EXTENSION SERVICE

review

U. S. Department
of Agriculture
January
and February
1976

Pest Management Practices

VOL. 47 • NO. 1 • JAN.-FEB. 1976

The Extension Service Review is for Extension educators—in County, State, and USDA Extension agencies — to help people learn how to use the newest research findings to bring about a more abundant life for themselves and their communities.

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 this Department. Use of funds for printing this periodical has been approved by the Director of the Office of Management and Budget through July 1, 1978.

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 60 cents per copy or by subscription at $3.60 a year, domestic, and $4.50, foreign.

Reference to commercial products and services is made with the understanding that no discrimination is intended and no endorsement by the Department of Agriculture is implied.

EXTENSION SERVICE
REVIEW

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

CONTENTS

We get letters . . .

. . . But, we'd like more!

One note from an Extension specialist at VPI awarded us the "blooper of the year award" for our "callous indifference" in using the word "color" in a caption in the Sept.-Oct. 1975 *Review*. We welcome his comments, but hasten to add—our staff has always prided itself in being "colorblind" in such instances.

A recent letter from a longtime Extension communicator, Harold Swanson, Minnesota, noted that ". . . nearly every article in *Extension Review* did have application to Extension programming and definitely presented some of the most creative ideas we can find in Extension work."

Another welcome comment, but—what do the rest of our readers feel about the *Review?* If you don't let us hear from you, we'll never know.

During the past year, the *Review* has taken on a new look: new logo, updated format and design, space in the masthead for credit to photographers . . . Also, an effort by our staff to bring you the latest in Extension programming, while it's still new and innovative.

So, whether they be "bouquets" or "bricks," please send us more letters. When I was just a "gleam" in my father's eye, former ES Information Director Les Schlup phrased it much better than I can:

"Thus far, the *Reviep* has plowed only a short furrow. Much untouched fertile soil still remains uncultivated . . ." —*Patricia Loudon*

Piloting pest management

by
William Carnahan
Information Specialist, ANR
Extension Service-USDA

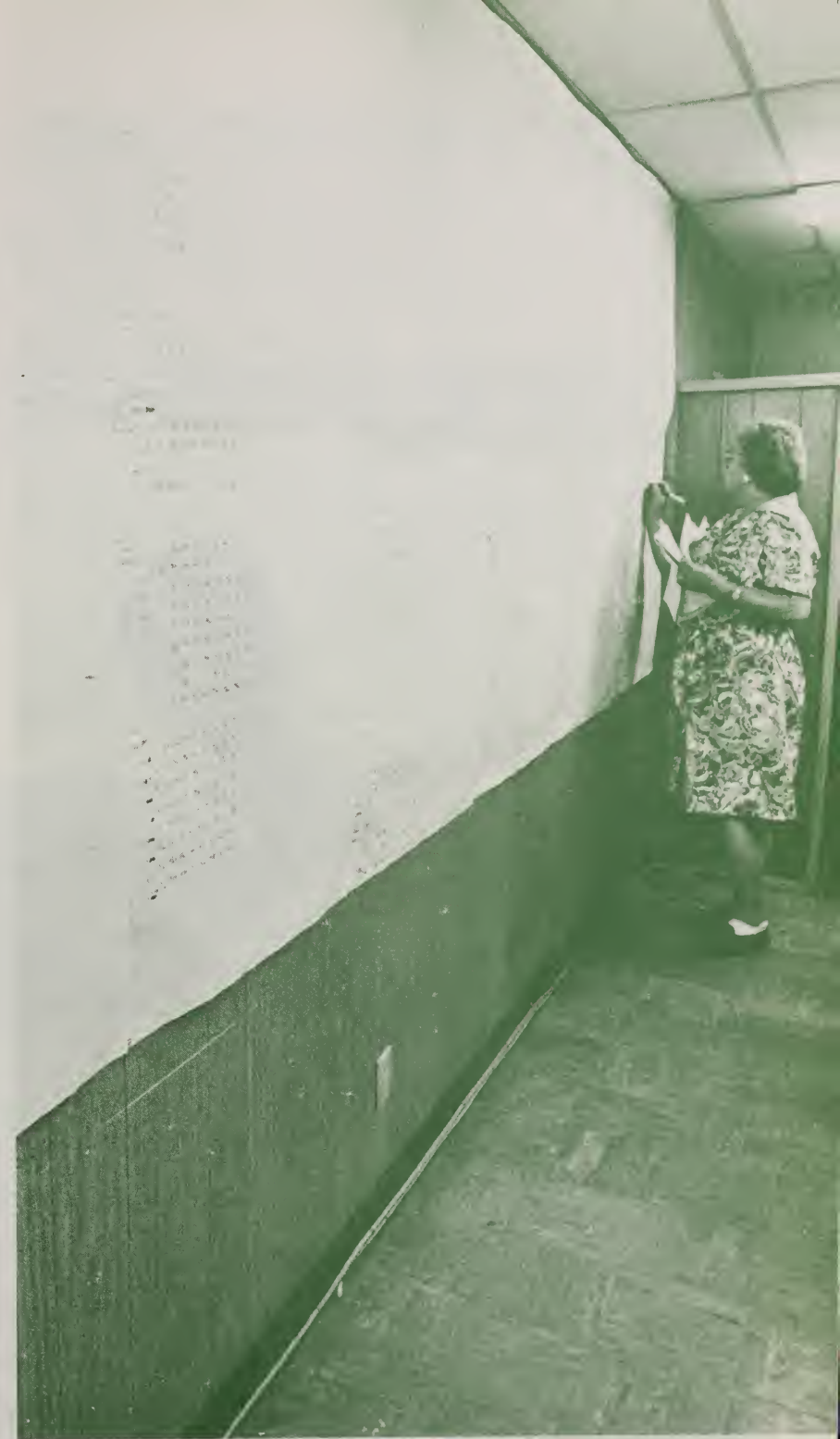
John Reese, a Licking County, Ohio, farmer, says there just aren't enough hours in the day to check his many acres of corn for weeds, insects, and other pests. "And besides," he says, "I don't always know what I'm looking for."

Consequently, Reese is one of many hundreds of farmers across the country participating in the pilot pest management program of the Extension Service.

Last summer, half-a-dozen young people in Licking County, mostly college students, were hired to scout more than 4,000 acres of corn each week for insects, weeds, and other pests. Their findings were used to develop pest control recommendations for Licking County farmers.

Extension Agent Merle Sheetz said many farmers in his county were probably applying more soil insecticides for corn root worm than necessary. "Now," he said, "our farmers realize they seldom need to apply these chemicals when their fields are properly monitored for insects."

The pest management program has been underway in Licking County about 3 years. Agent Sheetz says, "It now means that less chemicals are used—a big saving for the farmers,



This wall chart lists all the participating farms, field by field, in the Licking County, Ohio, pest management program. Harriet Ogle, secretary in the county office, enters data collected daily by the scouts. The chart tells at a glance the date the field was planted, each time it was checked for insects, and what was found.

and it means less potential contamination to the environment—a big help for all of us."

"What pest management does," says Joseph M. Good, Extension's director of pest management programs, "is to combine the best management practices to keep pest populations below economic injury levels. Then we can get the highest crop yields possible in an environmentally and economically sound manner."

It is an interdisciplinary approach to pest problems, Good explains, and

Dennis Morihara, a pest manaement scout, sweeps an alfalfa field for potato leafhoppers on a Noble County, Ind., dairy farm. After recording the number of insects and damage he finds, he reports to Edwards, the pest management specialist.

is based on knowledge of each type of pest, its environment, and its natural enemies. Pest management emphasizes natural controls where possible.

In Michigan, for example, scouts monitor apple trees for red mites and rust mites (the bad guys) and for beneficial mites (the good guys).

Frequent scouting makes it possible for the county agent to monitor mite populations. When it looks like the beneficial mites are building up faster than the red and rust mites, no sprays are used and biological control becomes the key. If the red and rust mites seem to be taking over, the county agent may recommend spraying with a selective miticide.

Royal Kline, a Michigan apple grower in the program, says, "It saves us money on spray materials and on labor because we wait until we get the scouting report. If there is no pest problem, we just don't spray." Kline, a program member for 4 years, used to spray routinely every 7 to 10 days. Now, he sprays only when insect and disease problems are developing.

Kline also likes the program from the pollution standpoint because "we are not putting as many chemicals on the ground or in the streams."

In other pilot pest management projects across the country, potatoes are being monitored in Maine; citrus in Florida; vegetables in Delaware, California, New Jersey, and Michigan; tobacco and cotton in North Carolina; and grain sorghums in Kansas.

These are only a few of the 30 projects underway the past year in more than half of our states. This state-federal cooperative venture began in 1971 with only two projects. In 1973, it had 29 pilot projects. Statewide cotton pest management programs are being developed in most cotton states.

In the Sacramento River Valley of California, pear-grower John Wheeler has been in the program 3 years. Here's what he thinks about it: "There's no doubt we've benefited from the program. It's saved us money, and we're making progress toward getting along with the environmentalists as far as our insecticide programs are concerned," he said.

Wheeler said, "I followed the Extension Service recommendations, and while there are certain risks involved when dealing with pests, we have saved ourselves thousands of dollars."

"That's money in our pockets, and eventually the consumer is going to benefit because our lowered costs will hopefully be passed on to them," he added.

In Oklahoma, the Extension Service has set up a mobile diagnostic laboratory for identifying plant pests—weeds, insects, diseases, and nematodes. According to Pest Management Specialist Roy Sturgeon, "the mobile lab puts us right in the field and saves time because we don't have to send our samples to the lab at Stillwater."

The Oklahoma program is supported at the state and area level by Extension specialists in weeds, entomology, agronomy, and plant pathology. "We find the most economical way to handle pests is to have a total crop management program that includes pest management," Sturgeon said.

Farmers in Hughes County, Okla., grow a lot of peanuts. Extension Agent Jess Barbre, Jr., says "the program helped boost our yields, which puts more money in our growers' pockets so they can buy new tractors and ice boxes and build up their homes." He said peanut yields in Hughes County have increased 600 to 800 pounds an acre over the past 3 years.

Blacklight traps are being used on Maryland's Eastern Shore to pinpoint and forecast insect outbreaks. During the night, the blacklights attract and trap moths. During the day, 4-H club members and volunteer farmers collect the insects and send them to a university laboratory where they are identified, sorted, and counted.

Information from the insect activity is summarized in a semi-weekly report sent to cooperating growers and to county agents. An increase in insects may signal a potential problem, and scouting is stepped up in farmers' fields to provide them with accurate, up-to-the-minute information on their needs for insect control. The number of insects trapped is also used as a guide in determining how often to spray.

Gavin Dively, Maryland's pest management specialist, says "our sweet-corn producers used to spray on a regular basis. Now they spray only when it is necessary."

He said this has meant a considerable dollar saving for Maryland's sweet-corn growers, and they feel that money saved through

Accurate records are essential to an effective pest management program. Here, a scout records the kinds of insects found and the number and percent of damage. Also recorded is the farmer's name, his field number, and the date. Fields are scouted every 7 days, and the data collected is transferred to the wall chart in the Licking, Ohio, county office.

the scouting program justifies the cost of the scouting.

Maryland is also using biological control for another crop pest—Mexican bean beetles on soybeans. In the state's major soybean counties, a parasitic wasp from India is being raised in greenhouses. In the early spring, the wasps are released in soybean fields, where they parasitize the bean beetles, destroying them. Since the wasps do not overwinter in nature, they are eventually destroyed when cold weather comes.

Farmers are not the only ones using pest management. A commercial sweet-corn processor in Maryland has employed two women to scout contracted sweet-corn fields for insects. At the end of the day, the women report to a company fieldman, who reviews the data they have collected and then decides which fields, if any, need spraying.

William Blair, Ohio's pest management specialist, made an independent study on the projects throughout the United States. Here are some of his findings:

"Pest management offers many advantages to the farmer, to the consumer and to the environment," Blair says.

To the farmer, it can mean big dollar savings, because in many cases pesticide applications have been cut in half. Consequently, the farmer spends less money on pesticides and less money on labor to apply them. Hopefully, these savings can be passed on to the consumer. Use of fewer pesticides is a step in the direction of helping the environment, too, Blair says, "and this is certainly a plus for all of us."

He cited other advantages: "We have found better ways of teaching people about pest management, and this is what the Extension Service is all about. We've gotten more people involved, too — many of them volunteers."

The program has also developed information that is proving useful in helping some farmers to organize associations or cooperatives for more economical and effective pest management. Some have even branched out and are becoming consultants—offering their services for a fee to other farmers.

Costs for scouting or monitoring fields for pests run from $1.50 an acre up to $8 an acre, depending on the crop and the number of pests being monitored. In some cases, the cost is higher, especially for fruit crops.

"In 4 years, we have seen the development of better economic thresholds for establishing pest control recommendations," Blair says. "We have also developed new monitoring techniques, and we can now make more intelligent decisions about pest control."

Unfortunately, Blair concluded, some people have thought of pest management as a new tool to do away with pesticides. "What the program has really done," he said, "is show us better ways to use them. Pest problems will change over the years and we will have to change with them."

"There are so many positive things that have come out of this pilot project," Blair concludes, "that it has to be considered one of the best investments this country has ever made." □

by
Donald J. White
Community Resource Development Specialist
Capital District, New York

Scattered across the scenic hills and valleys of the northern Catskill counties of Greene, Delaware, and Schoharie in New York are the many seasonal homes of nonresident landowners. To these homes and their picturesque surroundings of wooded hillsides, clear streams, and old mountains, flock an increasing number of city and urban residents.

The desire to escape city living and to hunt, fish, and enjoy rural life is the main reason for this trend. And with this influx of the "new people" from New York City, Long Island, New Jersey, and Philadelphia has come a concern by local Catskill residents of the impact on community services and the natural environment. It is estimated that in these three counties alone, there are more than 8,000 "rural second homes."

Most of the properties in the region are scattered over a number of acres. Often, there's a vacation home. Recently, the trend has been to vacation home developments where scattering is reduced to a concentrated area.

These properties are usually for seasonal use only. But, owners are increasingly making them permanent residences upon retirement from city jobs, or when moving their young families to a "better environment" where they hope to find employment in the surrounding small rural communities.

Studies and surveys show a definite need to work with these nonresident landowners by helping them to understand and manage their rural resources and better relate to the rural community and its environment. Through the cooperative team efforts of Extension agents, William Schumacher, Greene County; Paul Mattern, Delaware County; and Kenneth Hotopp, Schoharie County, a series of pilot educational meetings was held near the landowners' permanent residences in New York City, Long Island, and New Jersey.

The pilot series consisted of 3-hour meetings with three sessions: "Your Second Home" — planning and remodeling information, water and sewage considerations; "Enjoying Your Land" — alternative land uses, specific problems (fencing, posting), community relations, and safety in the woodlot; and "Helping Is At Your Fingertips" — maps and aerial photos, government programs, land-scaping considerations, pest and small animal controls, and environmental differences between the city and the Catskills.

Following the success of these meetings, another series of indepth workshops was held the following year in different locations. These sessions, each 2 hours per topic, covered: orientation to country living; forestry—planting, managing, and harvesting; new construction and remodeling; and landscaping, shrubs, and lawns.

The pilot meetings and the followup series were held in early spring, with another series held when they were vacationing at their seasonal property during July and August. These 2-hour meetings covered a wide range of topics: understanding differences in climate and environment; insects, weeds, animals, and other pests; your country home; security on your property, and where to turn for help.

During the 3-year period the meetings were held, more than 1,500 nonresident landowners were personally contacted. Many more were reached through special mailings of newsletters and publications. But the demand for educational assistance to the nonresident continues. Based on the successful pilot series, future meetings and workshops will be held for this new Extension audience — the nonresident rural property owner. □

Mecca draws county agents

by
Virgil Adams
News Editor
Cooperative Extension Service
University of Georgia

Agents arrive at the convention hall for professional tours.

County agents, nearly 1,800 strong, came to MECCA in late September looking for WISC.

MECCA is the Milwaukee Exposition and Convention Center and Arena, and WISC, the first four letters in Wisconsin, stands for "Wisdom, Inspiration, Service, and Cooperation."

And that sums up the 60th anniversary professional improvement meeting of the National Association of County Agricultural Agents (NACAA).

One thing about Milwaukee—it's a lot more than the "Beer Capital of the World," and Frank C. DeGuire, a brewing company president, pointed out that fact when he welcomed the agents to "A Night in Old World Milwaukee."

The city is also a major agribusiness center. "With the excep-

tion of water," said DeGuire, "every ingredient in beer comes from the farm field."

County agents could relate to that.

More than one speaker, of course, made a play on the meeting's theme. "The Agricultural Associations, with all of their 'Wisdom, Inspiration, Service, and Cooperation,' still must depend on teamwork, not only within their organization but in the Extension family, to perform the tasks and accomplish the missions with which they have been charged," said John L. Graves, director of the Idaho Cooperative Extension Service.

Edwin L. Kirby, administrator, Extension Service, USDA, said: "Let me paraphrase your WISC for the purpose of my assigned topic 'Serving Our Clientele.' If we are to meet the needs of those we serve, we have to Work to Improve our Service to Clientele. Such a challenge will require all of the Wisdom, Inspiration, Service, and Cooperation we can provide."

Kirby also told the agents, "You are working directly with people who want and need Extension educational assistance. The extent to which you are successful will determine the extent to which Extension will remain a strong, viable organization to meet the expanding and changing needs."

NACAA looked to its own members for the meeting's major professional improvement session. Five "Search for Excellence" winners in each of four regions, sought out by the Association's Extension programs committee, spent an afternoon sharing ideas about 4-H and youth, rural development, urban programs, farm income, and administrative management in county offices.

Other celebrities included the winners in Public Information and Environmental Quality Awards Programs, and the Career Guidance honorees.

Also, the Distinguished Service Award recipients. These 107 agents, representing less than 2 percent of the NACAA membership, were the real heroes of the meeting. Said J. R. Johnston, an insurance company executive, at a breakfast in their honor, "Your distinct achievement is the fact that you have spent your life up to this point for something that will outlast it. To know a county Extension agent is to know a man who works with the very basics of God's creation—the soil, the water, the air, the vegetation, all creatures great and small, and the most important of all, mankind, the most unique of all creation."

While James Smith, NACAA secretary-treasurer, speaks, the ECOP agents' association subcommittee panel members look on. From left to right: Nancy Ascue, president - NAE4-HA; Thurman Kennedy, president-elect - NACAA; Genevieve Harris, president-elect - NAEHE; and Charles McDougall, deputy administrator, ES-USDA.

A strong organization, including five national officers, five regional directors, nine national committee chairmen, with vice chairmen in each region, and finally committee members in the states, makes a NACAA go.

Norman J. Goodwin of Dewitt, Iowa, was president in 1975 and responsible for the program in Milwaukee. He stays on as a member of the 1976 Executive Committee.

Thurman J. Kennedy, San Antonio, Tex., moves up to president, and Robert L. Jones, Westminster, Md., advances to president-elect.

Voting delegates at the Milwaukee meeting elected Edward Koester, Gooding, Idaho, vice president; John K. Wells, Norwalk, Ohio, secretary; and Laxton Malcom, Frederick, Okla., treasurer.

Directors are: Herman R. Lynch, New Boston, Tex., and Rowe R. McNeely, Salisbury, N.C., Southern Region; Wing You Chong, Hilo, Hawaii, Western; Robert Miller, Salisbury, Md., Northeastern; and Dan Merrick, Atlantic, Iowa, Northcentral.

1976 committee chairmen include: Richard G. Marek, Carlsbad, N.M., Policy; Reymond D'Armond, Livingston, La., Extension Programs; Bobbie D. Davis, Cincinnati, Ohio, 4-H Young Men and Women; Lloyd C. Baron, Hillsboro, Oreg., Professional Training; Virgil Adams, Athens, Ga., Public Information; George Perisho, Peoria, Ill., Public Relations; Earl Howes, East Aurora, N.Y., Recognition and Awards; Russell E. Hibbard, Norwich, Conn., State Relations; and W. M. Hale, Cleveland, Tenn., Scholarship.

The 1976 annual meeting of NACAA will be held August 15-19 in Richmond, Va., with Delbert E. O'Meara, Emporia, Va., as the annual meeting chairman. □

Spotlighting professionalism

by
Patricia Loudon
Information Specialist
Extension Service-USDA

Cindy Kidwell reports on Texas' successful TV series—"You Can Do It."

Lured by a desire to "spotlight" their professionalism, more than 2,000 Extension home economics agents journeyed to the scarlet-colored hills of Eastern Tennessee near the close of October.

Attendees at the 41st annual meeting of the National Association of Extension Home Economists (NAEHE), the agents gathered high on a hill overlooking Knoxville to focus on continued professional excellence, professional accountability, and past heritage.

Virginia Trotter, assistant secretary for education, U.S. Department of Health, Education and Welfare, keynoted the opening session with a challenge to the home economists to emphasize the role of women in community education through Extension programs. "With the changes in the educational community, with more emphasis on adult learning concepts, the total community approach is the aim of educational improvements," she said.

"Attitudes must change about women's roles, and women themselves," the assistant secretary continued. "Learn to respect each woman in what she wants to do. Women's leadership roles need to be established in every community in our Nation."

Other sessions spotlighted "professional excellence" in public decisionmaking, community resource development, 4-H development, and retirement. Nancy Steorts, Assistant to the Secretary of Agriculture for consumer affairs, spoke to the role of the Extension home economist in public decisionmaking.

The all-day "spotlight on telecommunications" seminar, coordinated by Betty Fleming, information specialist, and Gary Nugent, radio-TV specialist, ES-USDA, was attended by more than 1,500 agents.

Highlighting TV at the local level, four county agents and one state specialist showed what a little bit of ingenuity and a lot of professionalism can do to get television coverage for Extension programs.

Betty Oliver of Arkansas, who announced the Extension Household Hotline via local TV news, said, "Anything on a news program has an automatic audience in every home with a television."

Charlotte Young, Iowa, who specializes in consumer shows, noted, "Visuals represent your image as a professional. And TV reaches the hard to reach—the poor, the invalid, and the old."

Chuck Thorpe, Ga., received the loudest applause of the day when he revealed his successful system of providing state-produced 35mm visuals to local agents so they can produce a new 1-minute public service announcement (PSA)every day of the year. These PSA's reach more than 250,000 Georgia homes daily.

"Involve the audience you want to reach," recommended Naomi Johnson, Ind., in her "Slim Down; Shape Up" TV specials. Carole Sammons, Conn., also emphasized audience participation through question-and-answer sessions on TV-guest shows. "Is TV worth it?" she asked. "How else can everyone in the audience simultaneously see what you're demonstrating? How else can you get personal contact with so many people?"

The afternoon half of the seminar included an overview of TV by Nugent, a presentation by Mary Lou Rowland and Cindy Kidwell on the Texas "You Can Do It Series," use of the latest techniques in videocassette production by Cordell Hatch, Penn., and nutrition education with videocassettes, by Janet Poley, Neb.

At the recognition banquet Thursday evening, 78 agents received NAEHE's Distinguished Service Award. Bonnie Bartlett, N.Y.; Sharon Fisher, Kans.; Almeda Goolsby, N.M.; Ruth Johnson, Ill.; Virginia Jones, Miss.; and Sheryl Nefstead, Minn., received Florence Hall Awards.

Communications Awards went to Ruth Klossner, Minn. (newsletter); Kathy Wolter, Ill. (radio tape); and Sheri Meyers, Neb., (news column). Patricia Sacks, Mass., and Molly Saul, Ore., received Grace Frysinger Fellowships, while Anita Rohde, N.D., was awarded the annual J. C. Penney Fellowship.

Speaking at the recognition dinner, Opal Mann, assistant administrator, home economics, ES-USDA, predicted present trends will change modern family living patterns and practices. "If we are to remain a viable force in educational assistance to families, we must understand changing values, diverse family needs and roles, and provide flexibility in educational programs appropriate to the interest and needs of the family and the community," she said.

Nettie Ruth Brown, Fla., is outgoing president of the association. New officers include Genevieve N. Harris, Miss., president; Virginia Zirkle, Ohio, president-elect; Willette Merritt, Va., Jacqueline Anderson, Colo., and Ann Domsch, Kans., vice-presidents; Betty Heinback, Penn., secretary; and Shirley Neel, Tex., treasurer.

Regional directors are Charlotte Schuttler, S.D. (Central); Geraldine Bentley, Ky. (Southern); Helen Cole, W.Va. (Eastern); and Grace Kay, Wyo. (Western).

After hearing the closing remarks of Andy Holt, president emeritus, University of Tennessee, the home economists returned to their counties and states with renewed pride in both their professionalism and heritage.□

"Needs of youth"

by
Sue K. Benedetti
Information Specialist, 4-H
Extension Service, USDA

Oregon's exhibit stresses teen involvement.

"When teachers really feel good about kids—it's more important than what they teach."

Betty Siegel, dean of academic affairs for continuing education, University of Florida, used these words to sum up the effect that youth workers have on young people as she keynoted the 29th annual conference of the National Association of Extension 4-H Agents (NAE4-HA), Nov. 1-6 in Louisville, Ky.

In her speech, "Needs of Youth," Dr. Siegel also spelled out the major areas in which agents could assist youth in developing. They are:

"Recognize the uniqueness in all the children you work with."

- "Be attentive to the cues and clues they are giving (you)."
- "You are teaching young people that they are of infinite worth."
- "If you really believe that your people will succeed—they will."

"Helping young people to feel at home with a group is the most important thing you can do in 4-H," she concluded.

Edwin L. Kirby, administrator, Extension Service, USDA, capped off the "Come Alive in '75" conference at the annual awards banquet for the 850 attending members and their spouses by saying, "4-H is people—giving of themselves. It depends on those who have a concern for people—especially young people—and for the quality of life."

Among those who have "given of themselves" were the 23 Extension agents with 25 years' service and 51 distinguished service awardees, who were honored at the banquet.

The conference program consisted of a series of four seminar periods with 22 seminar topics: Creative Camping; Involvement of Older Teens; Rational Emotional Self-Help Techniques; Dynamics of Group Leadership; 4-H Can Do, 4-H Communicates Data, Creative Recreation; Audio-Visual Materials; Art Experiences for Youth; School Enrichment Programs through Trained Volunteers; Funding Grants, Proposals and Accountability; How to Plan a 4-H Information Program; Attracting More Males to the 4-H Program; 4-H Extension and Program Management; The Younger Child and 4-H; Managing 4-H Volunteer Staff; Staff Relations Between Federal Staff and Field Staff; Hunter Safety; The Road Show to Selling 4-H; Model Rocket Building; The Winners/Losers Dilemma in 4-H; Put a Little Career Ed into Your Life!; and Helping You Help Youth.

New association officers chosen during the conference were: president - Wayne Collette, Colo.; president-elect - Wayne Schroeder, Wisc.; vice president - J. Roland Flory, N.C., and secretary - Raymond Wagner, N.D.

New regional directors are: Northeast—Glen Chaplin, N.J.; North Central—Varlyn Fink, Iowa; Southern—Charlie A. Elliott, Va.; Western—Marlo Meekins, Colo.□

"City" farmers

by
James R. Morrison
Educational Communicator-4-H
Cooperative Extension Service
University of California

They used to say, "you can take the boy out of the country, but you can't take the country out of the boy." But now, down in San Mateo County, Calif., they have taken the girls and boys out of the city and are taking the city out of them both.

Youngsters, many of whom never had set foot on the farm before, are learning to farm—living and loving the opportunity they have. Under the 4-H farms program, they raise their own livestock—something country 4-H youth have long taken for granted.

Started in the 1950's as a town garden project, the 4-H farms now number 10 and draw hundreds of girls and boys from San Mateo, Burlingame, San Carlos, Belmont, South San Francisco, Daly City, Portola Valley, and San Bruno.

And what are they producing? Beef cattle, chickens, rabbits, ducks, sheep, doves, quail, pheasants, and even peacocks. Each farm is on land provided by a city as a rule—like the one in San Francisco City water district property, high in the hills, south of the city. Or the one in San Carlos city park—not yet fully utilized by the peninsula suburb.

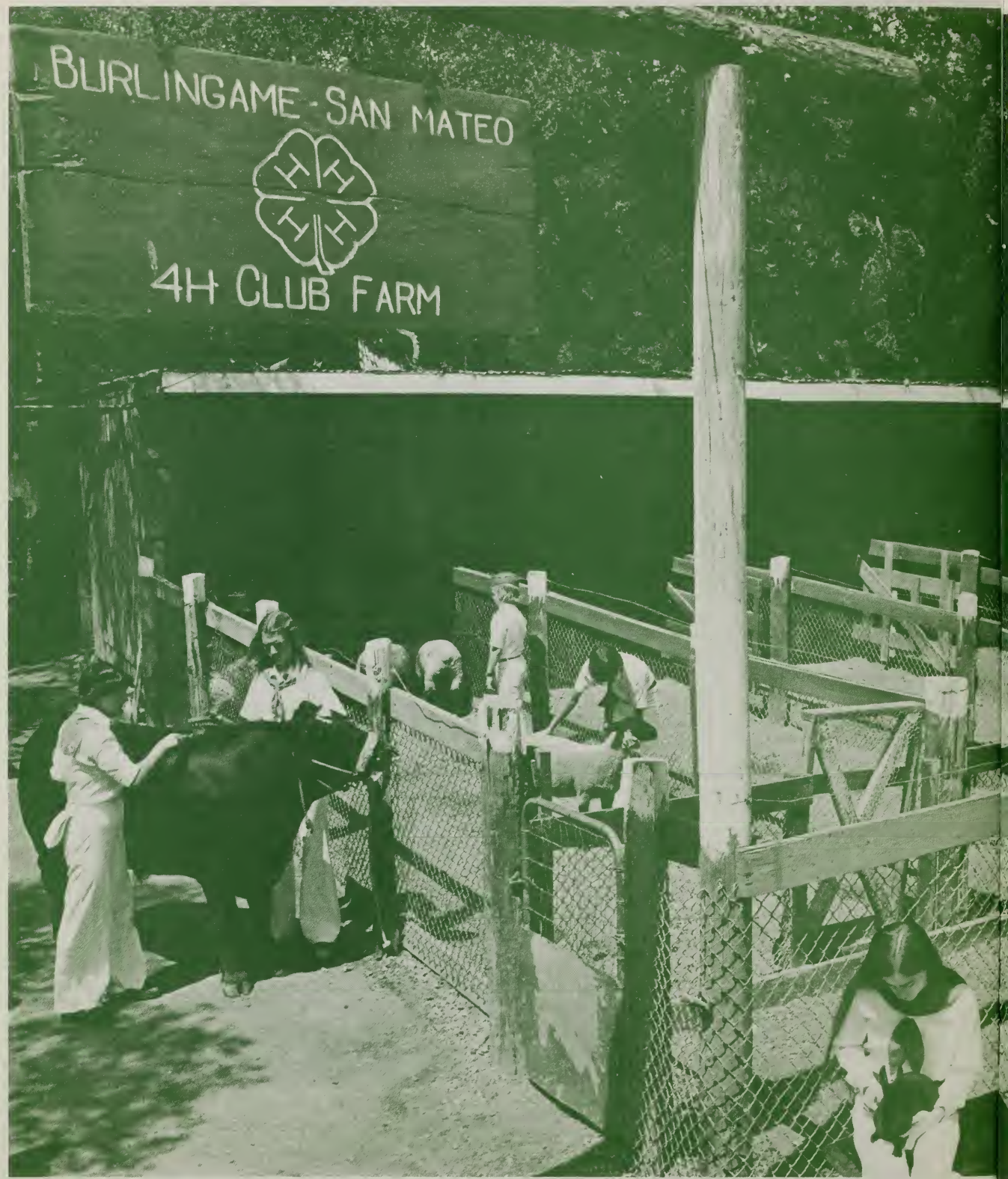
All of the farms have neat buildings, fences, and corrals, built from materials donated by interested service clubs, merchants, and parents — and constructed by the 4-H'ers and their families.

The watchword of the 4-H "farms in the city" is cleanliness. "It's important," leaders remind the youth, "to keep our farms as sanitary and free of flies and odor as possible, so we will be considered good neighbors, and not nuisances."

How much work does it take to start a 4-H "farm in the city." Plenty—any 4-H leader or youngster who has been involved will tell you. But every minute of the work is repaid manyfold by the results and the eager, happy faces of the 4-H'ers that line a corral when the time comes to show off their prize steers or lambs.

And like their country cousins, who usually have plenty of land at home for their stock, the city youth are just as ecstatic when a pet lamb or steer gets the nod from the judge at the San Mateo County Fair and Floral Fiesta!

A 4-H farmer cleans up.


BURLINGAME-SAN MATEO
4H CLUB FARM

These Burlingame and San Mateo 4-H'ers utilize San Francisco water district property for their farm.

If the watchword of the farms is cleanliness, the keyword is "work." Some of the youth work every day for several hours and other days—like Saturdays—they cleanup: repairing corrals or sheds, or tending an ailing lamb. These city 4-H'ers are learning what country girls and boys long have known—that producing food is no simple, matter-of-fact task.

There have been some problems, vandalism among them. It isn't possible to keep someone at the farms 24-hours-a-day. Occasionally, ignorant and unfeeling night visitors have damaged pens and frightened the animals.

But, city youth are learning some of the many problems that may face them if they pick farming as a future career.

And many will. "It's amazing," 4-H leaders and advisors say, "just how many of our members have their eyes on careers in agriculture. Many of those we have been working with on farms in San Mateo are looking forward to careers in farming or some agricultural field."

Time and space are two elements of the 4-H farm program that need special attention. "There isn't enough space for the many youngsters who want to participate in the projects," report Alice Hogben and Russelle Johnson, 4-H leaders in the Belmont area.

"This makes it necessary to limit those with lamb projects to about 3 months on the farm, and those with beef to around 5 months. And this is something of a disadvantage to a city youngster, who wants to start out with a very young animal and watch it grow to maturity."

Another advantage of the 4-H farms is to give the city 4-H'ers a broader outlook of "what's out there," said Sergio Garcia, 4-H youth advisor.

"We are updating the program to fit today's needs," he stated. "City kids are getting a chance to raise livestock and become familiar with many phases of agriculture and related skills."

And those related skills take in a wide range of activities, from the basic agricultural projects to automotive repair, electrical crafts, homemaking, photography, plumbing, sheet metal work, tractor operations, vegetable gardening, community service—and a most important area, junior leadership.

Is it hard to get started? Well, "yes" and "no," the leaders say. It's easy if you look at the program as an experience that can be fun, a challenge—and a way to make money. A project can be started and carried to a successful conclusion by almost any youngster with initiative and a willingness to work.

Where does the money come from? Sometimes from parents, but often from banks that are willing to lend money to capable youth, who want to learn the basics of financing and can show a reasonable chance of completing a livestock program successfully. In almost every county in California—and in the Nation—community support of the 4-H livestock auctions has been strong. It is through these auctions that many of the youthful 4-H members dispose of their livestock at a profit.

But profits are not always guaranteed—like in one San Mateo County 4-H farm, where neighborhood dogs broke into the corral one night, attacking 17 lambs. Unfortunately, 14 had to be destroyed—and others suffered growth setbacks that will boost production costs and make profits questionable.

Just like with any ordinary sheep farmer! □

Controlling tansy ragwort

by
Kenneth K. Kingsley
Communication Specialist
Oregon State University
Extension Service

A tiny, colorful insect is eating its way into the hearts of western Oregon ranchers.

The cinnabar moth has shown localized successes at controlling the poisonous weed tansy ragwort—a threat to the $4 million livestock industry west of the Cascades.

Much of the credit for the expanded role of the cinnabar moth in tansy control in southwest Oregon goes to Lynn Cannon, Oregon State University's Extension agent in Coos County. Working with some key ranchers in that part of the state, Cannon helped establish the insect in the county in 1964. By 1973, sufficient quantity of and demand for the cinnabar moth called for distributing 300 colonies (1,000 larvae each) among Coos, Curry, Douglas, and Willamette Valley Counties.

Rancher Sam Dement and County Extension Agent Lynn Cannon have helped spread the cinnabar moth throughout southwest Oregon.

Tansy ragwort was inadvertently imported into the Northwest from Europe in the early 1900's. However, the cinnabar moth, also a native of Europe, was not introduced into the United States until 1959 by the U.S. Department of Agriculture. The moths eat only tansy ragwort.

Some estimates indicate that the bright yellow flowering weed has infested more than 9 million acres of Oregon land to some degree. Tansy not only crowds out other forages, reducing the carrying capacity of the pastures, but is also a threat to cattle and horses. If consumed in sufficient quantities, it can cause cirrhosis of the liver, and eventually, death.

Cannon says 200,000 acres of hill pasture and forest land are infested with tansy ragwort in Coos County alone. "The weed invaded this area in the 1930's and continued to spread until nearly all hill and pasture land in southern Coos County became infested."

The affable county agent is quick to credit some forward-thinking ranchers with some of the early successes of the cinnabar moth program in southwest Oregon. Men like Sam Dement, who worked with Cannon to see that the moths were given a chance to spread and multiply.

Dement runs a 400-head cow-calf operation in a series of prairies among cutover Georgia-Pacific timberland in Coos and Curry Counties. For years, he was able to control the tansy with sheep. Unlike other livestock, sheep have a certain immunity to the toxic effect of the weed.

"I started running sheep in 1955," Dement offered, "and they proved successful until 1962-63 when predator loss started running high. Now I have trouble maintaining the herd, and I'm lucky if I get a 30 percent lamb crop." Cinnabar moth control is not an overnight proposition. "We made the initial release of the moth larvae in 1965," Dement said. "The tansy remained stable for

several years, and in 1967 we made additional releases. It wasn't until a couple years ago that we saw much improvement; now we are seeing some real results.

"I feel the cinnabar moth is just starting to show a real benefit in this area. We have 50 to 60 acres where tansy is completely under control, another 300 to 400 acres where it is showing signs of controlling, and the rest of the ranch has enough small patches of larvae scattered here and there. Within a few years, I expect we'll have this tansy problem under control."

Dement has witnessed the economic benefit of tansy control. Much of his tansy-infested land has 25 to 30 percent more forage available now that the weed is under control. "And, we are seeing less death loss than the three or four cattle out of every hundred we've experienced over the past 4 or 5 years."

Livestock losses attributed to tansy are estimated at $500,000 to $1.2 million per year in Oregon.

The cinnabar moth is easily recognizable, with a black body and reddish-orange wings. It is the larval or caterpillar stage that consumes the seeds, flowers, and leaves of the tansy. The larvae grow to approximately 1 inch and are ringed with alternating black and orange stripes.

The moths are visible from May through July. They lay eggs on the underside of tansy leaves during May and June, and in July the eggs hatch into larvae which begin eating the plant. In August and September, the larvae move into the soil and go into a dormant, or cocoon, stage. They remain dormant until the following May, at which time they emerge as moths, completing the cycle.

Natural movement by the moths will scatter the insect short distances, but since they are so light, winds often carry them out of the area of tansy infestation. The larvae will travel short distances to reach other tansy plants.

Cannon and Dement do not leave the distribution of the cinnabar moth to chance. In areas where it has multiplied and controlled the tansy, Cannon and Dement collect the larvae in coffee cans for transplant to other areas of the ranch or other ranches in the county.

The cinnabar moth, a relative newcomer in biological control of tansy ragwort, eats away at the plant.

"We hold the can under a plant, and shake the larvae into the can," Dement explains. "Within a few minutes you have enough for a release (600 to 1,000 larvae). At the new site, I scatter the larvae in a small area (a radius of 15 to 20 feet) and put a few of the larvae on some of the plants. Within 5 minutes, all of the insects are atop tansy plants and eating away."

Working together, Dement and Cannon have interested other ranchers and landowners in trying the cinnabar moth. Between them both, nearly 1,000 colonies have been distributed throughout western Oregon.

"This is the kind of thing I expect a good county Extension agent to do," Dement said. "Lynn got me to try a new technique of controlling tansy ragwort, and now he uses my localized successes to get others to try it."

The cinnabar moth and sheep are examples of biological control of tansy ragwort, but they do not eradicate the weed, Cannon points out. Oregon State University and the Oregon Department of Agriculture have worked together to demonstrate various methods of tansy control and eradication. With additional research and effective educational programs, the spread of tansy ragwort may soon be checked, Cannon believes. □

Learning — the Extension way

by
Jim Lutzke
Editor
Office of Information Services
Cooperative Extension Service
Michigan State University

The car was bouncing over the back road in Kalamazoo County. Extension Agricultural Agent Dick Bailey, at the wheel, watched the road while giving his three passengers a running discourse on the county's ag production.

Suddenly, Bailey broke off his monologue and asked, "Holly, what road is this we're coming to?"

In the back seat, Peace Corps Intern Holly Murten scrambled for the county map the agent had given her earlier.

"Quick!" he said. "We're almost there and I've gotta know which way to turn."

Holly ran her finger carefully across the map spread out over her lap and shouted the name of a road.

"Wrong!" said Bailey. "Try again." Holly recalculated and offered another guess. This time she was r'ght.

Bailey laughed. "I'm not boring you, am I?" "No way!" came the answer.

"You know," said the agent, "there'll be times when you'll need to be able to read a map to get where you're going."

Bailey's mini-course on map reading was part of a scenario the third week of May when interns from Michigan State University's (MSU) College of Ag and Natural Resources Peace Corps program visited county Extension offices.

Charles Laughlin, director of the Peace Corps program, realizes modern agricultural techniques used in Michigan differ substantially from those most of the interns will encounter abroad.

"But," he says, "the methods of handling interpersonal communications should be much the same over there as here. We feel it is valuable for our interns to see how Extension agents work with people to help them help themselves and others."

For 28 of the interns, the day in the field was a time for both hospitality and learning. They were hosted by 27 Extension agents representing 15 counties.

Hospitality abounded on all sides—from the agents and the city and farm hosts to the interns, and from the interns to the agents and hosts. The learning was done mostly, but not entirely, by the interns. And it was fascinating learning.

Kalamazoo Extension Director Gale Arent, left, discusses vegetable plant characteristics with, left to right: Peace Corps Intern Holly Murten, Extension Program Aide Rosemary McAllister, Home Economist Ann Nieuwenhuis, and Peace Corps Intern Doug Vincent.

Peace Corps Intern Julie Lawrence makes new friends during the Kalamazoo County tour.

At a rabbit farm operated by Diane and Norman Langshaw, interns Julie Lawrence and Holly learned about the largest rabbit-producing facility in Michigan. Experts on the scene detailed the operation from start to finish—breeding, kindling (birth of the young), feeding, inoculation, and shipment to buyers.

At the farm of Linda Crotzer, Lawrence and Murten were treated to the relatively little-known art of goat production. In some countries, producing goats for meat and milk is a big thing, but in Michigan large goat herds are a rarity. Besides seeing an unusual agricultural activity, the young women had a chance to try their hand at goat milking—and then taste-tested the product. Now that's something to remember!

Peace Corps Intern Doug Vincent also visited Kalamazoo County. Vincent is headed for Thailand to work with fisheries and wildlife projects. County Extension Director Gale Arent guided him to a local wildlife refuge to view game habitat work, then headed for a rural fish farm and recreation area operated by Robert Hamilton.

At the Hamilton fish farm, you can try your luck for trout, bass, panfish, carp, and catfish—and new species are on the horizon. Much of the owner's success can be traced to assistance received from MSU Extension specialists. But, a great portion of it is also due to his willingness to experiment with some of his own ideas and find his way by trial and error.

Back in the city, Murten teamed up with Home Economist Ann Nieuwenhuis for a visit to Expanded Nutrition Program clients and a local urban garden project.

"It is really interesting to see the interaction between the nutrition aide and her clients," said Murten. "I would never have realized the scope of some of the problems if I hadn't seen it myself."

In Midland County, 4-H Agent Rosemary Thiebaut hosted Interns Roger Geeting and Linda Parker, who married before they traveled to Peace Corps assignments in the Philippines last summer.

Agent Thiebaut was in a good position to offer advice on overseas living—she spent several months in Thailand participating in the 4-H IFYE program. After receiving a healthy dose of tips on how to work with youth, Geeting and Parking visited a local bike club to see theory put into practice. Thiebaut has successfully planned and carried out a number of long-distance bike hikes, and some of her club members will be pedaling all the way to Washington, D.C., to commemorate the Bicentennial.

When their visit was over, Geeting and Parker were invited to stop by Midland County after their Peace Corps tour is finished. They promised Agent Thiebaut they would.

Good friends are worth seeing again! □

Top talent for teen leaders

by
Harold Rogers
Extension Editor
Cooperative Extension Service
Clemson University

Handweaving is one of many crafts taught by volunteers.

Thirty-eight girls and boys in one softball game? At once? It happened.

And, it wasn't all that unusual—not in the context of the Teen Leader Retreat conducted every year for South Carolina 4-H'ers. This year they went to Camp Long—a rustic, pine-tree-studded facility with log cabins and a scenic lake.

The retreat involved 3 days of living and learning in a serene setting exploded to life by more than 250 4-H teen leaders. The sessions began 4 years ago to bring youth together for a top-drawer offering of skills, ideas, and special recreation they could use in working with 4-H'ers and other people in their home communities.

The teen leaders bunk in cabins. They go through 3 days of moving from one workshop or meeting to another, with time out for recreation and meals, and end each day with impressive candlelighting vespers.

Some of the top talent in the state is brought in for teaching—all carefully selected to assure that individual topics and the overall program are relevant to the day-to-day interests of the 4-H'ers.

It's this variety of talent and topical presentations that may account for the pulling power of the retreats. Eighty-eight 4-H'ers attended the first one in 1972—a number that increased to 260 by the 1975 session. Now 4-H leaders are faced with a decision on limiting participation or holding double programs to accommodate all who want to attend.

And it's all done on a low budget and without a lot of Extension 4-H staff input.

Coordinator E. Joyce Richardson of the state 4-H staff at Clemson University, who inaugurated the programs and directs them each year, says one of the secrets is in letting the 4-H'ers not only plan the activities but also conduct them. Also vital is the early formation of an advisory committee of county Extension personnel for their input and involvement.

A second key is some "super scrounging" by Ms. Richardson to pull in talented individuals for the programs.

"We let each county nominate up to four teens for the planning committee," she said. "The more than 100

committee members volunteer for responsibilities in conducting the camps and outlining program possibilities."

At the 1975 session, one of the most spirited discussions was on prevention of rape, conducted by an authority in home protection systems, who attended at his own expense. Equally stimulating was a presentation by an 80-plus senior citizen who discussed "How to Survive Hard Times."

Basic workshops were also held in handweaving, music, leathercraft, art, drama, 4-H radio communications, photography, woodcarving, candlemaking, macrame, cake decorating, embroidery, and growing house plants.

They were organized county-fair style. The 4-H'ers rotated from one area to another, according to preregistration preference.

In recreation, they could opt for a whole gamut of traditional activities, plus square dancing, horseriding, nature study, weightlifting—and softball, where 38 persons showed up and played at one time.

A historical fashion show gave Bicentennial flavor to the teen leader retreat.

In seeking people with special talent and skills for the programs, Ms. Richardson may have tapped a bonanza often overlooked—other state agencies. Many of the people are approached individually, but many are supplied by the agencies ready and willing to cooperate in 4-H work.

The Parks, Recreation, and Tourism Department produced a special booklet on ways 4-H'ers could work with senior citizens and sent personnel to the retreat to present the material.

The last 2 years, the Department of Corrections sent trusted prisoners and a supervisor to teach leathercraft.

The vocational rehabilitation people made arrangements for the "Handicapped Employee of the Year" to attend and discuss ways the youth could work with physically handicapped people.

The list of getting talent at low or no cost goes on.

The Commission on Aging sent senior citizens to help the youngsters learn how to work with them—a prime activity of 4-H clubs over the state. A need to learn how to communicate with deaf persons also brought representatives to camp to teach sign language.

Hundreds of others came as individuals: the Clemson football quarterback to teach weightlifting; the secretary of state archery association shared his skill; and various Extension specialists participated.

Most important—it's all on a low-budget basis. "Either the cooperating agencies pay for their people to come, or in the case of individuals, we pay a small traveling expense," Richardson said.

There's little doubt the 4-H'ers like what they're getting. Evaluation sheets from the past session show 77 of them favoring extending the retreat to a full week. Twenty-seven wanted to make it 2 weeks.

"You made me understand the needs of our community better," wrote one of the teens. Still another may have paid the supreme compliment with, "simply loved the whole thing!" □

Wisconsin wildfoods

by
Christine DeSmet
UW-Extension Writer
University of Wisconsin-Extension

"There is enough green food growing wild in Wisconsin to feed most of its residents," said Larry Monthey, outdoor recreation specialist in the University of Wisconsin-Extension's (UWEX) Recreation Resources Center.

Wisconsin residents are clamoring to know more about these wild foods, and what began as a hobby for Monthey has become a very popular Extension program called "Edible Wild Plants."

In 1974, the first year of the program, about 800 people participated in 22 workshops around the state. In 1975, the figures reached more than 1,000 in 25 workshops.

Ironically, the program almost did not get the go-ahead when it began in 1973. "Some Extension people were fearful at first," said Monthey, "because of the danger of someone eating a poisonous weed. And we don't deny this hazard. There are about a dozen lethally poisonous plants in Wisconsin fields and woodlands, plus another 40 or so with some toxicity. We nurture at least twice this number in our homes and grounds plantings."

But, Monthey explains that the programs are conducted under the premise that to avoid any food poisoning, you should know exactly what plants you are gathering; and, as with any new food item (wild or tame), eat only a small portion the first time.

"The usual procedure for an edible plant class is to spend 2 hours of classroom work (with a slide show), 2 hours of field study, and 2 hours of actual foraging and tasting," says Monthey.

Where kitchen facilities are available, a salad or cooked samples are prepared, and served picnic-style in the early evening.

"An attendance of 25 participants is about optimum," the UWEX specialist says, "although a maximum of 50 per workshop can be handled where local help is available."

Monthey praises the active interest the county UW-Extension offices have in the program. They planned 16 workshops this summer, and he receives new requests almost every week. "Continuing education agents and the home economists are the most involved with scheduling the workshops," Monthey said. "With their help we train local leaders and counselors so that the people who can use this healthful and nutritious food source are shown what foodplants are available and how to use them properly."

Monthey says people use about 4,000 plants worldwide out of a total of about 250,000 specie of higher plants—those with flowers and seeds. This record is not so good, he comments, and we are just now coming back to utilizing more of our vegetation.

"Most people are acquainted with more species than they think they know," says Monthey. "The best way for a person to start foraging is to begin with those plants she already knows, like the dandelion, plantain, clovers, and blue violet.

"Then, after using these for a while, they can add a few species each year and soon they'll be using 40 or 50 wild foodplants."

Monthey says the Wisconsin Indians used about 300 wild plants for eating and about 200 more for medicines, dyes, cordage, and other purposes. "However, most Indians today do not know much about their great plant heritage.

To make it easier for his students, Monthey and the UWEX Recreation Resource Center have developed two illustrated workbooks, which identify and describe the 100 most common wild edibles found in Wisconsin. One booklet explains the wild "vegetables," while the other is about fruits and nuts. Each sells for $1.50, helping to keep the cost of the program low for participants.

Because the program is informal, Monthey gets a variety of participants, including retirees, teachers, homemaker's club members, youth leaders, young adults (16-to-25-year-olds).

"The retirees usually have ample time available to pursue this educational, healthful, and money-saving activity; and its appeal is enhanced by the 'togetherness' aspect," affirms the Extension specialist.

Larry Monthey takes participants in the wild foodplants workshop on a field trip.

The younger adults are mostly from the back-to-nature group and those who enjoy camping, backpacking, and "living off the land." However, one group is increasing its presence in the workshops for many of the same reasons already mentioned—the family.

"We have been planning weekend excursions for families. It is a great way to do something together."

With this increased interest in foraging as a recreation in Wisconsin, Monthey and the UWEX Recreation Resource Center are taking precautions. He discourages the use of scarce and beautiful Wisconsin plants, even if they have been used for human food by native peoples, so as not to endanger their survival.

"Many of these are not protected by law," explains Monthey, "and we don't mention them in our programs. If a question is raised concerning one of them, we simply say that it is too scarce or too attractive to consider as an edible."

Monthey tells his participants to be mindful of laws protecting certain species, and of the no-foraging regulations in most public parks, as well as to be careful of trespassing on private lands without permission.

When a person knows the plants and the laws, Monthey says foraging can take you to many places even close to home—roadsides, old quarries, abandoned railroad tracks, backyards—to find the lamb's quarters, redroot pigweed, mallow, shepherd's purse, and wild lettuce. □

UNITED STATES
GOVERNMENT PRINTING OFFICE
Division of Public Documents
Washington, D. C. 20402
OFFICIAL BUSINESS

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF
AGRICULTURE
AGR 101
FIRST CLASS

Georgia 4-H tree farm first in the Nation

The Rock Eagle 4-H Center marked the site for the certification ceremony of the Nation's first 4-H Tree Farm. It was the first of many ceremonies to be held in commemoration of National 4-H Tree Farm Week. Georgia was chosen for the national dedication ceremony because it is first in both 4-H Club enrollment and tree farm acreage. Former Under Secretary of Agriculture J. Phil Campbell was the featured speaker.

America's tree farm system now includes 32,000 tree farmers who manage more than 77 million acres of timberland. To be certified as a tree farm, timberland must display effective forest management.

Tabletop exhibits offered states

Extension *does* have information to help consumers adapt to a changing economy. You know it. But — do consumers know it?

Four new tabletop exhibits have been developed by ES-USDA to help you tell consumers what Extension has to offer. The exhibits are on these subjects: housing, values, money management, and food shopping. Similar to the recent Bicentennial exhibit (but with brighter colors), the new exhibits are lightweight, inexpensive (estimated cost: $15 each), and easy to set up and carry.

A quiz has also been developed for each exhibit. Quizzes will be made available in camera-copy form for states to reproduce quantities necessary.

Each state has been sent bulk quantities of a flyer describing the exhibits. Your state publication distribution officer has the supply. Orders must come through the state publication distribution officer and be received by *Feb. 27, 1976*. States will be billed later.

Green survival knocks on Extension's door

A Bicentennial campaign to get local people to plant more trees and plants is now being conducted as an environmental improvement project by The American Association of Nurserymen. Many states are receiving invitations to become acquainted with the program through state and regional meetings. Armed with radio spots, slide shows, local educational display units, and a special Bicentennial tree identification wrap-around, the drive will reach most states through the association by January 1976. Georgia Extension Service will include it in a special Bicentennial 4-H project.

Wisconsin CES cooperates with labor unions

Unemployed auto workers in two Wisconsin cities rated programs on family tension and decisionmaking most helpful among the five subjects offered by Wisconsin Extension Service at special 1-day learnins. Local labor union leadership helped plan and promote the programs, designed to assist the workers and their families adjust to the many changes in their lifestyle caused by unemployment.

Epsilon Sigma Phi offers scholarship loan

Epsilon Sigma Phi, National Extension Honorary Fraternity, has available to members a study loan at the interest rate of 2 percent. One half the loan is due at the end of the first year, and the balance at the end of the second year following completion of studies. For applications, write to: George R. Gist, associate director, CES, Ohio State University, 2120 Fyffe Road, Columbus, Ohio 43210.

* U.S. GOVERNMENT PRINTING OFFICE: 1976-0-211-409/ES-3