime Prevention Center at the Ohio State University.

Civics Group Involvement

The county home economics committee supported the need to provide an additional program to reach county residents. Two workshops were planned to inform residents about the crime problem in Columbiana County. These were also sponsored by the Homemakers Council and the offices of the county sheriff and prosecutor. The workshops, held twice on the same day, attracted 225 people. Invitations were sent to men's and women's service groups, senior citizen groups, granges and farm bureau councils in the county, as well as to the persons on the home economics newsletter list. Pre-workshop coverage in all newspapers in the county invited all residents to attend. There was no registration fee.

"Observe and Report"

The leader lesson guide and handouts were distributed to any participant who planned to teach the lesson in his or her organization. The workshop program included an overview of solutions to the crime problem in Columbiana County, presented by Sheriff Robert Berresford. He suggested that persons could help law enforcement officials by being more observant of their surroundings and by reporting unusual behavior or incidents to authorities.



Chief Assistant Prosecutor Robert Hartford discussed laws governing convictions and the reasons for increased crime. These include pressures for money to buy clothes and other items, use of drugs, a decline of family values, lack of parental guidance, declining religious training, and less discipline in the schools.

Passewitz discussed the use of better locks to secure windows and doors of homes and garages, and importance of lighting around the residence. He also demonstrated the type of locks available on the market, pointing out desirable and undesirable features.

"Now Much More Careful"

The following comments were typical of those made by workshop participants:

"My in-laws felt their home was as secure as it could be, until we took them to the 'Don't Invite Crime' workshop. The next morning they went shopping for new locks and had them installed by that evening."

"If we were just going on a short errand, our house was not locked and the garage door was always left open. We're now much more careful of our actions. We didn't realize that we were issuing an invitation for a theft to occur."

"Our landscaping with shrubs helps to provide privacy for our family, but we didn't realize that this could also provide an opportunity for a theft."

Eight additional groups, representing service groups, churches and one county hospital used the leader lesson and handouts for programs. These groups reached more than 900 county residents. All county newspapers provided extensive coverage of the "Don't Invite Crime" workshop.

The Extension agents were also involved in a similar workshop for senior citizens in the East Liverpool area as a result of the county wide workshop. The senior citizens center initiated a "block watch" program that will be used in that community. Cooperative Extension Service and the senior citizens center co-sponsored the workshop.

Both Extension agents have taught classes on securing windows and doors and precautions to take around the home to "harden the target" in other counties in the Northeast Ohio area. During the Columbiana County Fair in August, the Homemakers Council sponsored an exhibit, including a continuous slide presentation to alert fairgoers of ways they could protect their residence.

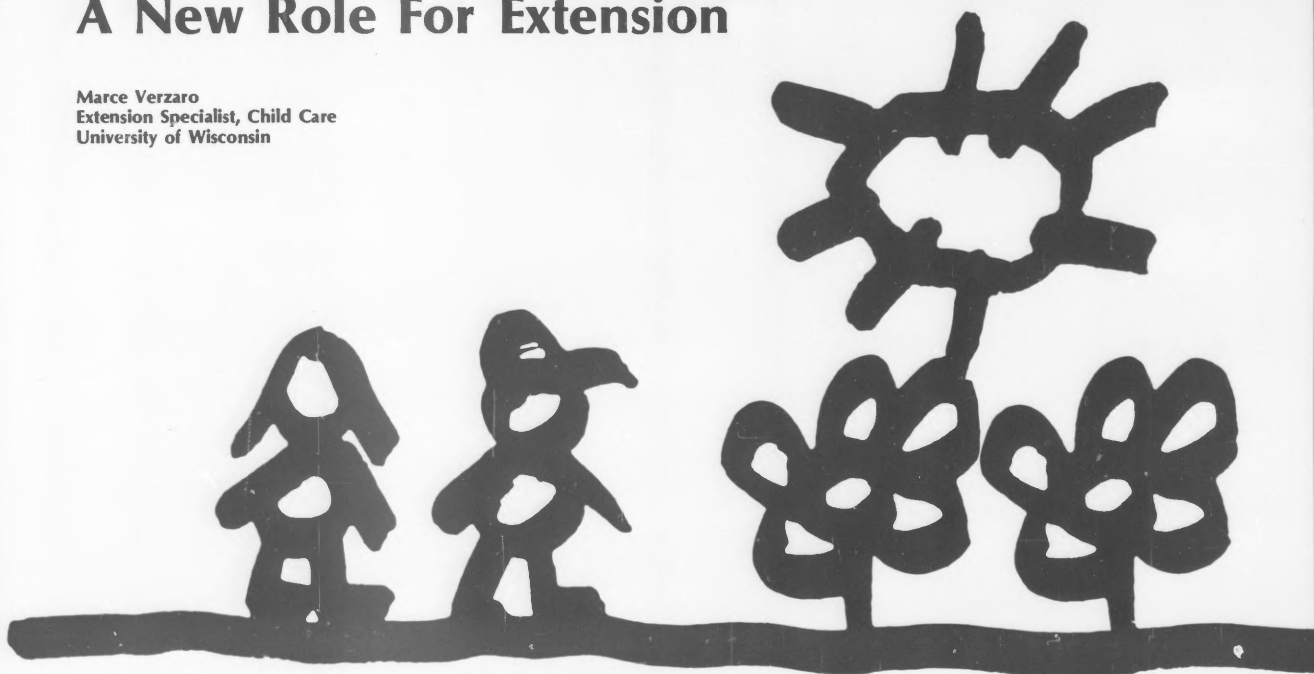
Other Topics Added

What is next? The Homemakers Council has requested a followup workshop, "Don't Invite Violence." This program, especially for women, will include rape prevention and prevention of assault on the street. The sheriff and prosecutors offices will again be involved with the teaching. Home Council members will continue involvement in their respective communities to find ways to reduce the incidence of crime and to make their communities safer places in which to live.

Involvement of the sheriffs and prosecutors offices in the county wide programs helped publicize Extension programs, gave credibility to CES efforts and provided an opportunity for the law agencies to discuss crime prevention.

Assessing Child Care Needs: A New Role For Extension

Marce Verzaro
Extension Specialist, Child Care
University of Wisconsin



It is estimated that by 1990, nearly half of the 23.3 million children under age 6 will need child care because their mothers are entering the work force because of economic necessity and for personal fulfillment.

Communities must become more concerned about the need for adequate child care facilities, say Extension specialists, and this may be true even in primarily rural communities, where the pressures of economic and personal survival are also present.

Juneau County, Wis., with a population of approximately 19,000, has been designated as an economically depressed area by the Economic Development Corporation. The population of the largest community is approximately 3,300 and eight other communities range in population from 156 to 1,479.

Although agriculture and recreation provide a large part of the economic base, there are a number of industries that employ anywhere from 15 to 350 employees, many of whom are women. Juneau County may be typical of many rural counties in its demographics and its social characteristics.

Needs Assessment

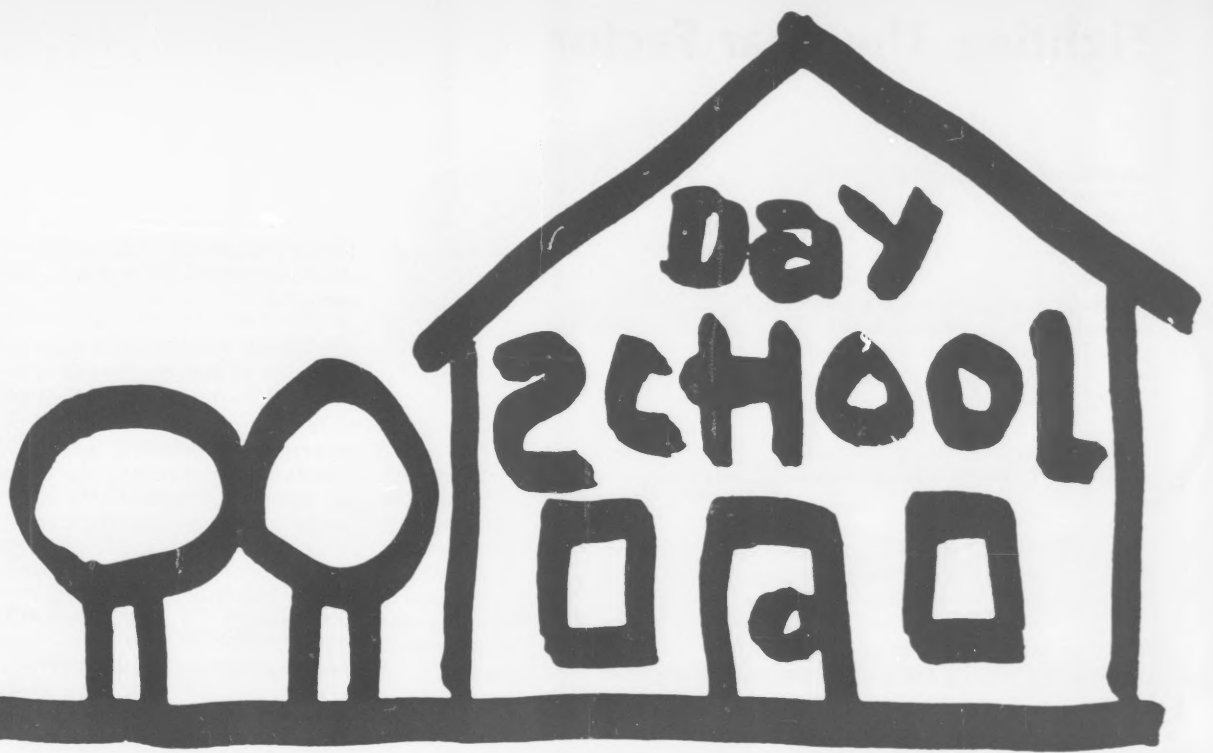
During the winter of 1979, a concern for the problems of families and the lack of human service resources led a group of Juneau county residents to meet with the local Extension home economist. While the biggest gap appeared to be in child care services (for example, only one small day care center and a Head Start Program existed in the county), there were no data to support that assumption. Thus the first role of the Extension home economist was to conduct a needs assessment. A small amount of money to cover costs was obtained through Title XX Packwood Funds. Throughout the project, she was assisted by many concerned community members.

Different questionnaires were sent to 205 employers and to 600 families

with preschool and elementary school age children. The employer questionnaire (57 percent return rate) indicated some personnel problems existed because employees could not find suitable child care. Also, small business operators in the population centers noted behavior problems with loitering children after school and during school holidays.

The family questionnaire (46 percent return) indicated that the mother was employed away from home in 48 percent of the families, with 55 percent of these families having children age 5, and 25 percent having children under age 2.

Due to lack of community child care services, some families used as many as four different caregivers. Other problems included the high cost of babysitting, unreliability of babysitters, and the quality of the custodial care. Also, 12 percent of the families said the mother would work if suitable child care was available;



some of these women were trained professionals (for example, teachers and nurses), who were capable of and wished to make a contribution to their community.

Organizing a Program

From the survey, it was apparent that the lack of community child care services was a multi-faceted problem in Juneau County. The Extension home economist now changed her role from researcher to educator and facilitator and helped a citizens' committee meet a specific child care problem. After-school care was selected as the first step in improving the child care situation and a non-profit corporation was formed to organize a child care system.

The Extension home economist then became a resource finder as she worked closely with the corporation, to seek out usable facilities, qualified staff and, most important, available funding. She wrote and received a grant for Title XX Packwood Funds, available through the county Department of Social Services, to

cover initial costs. The results of the needs assessment were heavily relied upon to document the request. Other tasks included meeting with the local school board to solicit the cooperation of the school system and working with the corporation to publicize the center and to recruit children.

The Mauston After-School Child Care Center currently is operating in the gymnasium of an elementary school. Its enrollment expands weekly. At this point, the Extension home economist is moving into a still different role, that of "energizer." She continues to work with the corporation to seek out new directions for child care. The corporation hopes to find a facility for full-day child care.

Implications

Two important features of this project stand out. One is the Extension home economists' use of a variety of roles to assist persons in initiating

social changes in their own community. As families experience more and more stress from our fast-paced and ever-changing society, it will become necessary for all Extension home economists to investigate new ways of working for families.

The use of a research tool to highlight a community problem is also valuable. By asking residents about the problem, valuable data were obtained to substantiate a perceived need. In an era of program cuts and diminishing financial resources, it will become necessary for Extension home economists to utilize all available resources and research tools.

For information on the format of the needs assessment questionnaires, contact Barbara Hug at the Juneau County Courthouse, Mauston, WI 53948.

Fighting The Fear Factor

Lee Jorgensen
Associate Editor, News
Kansas State University

WANTED—Executive-type citizens to help make our community a better place to live; must have good references, be a leader, proven success record, self-starter, work well with others, delegate responsibility. Some travel, long hours, no salary, but long lasting rewards for everybody and plenty of coffee. For details, contact your county Extension agent.

After reading that want ad, you may think, "A person would have to be crazy to take a job like that!"

Well, what about the person who is offering the job? It's the kind of job recruiting that can make an inexperienced county agent break out into a cold sweat from fear of failure.

"Yet, literally thousands of Kansans have applied for and taken the kind of job advertised in that hypothetical want ad. And both they and their communities are better off for it," says Les Frazier, Extension community resource development specialist at Kansas State University.

The county agent who dares to be different and works on tough community problems with equally daring community leaders more often than not acquires new feelings of versatility and confidence to carry out "traditional" Extension programs, Frazier says.

Search and Development

Frazier is one of the K-State specialists who successfully employs a leadership search and development approach designed to help bolster the confidence of new county Extension staff and community leaders waiting to be "discovered."

To those agents reluctant to recruit leaders and those leaders uneasy about taking the job, Frazier says that

community resource development efforts can be measured, can be highly visible, and need not take long to accomplish.

First, communities must want to change. Then, they need to organize properly for action, Frazier says.

Basic leadership search and development principles have been applied in more than 300 Kansas communities in the last 10 years under the PRIDE program, a statewide cooperative community improvement program administered by the KSU Cooperative Extension Service and the Kansas Department of Economic Development.

Seneca—A Typical Start

Peyton Burkhart, former Nemaha County Extension director and agricultural agent from Seneca, Kans., says, "We initiated a community improvement leadership search and development program in Seneca when chamber of commerce members became dissatisfied with the status quo and lack of citizen involvement in community betterment."

Selection of effective leadership has since begun to change things in Seneca as it has in scores of other Kansas communities. In 1979, the citizens of Seneca, a Kansas community of less than 2,500 population, won third place and a \$300 award in the PRIDE program for making their town a better place in which to live.

Ray Hunnighake, president of the Seneca Chamber of Commerce, had heard about assistance available in community improvement from the Cooperative Extension Service. He asked Nancy Gafford, Nemaha County Extension home economist, and Burkhart for assistance. Gafford and Burkhart then called Ralph Utermoehlen, area extension community development specialist from Manhattan, Kans., for help in ini-

tiating a leadership search and development program and to offer seminars.

Agents and Utermoehlen met with members of the chamber of commerce to find how committed the community was and to explain the procedure for selecting leaders. At that discussion meeting, the chamber voted to go ahead with a program and suggested the names of 75 persons they thought would be best qualified to serve on a community improvement steering committee.

Selecting the Right People

Lawrence Schmidt, city mayor, Hunnighake, Gafford, and Burkhart became the nominating committee, making a final selection of eight persons for the steering committee.

"Not one person we nominated refused to serve," says Burkhart, who says the secret of getting people to serve in key positions is to select people who will plan and follow up, not simply to choose people on the basis of friendships.

The Seneca nominating committee looked for people involved in different types of community enterprises, people interested in the community for altruistic as well as personal reasons. "Most of them were people with growing families and a personal stake in what happened in the community as it related to their own families," says Gafford.

Frazier and Utermoehlen believe desirable traits in community improvement leaders are: energetic; optimistic about others, likable, enthusiastic, flexible, responsible, articulate, interested in a wide variety of fields, and capable of motivating people.

A needs survey is also an important tool for getting the community improvement steering committee organized, says Frazier. The survey is very useful in getting the support of the chamber of commerce and city and county governments, and to get local service clubs working as a unit instead of competing.

The "Secret of Success"

Townpeople in Seneca conducted a house-to-house community needs survey of the city. Of the 900 homes in the community, 281 completed and returned questionnaires. Using the survey results as a guide, 18 objectives were adopted. Task forces were appointed and community groups and organizations were asked to complete projects.

"The secret of success here," says Extension specialist Frazier, "is to broaden the involvement as much as possible, because it has to become the community's project, not Extension's. Except for contributing ideas, Extension should begin to fade from the scene at that point."

Fourteen of the Seneca projects selected the first year were completed or partially accomplished. In 1979, citizens spent more than 5,000 volunteer hours conducting the needs survey, holding a cleanup program, clearing brush from the lake shore, improving the public park, erecting a highway community information sign, organizing an arts council, establishing an advisory board and developing a transportation service, starting a tree removal project, compiling a list of future projects, setting up a workshop to train retail trade employers and employees, and initiating an adult education program with nearby Highland Junior College.

And Seneca, like many other Kansas communities, is just getting started.

enthusiasm is catching. In future years the number of volunteer hours usually grows in each community, especially when residents see concrete results from smart thinking, planning, organizing, and sweat and blisters.

Applicable in Other Areas

"It would be great if all county agents could become involved in community improvements as effectively as this, but until that first successful venture, fear of failure is real and can be the most pervasive obstacle," says Frazier.

What Kansas county agents eventually discovered, however, is that if

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you've truly been a good county agent, you've got potential to become a truly great county agent in community resource development.

There are other indirect payoffs that county agents discover if they make an earnest stab at community development—they've found what's learned about leadership search and development also can be applied to their more "traditional" programs.

Extension home economist Gafford, for example, says "I've found that if you are working on a very specific project and set time limits for involvement, you can apply the KSU leadership and development tactics and find leaders who will get the job done in very short order."

Paul G. Oltmanns, Extension director of neighboring Marshall County, points to another interesting phenomenon—the community development process also helps to open the way for new leadership discoveries. In Marysville, for example, the town wanted to make improvements, but first it had to go through a knock-down, drag-out session before it could begin to get organized for action. "We simply had to tell the people organizing things, 'if you want to accomplish this, this is what you are going to have to do or live with. And maybe you can recognize so and so is a leader and in this particular case you may have to be a follower.'"

Differences-Similarities?

How is community development work different from the other three major program areas of Extension?

To Gafford, the major difference is a matter of timing. She's been in Extension work for 23 years, most of the time in home economics and family living work, but also involved in some phase of community development work for about 15 years.

High Turnover

"In organized Extension homemaker units," she explains, "leadership develops over a longer period of time. CRD leadership begins with the concept of volunteers doing the leading immediately."

Gafford says that though there is some carryover of committee members in the PRIDE community improvement programs, there is a continual change of members in the steering committee, making that different from her home economics work, too.

Gafford also thinks she can benefit from what she has learned from community development leadership training experiences and apply that knowledge to developing 4-H leaders. "That's because fewer and fewer people are willing to accept a long-term commitment anymore. Because of competition for their time in other areas, more and more people are saying, 'No,' when asked for an indefinite leadership commitment. But, they'll say, 'Yes,' if asked to lead for only a year or two."

Burkhart, who was an Extension agricultural agent for 35 years prior to going into watershed management, doesn't find the similarities in working with community development that Gafford does.

Only a Beginning

"To succeed in Extension you have to learn to be versatile and learn to play things by ear," he says. "And people interested in community

development are a whole new group. In production agriculture you work with crops and livestock production groups and organizations oriented toward production goals. Most of the time they are familiar with Extension's programming efforts. In CRD training, the only groups or organizations that even faintly resemble those interest groups might be chambers of commerce, Rotary Clubs or Kiwanians, and many of their members may not have even heard of Extension," he says.

"Extension has only begun to give assistance in city betterment, but in doing so in Seneca, we discovered to our surprise, that more individuals are interested in city projects than we had originally thought," he said. Because of these kinds of experiences, he believes Extension will gain more support for its overall program. "We can tell people that university resources are available to help on community efforts, but until they actively seek us to help solve their problems, until they utilize the skills in selecting leadership and goals and identify priority projects to work on, they won't realize how to tap these resources that are theirs for the offering," Burkhart says.

How did the Nemaha County Extension board support the community improvement efforts in Seneca? "At first they were surprised that we were spending as much time in this area as we were," says Burkhart. "After they realized we were working in four communities in the county on this type of program, they were supportive. They now know that any community can get similar help. They know community resource development is an area that the Cooperative Extension agent can do something about. They know how it work."

"A Personal Safari"

Earl J. Otis
Extension Information Specialist
Washington State University

"You wouldn't believe the new strength I've discovered within me—I've always had the will and desire, but now I've found my 'on' button."

This is typical of the responses from participants involved in "A Personal Safari," a four-part Extension seminar in personal development.

Kay Hendrickson and Ruth Scarlett, Washington State University Extension home economists, developed the series and continue to team-teach the unusual Extension program.

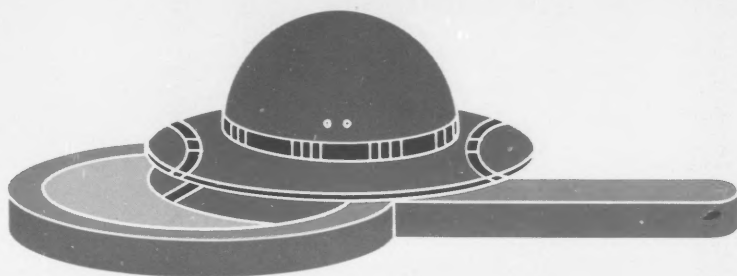
Through study and interaction with planning groups, the agents determined that low self-esteem was a common problem among adults today.

"We believe this is evidenced in the United States by the rising discontent and anxiety in families caused by changes in society, new family roles, high divorce rates, and interpersonal conflicts," says Scarlett.

Acting on these problems, the agents formulated the following seminar goals:

- Help individuals recognize their strengths, feelings, and potential to accept their uniqueness of self.
- Provide and encourage a support environment for exchanging ideas and clarifying personal goals.
- Help individuals set realistic goals and carry them out through effective communication, utilization of resources, and managing stress.

The agents succeeded in keeping the seminar cost down, but still provided a professional package. Cost per participant is only \$4.50, which includes a handbook, coffee breaks, room rental, and miscellaneous supplies. More than 1,000 men and women have taken "A Personal Safari."



Self-Image Boosting

Both teachers involved their class members early in the program.

"Tell us about yourself. Not your husband or your family or your pets. Tell us about you," Scarlett would say when participants divided into groups to discuss self-image. It was more difficult than one might think. Spouses, pets, and kids were hard to eliminate from such a monologue.

"Every one of you has many strengths," says Hendrickson. "Think about these and then tap those as resources when setting personal goals."

"We blame ourselves, but stop tearing yourself apart," Scarlett advised. "We need to tell ourselves we are lovable and capable and then believe it, because we are."

The "Personal Safari" was taught in several parts:

- *Taming Animals* included time and energy management, and how to set goals.
- *Facing Jungles*—or hiding in the vegetation—gave participants an opportunity to practice appropriate and effective methods of verbal expression.
- *Going Bananas*—or in control—dealt with stress management. "We believe that building up individuals can also improve families," say the agents.

Throughout the seminar the intent was to "strengthen," not to correct, and the agents were careful not to pose as mental health counselors.

Minority Participation

Aimed at reaching minority and low-income individuals, registration brochures went to Headstart, Home Base (an early childhood program), migrant day care, Extension aides, EFNEP, families, and area libraries. A brochure on the program also was included in the monthly housing bill in a subsidized housing project. The result of this effort was a higher participation by minority and low-income people.

The Extension agents report that:

- 75 percent of the registered people had never attended a similar class.
- 99 percent said they raised their level of self-esteem. (An evaluation showed that self-esteem remained at the increased level at the end of 3 months.)
- 73 percent indicated they had achieved goals set during Safari.
- 67 percent indicated they had done additional study because of Safari.

A big reason for the program's success has been the enthusiasm of Scarlett and Hendrickson. It's impossible to hear them talk about "Safari" without becoming excited.

Because of the demand for the program, it will be repeated several times this year. Plans are also underway to offer a followup class for the participants and develop a second series.

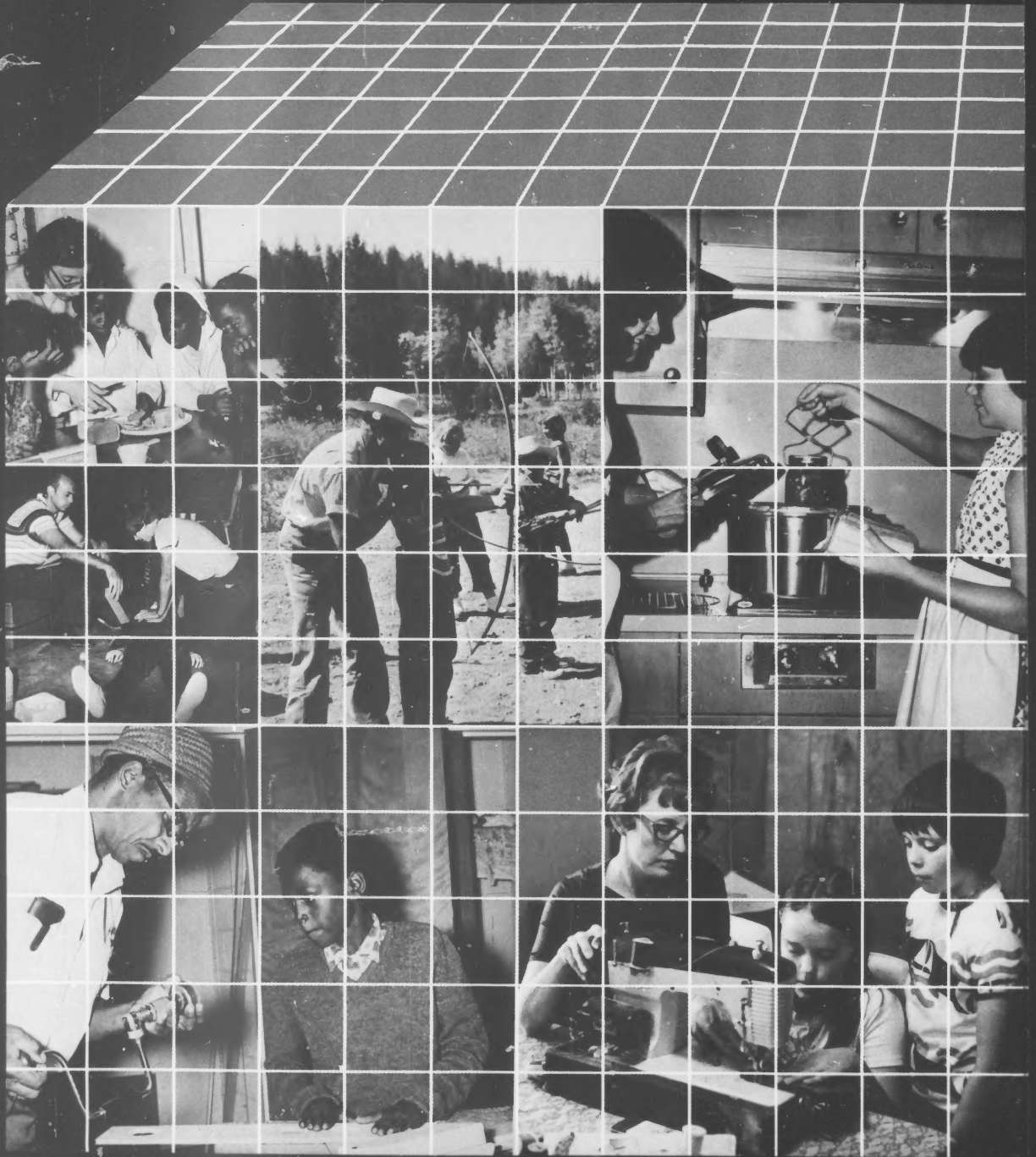
Handbooks detailing "Safari" are available for \$3.00 by writing to: "A Personal Safari," c/o Kay Hendrickson, Franklin County Courthouse, Pasco, WA 99301.

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Winter 1981

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extension review



review

The Seaman Knapp Memorial Lecture—A Tribute To The Father Of Cooperative Extension

Dr. Anson R. Bertrand, director of Science and Education, introduced the 1980 Seaman Knapp Memorial Lecture and the first lecturer, Lester Brown of Worldwatch Institute, before the National Association of State Universities and Land Grant Colleges in Atlanta, Georgia, on November 17, 1980, with the following remarks:

Seaman Knapp was one of those remarkable persons whose ideas continue to affect our lives nearly 70 years after his death. By almost any measure, that is an impressive accomplishment.

One of America's great agricultural statesmen, Seaman Knapp is the father of the Cooperative Extension concept. Although he died in 1911, 3 years before the Smith-Lever Act was passed, his success as national leader of the farm and home demonstration system helped to bring about this landmark legislation . . . legislation which resulted in the organization of Cooperative Extension Services in every state.

It is especially appropriate for the first Knapp Lecture to be presented before this distinguished forum—the annual meeting of NASULGC's Division of Agriculture joined by the Council on Extension. Dr. Knapp would have felt at home here, just as his spirit is very much with us today.

What is the significance of Dr. Knapp's contribution to demonstration education? As Seaman Knapp put it:

"What a man hears he may doubt, what he sees he may possibly doubt, but what he does himself he cannot doubt . . . school teaching merely instructs; it rarely reforms."

The Knapp principle involved more than just a new teaching method. It also involved a new technique of persuasion—a new technique of leadership. It represented a deep insight into the motivation of people.

In the latter part of the 19th century, the Department of Agriculture had set up many demonstration farms. Dr. Knapp himself managed some of these.

These early projects all lacked a vital ingredient for success—local involvement. The average farmer's response to these early demonstration efforts was highly skeptical, to say the least. This skepticism was based in awareness that the government could afford to take a chance—a government that wouldn't go broke if things didn't work out. But the farmer knew he had precious little margin for error.

The essential financial support is what made the difference when Dr. Knapp established a demonstration project on John Porter's farm at Terrell, Texas, back in 1903. This support was not provided by a distant government in Washington, D.C. Rather, it was provided by his neighbors. That made a vital difference. Local backing meant local involvement. It meant that the community was committed to the success of the project.

Knapp also required the establishment of advisory committees—a concept that is very much a part of the decisionmaking process in the Science and Education Administration (SEA) today. Knapp's advisory committees involved local lay leaders from all socioeconomic levels, and they provided a broad representative base. The farm demonstration project became "their" program rather than a program decreed by the federal government.

This lecture series has been established to commemorate his life and work. These lectures also are a tribute to the proud history of the Cooperative State Extension Service—which is Dr. Knapp's concept working on the national level.



Lester Brown, president of Worldwatch Institute, is the first Seaman Knapp Memorial lecturer. A bronze commemorative medal, depicted on the cover of this issue of *Extension Review*, was presented to him in regard for his work and contributions to society.

The first Seaman Knapp Memorial Lecturer is Lester Brown, president of Worldwatch Institute—a private, nonprofit, Washington-based, international research institute devoted to the analysis of emerging global issues.

Brown was recognized as a leading authority on world food problems while still in his twenties, when he received the 1965 Arthur S. Fleming Award as one of the "Ten Outstanding Young Men in the Federal Government." He joined the staff of the Secretary of Agriculture in 1964 as advisor on foreign agricultural policy. As administrator of the International Agricultural Development Service from 1966 to 1969, he coordinated programs to increase food production in some 40 developing countries. In 1966, he was selected by the U.S. Jaycees as one of the "Ten Outstanding Young Men in America." From 1969 to 1974, Brown was a Senior Fellow with the Overseas Development Council.

He is a member of the Council on Foreign Relations, the U.S. Committee for UNICEF, and the Board of Directors of the Overseas Development Council. Brown has been a guest scholar at the Aspen Institute, served on the faculty of the Salzberg Seminar in American Studies, and delivered the Nobel Symposium address in Stockholm in 1974.

He is the author of articles for numerous professional journals and popular magazines, and he has written 10 major *Worldwide Papers* in the past 5 years.

The title of Brown's lecture is "The Role of Land-Grant Institutions in Developing a Sustainable Society." (Editor's Note: Excerpts from Lester Brown's remarks appear on page 4.)□

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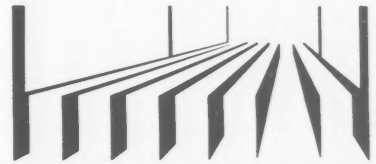
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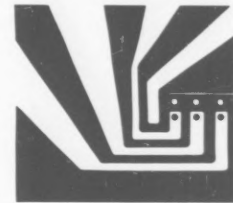


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extension review

Vol. 52 No. 1
Winter 1981

John R. Block
Secretary of Agriculture

Anson R. Bertrand
Director of
Science and Education

Mary Nell Greenwood
Administrator
SEA - Extension

The *Extension Review*, quarterly publication of the Science and Education Administration, is for Extension educators in county, state and USDA agencies. The Secretary of Agriculture has determined that the publication of this periodical is necessary in the transaction of the public business required by law of the Department. Use of funds for printing this periodical has been approved by the Director of the Office of Management and Budget through September 30, 1985. The Review is issued free by law to workers engaged in Extension activities. Others may obtain copies from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402, at \$2.25 per copy or by subscription at \$8.25 a year, domestic, and \$9.35 foreign. Send manuscript inquiries to: The Editor, SEA Information Staff, Room 3117-S, USDA, Washington, D.C. 20250. Telephone: (202) 447-6133.

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Editor: Patricia Loudon
Design Director: Sara Tweedie
Editorial Assistant: Ellen Pomerantz

Correction: Zorika Petic Henderson, staff writer, Cornell University, New York, was senior author of the article, "The Marine Mobile" in the Fall 1980 Review. Her name was inadvertently omitted.

The Role of Land-Grant Institutions In Creating a Sustainable Society — 1980 Seaman Knapp Memorial Lecture



Lester Brown
Worldwatch Institute
Washington, D.C.

Today is an exciting occasion—a chance to share with you the product of some of the research of the Worldwatch Institute. I am very much a product of the land-grant system, having come up through 4-H and having been trained at two land-grant universities, Rutgers and Maryland. As much as anyone can be, I am a beneficiary of the imagination and the ideas of Seaman Knapp. More than anything else, aside from being born on a farm, it was 4-H and the FFA that led me and my younger brother into farming in southern New Jersey. Then the experience of living in villages in India, under the International Farm Youth Program sponsored by the National 4-H Club Foundation, led me away from farming and into the broader issues of world affairs.

The topic—The Role of Land-Grant Institutions in Creating a Sustainable Society—implies that our current society is *not* sustainable. There are at least three important reasons why society as we know it cannot be sustained. First, the soil around the world is being washed out from under us. Second, we're putting excessive pressure on the basic biological systems that form the under-

pinnings of our economic system—the forests, grasslands, fisheries, and so forth. And third, we live in a petroleum culture, and the oil wells are starting to go dry. Each of these threats to the sustainability of civilization requires adjustments. . . .

Soil Erosion

USDA estimates that something like 30 percent of our soils are now losing topsoil at a rate that is slowly undermining their long-term inherent productivity. For the world as a whole, according to the U.N., at least one-fifth of our soils are in this precarious position, and that could be a conservative estimate.

A very detailed study in Iowa pointed out that not only are we losing soil at a rate that is undermining the productivity of much of our cropland, but that it's not economic to do anything about the problem as far as the individual farmer is concerned. . . . In the absence of major public policy intervention in the form of cost sharing, it may not be possible to stabilize the soils on which our contemporary civilization depends.

We also see cropland being converted to nonfarm uses on every continent. . . . We've been treating agricultural land as a reservoir, turning to it whenever we needed land for something else. We're probably reaching the point where it will not be possible to continue that practice. . . .

Biological Systems—Excessive Pressures

As we begin the 1980's, the per capita production of virtually every major commodity of biological origin—wood, seafood, the products of our grasslands such as beef, wool, mutton, and tallow—is declining at

the global level. If you're having difficulty understanding the new inflationary forces, this is where to look for clues. In much of the world, as far as biological systems are concerned, we're now beginning to consume capital along with interest. We are actually consuming the productive resource base itself. By definition that's what overfishing, overgrazing, and deforestation are. . . .

Depletion of Oil Reserves

Up until recently most projections showed world oil production peaking in the early nineties and then turning downward. These projections were based largely on physical factors, on production-to-reserve ratios. More recently projections, including our own at Worldwatch, have taken into account such things as "depletion psychology"—the desire of governments to stretch our remaining reserves in countries where the production of oil is exceeding new discoveries and where reserves are beginning to shrink. . . . Taking these new factors into consideration, we believe that world oil production is going to peak well before the 1990's. It is quite possible that it already has peaked and that the fall in 1980 from the 1979 level marks the onset of the gradual long-term decline in world oil production.

As fossil fuels are depleted we must turn to renewable energy sources in one form or another. The sunlight that's stored in fossil fuels, oil, coal, and natural gas has to be replaced somehow. Nuclear power is not going to play a large role—it now accounts for about 1 percent of the global energy budget. . . . We are going from an oil-based culture to a solar culture, with a greater use of coal during the transition. The difficulty is that we don't have much time. . . .

World Food Situation

As the energy situation changes, so does the food situation. There has been a distinct loss of momentum over the past decade in the growth in world food production. There are several forces that have led to the slower growth in food output—soil erosion, conversion of prime cropland to nonfarm uses, higher energy costs, and diminishing returns on the additional use of fertilizer in the agriculturally advanced countries. . . . We see North America emerging as the world's breadbasket with every other region of the world becoming food-deficit. . . .

Agriculture is not doing well in much of the world because of poor management and because its food-producing ability is being outrun by population growth.

As we begin the eighties we face, again, a period of food insecurity. A decade ago we had two major reserves of food in the world. We had the carryover stocks of grain and we also had cropland idled under U.S. farm programs. The second reserve, roughly 50 million acres of cropland idled in 1970, has disappeared entirely, and now we have to make it from one harvest to the next with the carryover stocks of grain that we have. . . .

We're moving into a period where the energy sector competes with the food sector. . . . Brazil, for example, may be self-sufficient in liquid fuels by the end of this decade because of its alcohol fuel program, but it may also have more hungry people than it has today. We are beginning to see the same situation in this country, with the subsidies on alcohol fuels amounting to more than a dollar per gallon in some states. . . . In the years ahead, in addition to the traditional bidders in

the grain market—the millers milling grain for domestic consumption, the feedlots, and the exporters—we will have the distillers coming in, backed by a very hefty subsidy, bidding for the same grain supplies.

As we look at the other side of the equation, at population, we see substantial increases ahead, even though the rate of population growth is beginning to slow. . . . The existing projections of population growth, whether it's the U.N. or the World Bank, show our current population of just over 4 billion going to 10 to 12 billion before stabilizing sometime well into the next century. At the Institute, we doubt very much that these population projections will ever materialize. They are based on demographic models that do not have good feedback mechanisms for picking up the ecological stresses ahead. . . .

The Role of Land in Energy

Looking ahead at the role of land, of agricultural land, and of land-use planning, we see a need to protect our prime croplands. . . . Clearly we have to rethink land-use policy, particularly as we move into a period where we depend on renewable energy. . . . While traditionally we have looked at man/land ratios in terms of their food-production significance, increasingly in the future we will look at man/land ratios in terms of their energy-production potential. . . .

Among the other adjustments that we will face, particularly in this country . . . we will have to move very quickly beyond the throw-away society. Any society that throws away materials throws away energy, and in the post-petroleum world we will not be able to afford that luxury. . . . The Japanese are way ahead of us in recycling raw materials; they're not throwing away

the energy that we are and consequently they have an advantage. We've got to adapt and adapt quickly. . . .

Renewable Energy Sources

At the transition from a petroleum culture to a renewable-energy based economic system, we're faced with enormous changes . . . from dietary habits to population distribution to methods of transportation. Some of the renewable energy sources that we will be turning to are biological, some are mechanical. They include wood; waste, whether it's urban garbage or livestock manure; energy crops; hydropower, both large and small scale; wind; solar collectors; and solar architecture. . . .

Waste—We're going to look to waste, to livestock manure as fuel. In this area, China is way ahead. The Chinese as of 1978 had 7 million methane generators at the village level. . . . In this country some of our large feedlots are now beginning to generate methane from livestock waste. . . . One of the challenges is to develop the technologies not only to produce the methane, but where farmers have a surplus of energy in the form of livestock waste, to help them convert it into a form that's marketable. . . .

Energy crops—There are two types to consider. One is the commodities we distill to produce alcohol as a fuel, such as sugarcane and cereals. The other is crops that produce hydrocarbons directly, such as vegetable oil from sunflowers, soybeans, or other hydrocarbon extracts. . . . As we move toward the development of energy crops—particularly those where we extract hydrocarbons directly—we may find a rash of new plant domestications unlike anything that we have seen since the beginning of agriculture itself.

Hydropower—In much of the world, we have developed large-scale sites, but have not yet begun to develop small-scale hydro. According to the Corps of Engineers, we have more than 50,000 dams in place in this country, being used for flood control, water storage, recreation purposes, etc. That's 50,000 dams in place, with water spilling over them that is not being converted into electricity. There is enormous potential here for developing electricity, and many of the sites will be on farms in rural communities.

Wind is the real sleeper—the energy source that's going to come on fast once it reaches the commercial stage. Windpower probably will grow at an enormous rate during the last decade of this century. . . . Once we reach the assembly-line stage of production of wind generators, things will develop very fast. . . .

Solar collectors are going to become an important item in the global energy budget as we move toward the end of the century, especially for heating water. . . . As the price of oil continues to rise, we will see solar collectors sprouting on rooftops in the same way that TV antennas did during the fifties. . . .

Solar architecture—It probably makes no sense to put up a building today that does not incorporate at least the basic principles of solar architecture. . . . whether it's a private home, an office building, or a dairy barn. . . . We have technology now to do many things that we haven't even thought of before. The challenge is going to be to do it quickly.

In economic terms and in social terms, we're moving into one of the most dynamic periods in human

history. When we made the transition from wood to coal it was spread out over centuries and that from coal to oil was spread over several decades. But in going from oil to renewable energy sources, we're talking about a matter of years, a couple of decades. If the transition is not well under way by the end of this decade, then the possibility of economic disruption increases markedly.

What are the consequences of this transition to a sustainable society—whether it's stabilizing soil, or harnessing new energy sources, or managing more sensibly the basic biological systems on which we depend? First, in looking at energy, it seems to me there are two important dimensions of the energy transition. One has to do with efficiency, . . . redesigning the entire economic system so that it is more efficient, whether it's the design of the transportation system or the way in which we produce food. Second, we are converting largely to renewable energy sources.

One consequence is the need to restructure the labor force. The type of labor force that worked well in a fossil-fuel-based economic system is not appropriate for a renewable-energy-based economic system. One of the first symptoms of the transition to a solar-based economy was unemployment of the automobile assembly line. While we could see very clearly where employment was going to decline, what has not been so obvious is the other side of the coin—the new jobs that are being created. . . . Conservation is becoming the most economic source of energy available to us. . . .

In moving toward a renewable-energy-based society, we see agriculture playing a far more important role than it has in the

past. In fact, there will be a resurgence of agriculture as farmers become the source not only of food, feed, and to a lesser degree fiber, but of fuel as well—all energy in one form or another. Much of the world's land is owned by farmers and is in rural areas. Over the long term, this is where much of the energy will come from to fuel the economic system. . . . Land-grant institutions are going to be very much involved in developing this new source of energy. We will begin to see farmers not only as energy consumers, but in many cases, as important energy producers as well.

Population Shift

Looking ahead at the world urban situation, we do not expect the projected growth in urban numbers to materialize. You can have large cities when you have cheap liquid fuel, but when that disappears it's very difficult to sustain those large cities. Renewable energy by definition is widely dispersed. You find it in the countryside, not in the cities. We've begun to see employment patterns shifting as a result of the move to renewable energy. . . . This means distillers will be located throughout the countryside and industrial employment will be created in rural areas rather than in the cities. . . .

We see a basic change in the type of investment occurring in the world. Up until recently most new investments were intended for growth. Increasingly, and we won't always be aware of it, new investment will be designed to achieve sustainability. . . . Home improvement loans are an example of investments for sustainability. . . . Today home improvement loans are used more for insulation, weatherizing, solar retrofitting—steps designed not to increase the capacity of the house, but to ensure that the people who live in it can

continue to do so as the world moves beyond the petroleum era.

Implications for Land-Grant System

What does all this mean for universities, for land-grant institutions? It seems to me that land-grant institutions are remarkably well designed to provide leadership in the transition to a sustainable society. . . . In the land-grant system, we have ongoing research, education and extension services—you couldn't design a better system to facilitate, to lead the transition, than the one we have in land-grant institutions. Seaman Knapp would have enjoyed the challenge that we are now facing as we look toward the end of the century. If we are to successfully make the transition to a sustainable society, a great deal of re-education and retraining will be required. . . . We are not talking about retraining people for the middle of the next century, we are talking about new skills that will be needed this year and next. . . .

We are faced with the need for wholesale re-education, in a way that we have not been before. Imagine some of the short courses available at a land-grant institution, what farmers would be interested in spending a few weeks focusing on in the winter. Some would find interest in techniques for on-farm methane generation, principles of profitable woodland management, and the on-farm use of solar collectors, whether for heating dairy barns or for drying grain. In the farm management field, courses on the integration of food, feed, and fuel production. . . . If you have a farm unit, how do you maximize output and income from the resources, given the demand for food, feed and fuel? How does it affect cropping patterns? What about a course on organizing community

firewood plantations or on evaluating wind generation sites? . . . Or the economics and engineering of wind power? . . .

What about the use of soybeans as a dietary staple? It's clear that the world's not going to be consuming more and more beef or livestock protein per person. In fact, world beef production per person has fallen 8 percent since the peak in 1976. How do we evolve in the West a soybean-based cuisine like the one that exists in East Asia today? How do you ferment soybeans to get the oriental equivalent of cheese, for example? I think home economists are going to be thoroughly challenged by the need to develop new ways of thinking about food, new cookbooks, new menus.

At the community level and at the state level, there is enormous opportunity for land-grant institutions to participate in the transition, helping to design community recycling programs and to develop local farmers' markets.

What about doing a state energy inventory, looking at all the potential sources of renewable energy in the state? This could be an interdepartmental undertaking involving researchers on experiment stations as well as those who are teaching. Such a project could be immensely valuable to the citizens of the state, to your constituents.

In this rapidly changing world, the role of information is going to become important. When the world is changing very slowly you don't need much information. But when change is rapid, then there's a premium on information to guide the process of change. We are going to have to educate people to the need for cost-sharing, governmental cost-sharing of soil conservation and of farm management practices to

stabilize our soils and ensure long-term food security.

Conclusion

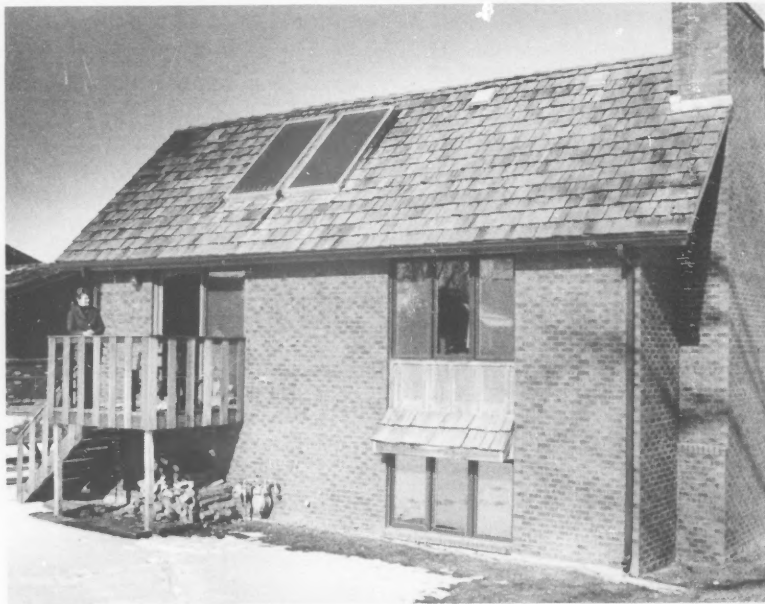
The enormous transformation in prospect over the next decade or two. . . . will not occur without a fundamental shift in values. What is the role of the universities in this shift in values? I mentioned earlier that we are going to have to move beyond the throwaway society. Planned obsolescence, an important organizing principle of our modern industrial society, is itself obsolete. We need to begin thinking about recycling and developing more durable goods. We may even begin to see values like conspicuous frugality replace conspicuous consumption. . . .

There is an exciting period ahead. I doubt that any period in recent history has been so exciting and so challenging. For the first time in many generations, our generation will have the opportunity to participate in the design and the creation of a sustainable society—one that is based on renewable energy resources and can potentially last forever. This will be an exciting period. . . . a challenging one. . . . Seaman Knapp would have enjoyed this challenge. □



Energy Conservation — A Way of Life

Gary L. Bennett
Extension Editor
Colorado State University



Libby Colbert, an Extension home economics agent in Weld County, Colorado, needed a comfortable place to live. But her new, energy-efficient home has turned out to be one of her most effective teaching tools.

Colbert, located at the Greeley office of the Colorado State University (CSU) Extension Service, conducts numerous energy conservation education programs. Her home is the result of practicing what she teaches.

When Colbert pays her natural gas bill for home heating, she can do it with a smile. Unlike most people paying utility bills in this region of the country, her highest monthly gas bill last winter (1979-80) was only \$14.70.

Home Construction

Her comfortable three-bedroom, 1,800 square-foot house closely resembles other homes in the subdivision. The differences become apparent, however, as Colbert points out the features that make it as much as three to four times more energy efficient than others in the neighborhood.

After moving to Greeley in 1976, Colbert rented an apartment while she began shopping for a home. Disappointed with the lack of energy conservation features available, she recalls that contractors were able to sell houses faster than they could build them and were not "going to" design beyond the code requirement for energy conservation.

"I started my own plans, although I had never designed a house before," she said. "First, I selected a lot that offered plenty of exposure to the sun in the winter and which, fortunately, is partially shaded by large trees in the summer."



Libby Colbert inspects her new home—one of the most valuable visual aids the Weld County home economics agent could have. Solar panels on the roof (top) are for heating the domestic hot water system (left). Double-glazed windows and insulated shades (right) are two other techniques Colbert has used to reduce home energy costs. (Photos courtesy of Colorado State University).

The home economics agent also gathered all the energy conservation information she could from the CSU Extension Service, supplementing it with material from libraries and other sources. She used only information readily available at no cost to the public.

The result is a house 30x30 feet, a cube, with two floors and double-car garage. The square design was selected because, with the exception of a sphere, it has the least surface area, reducing heat transfer.

Energy-saving Features

Heat-generating rooms—kitchen, bathrooms, laundry rooms, and furnace area—all are located on the north or colder side of the house. Living areas are arranged on the south.

Colbert says the house resembles a ship in some respects because there is something planned in every space. The open interior not only makes the home look spacious, but most importantly, allows heat from the sun to circulate.

The house has seven windows and one sliding glass door. Most of the exposure is on the south side. The double-glazed thermal windows are wood framed with anodized aluminum covering on the outside for easier maintenance.

Walls are of standard 2x4 construction with thermal-efficient sheathing inside and out. Coupled with 3-1/2 inches of fiberglass insulation, the walls have an "R" value of at least R-19. The ceiling is R-30. (An "R" value indicates a material's ability to resist heat transfer. Higher numbers mean better insulation.)

Although the house faces north, the garage is at an angle to the house to provide a buffer against the prevailing cold, northwest winds. An earthen berm across the lower level on the north side of the house provides further insulation and wind protection.

Draperies and curtains have either insulated lining, or are woven wood. Most windows have complete or partial valances or draperies that extend from floor to ceiling to further restrict the flow of air.

Clothes closets, which because of their space and contents offer significant insulation value, are located on north walls. A simple damper with a lint filter on the electric clothes dryer exhaust tube vents the dryer's warm air into the house in the winter and outside in summer.

Exterior Features

Exterior walls are standard brick veneer with cedar trim.

To enter the house, one always has to go up a flight of stairs, another feature that minimizes heat loss.

Up to this point, the house appears similar to most other suburban homes. But after examining the roof line from the back, the home's active solar features are apparent.

On the back, or south side of the roof, are located 41 square feet of solar collector panels for heating most of the domestic hot water. The panel plumbing, which circulates an antifreeze liquid to gather and transfer the sun's heat, runs to the lower floor where it connects with the specially jacketed water heater. As it is used, hot water then circulates through the water heater.

The roofline on the house is pitched differently in the front than in the

back to assure the optimum angle of exposure for the solar panels. The roof overhang in the back, or south side, is designed to shade the interior in the summer and allow a heat gain from the sun in the winter.

The angle and length of the overhang allow sun to reach up to 14 feet into the house in the winter, but prevent its entry entirely in the summer.

Because the gas, forced-air furnace runs minimally during the winter and the sun does much of the work to heat water and space, Colbert had a 12-month gas bill of only \$128.70 in 1978. This is just a little more than what many people with comparable homes pay for 2 months of gas service in the winter.

Colbert is presently working with neighbors to obtain a permanent solar easement for her property. Such a legal document would prevent neighbors from building structures or planting trees that would cross a certain plane above the house and block the sun.

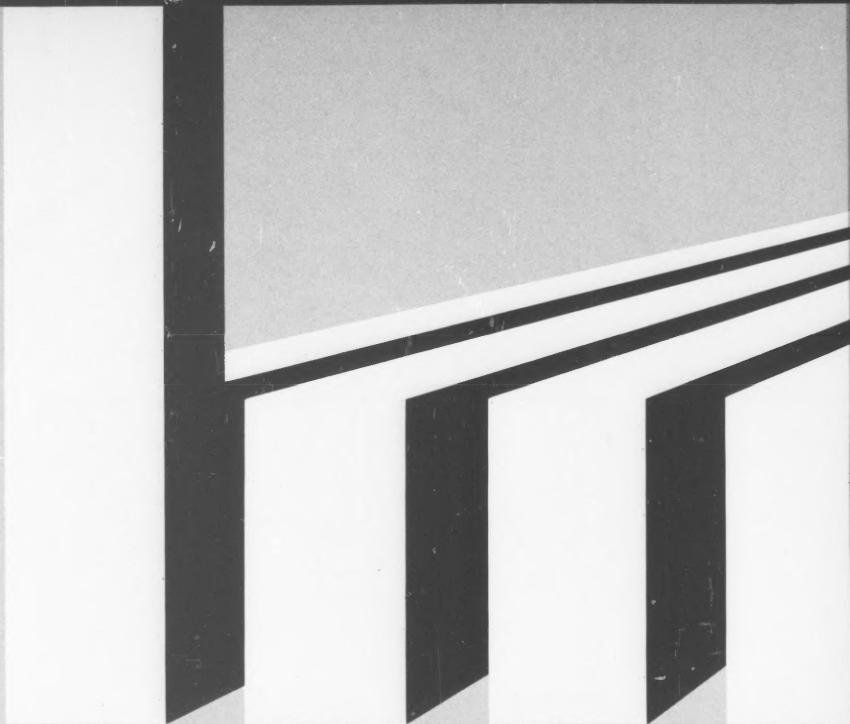
Educational Value

Her new energy-efficient home is one of the best visual aids available to Colbert in her Extension educational programs. A slide-set she developed featuring the home has been shown at numerous meetings across the state.

The agent also conducts tours of her home for groups particularly interested in energy conservation. Recent tours have been sponsored by the Energy Extension Service and the Solar Energy Association of North-eastern Colorado, the state convention of industrial arts instructors, home economists' organizations, and the county Extension homemakers. □

Cutting Home Building Costs

Michael Levi
Forest Resources Specialist
North Carolina Agricultural Extension Service



The biggest single investment most people ever make is the purchase of a home.

In recent years, home prices have escalated because of increasing costs of material, labor, and land, plus the invisible costs of meeting a wide variety of government requirements. The builder and prospective homeowner cannot avoid many of these price increases. However, the wood products industry has developed a range of cost-saving building techniques which can save the homeowner more than \$500 on an average-size house.

Wood is the major construction material used in home building. When used properly it will give long, trouble-free service. When selected or used improperly it can be affected by moisture, rot, and insects. It is estimated that U.S. homeowners will spend more than \$2 billion this year to repair damage caused by rot and termites. This damage can be prevented easily and cheaply—but it is not. Most people remain ignorant of the importance of the careful selection and use of wood products.

Challenge

The challenge to Extension staff in the wood products field is to help overcome this ignorance of “proper” utilization and of new cost-saving construction techniques. Success will help hold down housing costs and reduce homeowner repair and maintenance bills.

No single audience holds the key to wise use of wood in construction. The builder, building inspector, architect, mortgage company, building material supplier, and homeowner all influence the methods and standards of construction. Of these, only the homeowner has been a traditional Extension target audience. We need to reach some of those other groups to broaden the impact of our message.

“We’ve spoken to home building groups at their various local and state meetings. However, many of the people active in these professional associations are not the ones most in need of education. Foremen, counter personnel, and other people “on the ground” rarely attend such meetings. One-day meetings attract a broader audience, but still have limitations. Smaller companies

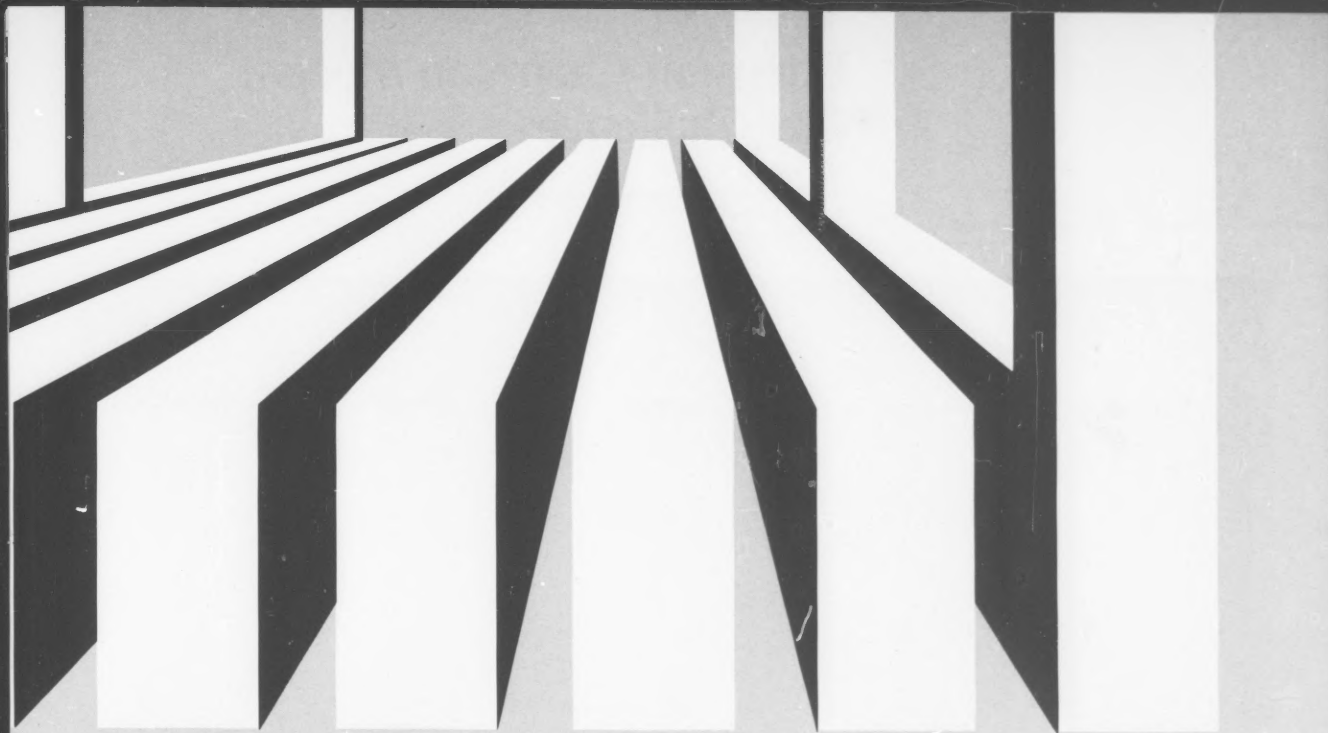
rarely send participants, and larger organizations often send only one or two of their top management people.

A Better Way

In North Carolina, we needed a better way to reach our audience and still present them with detailed technical information. Ron McBrayer, the senior field services representative in North Carolina for the American Plywood Association, suggested a series of evening meetings to attract builders and suppliers. A series of eight such meetings were held across the state.

A key to the success of the meetings was cooperation—cooperation between state specialists and county agents in organizing the meetings; cooperation between Extension and professional associations in promoting the meetings; and cooperation between Extension and trade associations in providing speakers.

The State specialists arranged for speakers from various trade associations and the university and obtained support of the local home builder’s association.



Eash series consisted of 3-hour sessions held one evening a week for 5 weeks. Session topics included: cost-saving building techniques using solid wood, plywood, hard-board, and particle-board; specification and selection of wood products; wood preservation; protection from rot and termites; paints and stains; and insulation.

More than 550 people attended at least one meeting and 270 received certificates for attending 4 or more meetings. Approximately two-thirds of the participants were builders or building material suppliers. The remainder were lay people interested in home building.

Program Success

The program's real success can be measured not by attendance figures, but by changes in practices. Participants from a major construction company that builds approximately 2,000 houses a year revised their company's wood materials purchasing system as a direct result of the workshops. This company estimates a yearly savings of more than a quarter million dollars by reducing the amount of material rejected or replaced due to incorrect specifica-

tion. Other attendees showed interest in using or recommending the cost-saving building techniques discussed and now understand the causes of some of the problems they had with wood.

"These meetings give us 3 hours with people we normally have problems talking with for 30 minutes," says Ron McBrayer, field representative for the Southern Forest Products Association.

"We know of no other way we could get this much time with so many builders and suppliers at one place," adds Jerry Craig, another field representative.

After reading a newspaper article based on his program on paints and stains, one speaker exclaimed "that's fantastic coverage, I really see tremendous opportunities in working with Extension."

Other Benefits

The county agents also derived other benefits from their current programs. Don McSween, Mecklenburg forestry agent, says the meetings open up more opportunities for him to work with builders on protection of yard trees. "Several

attendees stated they were willing to pay their workers to attend future programs," he says.

Bill Fowler of Wilkes County combines forestry with community development responsibilities. Through the meetings, he established a good working relationship with several potential community leaders who were previously unaware of Extension's capabilities.

Home economics agents who led several series said the meetings gave them credibility with the builders and suppliers and opened up a new audience for them. Sara Casper in Wake County and Sandra Barrett Hughes in New Hanover had attendees signing up for other workshops before the series was over.

No single series of meetings or single teaching technique will solve the problems arising from poor use of wood in home construction.

By taking the Extension message beyond the homeowner to the builder and building material supplier, the programs are not only improving the chances of this message being implemented, but are also developing an important new Extension audience. □

Extension Chairman Meets City Challenges

Betty Fleming
Communications and Family Education
Program Leader
Washington, D.C.



"Personal satisfaction and new challenges"—these are the rewards of an Extension chairman in an urban county, says Sally Ebling, Cuyahoga County, Ohio—population 1,650,000.

But what is an urban Extension chairman's job? For Ebling, it's the ups and downs of managing a million dollar budget, overseeing a 45-member staff, coordinating programs, and teaching selected programs through mass media.

First appointed to her position by an Ohio State University dean in 1977, Ebling will be eligible for her third 4-year term in July 1982. In addition

to the dean's appointment, she must be "elected" by her co-workers. Beginning as an Extension home economist in 1958, Ebling has worked on the Cuyahoga staff for over 20 years.

"The big thing we stress here is teamwork," says Ebling. And regular county staff meetings reflect this sharing among staff members. There are 10 Cuyahoga County agents in horticulture, 4-H, home economics, EFNEP, and urban gardening programs. Also on the staff are eight CETA aides and an office manager.

Cuyahoga's Extension office is located in Cleveland in a renovated building that used to house a stockyard headquarters. It's central to the county—on a bus line, near free-ways—and it provides Extension

with ample space for parking, offices, storage and meeting room, and seating for up to 200 in the lower lobby.

"Newer staff would like a central city address," says Ebling, a Cleveland native, "but they weren't with us when we had one and had to pay high rents, park in crowded alleys and expensive lots, and convince people it was safe to come to the city."

Funding

Cuyahoga's county chairman believes in writing proposals. "I started writing proposals when I was



above: Cleveland residents reap food and friendship in their own backyards through Cuyahoga County Extension's urban gardening program.

opposite: Extension Chairman Sally Ebling discusses budget with Virgil E. Brown and Robert E. Sweeney, two Cuyahoga County commissioners.



a county home economist," Ebling says. "It was obvious if we were ever going to expand our staff, someone had to do it, and no one else lined up." Now, she encourages other staff members to do the same. So far, most of the additional funding has been from the Office on Aging, such private foundations as the Cleveland Foundation, and 4-H.

Soon, Ebling and her staff will have new, hard data from which they can write statements of the need for grant proposals.

"We're conducting surveys, to provide program direction for the eighties," she says. "We've done 600 telephone surveys using volunteers to reach home economics and horticulture readers of our newsletters. 4-H is handing out ballots at the county fair. And, soon, the agents will be doing face-to-face interviews with key policy leaders. If I have to make program or personnel cuts in the future," Ebling says, "I'll have

a basis for making those hard decisions."

Programs

Talk to Ebling about programs and she'll tell you about a 4-H activity at the county fair, a new leaf compost project, the master gardener program, volunteers who teach parents about family life, and the new code-a-phone system that's handled 28,000 horticulture calls the first 6 months of operation.

Ebling may take you to one of Cuyahoga's famed greenhouses—a \$13 million industry—where energy-saving techniques are in operation. Double-layering polyethylene on greenhouse roofs, made air tight and inflated so that they provide dead air space, is one method of saving energy. Another technique is the "bubble house" treatment, in which a vinyl house is kept inflated with a fan. When the growing season is over, the house comes down. "We can get four crops of lettuce a year this way," Ebling says.

Ebling keeps her hand in home economics, her speciality, by teaching at clubs, writing newsletters, and appearing on radio or TV spots. "I want to be involved in both programs and administration," she says. "But I can't schedule too much because, sure as I do, they'll call a budget hearing."

A Day in the Life. . .

Every minute is made accountable in a busy county chairman's life.

The busy chairman's schedule includes inspecting a new lettuce crop in an energy-efficient bubble greenhouse with Nick Stephin, horticulture agent.



During a photo session with two of the county's commissioners, Ebling discussed plans for a downtown consumer information center, making arrangements for Extension to have a desk at the proposed storefront office.

Again, friendly conversation switched to a discussion of a possible TV series at TV Station WKYC when Ebling posed for a shot with TV public affairs manager Kay Smith. "You just can't know who to call or who to see," says Ebling. "You've got to stay in close, personal touch—that's when things happen."

What's a typical day like for the Cuyahoga County chairman? Ebling laughs and says it begins with a 7 a.m. call at home from an agent who's been up all night with an upset stomach, can't come to work, and has a meeting scheduled that day for 100 people.

At 8 a.m., Edna Nosko, office manager, greets Ebling with the word that the offset printing machine is

A volunteer auditing group headed by Edna Noska, office manager (center) confers with Ebling on the current monthly expenditures. Ebling plans a TV-show on money management with WKYC-TV public affairs manager Kay Smith (bottom right), and revises a new 4-H exhibit with Dennis Pittenger, 4-H agent (bottom left).



broken and, "We need handouts for today's meeting." Ebling has to quickly decide whether to go to a quick print office, a copy machine, or a nearby Extension office. Then, she sets out to find a "body" to conduct today's meeting.

Meanwhile, there are the "May I see you for a minute" interruptions and questions like, "Where are the paychecks?" Ebling says, "Anything can happen from staff car accidents to problems with clientele or upset

advisers. They all come here—to this office." Meanwhile, she's trying to prepare for a noon radio show.

By 2 p.m. Ebling is back in the office writing a proposal, training a new agent, or proofing a newsletter. On her way home at 5 p.m. she drops some material off to a volunteer.

What are the qualifications for an urban chairman's job? Established contacts in the community, management and administrative skills, fiscal experience, personnel expertise, public policy and public relations abilities, and good educational principles are most important, says Ebling.

She's especially pleased with "networking" that was involved in lining up an urban Extension advisory committee which includes a radio station executive, an attorney, a TV newsmen, corporation head, utility company vice president, Farm Bureau official, county fair president, community center head, TV community affairs person, and others.

A county chairman doesn't often take time to sit back and consider what he or she is proud of, but Ebling took a moment to do that. "I'm pleased with the fact that our staff has grown," she says. "We're getting more financial support, and I feel like we're upgrading our facilities and equipment. And everywhere I go," she says, "people compliment our staff." □

A Nebraska Dividend— 4-H'ers and IPM

Lloyd W. Andersen and David L. Deith
Extension Entomologists
University of Nebraska-Lincoln

A Brown County corn producer, Dave Jones, describes the Nebraska 4-H Corn Insect Field Scouting Project as "fantastic." Over the past 2 years, the 4-H project has helped Jones save approximately \$14,000 in controlling corn rootworms on his 840-acre farm.

Begun in 1978, the project is part of the delivery system for the Integrated Pest Management (IPM) program at the University of Nebraska. IPM employs a combination of techniques in controlling the many potential pests that threaten a crop. The main components of the Nebraska IPM program are: maximizing existing natural controls to prevent the buildup of pests, monitoring to determine the need for further measures, and using the most effective pest suppression technique or combination of techniques when necessary to prevent economic damage to crops.

One of the keys to the program, says Jones and neighbor Henry Rudnick, whose sons are scouting their corn fields, is "record keeping." Identifying which fields need corn rootworm treatment the following year will be an added savings for them. On those acres not needing treatment, a savings of \$8.00 an acre is possible.

4-H scouting participants must be at least 12 years old and enrolled in the 4-H Entomology Project. The youths must also complete a 4-H record book and write a project story relating to their summer field activities. Those completing the project receive an attractive IPM certificate.

Project Elements

The corn insect field scouting project stresses the identification of major pests, insect biology, basic population sampling techniques, and use of economic thresholds to determine the need for control. Emphasis is placed on the ecology of the farm—the relationship of crop and livestock ecosystems and the pests and beneficial insects likely to be found in each situation.

Within the project, 4-H'ers have the opportunity to select a single corn pest species, a combination of insects, or the total pest complex affecting corn production to scout for the season. These pests include grasshoppers, European corn borers, cutworms, corn rootworms, and others.

Training

Training is conducted in two parts. For the first session, the 4-H'ers meet at the University of Nebraska district stations to use their laboratory facilities—microscopes, insect collections, and visual aid equipment. Each youth receives a packet with information about corn production and scouting at the lab session.

Following this initial training, apprentice field scouts conduct weekly field surveys and complete scouting reports for use by producers and county Extension agents in assessing the insect situation in their areas.

The second training session, or followup field tour, is an integral key to the program. Here, the scouts, parents, and Extension specialists review the information developed from field surveys. The scouts' field reports and results are



checked for accuracy and proper survey procedures.

Additional followup tours are offered, if necessary. These can be organized by an individual or a club through the county Extension agent.

Community Participation

Parents of 4-H'ers are urged to attend all training sessions to better understand the scouting project and its relationship to the overall Nebraska IPM program.



Optional activities to develop and encourage leadership and organization abilities are offered the scouting participants. These include organizing a visit to a local seed or chemical dealer, organizing a community-wide insect survey, leading a school class discussion on IPM, or entering the 4-H speaking and demonstration contest.

The philosophy behind the Nebraska 4-H IPM scouting program is for youth to learn the basic principles of integrated pest management in order to develop a greater appreciation for innovative approaches to agriculture in later life.

For the 4-H scouts, producers, and Extension agents in Brown County, that philosophy is already paying big dividends. □

A Calculated Success — Small Towns Reduce Utility Billing Time



*John A. Wallize
Communications Specialist
Iowa State University*

More than 200 small towns in Iowa were still computing their utility bills manually, according to a study by the Iowa Office of Planning and Programming in 1979.

Many of these towns billed consumers quarterly. But with increasing utility costs, city officials considered implementing monthly utility bills to soften the blow to customers' budgets. That move, however, could have tripled billing costs for these small towns.

But the Local Government Programs office at Iowa State University (ISU) tackled the problem. With an eye on the many uses of programmable calculators in state agricultural pro-

grams, Jack Whitmer, Extension political scientist, discussed the utility billing issue with Harold Walter, Extension fiscal officer.

Using the miniature calculators, Walter developed a program to compute water bills based on consumption and a step rate structure; calculate and add the state sales tax; calculate the late payment penalty based on the size of the bill; report the net and gross bill; and add any payments in arrears.

Pilot Project

The city of Monticello in Jones County volunteered to pilot test this program. After a short training session, the city billing clerk computed

the quarterly bills using both the old manual method and the Extension program method with a calculator and printer. Accuracy, performance, and time were carefully recorded.

Using the programmable calculator, billings that once required 1 hour took 12 minutes. Five days of billing work could be done with the program and calculator in 1 day. Monticello immediately purchased its own calculator-printer for less than \$400.

At ISU, programs have now been developed for two other brands of programmable calculators. The three machines have been demonstrated at the Iowa Municipal Finance Officers Association to acquaint small towns with equipment and programs. Whitmer and Paul Coates, another Extension political scientist, include a demonstration of the new utility billing method with their orientation program for newly elected mayors and council persons conducted throughout the state.

Expanded Program

Twenty-three other small towns have converted to programmable calculators, and others are studying the possibility. In addition, programs are being developed to handle combination billing for several utility services—electric, water, sewage, and trash collection. Other programs will be developed for payroll and special assessment calculations.

Extension area resource development specialists located throughout Iowa are also trained in the use of the calculators so that they can work with city personnel locally on the calculator programs. (Editor's note: For additional information concerning this program contact Jack Whitmer, Extension Political Scientist, 506 Ross Hall, Iowa State University, Ames, IA 50011.) □

Extension Serves Handicapped

Glenn I. Latham
Cooperative Extension Service
Utah State University



Cooperative Extension is uniquely equipped to serve the handicapped, particularly those living in rural areas.

During the last 3 years, this service to the handicapped has been demonstrated by the Cooperative Extension Project for the Handicapped (CEPH), a joint effort of Extension Service and the Exceptional Child Center of Utah State University.

Supported largely by a special projects grant from SEA-Extension, CEPH has established programs in four areas of Utah. These programs are available to handicapped individuals residing primarily in rural areas.

One program, the only one of its kind in the United States, brings CEPH services to Blanding, Utah's Navajo and Ute American Indian reservations through a Navajo field worker employed as an Extension agent. The three programs are:

- *Individual services*—help to handicapped individuals and their families at home,
- *Community development*—assisting communities in becoming better places for the handicapped to live,
- *4-H for the handicapped*.

Individual Services

Jim Brown (not his real name) graduated from high school in Utah and wanted to go to college, but college posed more than ordinary challenges for him. Jim has muscular dystrophy.

Jim lived 30 miles from the nearest college, but the severity of his handicap prohibited him from living independently or driving a car.

Utah's Division of Family Services could not assist Jim because his father's income level is too high. The Division of Vocational Rehabilitation provided some financial aid for his education, but was unable to help Jim relocate or adjust to college life.

To help meet Jim's special needs, the Division of Vocational Rehabilitation referred him to CEPH.

CEPH's goal was to help Jim enroll in college and find housing. Program agents made provisions for him to take his college entrance exams, helped him register for classes, and worked with the registrar to move classes into facilities more accessible to a wheelchair.

By advertising in the student newspaper, CEPH found students to escort Jim to classes and help with his personal needs, including dressing, eating, bathing, and getting in and out of bed.

Now that Jim Brown is adjusted, both scholastically and socially, to college life, CEPH's services are no longer necessary on a daily basis.

Community Development

The three members of the Jones family (not their real name)—parents and child—are handicapped. Before they were referred to CEPH by an

Extension home economist, they lived in a ramshackle house infested with rats. The Joneses were unable to manage the home on their own, but no existing service agency could help them. The Health Department could have condemned the house, but that would have left the Joneses homeless.

By organizing the community, including local government and church organizations, a CEPH field worker relocated the Joneses into a new mobile home on their own property. Now, an Extension home economist helps them manage their home, and an Extension nutrition specialist is teaching Mrs. Jones how to plan balanced meals for her family.

4-H for the Handicapped

CEPH has also started a 4-H program at a workshop for handicapped adults in a northern Utah farm community. The 10 4-H'ers learn to crochet, hook pillows and rugs, build with popsicle sticks, and make clay pottery. At a recent county fair, the club's entries won blue and red ribbons, and one 4-H'er was invited to enter her project in the state fair. They also enjoy field trips to the fire department, police station, bank, zoo, and a cheese-making plant. □

Pig Producer Pushes For Full-time Farm

George T. Brandsberg
Assistant Extension Editor
Kansas State University

The Fouts family (below) survey their Wabaunsee County farm and a pen of hungry hogs. K-State Extension economist Leo Figurski and Fouts (right) analyze prospects for expanding the producer's pork operation. (Photos courtesy KSU Extension Information.)



Being a part-time farmer wasn't exactly what Justin Fouts had in mind. But rising costs, tough competition for rented land, and a turn in health forced him to reconsider.

In 1973, Fouts was farming wheat and sorghum on 550 acres of principally rented land near Maple Hill in Wabaunsee County, Kansas. In his area, about 20 miles southwest of Topeka, the land is somewhat hilly, except for the choice bottom ground.

"I was beginning to wonder how a farmer was going to make it with farm machinery costs going up, land

getting harder to rent, repairs getting more expensive, and dependable help practically impossible to hire," Fouts recalls.

Then he came down with the mumps. The childhood disease settled in his neck and laid him up for several months.

"Because of my bout with the mumps, I can't turn my head to look back. So, I'm not much use when it

comes to running a tractor, pulling a plow, or other machine that requires looking back to watch what you're doing," he says.

While his illness put a financial strain on his family, Geraldine Fouts' position as a nurse at Topeka State Hospital kept the episode from becoming a disaster.

Once Fouts was able to work again, it was clear that he couldn't do everything he had done earlier. "That's when we took a serious look at what we could do. I've always liked working with livestock. So, we decided to specialize," he says. In addition to health matters, high costs of buying and maintaining equipment and trouble finding farm labor helped Fouts decide to sell out most of his grain farming operation.

"I just can't see investing \$30,000 in a tractor and then having to hire someone who doesn't know how to operate it. The wrong kind of operator can tear up an expensive piece of equipment and do thousands of dollars of damage in practically no time. Unfortunately, the supply of skilled people for hire is limited," Fouts says.

So, he decided it would be best to go into an area of production that he and his family could handle with their own labor.

From Sorghum to Sows

"I'd been in the hog business as far back as 1957," Fouts recalls. "But for many years I was farming on rental land that didn't have suitable buildings to expand my hog operation. When you're on a rented farm, you don't usually make improvements, especially when the landlord doesn't want to put money into them," he says.

Another factor that favors Fouts' specialization in hogs is that his children can be more helpful in hog production than in a grain farming operation. Bruce, 16, and Kim, 14, are both active 4-H'ers and are already raising purebred Durocs to finance their future college education.

Fouts has studied the possibilities for expanding his hog operation for several years. "We've looked at lots of operations and have sorted out the ideas we think work best for us," Fouts says. "I've talked to Wendell Moyer, K-State Extension animal scientist, Pat Murphy, K-State Extension ag engineer, Darold Marlow and Herb Bulk, county Extension directors for Wabaunsee and Shawnee counties, and a lot of people at the National Pork Congress. Whenever I could find someone who knows about hogs, I talk to them," he says.

Computer Assistance

On a few occasions, Leo Figurski, area Extension economist for north-eastern Kansas, helped Fouts analyze financial aspects of the proposed operation on a computer.

"You tell Leo what you want to do and he can run a 5-year projection on the operation you're thinking about," Fouts says. "It shows you cash flow and all that."

Marlow says that Fouts has been a good cooperater with Extension specialists, seeking advice from many sources. "Even with good information, the operator with limited resources has an uphill job getting financing and all the inputs he needs to expand," Marlow says.

A significant number of small farm operators in Wabaunsee County are fortunate in having employment opportunities in Topeka, Emporia, and Manhattan to supplement their income, Marlow adds. "As a matter of necessity, most limited resource farmers are part-time farmers who earn some of their living at an outside job."

Last spring, Fouts and his son planned to provide most of the labor to build new facilities to expand the family hog operation. They intended to have a subcontractor handle the excavating and heavy concrete work and then do the carpentry themselves on a 24- by 86-foot farrowing house and nursery that would feature elevated cages for baby pigs.

"Our total plans called for a farrowing house and nursery, remodeling a 22- by 55-foot Quonset for use as a nursery and building a 34- by 60-foot shed for a finishing floor. The whole project should cost around \$35,000," Fouts figures.

Fouts' lender had given the go-ahead to build. "Lenders sure like to see that you have plenty of collateral," he says. "Then, too, you'd better figure out exactly where you're going, what your cost will be, and how your cash flow is going to make it all work. You need complete records from past years to help show that you can make a go of it," he adds.

But slumping hog prices and soaring interest rates forced the Fouts to scrap their expansion plans for now. "I figured the longer you spin your wheels, the deeper you get," Fouts says. "If we had gone ahead and expanded as planned, we'd be losing a dime or more per head per day with hogs on feed. At that rate, it would take all of the next rise in prices to get back out losses," he says.

Part-time Producing

Fouts says his present, modest facilities are the kind he can walk away from and leave idle or at a minimal capacity while he goes to work elsewhere until prospects look better. If he had expanded, his fixed costs would have forced him to operate at full capacity unprofitably.

Until recently, his operation was based on 60 Yorkshire-Hampshire crossbred sows, which he bred with Duroc boars. As a producer, his goal is to achieve an average of 9.3 pigs per litter.

"Getting this kind of litter average means you have to live with your sows," Fouts says. "When you've got brood sows that deliver a litter of 10 or 12 pigs, it seems like there's always one or two that come with a membrane stretched over their heads. If you're not there to take it off, they die. And at today's hog prices, saving a pig or two a day is pretty good wages," he says.

In slack time, Fouts occasionally works for neighbors. One is a feed equipment dealer and the other a large-scale farmer. However, the farmer has since reduced his operation to a size he can handle by himself. Fouts figures he spends about 50 percent of his time working off the farm. When he gets his new farrow-to-finish hog operation going, he'll be fully employed at home.

"Right now we're aiming for an operation we can handle ourselves," Fouts says. "Someday we may want to expand, but first we have to see how our present plans go." □

The Stress Connection

Jayne E. Marsh
Information Coordinator/4-H Youth
Michigan State University

Adolescence is a trying, confusing time for most young people and their parents. Peer pressure, changing body functions, and the search for independence all take their toll on parent-child relationships.

To help young people and adults cope with the pressures of growing up, Michigan 4-H Youth Program has developed a new health project.

Funded by a special grant from the Robert Wood Johnson Foundation through the National 4-H Council, the "Stress Connection" teaches 4-H'ers about coping with stress through use of workbooks and two slide-tape presentations.

The project is based on the premise that self-identity strongly influences a person's responses to life's challenges. By getting to know themselves, young people are more apt to make wiser decisions concerning their future.

"The Stress Connection includes exercises in developing self-concept, communication, problem-solving, and decision-making skills," says Judy Goth-Owens, a Michigan State University (MSU) graduate student who helped develop the program.

"Through exercises and activities, leaders and members learn together about the consequences of stress

and the importance of learning to deal with it effectively," she says.

Identifying Stress

Since many people do not understand why they feel uncomfortable or pressured, one of the project's first exercises is designed to help participants identify stress and its potential causes.

"Through these exercises, the participants learn what stress is, what happens to the body during stress, and how people usually cope with it," Goth-Owens explains. "The goal is to teach 4-H'ers that responding to stress with aggressive behavior or ignoring the problem only makes the situation worse and can damage their health."

The Stress Connection project treats stress as a personal challenge. Humorous artwork and an informative question-and-answer format help leaders and members learn to recognize stress-producing situations and how to handle pressure effectively. Participants can write about their reactions to stress in the study guides and keep journals for recording their feelings during stressful situations.

Project Materials

The two slide-tapes are entertaining, yet informative. One tape explores

the causes of stress, its symptoms, and coping techniques. The other tells the story of Ernie Smith, a young boy who has moved to a new community and new school. He experiences stress as he tries to adjust to his new surroundings and make new friends. Ernie then joins a local 4-H club and learns how to handle his anxiety effectively.

"Leaders will find the materials very easy to use," says Goth-Owens. "The workbook format and supplementary slide-tapes combine excellent materials and visuals in teaching how stress affects people's lives."

Goth-Owens says that the Stress Connection can be used in any 4-H group or club. "You don't have to organize a special group to use the material."

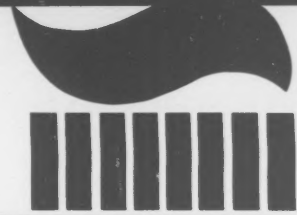
"Many clubs use the stress workbooks and slide-tape sets within their existing club to help members understand and cope with anxious feelings about a deadline or goal," she says.

Though the Stress Connection was developed as a pilot project in Michigan, the materials were distributed nationwide this spring. Interested leaders should check with their local county Extension offices for availability. □

STRESS

H.E.L.P. for Dental Health

Patsy White
Associate County Extension Agent-4-H
Dale County, Alabama



Smile, you're on 4-H camera. This is not a photography project—it's much more serious. It is a dental health story.

Dental disease attacks 95 percent of the Dale County, Alabama population. They feel it in the mouth first and in the pocketbook second. In county classrooms, 4-H has an educational opportunity to reach those students who cannot afford the cost of dental care. Preventive dental health care is an effective solution to escalating medical costs.

Program Inception

Auburn University, the University of Alabama, and the State Department of Public Health joined together in 1972 to disseminate health information to Alabama citizens. The project was named H.E.L.P. (Health Extension Learning Program).

H.E.L.P. provided Extension agents with the training needed to tell the dental health story. Since 1972, Extension has used three different approaches in the program.

Senior 4-H Clubs were its first target audience. Although past the primary teeth stage, these 4-H'ers had only a few years before they had children of their own. This group studied in detail the structure and function of teeth, as well as diseases of the mouth.

Their lessons concluded with a workshop on dental disease prevention. Red wafers were used to show plaque buildup. At first the teens were reluctant to chew the disclosing wafers and look in the mirror for problem areas. Once they relaxed, however, the kids removed the plaque with toothbrushes and began to enjoy themselves. Each student also used dental floss.

Next Step

This year, the 4-H teens shared what they had learned by writing a skit to introduce the dental health program. Two sixth-graders played the part of clowns named Bozo and Coco.

Gaining kindergarteners' and first graders' attention, the clowns told them about how diet affects teeth. Afterwards, an older 4-H'er explained the parts of a tooth with posters.

The three 4-H'ers then divided up the class and showed the youngsters how to use wafers, toothbrushes, and dental floss.

Teaching the Handicapped

Patsy White, county 4-H agent and a volunteer leader, expanded this program by teaching handicapped children in the local school system. The majority of these children came from low-income families. The classroom teacher taught the children a preliminary lesson on dental health before Extension visited.

The Extension agents wanted the school to see a real need for this program, so the functions of the teeth were covered in more depth. Their discussion of the structure of

the teeth was brief. Another lesson stressed that people need teeth not only to speak correctly, but to eat and smile pleasantly.

Next came the workshop. The children chewed the wafer and laughed. Although their handicaps made teaching them to brush and use dental floss much harder, the experience was most rewarding for the agents.

Dental health care supplies were kept at the school and used every school day for a month. At the end of a month, Extension agents evaluated the program. Although the handicapped children could not readily recall the parts of a tooth, they remembered how to clean their teeth properly. Since then, the dental health program has been presented to five groups of handicapped persons.

Other Assistance

A local dentist suggested other areas to cover in the program, including dental policies offered by insurance companies.

He explained that companies in Dale County with insurance dental riders were paying a higher percent for 2-year cleaning, X-rays, and checkups than they did for dental work. The insurance company believed that they spent less by using preventive measures in their dental program. □

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