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extension review

4-H—Focusing On Fifty

National 4-H Conference—Then and Now

They came to the Nation's Capital in June 1927—147 girls and boys with 70 state leaders in tow—pitching tents precision-perfect on the Mall in front of the Department of Agriculture.

They were "the cream of the crop" from rural America. Those junior club leaders attending the first National 4-H Camp, represented 600,000 other 4-H members back home. They'd come to the seat of government to learn—and to let the people in Washington learn more about them and 4-H.

Their predecessors had been farm youth much like themselves—members of corn-growing and canning demonstration clubs established early in the 1900's by the Cooperative Extension Service.

This spring the 4-H'ers returned again to Washington for the 50th anniversary year. More than 250 strong, they represented about 5 million members from the 50 states, territories, and Canada.

Only now they're called "kids." They attend "conference," and they're typical of the melting pot that is modern America.

Inner-city kids, farm youth, and suburban teenagers—their common denominator is still 4-H. They no longer wear khaki shirts and green dresses as uniforms—tee shirts and jeans are more their style. And they no longer come just to learn about government, but to get involved in the process through 4-H program planning.

The second camp in 1928 gained nationwide attention when the first National 4-H Club Radio Night was broadcast live from the National Press Club. Clubs around the country gathered to hear the program on the red and blue network.

Today's kids are much more media conscious. They use TV, radio, and newspapers as important communications tools—not only to learn from, but to teach others about 4-H.

Those early 4-H'ers in the 1920's and 1930's began their days at 6:30, with sitting-up exercises followed by swimming in nearby municipal pools. This year—it's jogging that's fashionable and healthy as well. Many an early morning jogger could be found on the grounds of the National 4-H Center, site of the conference since 1959. (The camps were suspended for 3 years during World War II.)

At that first camp, the Oklahoma delegation drove three cars cross country, including one nicknamed "Ambition"—an old discard the club boys bought for a dollar and repaired for their trip.

The 1980 4-H delegates live in an era quite different—they can't even buy a gallon of gasoline for a dollar! Mass transportation, energy conservation, and inflation are problems of real concern as they assist specialists, agents, and volunteer leaders at conference in planning 4-H programs for the future.

This issue of *Extension Review* first takes a look back in time through a photo story about the early 4-H camps and conferences. It then reports on the many programs and people that are the 4-H of today.

At that first camp in 1927, the club girls and boys adopted the 4-H pledge:

"I pledge—
My Head to clearer thinking,
My Heart to greater loyalty,
My Hands to larger service, and
My Health to better living,
For my club, my community, my country, and my world."

The times, the place, and the kids are different, but the pledge and the motto still describe what is special about 4-H—"To make the best better!"—*Patricia Loudon* □

contents

extension review

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4-H—Focusing On Fifty

A welcome to the second camp was extended this 1928 delegation.

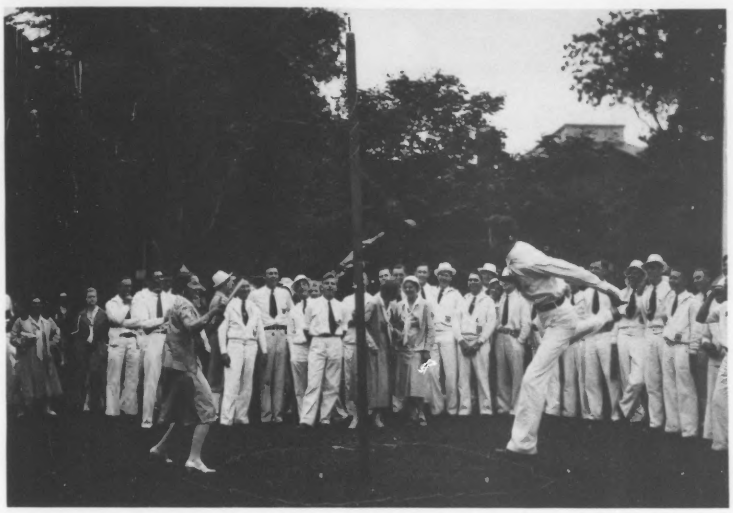
4-H'ers during the early camp years broadcast live over "The National Farm and Home Hour" radio show.

Mail time—an important event at early conferences, just as it is today.

The bull ring at the USDA Beltsville Agricultural Research Center intrigues 1934 club members.

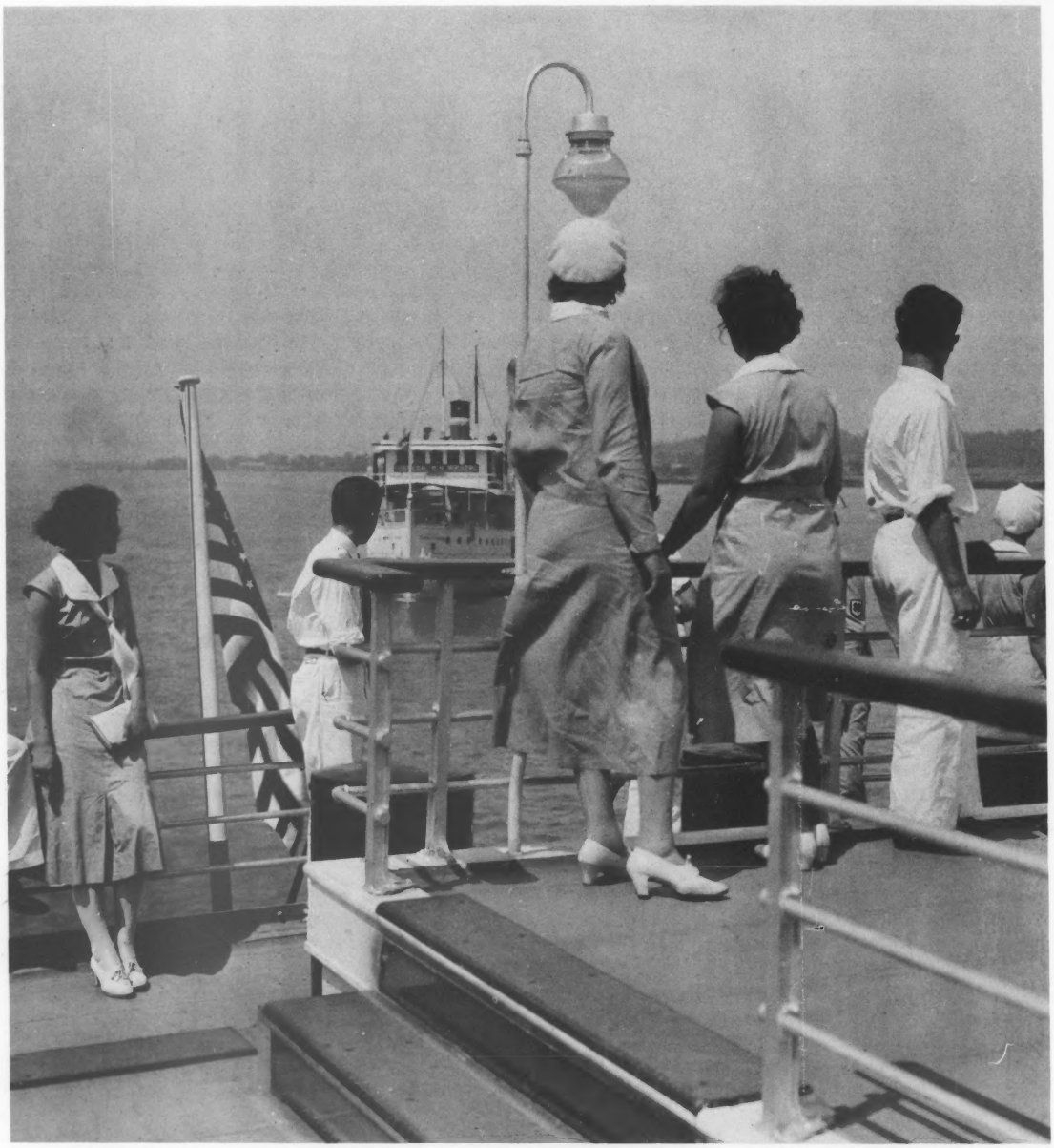
Early club campers learned how to make belts and gloves in leathercraft workshops.

Mrs. Herbert Hoover presents the Secretary of Agriculture trophy during the third club camp in 1929.



1932 club members play tether ball on the Mall in front of the Department of Agriculture.

A 1933 delegate inspects the rose garden at Arlington Farms, Virginia.

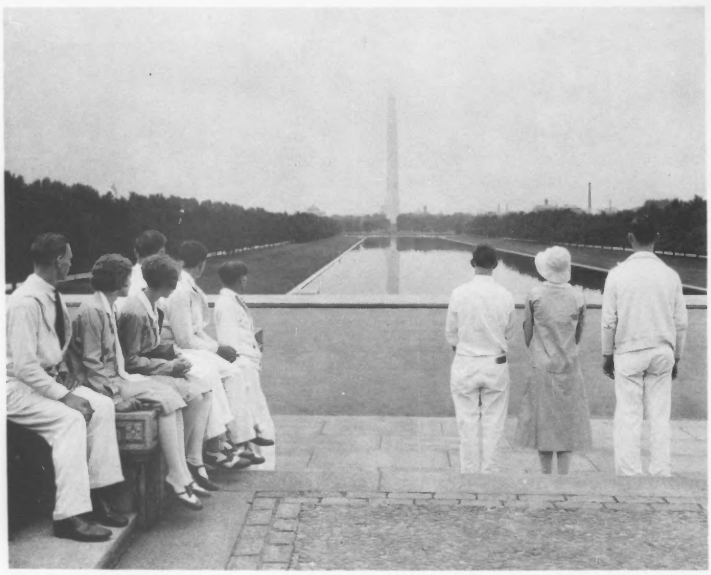


The Navy ship "Porpoise" transported 1934 delegates down the Potomac River to Mount Vernon, birthplace of George Washington.

Eleanor Roosevelt receives a bouquet of roses during her visit with President Franklin Delano Roosevelt to the 1940 National 4-H Camp.

Florida club girls practice their "Milkmaid Chorus" for a 1938 pageant.

President Harry S. Truman visits with 1949 camp delegates in the White House Rose Garden.



The Reflecting Pool mirrors the Monument as 1932 club members view Washington.

In 1959, President Dwight D. Eisenhower cut the ribbon at the opening of the National 4-H Center, which became the new home for the annual 4-H conference.

Secretary Bob Bergland welcomes 1979 4-H'ers to the U.S. Department of Agriculture.

President Jimmy Carter welcomes the 1980 conference delegates to Washington, D.C., and the White House. Representing their fellow 4-H'ers are from left to right: Robert Sherrod, Jr., N.C.; Carol Jo Noble, Neb.; and Kenneth Guing, Jr., Ala.

Kids from across the country—delegates to the 1980 conference—develop future 4-H programs in consulting group sessions.

A bedtime story was the format used by Collegiate 4-H'ers Deborah Cassell, Okla.; and Kenneth Cox, Tenn.; in telling their consulting group report.

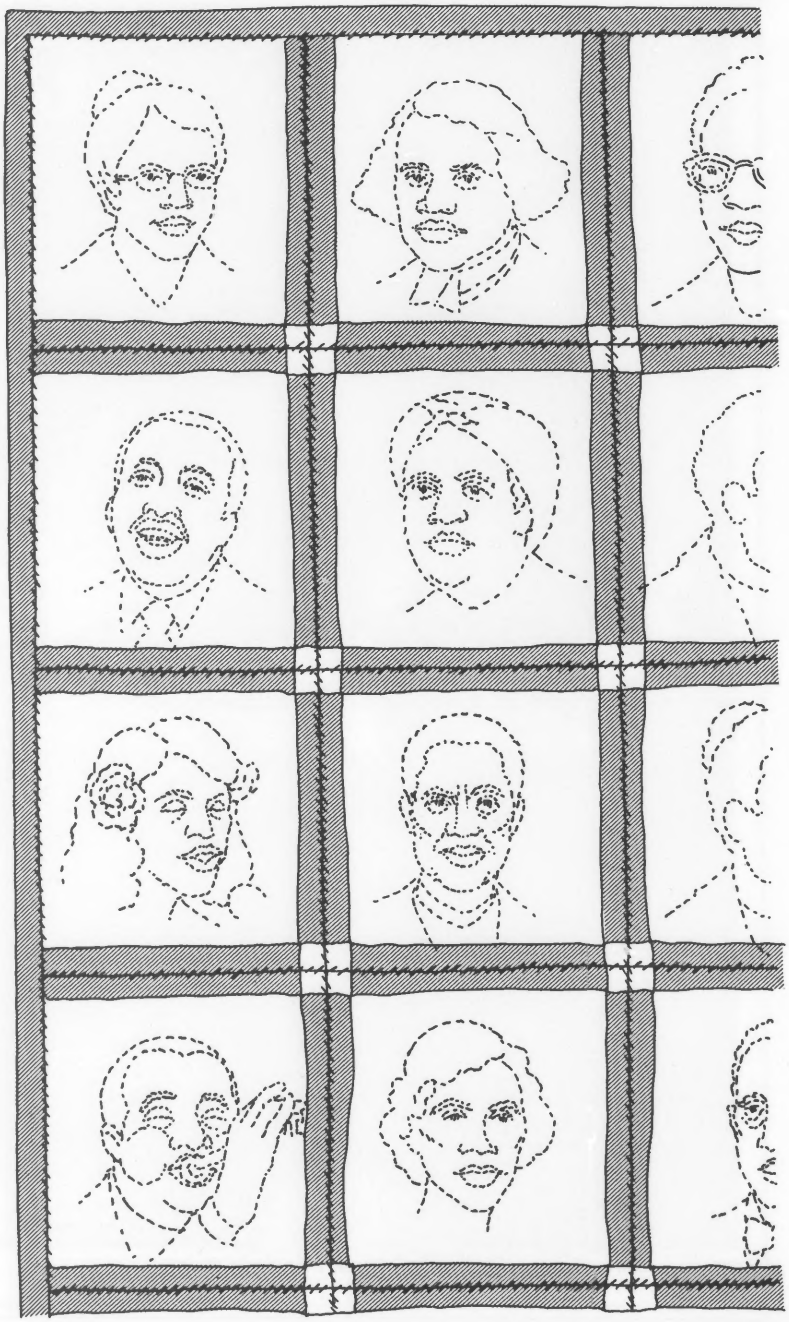
Hazel Jordan, right, attended the first 4-H camp as a delegate from Arkansas. Here she reminisces with the 1980 delegation: Miriam Flippo, left; Suzanne Pace, upper left, Tim Johnson, center; and Little Rock 4-H agent and district program leader Lott Rolfe III, right.

The International Feast and Fiesta intrigues these 1980 4-H delegates.

It's always hard to say good-bye! New friends, new experiences, learning and growing—that's what 4-H Conference is all about.

History Comes Alive

Jayne E. Marsh
4-H Information Coordinator
Michigan State University



Discovering their "roots" has become a fascinating hobby for thousands of Americans. To 45 Michigan teens, studying their ancestors and cultural heritage blossomed into a living history lesson covering three states and two countries.

The young people, aged 11 to 19, were part of a 4-H Afro-American Cultural Heritage pilot program, made possible by a special grant from the Michigan Legislature through the Department of Social Services. The program purpose—to increase the young people's understanding and appreciation of Afro-American influences on American history.

"Black people are all but ignored in many of the history textbooks used in the average classroom," says Sharon Anderson, Michigan State University family living education/4-H urban youth program leader and coordinator of the heritage project.

"The cultural heritage program was especially designed to help fill this void and help young people realize and be proud of the contributions Afro-Americans have made to this country," she explains.

For several months, the youths studied Africa, its culture, people, and customs, using Michigan's 4-H African Cultural Heritage project materials and local resources. As their knowledge of African culture grew, the 4-H'ers spoke to other community groups, were guests on radio and television talk shows, and organized workshops and educational programs for local Black History Month celebrations.

Several of the young people conducted individual research projects on the impact of Blacks on American life and history. Research topics included Black musicians, equal voting rights for Blacks, causes and

effects of the 1960's riots, and the founding of the Tuskegee Institute, Tuskegee, Ala.

Other participants created a colorful, "Heritage Quilt," which featured a drawing of various important Black leaders in each quilt square.

The group also spent time in Detroit, studying and visiting various historical sites including the National Bank of Detroit and Second Baptist Church buildings, which once served as secret holding stations for slaves seeking freedom and safety in nearby Canada.

Study Tour

After spending several months learning about Afro-American history, the young people participated in a special 8-day study tour that included stops in Canada and the eastern United States. Many of the 4-H'ers conducted their own fund-raising activities to participate in the tour.

"The study tour was an exciting, valuable finale to the heritage project," Anderson says. "After studying and learning about Afro-American history, being able to visit many important historical sites made history virtually 'come alive' for the kids."

The group's first stop was in North Buxton, Ont., where the 4-H'ers learned from the curator of the town's historical museum how many fugitive and freed slaves, as well as free blacks, settled in this small agricultural community during and after the Civil War.

In their continuing study of the Underground Railroad, the young people traveled to Dresden, Ont., where they visited the fabled "Uncle Tom's Cabin" museum. In addition to learning about the efforts of Rev. Josiah Henson (Uncle Tom) to help fleeing slaves, the group also toured the nearby church and fugitive slave house and examined various slavery artifacts on the museum property.

At Pennsylvania State University, Clemmie Gilpin, professor of black history, told the participants of the historical traditions of the mid-Atlantic region and how Afro-Americans have contributed to our country's history and lifestyles.

The final stop was Washington, D.C., where the 4-H'ers visited several museums, including the Museum of Natural History, the African Museum of Art, Howard University, and the Martin Luther King Library.

They toured Washington's Georgetown district, the National Archives, Ford Theatre Museum, the Frederick Douglass House, and Lincoln Square to view the Mary McCleod Bethune Memorial.

A highlight of this stop was meeting with their local U.S. representative, the Honorable Robert Traxler, who explained the governmental system and process to them. Before returning to Michigan, the 4-H'ers also attended a play about the life of Paul Lawrence Dunbar, a black poet famous for his Negro dialect works, at the New Theatre for Ethnic Arts.

New Horizons

Heritage program participants were enthusiastic about their experiences. "Before I got into the program, I didn't really think blacks had contributed much to this country," one 4-H'er said. "Now I know what an important part my ancestors played, which makes me proud to be black."

According to Anderson, the program not only helped participants gain pride in their heritage, but it also helped the young people grow as individuals.

"Most of the kids had never traveled outside of their own city, let alone to another country," Anderson explains. "The study tour opened up a lot of new horizons for the kids and got them thinking. Many parents have told us their children have changed their behavior and attitudes and have developed a new interest in what's happening in their country and communities."

Another benefit of the program was that young blacks learned that 4-H has valuable programs of interest to everyone. "I'd never really heard much about 4-H before this project, except that it was for white people," says one participant. "But 4-H is really all right. I learned so much and made so many friends, I'd like to teach others about my experiences and do it again!"

Based on the success of the program's first year, Anderson says it will be continued and expanded during 1980-81. "We're convinced the program is a viable method to involve minority youths in relevant, beneficial educational 4-H activities. Our goal is to make it available to more youths this year," she says.

For more information about Michigan's 4-H African Cultural Heritage project and the Afro-American Cultural Heritage program, contact: Sharon Anderson, Family Living Education/4-H Urban Youth Program Leader, Michigan State University, 103 Human Ecology Building, East Lansing, MI 48824, or call (517) 353-9353. □

4-H—An Alternative for Juvenile Offenders

Nira Etons
Journalism Intern
University of Maryland—Extension

"Jerry" is 15 years old. He went to court yesterday and was charged with purse-snatching. He could be sent to jail for committing a felony. But now "Jerry" has a choice—at least in Prince George's County, Maryland.

In this case, "Jerry" is a fictitious person. His situation, however, is fairly typical in the juvenile court system.

Thanks to a new 4-H activity in Prince George's County, there is an alternative to incarceration for youths like "Jerry" in the 7- to 17-year-old age bracket. It is called the 4-H community youth restitution program for juvenile offenders and is one of the first 4-H efforts in the Nation to deal with incarcerated youths. Youngsters of either sex are eligible to participate.

The proximity of Prince George's County to the Nation's Capitol in nearby Washington, D.C., offers many advantages. "I realize that we probably have more available resources than any other community in the Nation," says Robert M. Reel of Hollywood, Extension 4-H and youth program leader, who developed the 4-H community youth restitution program.

His effort was greatly aided by John W. Wrightson, director of community restitution in the office of the youth coordinator for the county health department.

In this program the judge can assign a youthful offender such as "Jerry" up to 150 hours of work, depending on the seriousness of the offense. The offender must put this time back into the community within 5 to 6 months.

There is a list of approved projects. But the youths must also work on specific community needs, such as landscaping senior citizens' homes or providing general community services. The latter category might include studying traffic flow in a Prince George's County metropolitan area to determine the need for a traffic signal on a particular street.

In addition to agreements with local city councils, there has also been a positive response from some local businesses. For instance, a tailor recently indicated willingness to take on an assistant and teach him the trade during his restitution period—and possibly hire him afterward.

Although most of the available projects are not so career-oriented as being an apprentice, all are intended to develop a sense of responsible community involvement on the part of young offenders.

Community Involvement

"The other side of the coin, figuratively speaking, is to develop community involvement with these youth," says Reel.

Six 4-H programs leaders under the direction of program manager, Kenneth Kee of District Heights, assist in carrying out the 4-H phase of community youth restitution. The program leaders, scattered geographically around the county, establish contacts in their assigned communities to become informed about specific community needs.

"I investigated a similar 4-H program in Salt Lake City, Utah, developed under a Federal Law Enforcement Assistance Administration (LEAA) grant. Those program sponsors were successful and made an impact on the community. But there was one major difference.

"They received youngsters who were possible offenders. These youngsters had been picked up on very minor charges, such as truancy, and had received a warning. We are receiving actual offenders who have been found involved in criminal activity.

"Our participating youngsters are those who have committed offenses like shoplifting, purse-snatching, property damage (such as tearing down mailboxes or fences), and breaking and entering with no theft or malicious damage."

The Utah 4-H program primarily provided community beautification services like park and roadside cleanups. By contrast, the Prince George's County effort will be working toward community development. This will involve providing help in areas where local government does not have sufficient time or money to get certain jobs done.

Program Administration

As currently organized, the county 4-H community youth restitution program includes counseling, peer interaction (personal relations), educational tutoring, recreation and camping, and vocational exploration.

The process for administering the community restitution program is fairly straightforward. After a youth like "Jerry" is found involved, the court liaison staff receives a referral from the court or the Juvenile Services Administration investigative unit. Appropriateness of assigning an individual to the program is determined by reviewing family, school, psychological and other social data, as well as severity of the offense

Lee Stephens (facing camera) conducts a 4-H automotive project with participants in the Prince George's County 4-H community youth restitution program.

and the youth's age. Interest tests are also given to determine the areas in which he or she might excel.

Based on this information, the youth could then be referred to the county 4-H community youth restitution program and be among eight or ten youthful offenders assigned to one of the six 4-H program leaders. As presently organized, 4-H is able to handle up to 60 youngsters at any one time.

Transportation is provided, when needed, so that participating youngsters can work on their projects at least 3 to 5 hours per week. During the school year, this work is done after school hours. The youthful offenders receive no wages for their work. They are paying back the community for damage they did.

4-H Exposure

The youngsters also get involved in 4-H activities such as leadership training, a broad-range citizenship project, or camping at the Patuxent River 4-H Center near Queen Anne, northeast of Upper Marlboro.

Participating juvenile offenders are encouraged to remain involved in 4-H activities after they have completed their required restitution program, or they can join other community youth organizations if they prefer. Hopefully, each youngster will find a niche in his or her community.

Over the years, 4-H leaders have used available educational tools mainly to help middle-class youngsters, primarily in rural areas. Now these same tools are being used to help juvenile delinquents and other youngsters from urban areas who haven't had previous exposure to 4-H.

Throughout the term of the 4-H community youth restitution program, narrative-type records are kept on how well each participating youth does all around—including school achievement, truancy, and input from parents.

Major funding for the program has been provided by a Federal LEAA grant. This grant was channeled through the office of the youth coordinator in the county health department.

More than 3,000 juvenile delinquents went through the court system last year in Prince George's County. To incarcerate a youth for 1 year costs $11,000 to $12,000. By contrast, the 4-H community youth restitution program costs only $250 per year for each participating youth.

Now that the county has a new alternative to incarceration, there is hope that the repeat offense rate for juveniles will begin to decline. □

Market At the Park

Wayne Brabender
Information Specialist
University of Wisconsin—Extension

On a scale of 1 to 10, "Market at the Park" got a 10 for both produce and fun. These 4-H'ers, from left, are David and John Schmid, Tracy Trachsel, and Melinda and Melissa Loeffler.

"Can I help you?" asked the young 4-H'er. He was standing on a box behind his vegetable stand so he could see a customer, a woman on her lunch break.

"How much are your squash?" she asked.

"Forty cents a pound," he replied, while his sister sprayed water on the vegetables to keep them fresh under the summer sun.

"Well," she said with a smile, "I'll take that one . . . and that one. And you can give me two beets, a large cucumber and a pound of those green beans.

"You know, these are the best prices in town!" she declared. The boy just nodded and smiled back.

She was just one of many satisfied customers at the "4-H Market at the Park" held at Zeidler Park in downtown Milwaukee, Wis., last summer.

The green market was sponsored by the Milwaukee Downtown Association, a division of the Chamber of Commerce, and the Milwaukee County Extension Office.

The association wanted to attract more shoppers to the downtown area. University of Wisconsin-Extension wanted to promote 4-H and give kids some new learning opportunities.

According to Bonnie Southern, Milwaukee County 4-H youth agent, the green market was a "great success" because of the "tremendous cooperative effort" between business and government.

Miniature Marketplace

In summer, Zeidler Park is normally a quiet, green, 2-acre oasis in the middle of tall office buildings and stores in Milwaukee's business district. People often wander through the park or sit on its benches to find respite from the heat and traffic noise.

But for six Tuesdays last summer, Zeidler Park was transformed into a miniature marketplace, complete with fresh produce, handmade arts and crafts, music, and food.

Milwaukee County 4-H'ers sold the vegetables and craft items from spanking new white booths lined up on a street bordering the park's south end. Individual members of the downtown association sponsored the booths.

At one booth, Jim Karppi of the Hales Corners 4-H Club displayed his products; eight carrots for 45 cents,

cabbage for 20 cents a pound, green and yellow beans for 55 cents a pound, cucumbers for 20 cents each.

His vegetables were neatly displayed in boxes. All the clubs participating in the green market had attended a demonstration by a Sentry Foods produce manager on how to prepare vegetables for sale.

Karppi said he priced his produce 10 to 15 percent lower then the going rate in supermarkets because he had to sell all the produce he brought to the park.

Prices were similar at other booths. A group of 4-H'ers from Franklin, a Milwaukee suburb, sold six cucumbers for $1, sweet corn for $1.25 a dozen, onions for 35 cents a pound, beets for 49 cents a bunch, and kohlrabi for 50 cents a bunch.

Tracy Trachsel of the Blue Eagles, a Milwaukee club, featured squash for 40 cents a pound.

The 4-H produce salespeople wore white aprons with a "Market at the Park" emblem on the front, donated by the downtown association. Kohl's supermarket provided scales to weigh their produce.

Community Cooperation

Bonnie Southern also credited the downtown association with generating the heavy publicity coverage that the market received in local media. The city's three TV stations, nearly all the radio stations, and the *Milwaukee Journal* and *Sentinel* covered the market story, including the opening ceremony with the mayor and other officials.

Southern cited other examples of cooperation: Blue Cross and Blue Shield provided rest rooms and parking; Wisconsin Electric stored the booths; Allis-Chalmers designed the booths; the City Parks Commission blocked the streets where the booths stood and scheduled entertainment at the park's band shell; Boston Store provided the liability insurance and a food concession stand; Milwaukee Gas gave a demonstration on how to make snacks with vegetables; the city police department provided protection; and adult 4-H leaders supervised the booths and transported the kids and produce.

Southern estimates that the community donated between $75,000 and $90,000 worth of services for the 4-H green market.

Within the Milwaukee County Extension Office, Southern said, support was just as strong.

Horticultural agent Richard Schneider—founder of the green market idea, along with Mary Frymark of the downtown group—staffed a gardening information booth at the market. Home Economists Barbara Rice, Mae Reese, and Lois Smith demonstrated canning and freezing produce. Bob Davidson, the county small business agent, showed 4-H'ers how to tag their produce and keep records. 4-H Staff Assistant Charlesetta Thompson helped the inner city 4-H clubs.

Business Skills

When the 4-H Green Market was over, about 150 4-H'ers from eight clubs had participated. Three clubs were from the inner city; five from the suburbs. Altogether they made about $2,000 in profit. Two clubs made over $500 apiece, said Southern.

But the market wasn't merely a money-making operation for the clubs, said Barnette Marshall, who directs the inner city Palmer St. BGs 4-H CLub. 4-H'ers learned gardening and business skills while raising the vegetables.

Ruth Patrick, 4-H leader of the Maple Tree 4-H Club, named off a whole list of "How to's" that the kids learned: take care of produce, display it and sell it, meet people, handle money, and get along with each other.

Martha Steigerwald, leader of the Blue Eagles 4-H Club, said the kids gained retail business knowledge. "They learned that you have to present a good product, nicely displayed, before the public will buy it."

For the 4-H'ers who made and sold art and craft items, they learned another set of skills, said Patrick. Several of her Maple Tree Club members, for instance, made woodworking items, such as wooden puzzles, mobiles, small toys, and music box carousels. The club also sold paper and cloth flowers, wishing wells made from clothespins, clothespin animals, macrame projects, and some yarn creations.

Jim Karppi said, "I like it because it's my business and I can regulate it the way I want to. It's nice to be able to be your own boss."

Members of the Blue Eagles 4-H Club said it was fun, especially after they learned they had made enough money to buy a Rototiller to make their job easier, and still had money left over.

4-H agent Southern expects 12 clubs to participate in the 1980 "4-H Market at the Park."

She said the downtown association and the County Extension office also plan to expand the market to a second downtown park for at least two Saturdays in September.

"Vegetables don't stop growing in August," she noted.

She might have added—neither do the kids. □

An International Experience

Deborah Lee Payne
Public Information Agent
Washoe County Extension Service

Traveling through and living in another country can be one of life's most rewarding and educational experiences. For 30 Nevada 4-H'ers and 50 Japanese youth, these experiences have become a reality.

Since 1976, when Nevada joined the 4-H Labo program, more than 80 American and Japanese youth have crisscrossed the Pacific on their way to visiting new lands, meeting new peoples, and understanding new cultures.

And several families whose first contact with 4-H was through Labo have since become active in 4-H. The program has interested people who were not previously involved in 4-H, and further committed those already in it.

In addition to increased membership through 4-H/Labo, the experiences of the youths in the program have been tremendous. Youths visiting Nevada got to experience first hand the "Wild West" they had dreamed about and seen on TV. Some Tokyo inner-city youths saw wide-open spaces, rode a horse, and even rounded up cattle. On the other hand, Nevada youth experienced big city living, crowds in Tokyo, and language and custom differences. In fact, many of the Nevada 4-H'ers were so impressed that they plan to return to Japan for a future visit.

Information Sharing

The 4-H/Labo exchange program, which began in 1973, is picking up momentum with the addition of new states each year. By the summer of 1980, over half of the states in the U.S., plus parts of Canada, will be involved.

In order to improve the quality of the 4-H/Labo exchange program, new states as well as those already involved can learn from one another through information sharing. Nevada, for example, obtained and adapted 4-H/Labo recruitment and training information from Idaho and Oregon.

The Nevada Approach

Several methods of recruiting 4-H youth and host families are used in Nevada, including school visits, 4-H club announcements, media coverage, and word of mouth.

All local middle schools are contacted, and a slide presentation depicting past 4-H/Labo exchanges is shown to interested students.

In addition to school presentations, 4-H club members are contacted through monthly Washoe County Extension Service 4-H newsletters and through club announcements. A short TV spot, on the Nevada Cooperative Extension Service's X-10 series, appears on television, and news releases are sent to the media. Several persons became interested in the 4-H/Labo program after learning about it from others previously involved in the exchange.

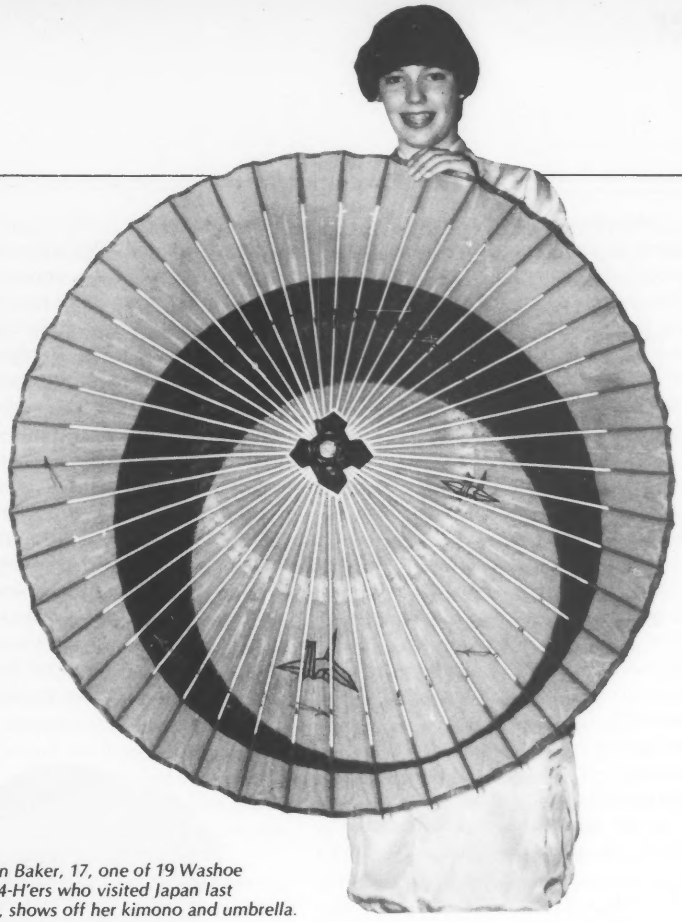
A Nevada State Fair exhibit displays memorabilia and describes experiences 4-H'ers gain from the exchange. Interest signup cards made available at the booth have resulted in several inquiries.

Training Meetings

Once recruitment is completed, monthly training meetings are held with 4-H'ers and their families beginning in January, and proceeding until the 4-H group departs or a Japanese youth group arrives. Families get acquainted with each other through language tapes, films on Japan, and slides of past trips and past hostings. Magazines on Japan and reading lists are available, and guest speakers invited to the meetings. Past speakers include a U.S. Customs Service representative, a travel agent who demonstrated how to "pack your bags," and Japanese guests teaching language and customs.

Ron Pardini, 12, demonstrates a game he learned from his Japanese host family.

Dave Barber, Washoe County Youth Agent, has developed a special handbook, which he distributes to each family. The book includes lists of family names; information on how to work with host families; a brief list of important Japanese words and meanings; a description of the Labo program; a description of 4-H; postal information; a brief description of Japan including its history and people,



Julie Ann Baker, 17, one of 19 Washoe County 4-H'ers who visited Japan last summer, shows off her kimono and umbrella.

geography, culture and traditions, and economics; and a description of Japanese foods and recipes. Families are required to bring the handbook to each meeting.

In addition to the monthly meetings, a penpal system is established to acquaint youths with each other and to establish communications between Japanese and American families. An exchange of pictures is encouraged and use of very simple English stressed. Families are asked to provide as much information as possible on their family life.

Before the Nevada 4-H youths leave, their families get together for a Japanese dinner that they cook themselves. This helps both families and youths to better understand the Japanese culture, and to become acquainted with Japanese foods.

Country-Wide Activities

When Japanese youths arrive in Nevada, three county-wide activities are planned—a welcome party, a special trip, and a farewell party. The welcome party is a picnic, complete with a baseball game, swimming, and other sports. The special trip has included a visit with Nevada's governor, a tour of historic Nevada sights, and a visit to the state 4-H camp at Lake Tahoe. The group travels on local school buses with host family adults serving as chaperones.

The farewell party is held either at a park or at the University of Nevada-Reno gym. In addition to food and sports, there is a special ceremony where Japanese and American youths give farewell speeches and exchange small gifts. These gifts are usually handmade to show a giving of oneself.

When Nevada 4-H youths go to Japan, they travel as an identifiable unit by wearing jackets provided by a sponsor. Businesses also provide small favors to be handed out at Labo camp as gifts.

Since media are contacted for all departures and returns, 4-H'ers and their chaperones have been on TV and radio, and in the newspapers. This year, two youths and one chaperone were on a Nevada TV talk show.

In addition to contacting the media, some of the youths and chaperones give their own demonstrations. For example, one chaperone, a middle-school teacher, put on a Japanese music demonstration for all the music teachers in her school district.

Future Exchanges

The first Nevada 4-H/Labo alumni party was held this year. Activities included displays of Japanese gifts, slide showings, an exchange of experiences, refreshments, and a discussion of the 1980 exchange.

Plans are also being made for future 4-H/Labo exchanges, including an evaluation of the program.

The promotion of international understanding through the 4-H/Labo youth exchange can prove valuable in the future. The youths of today are the leaders of tomorrow. What better way can a child expand horizons than by experiencing life in another country? □

Babysitter's Corner

State 4-H Staff
Stockbridge Hall
University of Massachusetts/Amherst

"We started out with no budget, no real plans, just an idea," said Deborah Samuels.

"If we'd had any idea of what we were getting ourselves into we'd probably have just quit right there," added Annie Larkins.

Debbie Samuels, then 4-H agent for eastern Middlesex County, and Annie Larkins, then 4-H agent for Suffolk County (roughly translated, that's Boston), shared common problems. Most of their clientele were urban, and inner-city babysitting poses questions different from those raised by babysitting in suburban and rural communities, as does reaching the audience of potential babysitters. The two women started a two-county cooperative effort and then looked further afield.

"We discovered that every 4-H agent in the state had a babysitting program of some kind, but that to some extent everyone was reinventing the wheel every time. No one program was adaptable to a variety of circumstances and needs. The material and information were available. What we did, with help and critiques from our Extension coworkers, was to put it together under one logo as a statewide program," said Annie.

They also approached Warner Cable of Massachusetts Inc., Channel 13 in Walden, Massachusetts, and asked about the possibility of making a series of half-hour video tapes to accompany the printed material. The station liked the idea because it fit naturally into their concern with presenting educational and public-service programming.

At the time the babysitting project began, there was no Extension information staff at the University of Massachusetts, so Annie and Debbie made all their own contacts, developed their own props, wrote their own news releases, and generally found themselves following the 4-H motto of learning by doing.

Moral Support

Margaret Randall, (Peg) then state leader for 4-H home economics, and now state program leader of the Expanded Food and Nutrition Education Program, at UMass/Amherst, acted as a facilitator and occasional source of additional funds when she could. Even more important, she provided "huge amounts of moral support."

Peg connected the two women with graphic design, typesetting, and printing facilities. She also helped locate Rae Davis, a photographer in Conway, Massachusetts, who took slides in the studio as the six programs were taped. Rae also developed title and supplementary slides for

Deborah Samuels, holding her son, and Annie Larkins discuss the babysitter's corner program.

the slide-tape shows that became part of the package.

Later in the year, Winifred LeVitre, staff associate for Extension programs at UMass/Amherst, wrote a slide script based on the videotapes.

"We learned how to use props, how to unclutter our set, what colors to use for backdrops, and how to build in some action—which was something of a problem because we had only two cameras to work with," said Annie. "We also learned to strike a balance in the colors we wore—I'm dark and Debbie's fair, which made lighting a challenge; and where to stand—another challenge since Debbie is about 6 inches shorter than I am."

They decided that having two resource people to interview on each show worked best, found that working with an outline rather than a script was easier and more natural . . . and that it allowed quick changes when guests arrived late or babies fell asleep at the wrong time.

"We had no rehearsals, but we did give each guest a thorough breakdown on what he or she could expect and what we'd be discussing. Everyone was willing to help, and very agreeable," noted Annie.

Program Content

Eventually Debbie and Annie produced six half-hour sessions focusing on safety, first aid, responsibilities of the babysitter, infant and child development, nutrition, crafts and recreation, and child care and handling. Area resource people who appeared included a nurse-practitioner, a doctor, a police officer, a fire fighter, a supervisor from the Expanded Food and Nutrition Education Program, a mother with her child, a crafts specialist, and a babysitter.

They took their early tapes out for critiques from a variety of experts and found they "really helped us clean up our act." So much so that some sessions were retaped to keep overall quality of the series even.

With the studio so small, the agents kept from underfoot, but were on time, ready to go with props and sets organized. "There were definitely frayed nerves on both sides from time to time, but we got better as we had more practice in working with each other," Debbie said. The station did the original tapes, including the editing, and Extension funds paid for copying and transferring.

Series Debut

The debut of the series was announced in community papers, and interested young people were told they could pick up registration cards at designated public libraries. Nearly 100 youngsters sent in cards and received a packet of materials in return, including tests with which to gauge their progress.

Those who viewed the entire series and completed the activities for five of the six segments were given "certificates of participation" (and a distinction was made between that recognition and "certification"). A presentation ceremony took place at the Medford Library, which had served as a viewing site for some of the participants. The graduation was also cablecast live on Channel 13.

Despite the fact this was their first contact with the youngsters they'd been teaching, Debbie and Annie found that "everyone reacted very personably." Over 60 young people and their parents attended, with many bringing food to the event.

"We found that we'd become minor celebrities," Debbie and Annie laughed. "When we came into the room we could hear people whispering 'there she is.' One woman came up and said, 'you look much better in person than you do on TV.'

"The kids had taken the whole thing very seriously, much more so than if we'd conducted the classes face to face, we thought. Participants had been asked to prepare magic bags filled with necessities and curiosities for entertaining young charges, and to bring the bags to graduation for inspection. "The magic bags were very inventive in most cases, incorporating both ideas from the show and the kids' own ideas. We were delighted."

The babysitter's corner now includes videotapes that can be played on any of three types of systems: slide sets with accompanying scripts that cover the same information, leaders' and members' guides, a suitcase of props and samples, and participation certificates and identification cards for those who complete the course. Libraries, community centers, schools, and 4-H clubs across Massachusetts now use the project.

But the final proof of the pudding may be this: the cooperation that was so successful in developing the babysitter's corner has since inspired development of additional package programs on a Massachusetts-wide basis. □

Community Commitment Through CRD

J.J. Feight
Agricultural Editor
North Dakota State University

Program assistant Deb Forstner, left, and Pat Kennelly, CRD program coordinator, assist kids in craft class.

Through the 4-H CRD program, kids learn care and respect for their community.

4-H Community Resource Development (CRD) has been called many things since the program was funded 6 years ago.

CETA (Comprehensive Employment Training Act) personnel call it the best youth program they have ever funded. CETA funded 8 of the 23 CRD programs conducted in small- and medium-sized towns in North Dakota last summer.

James "Pat" Kennelly, 4-H youth specialist and CRD program director at North Dakota State University, tells CRD program assistants that the work is challenging, rewarding, "no bed of roses", and at times even "lonely and scary".

Apparently applicants for the 10-week summer assignments are challenged. Certainly it's not the salary. Program assistants are paid $110 per week. From this they have to pay for their room and board. College credit may appeal to some who haven't already graduated.

CRD "alums" have found the work helpful in securing future jobs. The ability to handle a tough assignment, to organize, to get along with people, and to sell ideas such as community improvement makes a good recommendation.

Program Objectives

Community betterment is what CRD is all about. The main objectives of the program are to help youth learn and better understand their community and the impact it has on their lives.

CRD works mainly with youth between the ages of 6 and 19. Projects and youth needs vary, so each town where program assistants are stationed has a different approach.

Some projects are ambitious enough to require a total summer to bring them to completion. Other

towns carry out a number of smaller projects. In all activities, the youth are active in the planning and work, and are the main source of suggestions for activities.

CRD programs are heavy on community involvement but light on recordkeeping. A comment on the latter, "4-H has to keep too many records," and "4-H, you need a cow for that," are part of the stereotype of 4-H held by many small-town youngsters.

During an evaluation session at the end of the 10-week program, program assistants reported a need for greater flexibility on the part of 4-H leaders and projects. They suggested that a change in many parents' attitudes is needed for future support of 4-H. Urban 4-H is helping change some ideas about 4-H, they concluded, but some misconceptions still exist.

West Fargo

Program assistants naturally develop strong feelings for the program, as they work on a day-to-day basis with youngsters in a given community. Deb Forstner, the second program assistant to work in the West Fargo housing development, found interest for a year-round 4-H club with emphasis on community involvement. No 4-H clubs are now available to kids in West Fargo. Forstner admitted to a frustration of trying to "pair up" interested kids and parents.

A small garden project attracted a good number of youngsters as well as some Senior citizens. Story hours and the use of the community building were also shared. Another activity was a bike safety clinic in which safety rules were explained. This, in addition to other shared activities, helped ease some of the tension between youngsters and oldsters because "kids were zipping around the housing project with bikes on the sidewalks."

Ages in the West Fargo group varied from 3 to 15. Who turned up depended on the given activity offered. A 13-year old was in charge of a H-O-R-S-E basketball tournament. Kids really got into a project of putting together a four-page newspaper. It also doubled the size of the arts and crafts class. A touring group, "Plain People", was well received for a performance in the park.

Forstner felt generally good about her summer experience, indicating that CRD was "right up her alley". She is an elementary education-psychology major who had previously worked with the handicapped.

Town Involvement

During evaluation sessions, program assistants generally agreed that towns would become more involved with CRD programs if they were paying part of the program assistant's salary. One assistant reported, "Half of the town *still* doesn't know I was there."

In some cases, competition for kids' time existed on the local level. One program assistant got the daily question of "Are you doing this by yourself?" Three recreation directors in the same town had visible support. Perhaps such a town didn't need a CRD program. In contrast, another program assistant indicated that if the CRD "didn't go", the town had nothing in the way of an organized program for its youngsters.

On the other end of the continuum were examples of heavy community involvement of service clubs, city council and other groups with "just ask us" attitudes. The same assistant met 130 kids the first day on the job, visited businesses in town, joined a women's softball team, and developed support for the program.

High satisfaction on the part of the program assistant and youngsters were reported from activities such as playing bingo and cards with Senior citizens, helping a community "pick up" after a tornado (20 kids worked 3 days), and establishing a nursery school as the result of day care centers organized this summer.

Establishing first contacts for CRD programs were as varied as the personalities of the program assistants involved. Some were following a previous CRD program built on contacts already made. County extension staff provided leads, including one who set up 18 slide shows in 2 days to explain the program!

One enterprising program assistant visited her prospective town ahead of her assignment. When she arrived, other youth workers knew about her and the CRD program. Several program assistants used bike riding as a method of meeting young people. One assistant who went to the Dairy Queen was followed home by three individuals who got the first explanation of the CRD program. Another assistant met many townspeople through the County Extension Agent.

The important thing about the program was—kids came and learned more about both 4-H and their own communities. □

Outreach To the Handicapped

Lea Cottam
4-H Information Specialist
Utah State University

Fat foods, skinny foods, painting on rocks, disco dancing, dental care, even skills like matching socks!

4-H is this and much more at the sheltered workshop for the mentally handicapped in Benson.

4-H for the handicapped is not new in Utah, says Karen Murray, Utah State University Extension agent for the handicapped. 4-H clubs have been successfully operating at the Utah Training School in American Fork and in a few communities throughout the state for about 5 years.

However, the Benson Club is expected to serve as a model for new clubs throughout the state.

Murray is developing materials and guidelines for working with handicapped individuals in 4-H.

"In many small towns there are only one or two individuals who have mental handicaps. Some of them can be integrated into regular clubs and others need special help. In either event, the volunteer leader will be able to use the materials we are producing," Murray said.

Self-Improvement

The Benson Club began with a self-improvement project which included learning about dental care, physical fitness, clothing selection, nutrition, personal hygiene, and hair care.

Recently members learned to crochet. They exhibited their projects at the county fair along with other craft projects they completed during the year.

Pottery making produced some stiff competition within the club for the medals presented for the best pieces. Rock painting and drawing also allowed the members to display their creativity and talent.

Canoeing proved to be a popular activity for the 4-H'ers. The short trip down the Bear River was not only fun, but was also an opportunity to talk about water safety.

Social Skills

Awards have been given to all members who can recite the 4-H pledge from memory. Club members range in age from 16-40. Members have elected their own president, vice-president, and secretary.

"We think that maybe the things the kids are learning about social skills are more important than the things we set out to teach them," Murray said.

She added that plans are being made to expand the 4-H experience to reach handicapped people throughout the state interested in joining 4-H. □

Sandy Smart, left, crochets for the Cache County Fair assisted by 4-H leader Mary Godfrey.

Helping the Blind Opens 4-H'ers Eyes

Deborah Lee Payne
Public Information Agent
Washoe County Extension Service

A group of Washoe County, Nevada, 4-H'ers help provide eyes for the blind by raising guide dog puppies.

The youths, members of the Guides of the Future 4-H Club, have raised over 75 guide dog puppies since the Nevada program began 10 years ago. An additional 20 guide dog puppies are now being raised.

4-H'ers receive their puppies from Guide Dogs for the Blind, Inc., in San Rafael, Calif., one of nine guide dog schools in the United States. The puppies are purebred Labrador retrievers, German shepherds, and golden retrievers.

During the 12-to-15 month period, the 4-H'ers keep the puppies and teach them basic obedience and socialization.

The dogs go through intensive training sessions and rigorous tests, learning how to work in a harness and to observe traffic. Part of their training is done in the busy streets of San Francisco.

Each 4-H'er maintains a daily puppy journal, and the dog sleeps in the same room with the 4-H'er in order to develop a one-to-one relationship. The closeness and constant contact prepares the dog to live with a blind person.

In addition to this individualized work, the 4-H'ers meet as a group to work on obedience training the first Saturday of each month at Evans Park in Reno, Nev. They also attend a monthly 4-H club guide dog business meeting. For 1980, they have planned a number of special activities including a fire station tour, a visit to a farm, a day in the snow, and a dog fun match.

Field Day

Last year, the youths had an opportunity to participate in the first Washoe County Guide Dog Puppy Field Day at Paradise Park in Sparks, Nev. Guide dog raising youths from two other counties in Nevada and nine Northern California counties participated.

4-H'er Pamela Coleman, 13, and her guide dog puppy Gina have a special relationship.

At the field day, the 4-H'ers took their puppies through nine test stations. Stations included climbing stairs, motorcycle noises, walking near a duck pond, and being examined by a veterinarian. Scores were given to each puppy, as well as to each 4-H'er. The youths were scored according to how well they could manage their puppies and how well the puppies responded to them.

In addition to the field day, the 4-H'ers had a booth at the MGM Grand Hotel Handicapped Fair. They took turns working the booth and brought their guide dog puppies with them. They also had a float in the Nevada Day Parade.

Worthwhile Venture

Although the 4-H'ers must give the puppies up, it is a worthwhile venture. While the dogs are socialized and learn basic obedience, the 4-H'ers learn responsibility, community service, patience, and sharing.

By the time a puppy passes all hurdles and becomes a guide dog, 4-H training expenses are approximately $5,000. But to the blind person the dog is worth much more—a large measure of freedom.

The 4-H'ers present the dogs to their new blind masters at a special graduation ceremony at the San Rafael, Calif., guide dog school.

For further information on the 4-H guide dog puppy program, contact Dave Barber, Youth Agent, Washoe County Extension Service, 1100 North Wells Ave., Reno, Nevada 89507. □

Kalamity Kids Stress Teamwork

Mary Jane Duff
Former Extension Specialist
University of Missouri—Columbia

Kalamity Kids, Inc. is a fast-riding, hard-working mounted drill team from Aurora, Mo. But more than this, the Kalamity Kids is a group of 4-H families traveling and working together with horses.

Kids aged 8 to 18 and their parents make up Kalamity Kids, Inc.—a 4-H horsemanship club known for their daring rides as a mounted drill team.

Timing, spacing, practice, and team work are stressed by drill master, Bob Werner from Verona, Mo. "But," he says, "determination and the will to win are most important."

D.L. Price, president of the adult group and relative of three Kids, says, "There is no room for fear on the field. Timing is everything. When the timing is off, collisions occur." He says this from his years of experience as the Kalamity Kid drill master.

"Few practices go by without someone getting dumped," the 5 year leader continues, "but they have to get up and go again."

And go again they do. Weekly practices and performances in a six-state area keep the Kalamity Kids a close-knit group. Liz Price, 17-year-old daughter of D.L. and 5-year veteran Kid, says, "All the Kids are like my brothers and sisters." But more than just siblings, the Kalamity Kids have a "participating parent" for every drill team member.

The Price family adds five to the Kalamity gang with leader D.L., his wife Shirley, as treasurer, and daughter Liz; Archie, 15, and Derrill, 10, are the other two Prices who ride with the Kalamity Kids.

While gathered around the Price family's kitchen table with eight other Kids, Liz explains: "The Kids are like family to me because we are together all the time. We can't mix our riding with many other activities because we don't have time."

One of the Price's frequent visitors, Lori Youngberg, 13, from Verona, chimes in, "We could ride together everyday of the week and be happy."

Daily Practices

Riding every day is what the Kids need to do, Liz says, to learn the drills. Daily practices at home are not new for her or many of the other Kids. "Performing with the Kids builds pride and I like being proud of our group," she says.

Leading the Kalamity Kids' entry during performances this year is drill team captain Chrissy Baumberger, from Springfield. She and Liz both carry whistles to signal the drills. Three whistles will bring every horse to a standstill in case of an accident or collision. Liz explained with pride that this amazed the judges in the National Drill Team Olympics.

"Last year in Dallas when a rider fell," she says of their national performance, "the horses stopped in perfect formation, the rider remounted, and we finished the drill."

The Kids placed second in this national competition and earned the nickname of Missouri Daredevils for the speed of their drills. "Most drill teams perform at a slow canter or a walk," Liz says with a grin, "but slow is boring and we have to be more precise when going fast." She laughs and adds that because speed is not graded in the national competition, they also were called a demolition derby on horses by other drill teams.

Kalamity Organization

Seeing the Kalamity Kids has been a part of life in Aurora since 1973 when Pat White organized the group from the Victory Bees 4-H club in Verona. Since that time the 4-H'ers have formed a nonprofit organiza-

tion with four adults on the five-member board of directors. They still participate as a 4-H Club in the University of Missouri Extension youth and 4-H programs, but they also have a constitution and bylaws as the Kalamity Kids, Inc.

The corporation's objectives are to help the youths develop good horsemanship practices, sportsmanship in competition, pride of ownership, and self-discipline. Also in the group's bylaws is the rule that each drill team member have a "participating parent" attend all meetings.

Because an adult is required to participate for each youth, the organization formed adult committees. Lyle Youngberg, father of two Kids and head of the adult finance committee, says, "The parents have their work to do while the kids have theirs." The 20 some adults divide duties such as handing out and collecting flags at performances, supplying uniforms, checking tack, and helping raise money.

With as many as 32 riders some years, the group needs an adult in charge of each area, D. L. explains. "For example, one person does a safety check of all girths and equipment before every performance while the kids are dressing."

Other year-round activities of the Kalamity Kids and parents are an attempt to solve their biggest problem: lack of money.

Youngberg says the group travels about 20,000 miles a year to rodeos, shows, and practices—creating about $40,000 of expenses. "Making money and finding enough time are the biggest headaches of working with the Kalamity Kids," Youngberg says. "We have a constant lack of money because transporting horses and tack is expensive. "But," he says, "the Kids come first. They are one of the largest youth drill teams in the country; they are colorful, patriotic, and they would like to be traveling ambassadors for the state of Missouri."

Fund Raising

The devoted Kalamity parents help the group organize money-making projects to fund their travels to Missouri, Oklahoma, Kansas, and Wyoming rodeos and fairs.

Youngberg says this year they are selling fly swatters, food at fairs, and pies in addition to cleaning up after circuses. "In general," Youngberg says, " we'll do anything for a dollar. The Kids even moved a local citizen for $200 and sold horseback rides."

D. L. says, "The Kalamity Kids is definitely a family program. When the group staged a 24-hour ride-a-thon, neither the kids nor parents slept. "But," he adds quickly, "we made $1,000."

This year the group had to raise even more money than in the past to help finance their trip to Frontier Days in Cheyenne, Wyo. The Kalamity Kids drill team performed twice a day during the 3-day western celebration in July. They returned home in time to start practicing for their Missouri State Fair performance.

But the fun and excitement of being traveling performers is not all the Kalamity Kids get from their 4-H Club. In the winter they attend bimonthly meetings. These off-season sessions include classroom and field instruction about grooming, diet, care, tack, and apparel of horses.

"The best part of being a Kalamity Kid," says Lori Youngberg, "is learning how to care for and work with horses by doing it myself. And when the parents come we all have more incentive to work."

For the Kalamity Kids drill team, 4-H is a family affair. □

Energy Fair Clicks Mental Light Bulbs

Wayne Brabender
Information Specialist
University of Wisconsin—Extension

Chuck Krema, 15, builds a solar hot dog cooker. Made of wood and aluminum foil, it can cook a hot dog in 2 minutes on a hot, sunny day. (Photo by Sandee Gerbers).

Who has the answer to our energy problems? The government? The oil companies?

"No, the answer is us. We're the solution," says Sharon Metz, a representative in the Wisconsin legislature. The answer lies in the many small energy decisions that each of us makes every day, she told visitors to a recent "energy fair," sponsored by the Lost Dauphin 4-H Club of DePere, Wis.

The all-day fair focused on practical energy saving ideas, the kind of information that people need to make the right energy decisions, noted Metz.

Energy Ideas

Topics ranged from heating with wood and solar to saving energy on the farm and in the kitchen. Fairgoers heard from about 20 demonstrators and speakers, representing the Lost Dauphin 4-H Club, the Brown County Energy Conservation Center, Brown County Extension homemaker clubs, and the Wisconsin Public Service Corp., the local utility.

As speaker after speaker tossed out ideas on saving energy, you could see the mental light bulbs click on in the crowd.

When Collete Arkens of Wisconsin Public Service Corp. said that we occasionally should drain sediment from water heaters, one woman asked, "Electric heaters, too?"

"Yes," Arkens answered. "I've never done that," said the surprised woman. "I didn't realize it had a drain."

"Yes. There's a small faucet near the bottom," replied Arkens. "Just drain out a small bucket full two or three times a year. You'll be surprised how much mineral buildup there is."

Arkens also played "energy bingo" with the crowd, proving that learning about energy conservation can be fun, too. Instead of letters and numbers, squares on the bingo cards had pictures of energy saving ideas.

When Arkens pronounced, "switch me off when leaving a room," bingo players marked the spot picturing a light switch. "Keep me frost free" was the answer for a freezer, "draw me to stay warm at night" for a blanket, "replace my

filter when dirty" for a furnace, and on and on.

Bingo winners got small prizes. But more importantly, they learned how to save energy, which saves money in the long run.

Wood Stoves and Kitchens

4-H'ers Doug Koerner and Jim Garsow discussed the recent "wood stove phenomenon" in the state. Many people are turning to wood as a home heating source. They showed ways to safely harvest and burn the wood and what to look for when shopping for a stove.

"Any wood will burn," declared Garsow, "but the denser hardwoods, properly dried, make the best fuel." Koerner reminded fairgoers to clean their chimneys once a year. Use a wire chimney brush, he said, not log chains or bags filled with stones. "These can damage the chimney liner." They based their demonstration on a University of Wisconsin-Extension publication, "Wood for Home Heating," a 10-part series displayed at the fair site.

Rita Buchberger of the Little Rapids Extension Homemakers Club pointed out simple ways to save energy in the kitchen: don't use an oven as a room heater; don't peak in the oven when baking because it loses 20 percent of its heat each time; cover pots and pans because the water will boil faster; keep freezers fully stocked; and learn to use hand appliances again.

Dressed in turn-of-the-century clothes, homemakers Esther and Elsie Zittlow described what energy saving meant "in grandma's day." Esther said people were energy conscious then "without even realizing it." Their wood stove burned all day to cook meals and heat the house, she noted. Their water was heated in a reservoir on the side of the stove. They made only monthly shopping trips to town, by horse of course.

Representative Metz said that we can make "dramatic impacts" if each home is weatherized and everyone drives 50 mph. We can also recycle our oil, said Metz, who is chairperson of the state assembly's energy committee. "Oil is like an overcoat. We can clean it and use it again, instead of burying it or flushing the oil down the drain." For more information, fairgoers could read "Waste Oil Recycling," a new Wisconsin 4-H activity booklet.

Solar Energy

Valdi Stefanson, Brown County energy coordinator, focused on the importance of solar energy today. "Solar energy needn't be fancy, needn't be expensive" to be effective, he said. He showed slides of many "tinkerers" around the country who had made workable solar equipment for very little money.

There were several of these tinkerers at the 4-H energy fair. Ruth Verstegen, 13, showed pictures of solar heating panels built in the family's workshop for only $1 per square foot. All materials were recycled, she explained. Basically, each solar panel consisted of a layer of clear plastic over a sheet of metal, painted black. Warm air, trapped in the 2-inch space between plastic and metal, rises, and circulates throughout the workshop by means of heat ducts.

According to her calculations, the solar panels work. On one cold but sunny winter morning, it was 29° inside and 14° outside the shop. By 3 p.m., the shop had warmed to 40°, while it was still in the 20's outside. A woodburning stove gives extra heat when needed, she added.

4-H'er Scott Zittlow, 17, was another tinkerer. He showed how to make a solar oven for less than a buck.

First, he said, you cover a large piece of posterboard with aluminum foil, shiny side out. Shape the posterboard into a cone so it looks like a megaphone used by football cheerleaders. Stand the cone in a box.

Next, spray a piece of aluminum foil with flat, black paint, this time keeping the shiny side in. Use this foil to wrap your meal—hot dog, hamburger, potato or whatever— then place it in a jar. Cover the jar and place it into the cone's bottom.

"Then aim the cone at the sun. Wait 20 to 30 minutes. ENJOY!" remarked Zittlow.

Club Involvement

John Kauth, Brown County 4-H and youth agent, said the 40-member Lost Dauphin 4-H club chose the topics and worked on the energy fair project for over 3 months.

Topics were chosen from the "Home Energy Investigations" guide, a Wisconsin 4-H energy education pilot program funded by the Wisconsin Energy Extension Service. The guide offers learning opportunities that the whole family can do together. Five counties are piloting the materials through May 1980. Finished guides should be available later this year.

Kauth estimated that the fair, held from 10 a.m. to 4 p.m. on Saturday, Feb. 23, reached about 50 people per hour. But, he added, newspaper articles, brochures, and followup reports will multiply the important energy message many times.

"And," he said, "the fair was all the 4-H club kids idea!" □

Vegetebella

Glen Kleine
Mass Communications Department
Eastern Kentucky University

Some say the mark of a good 4-H extension agent is his or her ability to involve other people. If that's true, Madison County in Richmond, Kentucky has a dandy agent; and she's Jo Nelda Cole.

It has been nearly 2 years, 34 rehearsals, four live performances, and one videotaping session since Jo Nelda first knocked on the door of Joan Kleine, a fifth grade teacher at Kentucky's Mayfield Elementary School, and said, "I just learned of a darling play written by two students at the University of Delaware and wondered if you would consider getting our students together to put it on?"

Today, Joan and her Mayfield students are still deeply involved in the musical tale, *Vegetebella.*

Vegetebella, is a nutrition musical for the young and old based on the story of Cinderella. It teaches the importance of the four food groups, concepts of caloric value, principles of food budgeting, and presents a critical analysis of food advertisements.

Vegetebella was first performed for the Mayfield student body. It was a smash hit!

All *Vegetebella* cast members are from the school. Next the Mayfield players presented the musical at the December 1978 Kentucky Home Economics Agents Conference. Their third performance was in January 1979, at the annual meeting of the Kentucky Homemaker Association, during Farm and Home Week. The success of these live performances resulted in a videotaped performance aired on statewide television.

Play Characters

Some of the plays' characters include Chipsita, Vegetebella, Chocolita, Prince Protein, King Calorie, Sugarlita, a Fairy Godmother, and food group members.

The food group members played a variety of roles; there were five members in the Milk and Cheese group, four members in the Bread and Cereal group, six members in the Fruits and Vegetables group, and four members in the Meat group.

Jeanne McCauley and Marta Smith wrote *Vegetebella's* script and lyrics while they were nutrition majors at the University of Delaware. Their original play, the first full-length nutrition musical, was copyrighted in 1976 and called for the characters "Fritolita" and "Pepsita." These names presented no problems in a stage production. However, the educational television network in Kentucky was apprehensive about using trade names and changed "Fritolita" to "Chipsita", and "Pepsita" to "Sugarlita."

The play, originally cast with Senior citizens from the Newark Senior Center Drama Group, was performed twice during 1976 at the University of Delaware.

Although McCauley, now a medical student at the University of Maryland, and Smith, a dietetic intern at St. Mary's Hospital in Rochester, Minn., have left Newark, the drama club continues to present *Vegetebella* to area schools and nursing homes.

Financing

Several groups helped finance the video production of *Vegetebella,* the winner of a 1976 Nutrition Action Award funded by The Potato Board.

A General Foods Consumer Center Media Grant awarded $150 to Cole on the strength of a proposal she had submitted to the National Association of Extension Home Economists. Each application submitted for the Grant included an outline listing the target audience, the purpose, justification, and plans for the project, a budget, and beginning and completion dates. The proposed projects were then judged according to their innovativeness, usefulness, quality, and financial feasibility.

But that was only the beginning. Next monies had to be found to help pay for costumes, sets, and production personnel. The University of Kentucky 4-H Club gave an additional $450 to help pay for costumes and sets. Eastern Kentucky University donated it's television facilities for the production, and let television director Jack McDowell and an engineer work on the project. Mary Sewell, a Mayfield teacher, volunteered her time and played piano for the production.

Three weeks of nightly blocking and dress rehearsals were followed by 5 days of videotaping. Only then was McDowell able to begin putting all those takes together into final form.

Public Reception

Vegetebella was successful in many ways. It gave cast members from varied backgrounds the opportunity

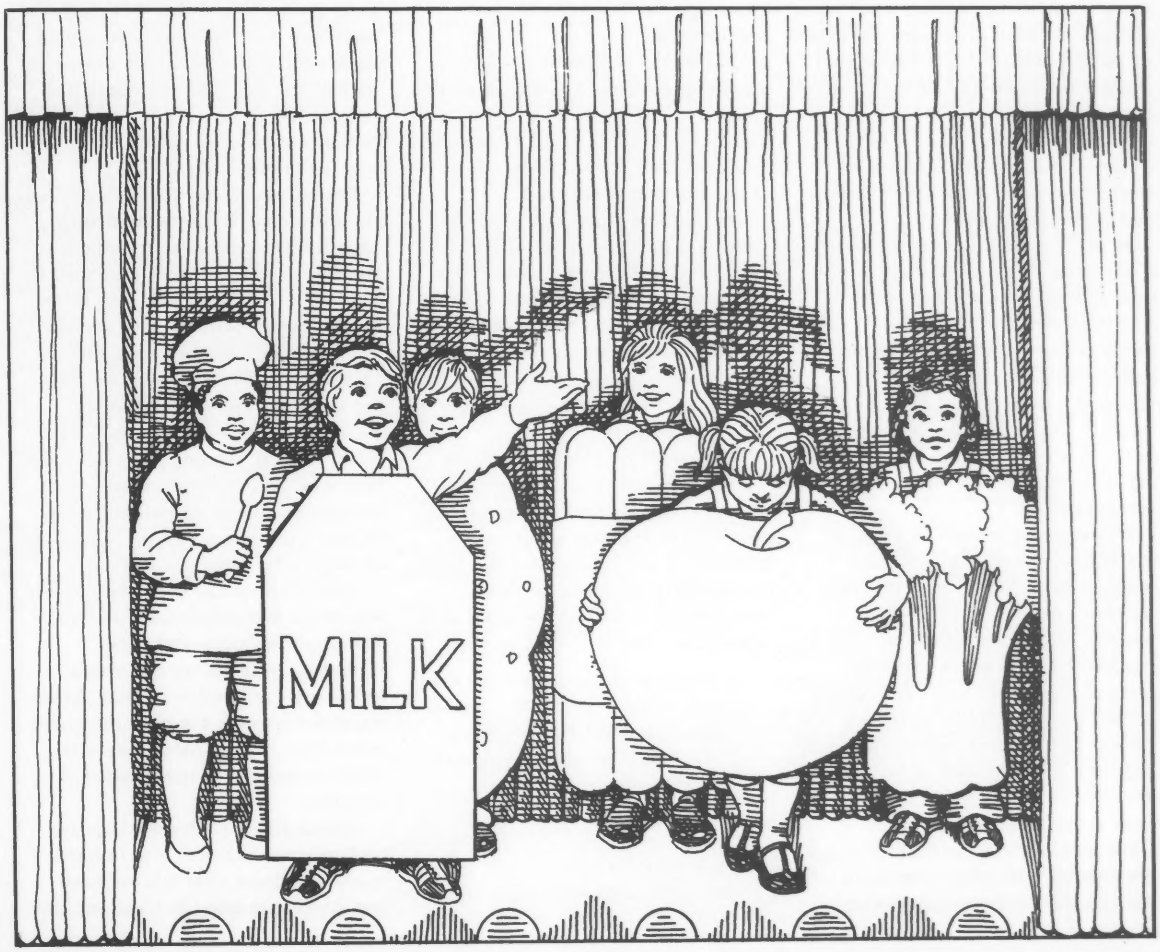
to travel throughout central Kentucky and into classrooms of many Kentucky schools. Of the original cast, five came from disadvantaged homes and one came from the Educable Mentally Handicapped Class.

Richmond citizens met the cast at a public reception held at the Eastern Kentucky University Radio-Television Center. They viewed *Vegetebella* and applauded as members of the Madison County 4-H Office presented awards to the cast.

Richmond City School Superintendent Harold Webb, and most of the members of the Richmond City School Board attended the reception. Richmond City Mayor James C. Todd designated January 4, 1980 (the day *Vegetebella* was to be aired statewide) as "Vegetebella Day" in Richmond, Kentucky.

Kentucky Educational Television aired *Vegetebella* throughout the state on Thursday, January 3 and Friday, January 4, and showed it again in February. The February show was publicized in the *Kentucky 4-H Newsletter* and throughout the school system, as each student received a brochure entitled, "Making Your Snacks Count."

Although there was a great deal of glamor and show-biz excitement for the students involved in *Vegetebella,* both students who saw the live performance and those who watched it on television learned a lot about nutrition. □



Rural Youth Vandalism

Joseph Donnermeyer and G. Howard Phillips
National Rural Crime Prevention Center
Ohio State University

Vandalism is a growing problem in rural America. Studies indicate that from 10 to 20 percent of all rural households annually are victimized by vandalism.

The image that vandalism is an urban phenomenon, rarely committed by rural youth, is no longer true. Research shows that in contemporary rural society, vandalism is increasing.

A study of self-reported acts of vandalism, conducted among sophomore students from three rural high schools in Ohio, illustrates the extent of the problem. First, it found that slightly over one-half of the students have committed at least one act of vandalism. Second, nearly 75 percent of those students have repeated their behavior at least three times and often much more.

In other words, vandalism was not a one-time affair, or perhaps a one-time mistake in judgment, but a recurring activity. Third, over two-thirds of the Ohio rural youth who had vandalized, did so as a "game". "contest", or as a way of achieving "status" and "prestige" among their peers. Most of the Ohio rural youth did not perceive their behavior as "criminal."

This increase relates to changes which have taken place in rural America since World War II. There are fewer family farms, and in general, rural youth today are not as important to the economic well-being of the family unit. The nature of the family itself has changed.

Most rural school systems are now large and consolidated, lacking the atmosphere reminiscent of the one-room school house.

The information available through mass media and other communication channels often presents contrasting values about what is right and wrong, good and bad.

There have been vast changes in the lifestyles of the rural population, and these changes will continue to significantly influence the attitudes and behavior of young persons growing up in a rural environment.

4-H Makes a Difference

What are the solutions to reducing vandalism committed by rural youth? What is the role of the Cooperative Extension Service in rural crime prevention?

One of the programs already making a difference is 4-H. A recent study of rural youth vandalism in a Southwest Indiana county presented an opportunity to examine 4-H as "rural crime prevention."

The Indiana study repeated the Ohio research. However, it had an additional question to answer: Are rural youth who participate in activities beyond regular school hours—such as varsity sports, extracurricular school organizations, church youth groups, and 4-H clubs—less likely to become vandals?

There were two high schools in the county, and over 350 junior students participated in the research project. The Indiana results were remarkably similar to the Ohio study. In addition, two-thirds of those involved defined their behavior as a "game", a "contest", or a way of achieving "status" and "prestige" among their peers.

Did the youth belonging to 4-H clubs differ from non-4-H'ers with respect to committing vandalism? The answer was "yes", there was a difference.

First. among 4-H club members, 47 percent had committed at least one act of vandalism. This compared to 53 percent for those who did not belong to 4-H. A 6 percent differential may appear insignificant—however, it was found that 4-H club members were less likely to repeat their vandalistic behavior. Only one-half of the 4-H club members had committed three or more acts, compared to nearly two-thirds of those who were not 4-H'ers.

Perhaps even more significant was the difference in the vandalism's severity. Descriptions of Indiana student vandalism were reviewed by a panel and categorized into three levels: minor, serious, very serious.

The minor category included "Halloween" type pranks like soaping windows and draping toilet paper on bushes, trees, cars, and other objects. Among 4-H club members who had committed an act of vandalism, nearly 40 percent were of this type, compared to 26 percent of those who were not 4-H'ers.

Vandalism at the other two levels was more malicious, such as "spray painting road signs and cars", "shooting or breaking out street lights and car windows", and "burning down barns." 4-H club members, when they did vandalize, were less likely to engage in these types of activities.

Although 4-H club members are certainly not "saints", the Indiana study illustrates that 4-H'ers have less need to engage in frequent and

seriously malicious forms of property destruction. In part, the reasons for this may lie in the home environment or in other factors besides 4-H membership.

4-H Contributions

4-H itself has something to offer in the development of young people which functions to reduce the probability that members will engage in vandalistic and other forms of deviant behavior.

The contributions which 4-H makes to the development of young persons will become increasingly significant. The background and environment which influences the formation of attitudinal and behavioral patterns of rural youth will be markedly different in the 1980's from how it was in the 1950's and 1960's.

4-H provides the opportunity for young people to acquire positive experiences and to form positive self-images. The true meaning of crime prevention is the reduction of the root causes and basic motivations for an individual to commit unlawful behavior.

In this sense, 4-H functions as crime prevention and as rural society continues to change, the potential for 4-H to contribute to the positive development of young persons will grow. □

Reaching Rural Residents

Charles R. Hilgeman
4-H Youth Advisor
University of California—Extension

How can the 4-H Youth program in the rural far northwestern corner of California hold its head above water —and even grow—in the face of a 25 percent decline in available school youth in the past decade?

The area also has an economy with an unemployment rate double and even triple the national average, further spurring the movement of families with 4-H age youth out of the area seeking greener pastures.

That question has faced the staff of the University of California Cooperative Extension 4-H Youth Program in Humboldt County, California for more than a decade. And one of the answers seems to be—conduct one of the most aggressive public relations and image building programs in the country.

And that is exactly what the 4-H Youth program staff of Humboldt County, California is doing.

Telethon

A recent example is a 4-H "Telethon" telecast over KEET-TV. This particular "telethon" was not seeking money, but 4-H participation.

In fall 1978, and again in 1979, more than three dozen 4-H members, most of whom had never appeared on television, went before the lights and cameras. Also included in the cast were four dairy heifers, two 6-week-old Duroc pigs, and a dozen puppies being raised as guide dogs for the blind.

The 4-Her's encouraged viewers to call in and talk to them about joining 4-H. From 1978 to 1979, the number of callers nearly tripled. Three phones were busy for a good portion of the 1979 half-hour show.

A team of high school teen leaders answered phones with information about 4-H youth unit locations, and local phone numbers of coordinating leaders at their fingertips.

Other Emphases

The 4-H public relations push in Humboldt County does not stop with just the live call-in "telethon." Annually, the staff also puts together a half-hour video-taped program featuring 4-H Fashion Revue winners and other phases of the 4-H Home Economics program. This is telecast on one of the two commercial television stations in the county.

Last year, the 4-H office staff sent out 36 press releases to four weekly newspapers covering the rural areas of the county, one regional daily newspaper, two commercial TV news departments, and five radio stations. One AM radio station also featured a 4-H interview show for 5-minutes every Saturday immediately following the noon network news.

During 4-H Week 1979, another commercial radio station did live 5-minute interviews over the phone, talking to various 4-H members each morning for 6 days.

Weekly newspaper coverage was enhanced by providing "exclusive photos" of members living in their circulation area participating in various 4-H events.

How do you measure the impact of a public relations campaign like this one in Humboldt County? One indicator of success was a letter to the editor appearing recently in the regional daily newspaper from a leader of another youth organization commending the paper on the publicity given to 4-H . . . and asking for the same treatment for her own organization! □

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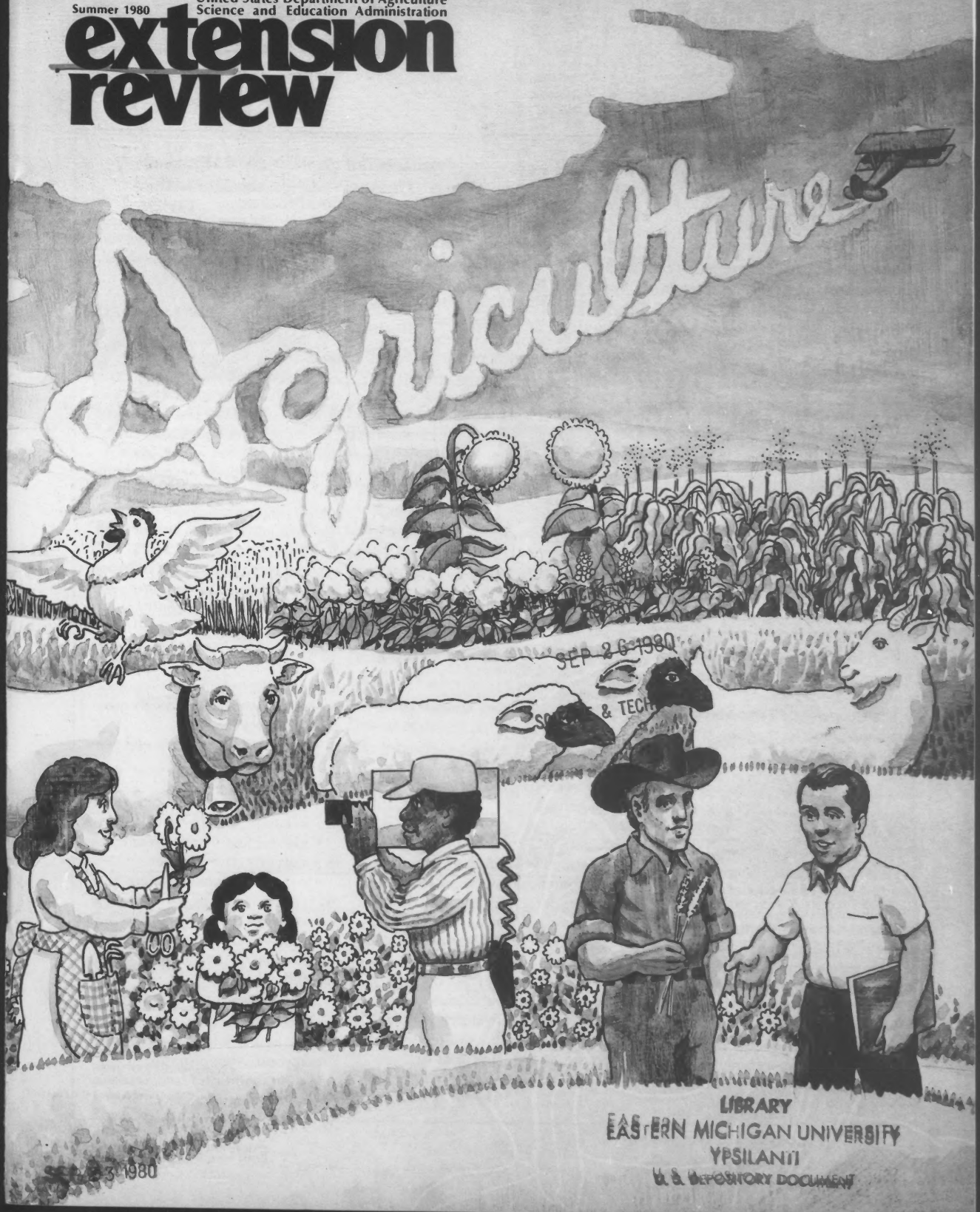
extension review



The Extension Evaluation—An Overview

Interest in evaluation throughout the entire Extension system is currently running high. The initial report from the Congressional mandate in the Food and Agriculture Act of 1977 is available from State Extension Directors, SEA-Extension, and the Government Printing Office.

The product in the "plain brown wrapper" is entitled, "Evaluation of Economic and Social Consequences of Cooperative Extension Programs," USDA Science and Education Administration-Extension, Washington, D.C., January 1980.

Evaluation is no longer synonymous with investigation. The report details information about the uniqueness of Extension—the world's largest informal education system tied to research, teaching, and service in the Nation's land-grant college system.

The Cooperative Extension system combines the efforts of the U.S. Department of Agriculture and Extension Service in 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, and Guam. Its resources currently exceed $629 million in support from federal, state, and county governments; nearly 17,000 professionals, 10,000 program aides, and several hundred thousand unpaid volunteer leaders. There is a Cooperative Extension Service office in virtually every county in the United States.

Why did Congress mandate a report of such a long-established, highly recognized, widely dispersed program delivering informal education to the majority of the farms, ranches, and homes in America?

Was the purpose to verify the efforts of the complex Extension programs? Was it to judge the degree of success or failure to achieve goals more sharply defined than the language of the Smith-Lever Act? Was it to improve program performance? Or, was it to help in the budgetary process?

Read the evaluation report for insight into the Extension system. It will tell you that Extension has contributed to the strong agricultural base in America that provides an abundance of food for consumers at a reasonable price. Farmers, ranchers, suburban, and city people contact Extension as a recognized source of sound technical information about agriculture and natural resources.

In home economics and nutrition, a Gallup Poll showed 17 million persons—approximately 10 percent of the U.S. adult population—have participated actively at least once in some aspect of these Extension programs.

The overwhelming number of 4-H participants is the most visible indicator of the impact of 4-H. More than 4 million youth have participated in one or more of the many 4-H activities. Over one-half million adult volunteer leaders helped conduct these activities.

Extension's Community and Rural Development programs have served about 10 percent of the 60 million people in rural America in the roles of educator, catalyst, convenor, and coordinator.

With critical national concerns such as energy, health, nutrition, inflation, natural resource management, food security, and family structure arising, the kinds of questions asked about long-established Extension programs are changing.

No longer can a budget be defended or increased simply by reporting how many participated. The current question is "So what?" Impacts of economic and social consequences are a new addition to the tools local, state, and federal decisionmakers are using.

Plans to build an ongoing Extension evaluation capability are already in motion. The Extension Committee on Organization and Policy (ECOP) has a task force working to address accountability and evaluation. The process of identifying critical issues for study has been initiated on a pilot basis. Narrative reporting in critical areas such as energy, inflation, nutrition, leadership development, and service to handicapped is to continue on a broader scale.

But most important in program building is reinforcing evaluation in the overall program development process. The process proven over time includes:

- identifying problems and selecting long-range objectives
- identifying the target audience
- planning and budgeting for the job at hand
- conducting Extension activities in a cost-effective manner
- evaluating what happens to people
- relaying the evaluation results with subsequent information to decisionmakers at the local, state, and federal levels.

As Extension educators, who are we accountable to? Ultimately to society as a whole.—*Mary Nell Greenwood, Administrator, SEA-Extension,* and *Bob Frary, Extension Program Evaluation Specialist (IPA).*

contents

extension review

Vol. 51 No. 3
Summer 1980

Bob Bergland
Secretary of Agriculture

Anson R. Bertrand
Director of
Science and Education

Mary Nell Greenwood
Administrator,
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, 1980. 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 3137-S, USDA, Washington, D.C. 20250, Telephone: (202) 447-6133.

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Editor: Patricia Loudon

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Mount St. Helens Expands AGNET Boundaries

Ellen Pomerantz
SEA Information Staff
Washington, D.C.

Photo courtesy Forest Service, USDA.

Since Mount St. Helens first erupted, AGNET, a Nebraska-based computerized information system originally designed to aid farm management, has been providing a vital communications link between Washington's devastated areas and USDA.

When the volcano's destruction disrupted normal communication channels, the Washington State University Cooperative Extension Service (CES) began disseminating information through the AGNET "Mailbox" program to USDA, county Extension offices, the Associated Press, and United Press International.

"When the ash began to fall, Washington State University (WSU) was in the process of going on AGNET," said Terence L. Day, agricultural research writer at the WSU information office in Pullman, Wash. "We had terminals in the Extension director's office, and at outlying stations in Puyallup and Prosser, but none in any of the county offices. AGNET proved to be a boon by speeding our communication with other states and federal agencies that are on the system," he continued.

Information carried on the "Mailbox," according to Pat Ebmeier, AGNET user services supervisor at the University of Nebraska-Lincoln Institute of Agriculture and Natural Resources, includes volcanic ash composition and its effects on the human respiratory system and precipitation, recommendations for irrigation and crop cultural practices, and crop and livestock damage estimates.

The AGNET "Mailbox," originally a general-use electronic mailing list, acquired "recipient additions as a result of USDA requests after the eruption," said Ebmeier. USDA installed an AGNET terminal, "AGNET One," to tie-in Secretary Bergland in Washington, D.C., within several days, he said.

USDA used another general-use program, "Newsrelease," to announce a month-long extension to Washington farmers whose government price support loans expired May 31 and to provide information to the public about disaster loans through the Farmers Home Administration.

USDA is "looking into the

possibility of continued use of 'Newsrelease' as a means of disseminating news releases into state departments of agriculture," said Greg Carnill, program analyst at the Office of Intergovernmental Affairs, which coordinates all disaster assistance programs in USDA.

AGNET Aids Farmers

AGNET began in 1975 as a Nebraska project funded by the state legislature and implemented through Extension. Its original purpose was to help Nebraska farmers sharpen their production and marketing practices in order to survive increasing costs and low prices.

In 1977, the Old West Regional Commission expanded funding to include the five states in its region: Nebraska, North and South Dakota, Montana, and Wyoming. Since then, Washington has also become a partner state.

AGNET contains more than 100 programs available through about 500 terminals nationwide, said Ebmeier. Most of the terminals are located at Extension offices, land-grant universities, and by private businesses in the partner states. However, there are many "external" subscribers outside of the Old West Region.

Perhaps the most popular program, according to Ebmeier, is "Feedmix." It balances feed rations —meeting all nutritional requirements—and combines the most economical feeds possible. Ebmeier said that if the farmer is balancing rations well by hand, up to $5 can be saved for every ton of feed mixed using the least cost ration formula. This formula was used more than 44,000 times last year, he said.

Another popular program, "Irrigate," helps the farmer determine how much irrigation water to apply. With this irrigation schedule, the farmer can pump up to one-third less water without yield loss, Ebmeier said.

Most agriculture programs have been developed by teams of specialists at the University of Nebraska-Lincoln and other land-grant universities. Teams use current research findings and personal experience to provide management analysis of complex agricultural problems. Although research is based on averages, the programs are customized, said Ebmeier.

"When researchers come to us with a program, it must be user-proof," explained Ebmeier. "The computer must be patient and understanding with its users. A farmer has to be able to type 'help' if he needs more information."

A farmer interested in using AGNET can give a program a trial run at any Extension office that has a terminal. Ebmeier said that the programs are easy to use and Extension agents help the user through a trial-and-error process.

If the user wishes to subscribe to the service, he or she can use the terminal for $8 to $10 an hour. There is also an hourly charge of $8 to $12 for use of the WATTS line that connects the terminal to the main computer in Nebraska. Programs usually do not take a full hour to run, said Ebmeier, and "external" users can use their own terminals.

Educational Programs

In addition to agriculture programs, Extension home economists have inserted their own programs into the network. The most popular is "Dietcheck," which tells people in workshops, supermarkets, and county Extension offices if their diet is balanced. There is no charge to the user for this service. It is part of Extension's ongoing educational program.

Many educational AGNET programs are also used in Nebraska elementary schools. Reinforcement quizzes and drill routines help children learn their 3 R's, geography, and history.

"These programs give children the instant encouragement and kind of corrections that teachers don't always have time for," Ebmeier said.

The vocational-agriculture departments of many North Dakota high schools study agriculture-related programs. AGNET educational programs are available to all subscribers.

Although Mount St. Helen's eruption has expanded the boundaries of AGNET, farmers in the system's Nebraska birthplace can also utilize the information that it is providing from Washington. Data on the economic results of crop losses could be extremely important to Nebraskans because of its impact on commodity prices, said Al Stark, AGNET regional supervisor at the Institute of Agriculture and Natural Resources. This information could be especially helpful in making marketing decisions, he said. □

(Editor's Note: *the Department of Agriculture Communications, CES, University of Nebraska-Lincoln contributed information to this article.*)

Information System Gives Farmers a "Green Thumb"

Randy Weckman
Extension Information Specialist
University of Kentucky

In March 1980, Bill Giltner's life became easier. He joined 199 other Kentucky farmers in using the Green Thumb Box (GTB) system, a computer-assisted rapid information delivery system.

Designed to aid farmers in their decisionmaking routines, GTB links individual farmers with data from the University of Kentucky College of Agriculture, the National Weather Service, the Chicago Board of Trade, and the Mercantile Exchange.

Simplistically, the system operates this way: agriculture-related data are entered into a main computer in Lexington and relayed to a county microprocessor by telephone lines. Then, farmers select information to view on their television screen from a master menu of topics and call the county computer to request the information. This information is transferred to their own "Green Thumb Box"—about twice as big as a cigar box—and then appears on the screen of their television set. It all happens within seconds.

Farmer Response

Bill Giltner is happy with the new system. In May, he was able to profit $2,800 by using the system for making corn futures transaction decisions. Although the information he received via the system was available elsewhere, Giltner says the ease by which he was able to obtain it made a clear difference to him.

"I watch the futures market daily for trends," Giltner says, "and when things look right, I start monitoring the market at hourly intervals. I could get the information by making hourly calls to my broker, but with the Green Thumb Box, my wife can watch the market while I do other things. It's a lot easier with the computer," he says.

Since the project began 5 months ago, other farmers share Giltner's enthusiasm. During the first 22 days in May, the 200 farmers participating in the project called up information on the system 3,600 times requesting nearly 15,000 pages of data. Weather and marketing information constituted the bulk of the requests.

GTB is a joint effort of USDA, the Kentucky Cooperative Extension Service (KCES), and the National Weather Service. Plans for the project began about 2 years ago with a $300,000 grant to test the concept from SEA-USDA and the National Oceanic and Atmospheric Administration (NOAA).

Currently, 100 farmers in Todd and Shelby counties, Kentucky, are using the system and serve as an evaluation panel for it. These farmers were selected from all strata and farm types to represent their total population. The first evaluation of the project will continue for 1 year, until March 1981.

Possible Expansion

John Ragland, KCES associate director, says GTB's potential is just beginning to be tapped.

"Right now, the system is an information delivery and transference system," Ragland says. "However, with a few modifications, the system could become a data processing apparatus for farmers to use in formulating least-cost rations, crop allocation planning, and the like. The possibilities seem almost limitless," he continues.

Giltner echoes Ragland's prognostications. "Farmers have to have timely information for decisionmaking now that we are involved in chemical controls," he says. "Marketing, too, is very sophisticated now and if farmers are to maximize profits, they need to have easy access to continuously updated information," Giltner continues.

"If the Green Thumb Box System were not available from the Cooperative Extension Service, I would pay to receive information that is useful," he added.

Plans at the end of the first year are to expand the project to five states, with 10 counties in each state trying the system on a pilot basis.

Available Information

Information contained on GTB includes:

- marketing information from Chicago Board of Trade and Mercantile Exchange Wire Services—updated every 15 minutes
- weather information including local and state short-term and extended forecasts from National Weather Service Wires—updated almost continuously
- timely recommendations from Extension agriculture, home economics, 4H and community development specialists—updated as needed
- local announcements and information from Extension agents in each of the counties—updated as needed. □

Extension Promotes Sunbelt Farm Expo

Janet Rodekohr
Extension News Editor
University of Georgia

Razzle-dazzle "show biz" and salesmanship rouse the South under the big tents of the Sunbelt Agricultural Exposition near Moultrie, Ga., for 3 days every October. And the Extension Service sets up the tents.

Now in its third year, the expo drew crowds of 140,000 in 1978 and 175,000 last year. The crowds came from all over the United States to see 80 acres of more than 500 static exhibits, 455 acres of demonstration cropland, and a consumer and family living show with nearly 100 exhibits and an 800-capacity tent for live stage presentations.

As the show grows in popularity among both farmers and agribusiness exhibitors, it has triggered cooperation among communicators in Extension, experiment stations, the media, and business and industry. This cooperation is only one phase of the opportunities Extension's big farm show has produced for Extension workers in every field, from the agronomists using the site for test plots to county agents filling up buses headed for the expo.

Beginnings

Joe Burnside, agriculture and forestry coordinator at the Extension Service's Rural Development Center in Tifton, says he conceived the expo when he saw a void in Southern agriculture. Southern farmers had nothing comparable to the big Midwest Farm Progress Show or other Midwestern and Eastern farm shows. Instead, they looked to small commodities shows like gin expos and soybean meetings. No one had attempted a full-blown general farm show.

But Burnside was the only one who thought it would work. The coordination the expo demanded looked too unmanageable to most people involved.

That wild idea pulled in people primarily from Georgia, Alabama, Florida, North and South Carolina, and Tennessee. And based on license plate checks and sign-up sheets in exhibit tents, every state in the Union and several foreign countries were represented. This multi-state aspect of the show has presented the Georgia Extension communications staff with a chance to try in practice what Extension staffs should do in theory.

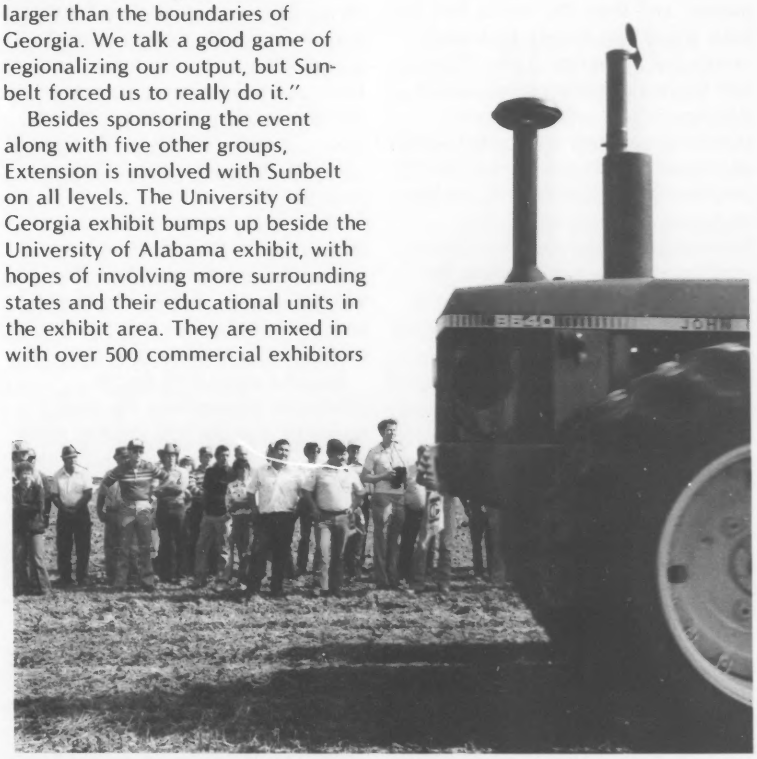
Exhibiting Communications

Randall Cofer, Extension communications department head, says, "The Sunbelt Expo taught us to think larger than the boundaries of Georgia. We talk a good game of regionalizing our output, but Sunbelt forced us to really do it."

Besides sponsoring the event along with five other groups, Extension is involved with Sunbelt on all levels. The University of Georgia exhibit bumps up beside the University of Alabama exhibit, with hopes of involving more surrounding states and their educational units in the exhibit area. They are mixed in with over 500 commercial exhibitors who sing to, shout at, cajol, and entice the crowds to their exhibits through entertainment, colorful displays, and sign-ups and giveaways.

These exhibitors add a new form of communications to an otherwise straight Extension educational program. They have a selfish motive —to attract crowds, especially an agricultural audience. So they respond quickly and creatively to Sunbelt promotions and releases through in-house publicity and dealer promotion.

"This is not a fair or carnival crowd," says one exhibitor describing the expo crowds. "These people have come to learn and



Georgia Extension communicators, Bob Molleur, film editor, left, and Kathy DeMarco, TV editor, opposite, linked the Sunbelt Expo with the media.

conduct business. They're knowledgeable; they ask questions; they listen intently to our explanations. It's the kind of crowd you always wish you could have."

That's called targeting information to a specific audience, and the success of the communications effort to zero in on an agricultural group comes through the gates every day Sunbelt is open.

To convince the target audience that Sunbelt was worth the gas, money, and time, the media had to have something to sell. Its bread-and-butter attraction is the tillage and harvest demonstrations. Extension specialists and experiment station researchers work side-by-side on research plots and demonstration cropland planted with corn, cotton, soybeans, peanuts, and Callie bermudagrass. The demonstrations, conducted twice a day during the 3-day event, draw thousands out to the fields as mile-long lines of heavy equipment stand ready to prove their handling and harvesting abilities in the field.

Exhibitors hammer away at persuasive agribusiness arguments amid entertainment by rock and bluegrass bands, variety shows, magicians, and a circus from Florida. This combined with the field plot work and demonstrations keeps farmers happy for hours.

The factor that rounds out the expo is the consumer and family living program. This huge tent area offers continuous stage productions to entertain and educate tired Sunbelters, presenting talented 4-H'ers, Extension specialists talking about houseplants or fashions, cooking schools, and many other educational programs. Once again, the exhibitors under the tent make sure customers and dealers know about Sunbelt.

So we have the Extension communications department at work, exhibitors spreading the word to their people, and the media ready to cover a newsworthy event. But it didn't just happen.

Media promotion

When the Sunbelt Expo first moved from the planning board to the show site, it was a job to convince the primary people involved that it would work. Few previous farm shows attracted more than 10,000 people, so media people looked skeptically at releases from the Extension service promising over 100,000 for their first expo. But as most Extension workers will agree, if you sell the media, you sell the program.

Most of the media people questioned it, then hesitantly ran some releases and watched. The 140,000 people at the gates that first year proved the time was ripe for a multi-state general farm show.

Based a great deal on the exhibitors' promotions, the media's response, and the full support from *Progressive Farmer* magazine, which cosponsors Sunbelt, the first year's try played to the crowds it wanted.

The second year, the coordination of the communications efforts slipped into more efficient working order. A publicity committee keeps its finger on the operation, and the makeup of that committee bears out the complex cooperation involved. Dianne Newton, working full time with Sunbelt under an Extension title, is the tie that binds many of the loose communications ends. She keeps track of all communications levels, including press releases, promotional Sunbelt caps and bumper stickers, and monthly communication with exhibitors and visitors.

Her voice on the committee joins with a representative of the Rural Development Center, near Tifton, in which 45 specialists take an active part in the research and day-to-day farming operations at the Sunbelt site.

The Coastal Plain Experiment Station, also near Tifton, has many of the same interests. Communications editors from both Georgia and Alabama speak for their media contacts, while *Progressive Farmer* sees that its advertising and editorial pages benefit from Sunbelt's operations.

The Abraham Baldwin Agricultural College, located in Tifton, also has a representative.

The Goldkist public relations director brings in the business and industry viewpoint, joined by a Georgia Farm Bureau representative. The government officials have their say through people from the Georgia Department of Industry and Trade and the Georgia Department of Agriculture.

From these vantage points, all angles are covered and Sunbelt gains mutual support. For instance, Goldkist offered the services of its public relations staff to help Extension editors produce public service announcements (PSA's) on Sunbelt.

The business people review in-house publications and dealer promotionals aimed to spark exhibitors' participation in the Sunbelt effort. Coordinator Newton

also adds to direct promotional contact with dealers through a monthly mailing to exhibitors called "Countdown," which lists an update of the number of exhibitors, the nuts-and-bolts information on tents and power units, hotel accommodations and travel agencies, and other facts and figures. With promotion comes caps, jackets, bumper stickers, and a flurry of brochures designed for visitors or prospective exhibitors. Newton designs all these and keeps track of where they're going and who should be on the list.

The general coverage of the event falls on the Georgia Extension communications department, and their production turns into a blitz as October approaches. Regular newspaper mailings to both Georgia newspapers and major newspapers in Florida, Alabama, Tennessee, Mississippi, and North and South Carolina start in June and end with a follow-up story shortly after the expo gates close in October.

The farm press people get their releases earlier, since many of them operate with a 2-month deadline. Monthly packets, special mailings, and photos reach them starting in April.

The farm press coverage of Sunbelt is unique because most other large farm shows are almost totally sponsored by farm publications that tie in the event with their advertising pages and editorial sections. In these cases, exhibitors must run up a certain amount of advertising in that publication before they earn tent space. However, at Sunbelt the tent space is available at a minimal fee through Sunbelt, Inc. Although the expo is jointly sponsored by *Progressive Farmer,* it is considered primarily an Extension show. Consequently, other farm publications cover it and offer their editorial pages for Sunbelt news even though they may compete with *Progressive Farmer.* They see it as an Extension show rather than a competitor's advertising show.

On the airwaves, all 315 Georgia radio stations get the word on Sunbelt through regular radio programs and special releases. Also, television stations can set up exclusive interviews with one phone call to the communications staff. Slide shows and films produced on Sunbelt can reach audiences through either the communications department or the Sunbelt office.

Expanding State Boundaries

This information also goes out to other state Extension directors and information staffs, who pass it on to their media contacts and county agents. In fact, other communications staffs and county agents throughout the region play a key role in reaching target audiences. For the first few years, Sunbelt communications staff concentrated mostly on Georgia, with some emphasis on nearby Alabama and Florida. However, in the third year the planners are pushing for wider emphasis, requiring more cooperation.

"Our company is backing Sunbelt completely," says Jean Rice, public relations director for Goldkist. "We're stuffing 40,000 Sunbelt brochures in our invoices this month, but it's really going beyond Georgia now, and it must."

The target audience outside the Southeast may not be sure what the Sunbelt Expo is, but the media people located throughout the country are aware of the rumble it's making down South. Over 60 media people from national publications as well as radio and television stations and newspapers signed in at the media room during Sunbelt last year.

They included reporters and crews from *Doanes Agricultural Report, Citrus Vegetable Magazine, Wallace Farmer, Soybean Digest,* and *Irrigation Age. The Atlanta Journal and Constitution* and the Associated Press sent reporters and photographers. Orion Samuelson of WGN-Chicago broadcast from the Sunbelt site.

Media headquarters provided daily press packets, a sound-proof radio station, a typing room and several typewriters with telephones for the press staff, and a well-stocked coffee room. Frank McCain, cochairman of the publicity committee and department head of Abraham Baldwin Agricultural College, coordinated the operation.

To prove the rumor of Southern hospitality, media people were also treated to a kickoff Sunbelt breakfast opening day and a grand finale steak broil the last evening, both prepared by Virgil Adams, Extension editor.

Is it worth it? Cofer looks at the time his staff spends pumping life into Sunbelt and he never flinches. "It's a matter of professional growth," Cofer says. "It's brought us some vital media and business contacts. And it's show biz. When you get down to the bottom line, it's the old razzamatazz to sell the product, and I don't know anyone in the department who doesn't enjoy it." □

Extension Trains Pesticide Applicators

Stu Sutherland
SEA Information Staff
Washington, D.C.

Over 2 million private and commercial pesticide applicators have been certified by state Cooperative Extension Service (CES) training programs since 1976.

The result of Congressional order, the programs are based on standards set by the Environmental Protection Agency (EPA) to ensure the safe, effective use of certain potentially dangerous pesticides. CES programs in each state, subject to EPA approval, train applicators to meet these standards. (For details on the program's initiation, see *Extension Service Review,* Vol. 46, No. 4, July-August 1975.)

In most states, commercial applicators demonstrate their competency through examination; private applicators may or may not take actual tests, depending on the provisions of the various state laws.

An examination for a commercial trainee tests him or her on ten general categories: seed treatment, forest pest control, agricultural pests, ornamental and turf pests, aquatic pests, right-of-way pests, pests encountered by regulatory workers, public health pests, demonstration and research worker pest control, and industrial, institutional, structural, and health-related pests.

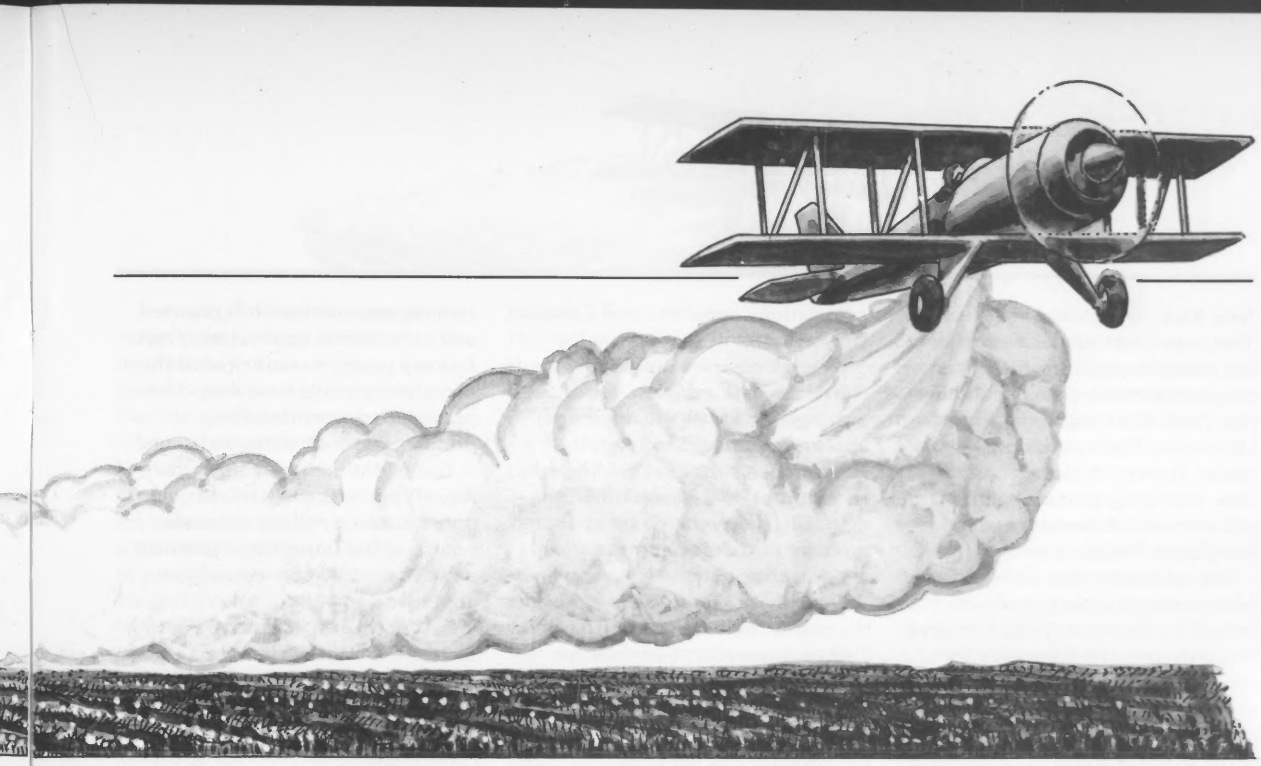
The standards for private trainee tests were designed to reflect a practical knowledge of pest problems and pest control practices associated with agricultural operations, proper storage, use, and handling and disposal of pesticides and containers, as well as legal responsibilities.

In addition to initial certification, each state plan includes provisions to ensure that certified applicators continue to meet the requirements of changing technology and demonstrate a continuing level of competency through recertification training. Many states have already begun updating training programs, as well as encouraging attendance at ongoing conferences, workshops, and other educational programs approved by universities, associations, and the using industry.

The programs and teaching tools used by each state vary somewhat to meet regional, state, and local needs. Five states—representing different geographic areas—that have developed such programs include: *North Carolina,* where program effectiveness has been tested; *New York,* where population concentration creates training need differences; *Nevada,* a sparcely populated desert area; *Hawaii,* with unique characteristics that truly set it apart from other regions; and *Indiana,* situated in the middle of the Corn Belt.

North Carolina

The 4-hour North Carolina session takes trainees through eight topics, in 30-minute lessons per topic. The topics are presented using a state-developed program based on EPA training materials. Each lesson is reinforced with questions and answers as well as visual aid presentations. In addition, the agent-instructors for each class discuss important pest problems and solutions in the county where the



class is being held. The classes range in size from 20 to 50 participants and are conducted by local CES county pesticide coordinators in each of the state's 100 counties.

From 1974 to 1979 in North Carolina, more than 8,000 licensed commercial applicators and pesticide dealers were trained by the CES program. It is estimated that over 800 "new" persons in commercial categories will continue to need training for certification and licensing on an annual basis.

Commercial applicators and pesticide dealers attend 2-day schools and learn the "core" material developed for commercial applicators by EPA-USDA—plus the 10 major categories listed earlier. In addition to these categories, North Carolina has added a training and testing category for restricted use pesticide dealers and one for serial applicators.

The North Carolina Department of Agriculture, the lead regulatory agency, offers exams in all areas of licensing at the end of each training period. These must be passed before the lead agency licenses trainees.

The 4-hour private applicator training program of North Carolina was selected as the first to be comprehensively assessed for the effectiveness of its format. The assessment, developed and conducted by the Educational Testing Service of Princeton, N.J., was funded by EPA.

The study, begun in December 1977, was conducted with volunteer training program applicants who were residents of 10 North Carolina counties. It involved both interviews with approximately 200 people and special testing devices.

This study showed that training increased participants' pesticide knowledge and influenced how they used chemicals. However, participants did not always follow all of the important points presented in training.

According to the study, training was most successful in encouraging participants to refer to labels for information on pesticide use, to mix and load the chemicals in a place chosen to reduce the chance of an accident, and to properly dispose of empty containers.

However, it was less successful in teaching trainees to clean and store equipment properly, calibrate equipment at the start of each season, use exact measures and recommended amounts when mixing pesticides, wear protective clothing, and give safety instructions to other people who use their application equipment.

The assessment concluded that the training program increased participants level of pesticide knowledge and use. Also, the study included a follow-up test that shows knowledge lasted over an 11-month period.

Before they started training, study participants said they thought the program would be beneficial, but after they completed training their attitudes toward the program were even more favorable.

New York

There are some similarities between the pesticide applicator training program in North Carolina and the New York CES program at Cornell University. Trainees use prepared "core" training materials, but the New York program consists primarily of self-study of the core manual—with 250 self-study questions.

The self-study, plus a minimum 4-hour class "contact"—which includes a 20-minute color film and two slide sets and discussion by county Extension staff—is completed before a closed book examination is taken. A trainee must pass the examination to certify as a private applicator, but needs specialized category training to be certified as a commercial applicator. The examination and certification are monitored and given by the state's lead regulatory agency, the Department of Environmental Conservation.

New York's training coordinator, James E. Dewey, reports that plans for recertification of applicators were completed in 1979 by the lead agency and Extension. They call for field Extension staff to conduct initial certification training in the counties, but leave the responsibility for recertification training in assigned specific use categories to the state lead agency, industrial associations, suppliers, and Cornell University.

A quick comparison between North Carolina and New York's training loads for the category of applicators who do industrial, institutional, structural, and health-related pest control work dramatically shows the scope of the problem of training applicators in a major metropolitan area.

From the first of October 1978 to the end of September 1979, North Carolina trained 214 persons for initial commercial applicator certification while the New York program trained 2,343 for initial certification and 4,500 for commercial recertification. Each had a total of about 14,000 persons trained for recertification.

Nevada

During the same 1978-1979 training period, a five-person training team from the University of Nevada in Reno held training sessions in seven locations across the state. Seven hundred thirty-five commercial and 270 private applicators were trained —175 in the industrial specific-use category. Nevada has added three categories to the 10 originally listed: fumigation, mosquito control, and predator control.

The Nevada program requires that applicators obtain their initial certification by written examination. Then each applicator may renew that certification by applying to the lead agency, the Nevada State Department of Agriculture. Starting in 1981, persons must be recertified by examination every 5th year.

The state training team consists of an entomologist, a plant pathologist, an agronomist, a pesticide specialist, and a representative from the state lead agency. They hold 16-hour training sessions for both private and commercial applicators. Their training program—anticipated for completion in 1981—will be produced as a self-teaching presentation with slides and sound.

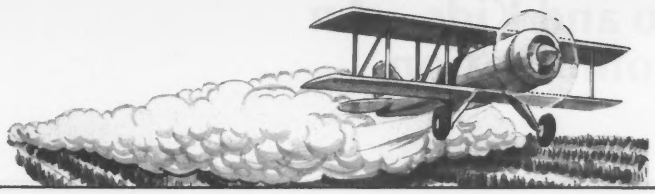
During the spring of 1979, the Nevada training program was incorporated into a college pesticides course at the university. It trained and certified 21 commercial applicators.

Several high schools throughout the state are using all or part of the training program in their Future Farmers of America (FFA) activities, reports Harry G. Smith, state training coordinator.

Hawaii

Because Hawaii is our only island state, Barry Brennan, the state pesticide training coordinator at the University of Hawaii, faces program development problems quite unlike those of other states.

Hawaii has four counties. With other county Extension programs understaffed, the state temporarily appointed people in three of the counties to act as coordinators of training program activities. They also hired resource people to help solve problems related to pesticides, including assisting in the calibration of application equipment.



Because of the differences in crops, pests, and pesticide regulations in Hawaii, the coordination team quickly found that materials prepared for training efforts in other states often had limited value to them. As they developed their program in 1976, 20 specialists from state agencies held a planning workshop. This resulted in supplementary training materials on pest control problems unique to Hawaii. A newsletter—*The Pesticide Label*—is now an integral part of the recertification process and is the only source of information on changes of pesticide laws and regulations specifically affecting Hawaii's applicators.

The State Department of Agriculture, as the lead regulatory agency, certifies the applicators. The Vector Control Branch of the State Department of Health develops training materials and examinations for all applicators engaged in public health pest control.

Private applicator training in Hawaii requires 6 hours given in two or three evening sessions to accommodate farmers and ranchers. Commercial applicator training requires from 16 to 20 hours. During the last training period (1978-1979), 899 private applicators received either initial or recertification training, while 329 commercial applicators were trained.

Indiana

The Indiana training program is closely synchronized with the certification program administered by the Office of the State Chemist, the lead agency. The private applicator training is conducted by nearly 100 trained county Extension agents across the state.

Each training session follows a standard format that includes discussion, a core training manual, and supportive visuals and pamphlets. Trainee worksheets cover the eight principal standards for certification already described. Material presented in training is tailored to the needs of county farmers and the chemicals used in the various parts of the state.

Each private applicator trainee completes a comprehensive worksheet that is collected by the Extension agent, who mails them to the state chemist for review. A certification "permit" is issued by the lead agency that is valid for 3 years.

Training for Indiana commercial applicators normally involves 3 days: 1 day for "core" subject matter; 1½ days for category-specific subjects; and the final half day for examinations. Beyond the core material, worksheets are used for pesticide labeling, calibration, and dilution in the commercial training. Indiana uses a system of category leaders, involving 10 different Extension specialists, who help organize and conduct the various category sessions.

The lead agency administers a closed-book examination with 90 questions on core material and 60 questions on category-specific subjects. Certification for commercial applicators is also valid for 3 years.

Indiana's program gives applicators Continuing Certification Hours (CCHs) when they attend ongoing conferences, seminars, workshops, and other meetings that relate to pesticides. The Extension's Training Advisory Group on Continuing Certification reviews all proposed programs to determine if CCHs should be awarded. Enough of these programs are made available so that an applicator can attend one or more meetings a year.

Since 1981 will be the first year private applicators need to renew their certification, training sessions 2 or 3 hours long will be scheduled during next fall and winter. County agents conducting the sessions will concentrate on topics that need special attention: calibration, farm storage, fumigation, and some specific procedures to use with restricted use pesticides.

John V. Osmun, who was responsible for the development of National Certification Standards when he was director of EPA's operations, is the state pesticide training coordinator in Indiana. He had estimated that over 5,000 commercial applicators would renew their certification through the CCHs method during the first 3-year cycle. Latest figures show that some were recertified through examination, but the majority had accrued enough CCHs to satisfy their requirements. □

Livestock Expo and Kids—An Unbeatable Combination

Jayne Marsh
Information Coordinator/4-H Youth
Michigan State University

Kids and animals have long been an unbeatable combination, especially in 4-H. Since the founding of the youth program, livestock and young people have been a popular and successful union.

In Michigan, that age-old tradition of 4-H'ers and animals has become the focus of a new, fun-filled learning activity called the Michigan 4-H Livestock Expo.

"The Livestock Expo is a unique program that gives young people a chance to show off their knowledge and accomplishments in the livestock industry," says Ken Geuns, Michigan State University (MSU) animal husbandry specialist and program coordinator.

Kids and Animals

At first glance, a visitor to the 4-day program might think the expo is another state fair-like event for youngsters. The livestock pavilion is filled with rows and rows of pens, and young people are busily grooming and polishing their animals. But there's something missing. There's hardly an adult or parent in sight.

"One stipulation of the expo is that from the time the 4-H'ers get to MSU until they leave, they are totally responsible for the care and preparation of their animals," Geuns says. "The kids gain an enormous amount of confidence and pride in themselves and their abilities after participating in expo activities," he says.

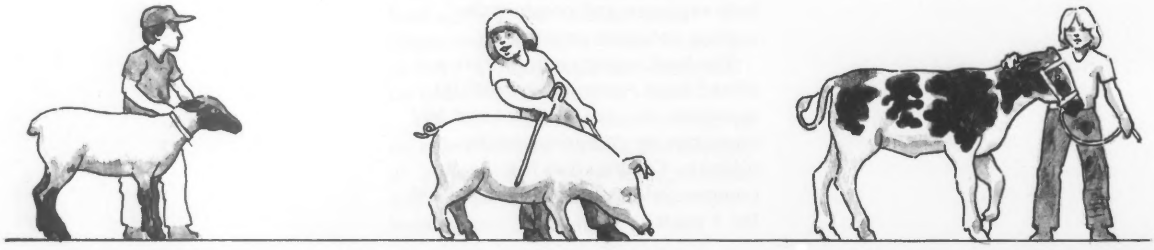
Events

Though many of the expo's activities are traditional, a number of unusual livestock-related events are also offered.

A livestock Quiz Bowl—patterned after the "College Bowl" competition, complete with toss-up bonus questions—tests contestants' knowledge of livestock-related subjects. Livestock photography, public speaking, and demonstration contests are also held. All help broaden the youngsters expertise in livestock subjects and skills in other areas, such as communications.

"We wanted to offer young people something new and different that went beyond the show ring," Geuns explains. "Though raising and caring for an animal is a tremendous learning experience, there are other worthwhile ways young people can learn about animal science and husbandry."

Owning an animal is not a prerequisite for participating in the expo. In fact, 4-H members who live in urban and suburban areas are



encouraged to attend the expo and participate in various events. Researching to prepare for competition in the communication or livestock judging contests helps the young people increase their knowledge of livestock and even livestock-related career opportunities.

"For many Livestock Expo participants, it's the first time they've been away from home, lived and learned at a large university, and had an opportunity to interact with young people from different backgrounds who have similar interests," says John Aylsworth, Michigan 4-H-Youth program leader.

A highlight of the Livestock Expo is the Trifecta competition. To compete in the Trifecta, youngsters must enter two of the three major expo categories. These are: Showmanship (beef, sheep and swine); Judging and Evaluation (livestock and meat judging and live animal evaluation), and Communications (public speaking, demonstrations, photography, and the quiz bowl).

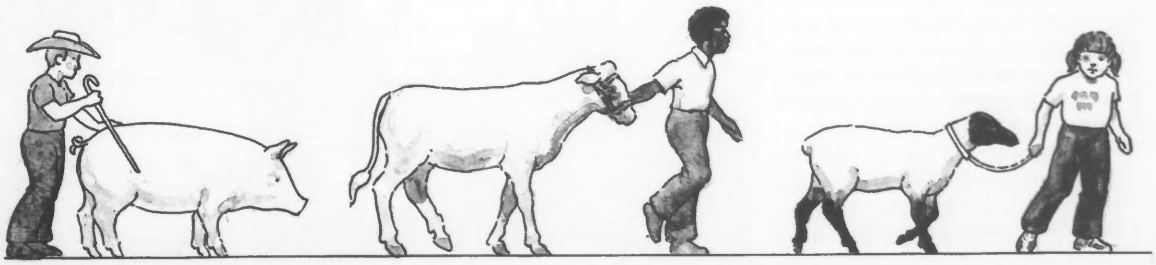
Awards

Contestants are required to participate in at least four of the category activities and are scored based on their placings in each activity. The top 20 scorers receive all-expense paid trips to the Royal Winter Agricultural Fair in Toronto, Ontario.

Scholarships are also awarded to the top two Trifecta winners, as well as to winners of various breed, carcass, and communication classes. The top five winners in the expo's special Sheep Production and Management Contest also receive scholarships. Ribbons are given to other event winners.

Though competition is tough and the stakes are high, winning isn't the major idea behind the expo. Several just-for-fun activities are planned, including the Ag Olympics which features everything from hay-bale tossing to an egg throw and a milk-drinking contest.

"The Livestock Expo is designed to increase participants' knowledge and expertise in livestock areas in a fun and exciting way," says Aylsworth. "After working and playing together, the kids develop a real spirit of camaraderie. They walk in as strangers and walk out best friends—with a new-found knowledge about livestock." □



Field Training for Future Farmers

Jayne Marsh
Information Coordinator/4-H Youth
Michigan State University

How do young potential farmers gain "field" training in commercial field crop production and management? Nearly 20 youths are learning how to successfully raise and market field crops through the Jr. Crops Production Program.

Sponsored by the Smith-Douglas Company of Riga, Michigan, the program is designed to guide the young farmers through an entire growing season from planting to havesting and marketing. It is open to young people aged 8 to 18 from Monroe, Lenawee, and Washtenaw, counties in Michigan, and Fulton County in Ohio.

Production Responsibilities

Participants must plant at least a 2-acre plot of corn, soybeans, wheat, oats, or alfalfa. Local 4-H and agricultural agents, FFA advisers, parents, and company employees work with the youths during the year to help them learn proper crop production techniques.

"The program isn't a yield contest," says Linda Schafer, Monroe County 4-H program assistant and county crop production program coordinator. "Its purpose is to teach participants about good field crops management and production and the importance of record-keeping," she explains.

In addition to the minimum planting requirement, participants must test the soil to determine proper soil treatment, photograph their crops at the beginning and end of the project, conduct a midseason weed and insect identification and treatment program, submit a project notebook, and participate in year-end interviews.

"The Jr. Crops Production Program is a valuable way to teach young people about agriculture," Schafer says. "The kids learn firsthand about what it's like to assume responsibility for a field crop and to handle various problems that may occur during the growing season. They also learn useful decisionmaking skills."

Other responsibilities include project financing decisions and payment for seed, fertilizer, and other necessary supplies. However, there are no enrollment or participation fees for the program.

"Just like commercial farmers, many of the youngsters have to take out loans to cover the costs of planting their crops," Schafer explains. "By borrowing money, the kids learn financial planning skills."

Choosing Winners

To evaluate the young people's progress, agricultural agents review the participants' record books and interview the young people during a special end-of-the-year Achievement Day program, sponsored by the company for the youngsters and their families.

Also, an expert from a local grain elevator inspects the youths' field-run and exhibit crop samples and offers criticism and advice on improving crop production techniques.

Finally, four top winners and two alternates are chosen to take a special 4-day educational trip sponsored by the company. This year the group will tour northeastern Ohio, visiting an agricultural experiment station to observe field crop production research and management.

After 3 years of successful operation, the company has expressed an interest in expanding the program.

"We're very pleased with the interest and accomplishments the young people have displayed," says Doug Mattis, representative. "Based on its success, we're interested in setting up similar programs in other areas."

For more information about the Jr. Crops Production Program, contact Linda Schafer, 4-H program assistant, 1426 E. First Street, Monroe, MI 48161, phone (313) 243-7333; Elva Lovell, 4-H program assistant, 199 Broad Street, Adrian, MI 49221, phone (517) 263-8831, Ext. 249; or Rod Petteys, 4-H Youth agent, PO Box 645, 4133 Washtenaw Avenue, Ann Arbor, MI 48107, phone (313) 973-9510. □

Farm Women Sharpen Market Skills

Howard Frisbee
Cooperative Extension Service
The Ohio State University

Many farm women participated in the Extension program to improve their marketing and farm operation skills.

Grain marketing is now a husband-wife enterprise on many western Ohio farms. A new Extension program there has taught 50 farm women the ins and outs of farm marketing operations.

Before they opted for equal rights in the marketplace, these women took a college course taught by John Sharp, professor and Extension economist at The Ohio State University (OSU). They studied the grain trader's language; learned buying and selling methods; and examined contracts, hedges, and bidding and selling on the futures market.

"Now I can discuss prices with some confidence," said Mary Knick of Darke County. She, her husband, and six sons operate 1,000 acres of tomatoes, corn, and soybeans, along with driving the tractors.

"I think I have already helped my husband Ron market better," said Tina Lyme, also of Darke County. The Lymes produce corn, soybeans, and wheat on their 800 acres.

But the women, who help farm 29,344 acres of land, didn't actually go to classes on the campus of OSU. They gathered in a church classroom near Englewood for nine 3-hour classes. Nearly all of them—and their husbands—visited the Chicago Board of Trade, the Mercantile Exchange, and the Mid-America Exchange for a firsthand look at how grain prices are set. Some of the women, who came from 11 counties in the western part of Ohio, drove more than 75 miles each way to attend the classes. One participant attended in a wheelchair.

Women Gain Interest

"Farm operations are becoming so big the farmer himself can't handle them alone," Sharp said. "He needs marketing help from someone—why not his wife! Selling grain is becoming a specialized science."

Sharp said the grain marketing season may be as long as 18 months. This includes time for planning, planting, growing, harvesting, and storing until the farmer decides the time has come to sell. Decisions all along the line can be crucial to making a profit.

For 6 years, at three locations each winter, Sharp has taught similar courses to Ohio farmers and others interested in improving their grain marketing understanding. More than 2,900 students have participated in his programs.

Last winter he taught a class of 96 at Van Wert and another of 117 at Ashland, in addition to the class at Englewood. Nearly all of the class participants took the Chicago bus trip to visit the three commodity markets—following the class sessions.

Just as in the marketplace, few women were involved in Sharp's previous grain marketing classes. In 1979, several women attended the course at Wilmington. R. Don Moore, Eaton area Cooperative Extension Service farm management agent, noted an interest expressed by some of the women to have a course for women only—where their husbands would not be looking over their shoulders.

Moore told Sharp, "If you will teach a class, I'll get the women together." Moore secured recruiting help from county Extension agents in the Eaton area and the market was opened to farm women.

"I had never done anything about marketing before," said Opal Holfinger of Miami County. "Now I'll be more interested, and if I should ever be left to do this alone, I would have a better chance to succeed." The Holfingers now handle 500 to 600 beef cattle on their 350 acres. Holfinger said they planned to keep fewer cattle, giving them more grain to sell.

"Now marketing is not just a bunch of numbers," said Ginny Nieport of Darke County. "The market situation is more realistic than it was," she added. Nieport's husband took the course several years ago. At that time she studied with him, so this time the course was not all new. She noted that she and her husband try to do all grain marketing together at home and

With the help of Extension, farm women like Pat Roff are learning the buying and selling techniques of farm marketing operations.

that she keeps the farm books. They now farm over 1,000 acres.

Vital Statistics

A summary of responses to a questionnaire showed that more than 83 percent of the women and their husbands were operating farmers. One class participant listed her involvement as a realtor and said, "This information is good to know. It gives me a better idea of the value of land for sale or development as well as tax considerations."

Two women were wives of grain dealers, and four owned farms that they rented to others. All but four participants in the class said they would be more involved in grain marketing decisions on the farm as a result of taking this training.

Working with Sharp on the course, Moore took attendance and answered questions about future classes and plans. He also taught some sessions on figuring production costs and budgeting. Then Sharp took over the discussion of grain marketing and contracting.

"Contracting means walking into or calling an elevator and saying, 'I would like to make a contract for future delivery,' " he said. "In a contract you can write anything—if you can get somebody to agree to it. The time to have the understanding is when you write the contract."

In a grain marketing contract, Sharp explained, important considerations include time of delivery, place of delivery, quantity, and quality. Beyond these, the seller can add any conditions of the contract to which the potential buyer will agree.

"I give out a lot of printed material that I have developed especially for the class," Sharp said. "By the time participants get through with the course, they have a fair-sized text book." Several titles include: "Weekly Cash Prices Paid to Farmers as Compared to Future Prices for Corn, 1970-1979," "Marketing Alternatives," "Weekly Cash Prices Paid to Farmers as Compared to Future Prices for Wheat, 1970-1979," "Marketing Terms," and "Marketing Terminology."

Sharp has taught a similar course to college students at OSU for a number of years. His off-campus classes for farmers were started after he accepted an assignment with CES.

An indication of the keen interest exhibited by the women came at the end of the nine-class period.

They wanted a tenth 3-hour class, after the Chicago trip, to review the course and get even more answers to their grain marketing questions. This extra class turned out to be a lively session. Sharp also agreed to hold the first annual update session for all members of the class in the fall.

Will Sharp hold more courses for women? Ohio farm women hope so. One participant summed up the situation, "John Sharp is SHARP—he knows his subject and his enthusiasm is contagious!" □

Dairy Producers Prosper with DHIA

Burton Olson
Benton County Extension Director
University of Minnesota

Cows in Benton County, Minnesota, are producing more milk than they were 2 years ago.

The reason? More than 75 percent of the dairy producers there are participating in an Extension recordkeeping program that tells them what type of feed to use.

In 1978, the 30-year-old program, sponsored by the Dairy Herd Improvement Association (DHIA), began expansion by the county Extension Service to boost its membership of less than 25 percent of county dairy producers.

The Program

Dairy farming, the main industry of central Minnesota, has undergone major changes since the days of the "family cow." Growing herd size and costs of operation have increased the producer's need for herd production records. This program provides producers with information on each cow as a basis for feeding, breeding, and management decisions.

Membership Expansion

Past membership promotion attempts have produced minimal results. In the fall of 1977, county Extension Director Burton Olson and directors of the Benton Association, Jerome Schendzielos, Bruce Olson, Ken Neeser, Robert Gail, and Edman Lezer developed a new approach to expand participation.

Effective since 1978, the expansion program centers around a field inspector who personally visits every dairy farmer in the county, explaining what kind of information the DHIA program can provide.

Lawrence Sckuza, Minnesota Valley Breeders Association technician for 25 years, was hired as the field inspector in January 1978. Since then, the county has hired five supervisors to handle increased county membership.

Follow-up visits from the field inspector teach producers how to most effectively use records for herd management.

At the end of the year, the real impact and effectiveness of the program became evident. Forty-two new members joined the association during the year, the largest increase in membership of any county in the state. These results prove that to "sell" a program, you must "tell" people about it, and this is most effectively done on an individual basis.

Further Expansion

Field inspector promotion has expanded into neighboring Stearns County. Faced with a possible program shutdown due to terminated CETA funds at the end of 1978, Benton pooled resources with its neighboring county to keep the program in operation.

Statewide expansion is also foreseen. A newly hired state program director plans to increase the number of field inspectors.

Industry Possibilities

What could the field inspector promotion program mean for the dairy industry in Benton and other participating counties?

Wider access to management information provided by DHIA has already shown an increase in average production per cow in Benton County. And speculators predict this means "big business" for their industry.

New members each invest an average of $300 a year in their DHIA records. Numerous studies show a return of $10 to $15 of increased income for each dollar spent on the program due to better management information provided by DHIA. Speculators estimate this could mean $3,000 to $4,500 per year per herd, or over $150,000 per year in increased county income. With further expansion, this could easily become a "million dollar business" for Benton County.

Further information about this program and DHIA can be obtained by contacting Burton Olson, County Extension Director, Courthouse, Foley, Minnesota 56329. □

Good News for Pork Producers

Leigh Ellen Clark
Agricultural Information Specialist
Purdue University

Putting together the *National Pork Industry Handbook* is no small task. But the job is being done with the cooperation of more than 300 swine experts throughout the United States.

What is the *Pork Industry Handbook* (PIH)? It's a collection of approximately 75 fact sheets detailing all phases of swine production including: breeding and genetics, reproduction, nutrition, management, housing, waste management, herd health, production systems, marketing, and pork quality.

Funded and sponsored by the state Extension services and SEA-Extension in cooperation with pork producer organizations, the PIH project is based at Purdue University under the supervision of project coordinators Vern Mayrose and Jim Foster, Extension swine specialists.

Working Together

"Cooperation has been the key to success throughout the project," explains Mayrose. "Since it began in March 1975, 69 of the 75 fact sheets have been printed, and the initial project will terminate when the remaining fact sheets are published —probably in mid-1980. For each fact sheet, directors of Extension, authors, and reviewers worked together to produce relevant and up-to-date educational materials."

Authors and reviewers—who are swine specialists, researchers, and pork producers—write and send manuscripts to Mayrose and Foster. Editing, review, art work, and printing follow.

So that other pork-producing states can participate in the project, fact sheet negatives—which can be adapted to include the indicia of any university or Extension service —are offered for sale at cost by Purdue University. Many states offer the handbook on a subscription basis to interested persons. Some states opt to purchase fact sheets from other participating states.

State Extension offices representing 99 percent of the swine production in the United States are using all or some of the fact sheets published.

Development and Funding

Why was the *Pork Industry Handbook* developed? According to Foster, the project had three objectives.

"There was a need to improve the quality and availability of educational materials with more uniformity in recommendations for the pork industry," explains Foster. "The PIH fact sheets help meet that need. Also, the development of a handbook helped lessen the amount of duplication in many swine subject matter publications. Finally, the handbook was created to strengthen individually owned farms and to provide for the wise use of resources in pork production."

An advisory committee, composed of 21 swine specialists and producers from all over the United States (representing 12 states and Washington, D.C.), guides the development of the PIH project. The committee also establishes fact sheet topics to be developed and identifies authors and reviewers.

The *Pork Industry Handbook* project maintains a high degree of multi-state cooperation, meets production needs within a specific time period, and enjoys widespread acceptance and practice of its recommendations. In fact, USDA recognized the handbook's success by naming its project leaders recipients of the 1979 Superior Service Award.

Howard Diesslin, director of Extension at Purdue University and advisory committee coleader, report that PIH funding has been assured by the North Central Extension Directors, with assistance from all major pork-producing states, that will carry the project past the developmental stage into a continuing, self-financed project.

Walter Woods, head, animal sciences department, Purdue University, also a committee coleader, explains: "While the details are yet to be worked out, 3 to 5 new fact sheets will be produced, and 12 to 15 fact sheets will be revised and updated annually for another 3 years after completion of the initial project."

Good News for Pork Producers

Continuation of the PIH project is good news to the pork industry. Hog sales ranked fourth nationally as a source of cash farm receipts in 1978,

and many producers use the handbook for timely, unbiased, technical information to help keep their production efficient.

For example, Dale Hendrickson, pork producer and veterinarian in Farmland, Ind., sees the handbook as an invaluable source of current, basic information related to pork production.

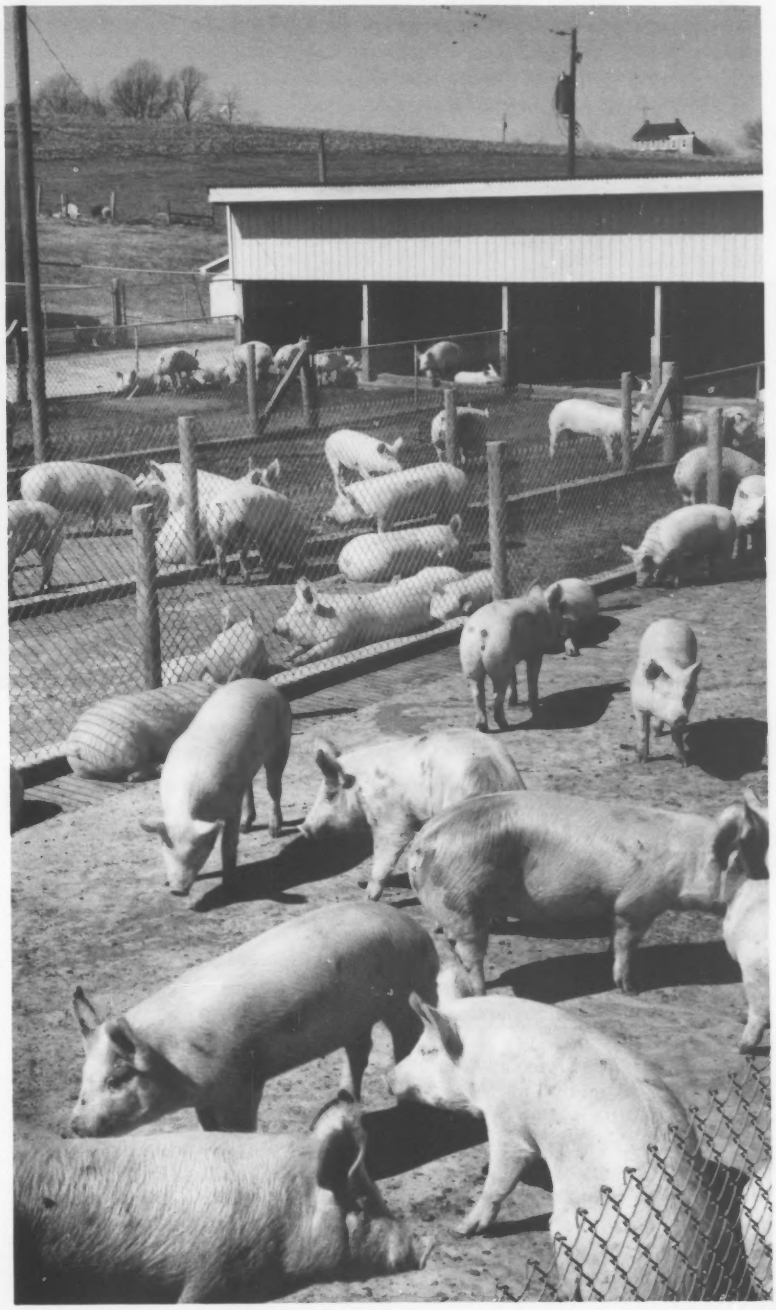
"As a producer," Hendrickson says, "I look to it for information that I can't always keep in my head, such as space requirements or data concerning ventilation systems. Also, as a veterinarian, I am very much involved in teaching management practices for disease prevention as well as treating animals. I use the handbook as a teaching tool for medical recommendations, too."

Handbook subscriber Page Thurston of Ninnekah, Okla., also views the *Pork Industry Handbook* as a good source of general information about hog production. It's especially helpful to the beginning producer because it brings facts about the many aspects of pork production together into one book," he says.

Response from producers in foreign countries has been equally positive. Purdue University has received requests for copies of the handbook from several countries. Guam is printing fact sheets from purchased negatives.

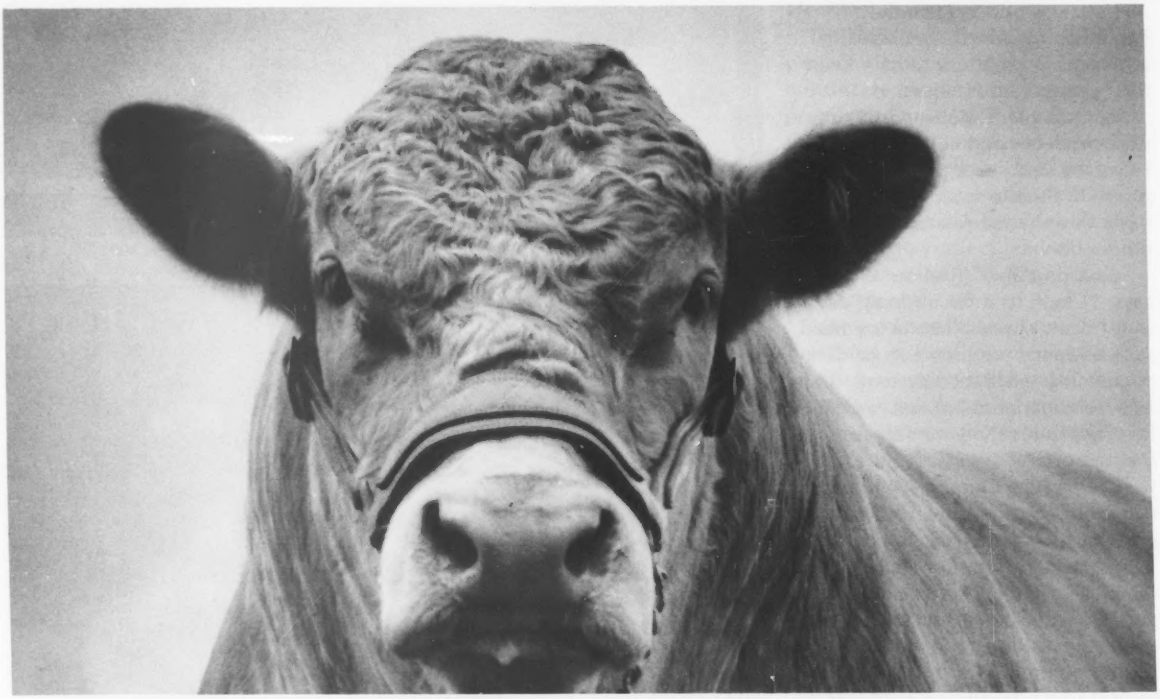
For More Information

Because of the cooperative nature of the project, further information can be obtained from most state Cooperative Extension Service offices. Inquiries can also be directed to the Department of Agricultural Information, Room 206, Ag Administration Building, Purdue University, West Lafayette, IN 47907. □



Farmers Get the Beef on Performance-Tested Bulls

Charles Burns
County Extension Agent
Auburn University



Persuading a beef producer to pay $1,000 to $1,500 for a fast-gaining bull when he can get one from a neighbor for $500 to $600 isn't easy.

But Extension agents in Lauderdale County, Alabama, have done it. In the last 13 years, 146 cattle producers in the county have bought 295 performance-tested bulls. And a survey of county beef producers in December 1978 shows that 29 percent of the respondents used these bulls.

Before 1967, there was only one performance-tested bull in the county. But in the mid-1960s, when the Extension Council there began to study the county's beef cattle situation, they found that the quality and growth rate of the 13,000 brood cow herd was poor. The council decided that the 642 cattle producers needed fast-gaining bulls to improve their stock.

Performance Testing

There are two locations in Alabama where beef cattle breeders can bring their calves for weight-gaining performance testing—Auburn University and the North Alabama Bull Test Station in Lauderdale County.

Testing begins in September and for the first 3 weeks of the program, the calves are fed "warm up" rations —a high-roughage diet. Then, starting in October, they eat all they can during a 140-day feed test which measures each calf's weight gain every 28 days.

Beef Cattle Improvement Association (BCIA) agents, sponsored by the Cooperative Extension Service, supervise the weighing. They send birth and weight information to specialists at Auburn University who store it on computers.

Reports of gains are then sent to the breeders. At the end of the 140-day period, the final weight gains are compared so that the breeders know which of their calves gain the most weight in the shortest time. This information helps the breeder decide whether to auction the performance-tested bulls in March or use them to improve the breeding stock.

Promotion Begins

Showing farmers the value of tested bulls became the county Extension Service's objective in 1966. They used a combination of tactics to persuade beef producers of this value.

They started with bus trips. In 1966 L. T. Wagnon, county chairman, and Charles Burns, county agent, organized a bus trip to a performance bull sale at Auburn University.

On the way to Auburn they did a lot of "bull" talking. They told farmers about the growth rate, heritability, and market value of bulls with superior growth rates and emphasized the value of high weaning weights as an indicator of milk production. As the bus cruised down the highway, farmers took a good look at the sale bulls and their performance figures in the catalog.

Only one Lauderdale County beef producer bought a bull at the first sale, but 35 others saw the performance-tested bulls and heard how these bulls could help them make more profit. The Auburn bull sale became an annual trip for Lauderdale County beef producers and more bulls were bought.

For the next 3 years, the beef producers visited other farms and attended demonstrations showing how performance-testing improves cattle's weight-gaining ability.

Demonstrations

In 1969, the county Extension Service held a series of five community meetings to teach farmers good beef management practices—including buying performance-tested bulls. At these meetings, county agents showed slides of performance-tested bulls in the county and their progeny. This type of slide presentation is now a regular part of annual Lauderdale County Cattlemen's Association meetings.

At the 4-H fat calf show in 1970, county agents conducted another demonstration. Two calves—one sired by a fast-gaining bull and one by a bull of unknown performance—were fed and exhibited.

When bought, both calves were about the same weight and were fed from the same trough. But at the end of a 200-day feeding period, the calf sired by the performance-tested bull had gained 140 pounds more than the other steer. Those 140 pounds were worth $44.80.

In a demonstration comparing the offspring of tested and nontested bulls, a 60-cow commercial Angus herd was divided into three groups. In 1971, 1972, and 1973 progeny of performance-tested bull No. 823 were compared with the progeny of three other bulls. All four bulls were English breeds.

Cows were rotated from year to year to give a truer picture of the genetic growth rate contributed by the bulls. The results in the table below were obtained from this demonstration according to BCIA records.

The added value earned by No. 823's calves in 1973 was: 71 lbs. at $.5542 per lb. = $39.34 per calf. 29 calves × $39.34 per calf = $1,140.86.

Lauderdale Begins Testing

To make tested bulls more accessible to Lauderdale County producers, a bull test was started there in the fall of 1973. Registered producers from Alabama and neighboring states were invited to participate.

The North Alabama Bull Test Station, operated by Emory F. Behel and the Cooperative Extension Service, is located on Behel's farm in Greenhill. So far they have conducted seven tests there and have sold the top two-thirds of the tested bulls.

Lauderdale County producers have bought 233 bulls—about 41 percent of tested bulls bought—from these seven test sales. Producers from adjoining counties have bought from five to 21 bulls per county.

Since performance testing began in Lauderdale County, cattle auction operators and order buyers in the North Alabama area are impressed with the quality of county herds. Their beef cattle are now in big demand and buyers are bidding top dollar for them. □

Year	No. Calves Sired	Weaning Weight 205-Day Adjusted	Confirmation Score
1972			
Sire 8	24	382	11.8
Sire 308	12	343	11.2
Sire 823	14	508	12.6
Avg. of Sires 8 & 308	36	369	11.6
Sire 823	14	508	12.6
		Difference 139 lbs.	1.0
1973			
Avg. of Sires 216 & 308	30	403	12.3
Sire 823	29	474	12.9
		Difference 71 lbs.	.6

Cooperation Spurs Resistant Soybeans

Ray Pierce
SEA Public Information Specialist
Peoria, Illinois

"Major pests and pestilences are created by man because man himself provides the opportunity for their development," says Hideo Tachibana.

Tachibana, an SEA plant pathologist stationed at Iowa State University, Ames, is referring to a specific pestilence, brown stem rot (BSR), a disease of soybeans caused by the fungus *Phialophora gregata*.

He places the blame for brown stem rot problems on man because the disease thrives best where soybeans are grown continuously or alternated every other year with some other crop, usually corn.

Tachibana began developing a soybean with the ability to resist brown stem rot in 1970. A recognized disease problem in southern Iowa, Tachibana predicted that BSR would become a problem in northern Iowa as soybean acreage increased there.

In 1973, Tachibana located five Iowa soybean growers with BSR problems: Karl A. Kirk, Ames; Donald W. Whitecotton, Bagley; H. Dean Hanks, Huxley; Harold D. Witzenburg, Otley; and Jerry D. Kincart, Bloomfield.

These cooperating farmers planted strips of low-yielding, BSR-resistant soybeans and strips of commercial varieties. The BSR-resistant lines produced higher yields and had less disease damage in the areas with a history of high BSR infestations.

Tachibana continued to develop resistant lines for both northern as well as southern Iowa, improving yield potential as well as disease resistance.

Disease Surveys

Soybean disease surveys in 1966 and 1972 showed BSR to be most common in the south central and southeastern areas, with some fields showing as much as 79 percent infection. Most people did not consider BSR to be a problem in northern Iowa.

However, Tachibana continued breeding BSR resistance into soybeans for northern Iowa. He believed the disease would spread northward as soybeans became more popular there and acreage increased.

Tachibana thought BSR would become a serious problem in northern Iowa because of the organism's ability to thrive when plants are under moisture stress. The northwest and north central areas of Iowa normally receive less rain than central and southern Iowa.

Explaining how BSR damages plants, Tachibana compares brown stem rot with cardiovascular problems in people.

"You can get along pretty well with limited circulation as long as you are not under stress. But, when things go wrong the limited circulation makes things much worse. Brown stem rot plugs up circulation systems in plants and creates a cardiovascular problem for soybeans," Tachibana says.

In 1977 Tachibana enlisted the help of the Iowa Cooperative Extension Service (ICES) to find out how serious BSR was in northern Iowa. He met with A. H. Epstein, plant pathologist with ICES, and they worked out a comprehensive survey of soybeans in northern Iowa.

"We needed to know what impact BSR was having on soybean production in northern Iowa," Epstein said. "We lined up the manpower and Tachibana designed the project and handled analyses of the samples."

It only required 1 day's work on the part of the county Extension directors in the 31 northern three tiers of the counties. Area Extension directors and crops specialists also helped out, Epstein said.

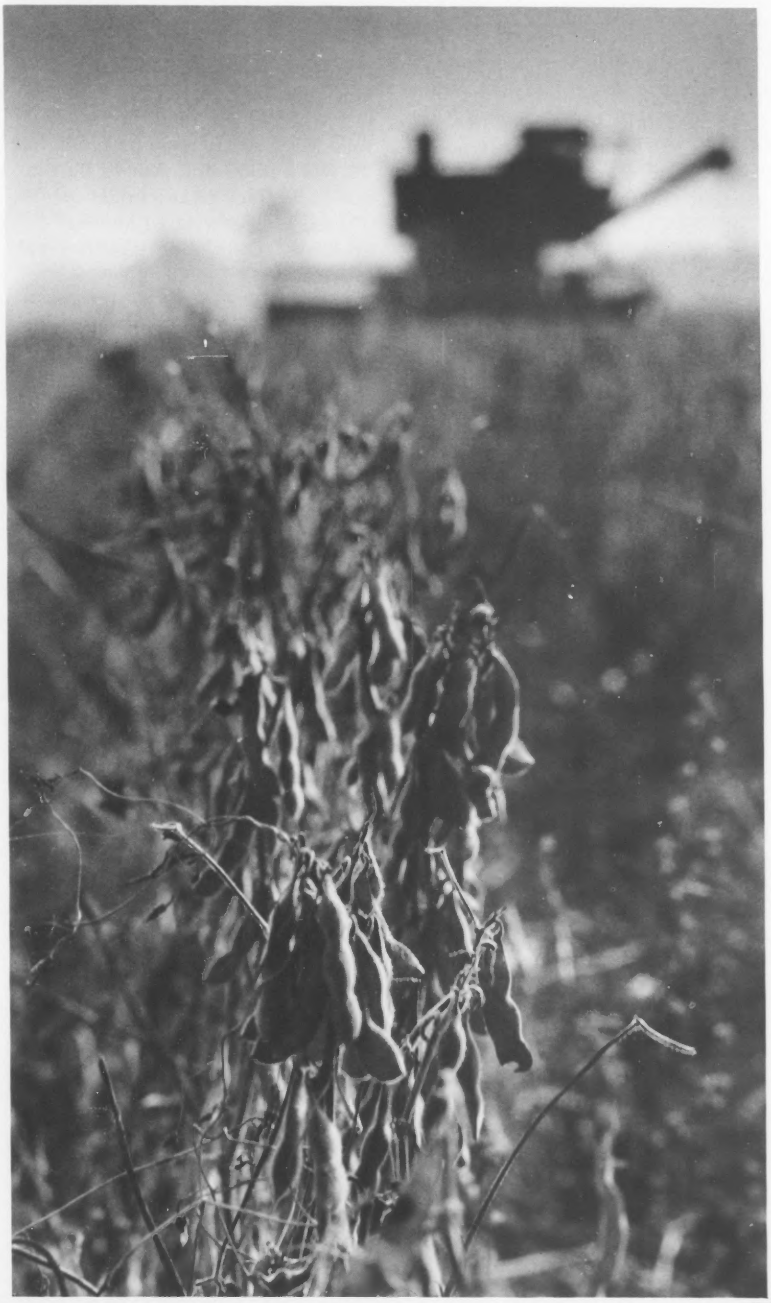
Tachibana and other SEA researchers picked up the samples from the county offices and brought them back to the campus for analyses. The results showed 274 of the 290 fields sampled, 94.5 percent, were infected with BSR.

"Our soybean breeders now know that BSR is important and must be considered along with other factors in their breeding work," Epstein said.

Field Samples

The survey showed 97.5 percent of the sampled fields in northwestern Iowa were infected, 98.4 percent in north central, and 76.6 percent in northeastern.

Samples were taken in the three areas between September 1 and 10. That is usually the peak period for



BSR, Tachibana said. Locations were selected randomly to achieve reliable results.

One field was sampled for each 10,000 acres of soybeans planted in northern Iowa in 1976. Samples were analyzed in Ames within 3 days of their removal from the field. Northwestern area counties were sampled September 1 through 3, north central counties September 6 through 8, and northeastern counties September 8 through 10.

Ten plants were selected from three locations in each field sampled. One sample was taken from the third row in from the border and the other two samples from central areas of the field. Results showed less BSR in plants from the border samples than in plants from the interior.

"The cooperation by the Extension Service furnished a more accurate estimate of diseases over a wider area than would have been possible otherwise with the available research funds and personnel," Tachibana said.

The joint research-extension effort was mutually beneficial. Extension people became more familiar with BSR and its prevalence in the northern counties, and the researchers got the information they needed, Epstein added.

Two BSR-resistant breeding lines developed by Tachibana, in cooperation with the Iowa Agricultural Experiment Station, were released to Iowa soybean breeders in 1978: A3 (A74-101035) is adapted for northern Iowa, and A4 (A75-332035) is suited for southern portions of the state. Seed production of a BSR-resistant variety, BSR-301, is being increased and will be available for use in fields with a history of BSR problems in 1981, Tachibana said. □

CPM Cuts Pesticide Use

Jack Sperbeck
Agricultural Journalist
University of Minnesota

Participating farmers gave high marks to a Crop Pest Management (CPM) program begun in 1979 that was coordinated by the University of Minnesota's Agricultural Extension Service.

"Thorough, regular crop monitoring for diseases, insects, weeds, and other pests enabled us to reduce insecticide and fungicide applications," said a Minnesota potato grower enrolled in the CPM program.

"This year we would have used two applications of each as a precaution if we did not have the regular field monitoring. This year we used only one fungicide application."

This potato grower's comments are typical of others enrolled in the program, according to a recent farmer survey of all CPM participants. In addition to monitoring potatoes in Minnesota's Red River Valley, the CPM program included corn in an area surrounding Dakota County in east central Minnesota, and sunflowers in the Morris area in west central Minnesota.

Scouts monitored fields of farmer-cooperators weekly or more often, depending on the pest situation. Pest control recommendations were made by area Extension agents in cooperation with a state technical support group located on the university's St. Paul campus.

Federal funds administered by USDA's Science and Education Administration paid for staffing and operating the program. Farmers paid for scouting costs.

"The Minnesota CPM program is a plan to adapt principles of integrated pest management to Minnesota crops, pest problems, and the environmental situation," said Gerald Miller, Extension agronomist at the university and state CPM coordinator. "It was planned to be consistent with the USDA policy on management of pest problems."

In the farmer surveys, 48 percent of the CPM potato growers reported using fewer insecticides and 43 percent said they used fewer fungicides, compared to 1978.

"Where pesticides were being overused, this reduction was a step in the right direction," said Mike Hutter, area Extension agent in charge of the CPM potato field program. "None of the growers who reported less insecticide spraying suffered yield losses."

The need for insecticides and fungicides varies from year to year. "Since this is the first year we've had a pest management program, it's too soon to know how often we can get by with fewer pesticide applications," Miller said. But this year, potato growers involved in the program were able to avoid some pesticide applications that they would have made without field monitors and technical pest management advice. The pest management program is planned to use pesticides only as needed, based on careful field observation. The object is to identify diseases, insects, weeds, and other pests and determine if they're present in sufficient numbers to justify use of chemicals.

Farmer Response

Pest problems in sunflowers and corn were relatively low last year. One sunflower grower put it this way when he returned the survey: "I think it's a pretty good program, but '79 was a poor crop year to start it due to the lack of any insect or disease problems. But I like no problems. It would have been a real success in '78."

Farmer participants in all three crop categories were generally well satisfied with the CPM program. Of the 149 farmers enrolled in the three crop categories, 125 returned the survey, an 84 percent return rate. Sixty percent said they planned to participate in the program next year, 34 percent said they "didn't know," and 6 percent said they would not. The uncertain future economics of sunflowers and potatoes was an additional deciding factor in their choices.

In the survey, farmers were asked, "What kind of a job did the scouts do in monitoring your fields?" Fifty-seven percent said "very good," 24 percent said "good," 15 percent said "adequate," and 3 percent said "poor."

Farmers were also asked what they learned from the program. Nineteen percent said they "learned a lot," 50 percent said they "learned some," 24 percent said they "learned a little," and 7 percent said they "learned nothing."

Another question asked farmers to check their primary source of information for solving crop pest problems for both 1978 and 1979. Many farmers who were in the CPM program in 1979 utilized the area CPM agent as their primary information source for solving crop pest problems. Primary reliance on chemical companies, the county agent, aerial applicators, university

specialists, and neighbors dropped from 1978—when there was no CPM program—to 1979. Reliance on chemical companies as the primary information source dropped from 30 percent in 1978 to 14 percent in 1979.

Even though they did not generally have serious pest problems in 1979, many sunflower and corn CPM cooperators valued the program for the "peace of mind" and time saved in monitoring their own fields.

Larry Schilling, area CPM agent for the corn program, said one farmer had been planning to apply a corn rootworm insecticide as a preventative measure. The field had been in soybeans and alfalfa previously, and Schilling recommended not applying the insecticide. "He should have saved enough money from this one recommendation to pay his entire scouting bill," Schilling said.

Program Expands

Minnesota's CPM program is expanding this year. Hutter is expanding into sunflowers in addition to potatoes. Scott Sederstrom, area CPM agent for west central Minnesota, is adding farmers from more counties to the sunflower program that is headquartered at Morris.

Private industry is also getting into the crop monitoring and pest control recommendation business. Miller says that is one of the original objectives of the Extension crop pest management program. "We want to encourage the development of a private CPM industry. The Agricultural Extension Service does not have the resources to serve a large portion of Minnesota farmers with a large-scale CPM program," Miller said.

However, the university will continue to be heavily involved in research and information dissemination that can be used by the private CPM industry to help farmers. "We need more pest management research to establish precise threshold levels for certain pests," Miller added. The research is also needed to evaluate economics of CPM practices and improve practical recommendations for growers.

Potato Problems

With the potato project, the Colorado potato beetle was the most troublesome insect in non-seed potato fields in 1979. "We set the economic or action threshold at 10 percent defoliation, except during bloom," Hutter said. The 10 percent figure and the thresholds used for sucking insects on potatoes were determined from research conducted by entomologist E. B. Radcliffe and his University of Minnesota graduate students.

"With few exceptions, potato farmers generally apply a foliar insecticide when the Colorado potato beetle damage is well below the 10 percent damage level. This means farmers repeatedly spray to control the beetle. If this trend continues, we may soon need different chemicals or higher rates to achieve current control levels," Hutter said. "That's already happening in eastern states. By using the concept of economic thresholds, we can avoid insecticide applications for low populations of Colorado potato beetle that will not cause a yield loss." He said he knows of cases in Minnesota where, for some reason, registered insecticides did not adequately control Colorado potato beetle infestations.

Hutter added that certified potato seed growers spend lots of money for aphid control. A typical seed grower will apply a systemic insecticide at planting and follow with two to three applications of another insecticide in August. Some growers use even more, he said.

Such "calendar spraying" may give farmers some peace of mind. But the costs and risks may outweigh the benefits, Hutter emphasized. "Costs mean dollars, but one risk is that of losing good chemicals through a buildup of resistance. The green peach aphid is already resistant to many insecticides. We have found populations that are resistant to some of our better aphicides, but if good chemicals are used judiciously they will have a good chance of remaining effective." □

Cotton Growers Battle Pests

Sam Carroll
County Extension Agent
Alabama Cooperative Extension Service

Higher yields, less insecticide applications, and lower production costs are foremost on the minds of most cotton growers during these days of near 20 percent inflation.

By using pest management practices, farmers in Dallas County, Alabama, are progressing in each of these areas. In fact, they've almost doubled their yields. They're also spraying less for insects.

Yields Rise and Costs Fall

Farmers in the county usually grow about 17,000 acres of cotton each year. In 1977, they averaged about 350 pounds of lint an acre, which is below the break-even point. This figure was low primarily because 1977 was an extremely bad year for cotton bollworms, boll weevils, and plant bugs. In fact, it was so bad growers realized they had to take another approach to fighting insects.

This was a major concern of the Dallas County Extension Council's Cotton Committee. The council found that only about 60 percent of the growers were implementing an insect scouting program. Starting a pest management program in the county was the number one goal set rolling in the 1978 work plan.

The council determined that if growers could save one pesticide application, they could reduce their production costs by $7.50 an acre. That would be a savings of at least $125,000, or the entire cotton acreage in the county.

In 1978, 75 percent of the growers were on a pest management program. Yields jumped to 539 pounds per acre. By 1979, word had spread throughout the committees and everybody wanted to participate in the program. Ninety-five percent of the cotton was under a pest management program by that year.

Growers on a pest management program saved between one and one-half and two applications in 1979, which amounted to a savings of $10 to $15 an acre. In some cases, this meant the difference between making a profit or a loss. During these days of high inflation and rising production costs, pest management will prove even more profitable in the years to come.

"We've been on a pest management program since we started growing cotton in 1967," said Wood Till, a Sardis grower. "We figure it's best for us to hire a trained scout to do this chore for us because he can be more objective. We tend to be a little more lenient when we do it because we are thinking about costs. This also frees us to work on other management practices on our farm," he added.

Tyler Moore, Jr., another Sardis grower, followed the pest management concept of fighting insect pests for the first time in 1979. "I've been growing cotton all of my life," the 57-year-old farmer said. "I made my best yield in 1979. I credit my good yield—1,050 pounds of lint per acre for 51 acres—to pest management.

"In 1977, my yield was 350 pounds," he continued. "It was 400 pounds in 1978. My eyesight just wasn't good enough to check for insects. By the time I could see worms, they were so big about the only way to kill them was by pressing them between two bricks.

Wood Till, left, and county agent Sam Carroll make plans to hire an Auburn-trained scout to check Till's cotton for insects.

"My scout was trained in identifying insects. He could even predict when they would hatch. I even used an ovicide to kill worm eggs."

The Program

Under this pest management program, an Auburn University Extension Service trained scout, who is hired and paid by the grower, checks each field once or twice a week. He supplies growers with a written report giving insect conditions—both beneficial and harmful. This provides the grower with a basis for deciding when to treat. And he sprays only when harmful insects reach a level that justifies treatment. The report also gives bollworm and egg conditions. This helps determine when to use an ovicide to destroy worm eggs.

The program is a big contrast to the approach growers once took. About the Fourth of July they would begin their battle with insects, making weekly applications until the bolls were mature.

Another part of the current pest management program is to shred stalks in the fall as soon as the cotton is harvested. The goal here is to eliminate the weevil's food supply as soon as possible. Growers whose crops have a high weevil count at defoliation time also include an insecticide with their defoliant to reduce the number of weevils going into hibernation for the winter.

Many people worked to increase the number of farmers following a pest management program. Farmers who were not practicing pest management were endangering the crops of others, since the insects would travel from field to field.

County agents made many visits to leading farmers in the county, with two primary purposes in mind—to "sell" them on the idea of pest management and to persuade them to tell other growers about the program.

The county Extension Service also aired radio and television spots and sent newsletters to all growers, explaining pest management and its impact and benefits to the county.

After several weeks of planning and implementing the program, more and more farmers became interested and adopted the objectives. Those desiring a local scout indicated this by returning the postage-paid, self-addressed cards that county agents sent to growers.

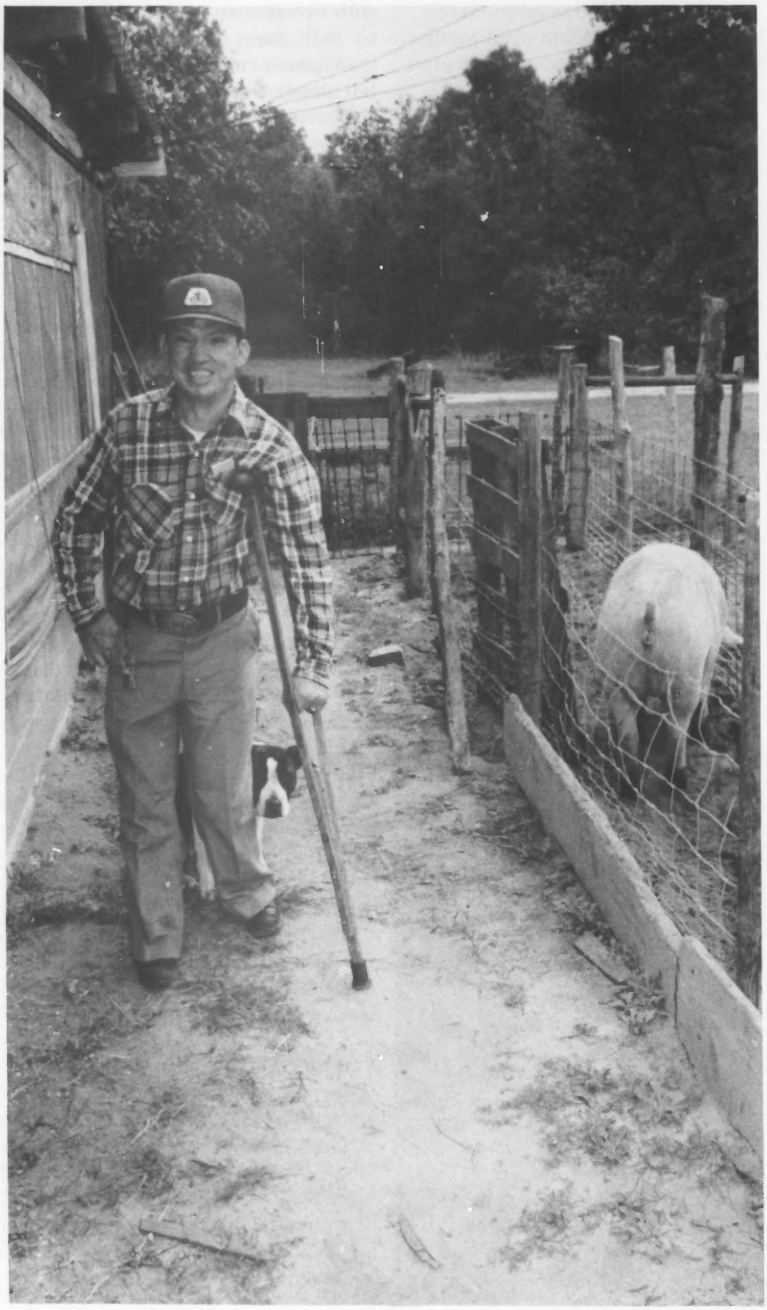
Agents also assisted farmers in locating prospective scouts, but the actual hiring was done by the farmer. Scouts attended the Extension Service-sponsored cotton scouting school. At the beginning of the season, agents visited each scout to help with problems they encountered. Glenn Worley, Extension entomologist, assisted throughout the insect season.

During the summer, the county Extension Service held a cotton pest management tour for scouts and farmers. Their purpose was to bring the group up to date on what to look for in present and future insect situations.

Will 100 percent of Dallas County growers follow pest management in 1980? That's the county Extension Service's goal. □

Hog Farming No Handicap to Small Farmer

Woody Upchurch
Extension News Editor
North Carolina State University



Joe Farmer steadied himself on one crutch and leaned over the fence to scratch the big hog's back. "This is Oscar," Joe said, eyes twinkling and a broad grin spreading across his face. "The one over there is Roger," he said, pointing to a grunting Duroc.

"We usually name them after the man we buy boars from," the 38-year-old Hoke County, North Carolina, man said. "The hogs don't seem to mind and we never tell the people we buy them from," Farmer chuckled.

Even when the subject of depressed hog prices came up, Farmer maintained the happy, jovial mood as he showed a visitor every nook and cranny of his small pork production unit.

The visitor had toured many hog farms—most larger than this one and some as efficient and well run—but none whose owner had quite the pride and enthusiasm as Joe Farmer showed in his.

But Joe isn't an ordinary farmer—although he probably would argue the point. He is severely crippled by cerebral palsy. He didn't walk a step until he was almost 9 years old, spent over a year in the Lenox Baker Hospital in Durham in 1951 and 1952, and underwent 11 operations.

"His first step was between two parallel bars," said Joe's father and farming partner, Joe, Sr. "He

For cerebral palsy victim Joe Farmer, raising hogs is more a matter of personal triumph than of economic security. His bulldog Duchess is a constant, but "camera-shy," companion.

graduated from that to a heavy brace and crutches and then to the one crutch he uses now."

It was Joe's grit and determination plus the strong support and love of his parents that got Joe on his feet, allowed him to finish high school, hold an office job briefly, and become a hog farmer.

Joe became interested in raising hogs in 1971. "He always felt he could do anything anybody else could," said his father. "He wanted to do something worthwhile and was always trying. Not a day went by that he didn't ask if he could help me with whatever I was doing. He couldn't, but he never stopped asking."

Getting Started

Phil Ricks, former Hoke County agricultural Extension agent, helped Joe get started with his first hogs. "His greatest assets are his sharp mind and his positive attitude," said Ricks, who is now on the Johnston County Extension staff.

It was largely through the help of Ricks and his successor in the Hoke Extension Service office, Freddie O'Neal, and the understanding of a representative of the Division of Vocational Rehabilitation that Farmer got started.

The hog unit Ricks designed is for 50 sows, although Joe hasn't had more than about 30. He sells the pigs when they reach 50 pounds, or soon after they are weaned.

"I started out with two 40-pound gilts," Joe explained. "I paid $40 apiece for them and thought that was outrageous, but they eventually produced 13 litters each, so I guess we got our money out of them."

Farmer said he has sold pigs for as much as $60 a head and for as little as $20. "It's costing us about $30 a head to raise the pigs to 50 pounds now," said Joe, "and we're only getting about $20 a head for them, so we're looking forward to improvement in the market."

The pigs are born in a small farrowing building that Joe's father built himself from a design worked out by Ricks. It incorporates features that allow Joe to work in it with his physical limitations.

O'Neal, who now is in Jones County, later worked out a flush waste disposal system that eliminated the most difficult job the farmer had. "We had to borrow about $1,000 to raise the floor and put in the flush system," Joe said, "but it was the best money we ever spent."

The new system has paid off in more pigs saved, also. Before the floor was raised and the flush system installed, Joe's herd averaged just over 9 pigs weaned per litter. Under the new system, the average weaned litter size is 11.5. The state average is just over 7.

Wendell Young, Hoke County agricultural Extension chairman, said Joe's was the first flush waste system in the county.

"Freddie (O'Neal) worked very hard, a lot of it after his regular working hours, to help make this thing work," Young said. "Now we're using it as a demonstration unit to show other small producers what they can do with a similar design."

Farmer credits Young, Ricks, and O'Neal with helping to make him a good pork producer. "We couldn't have made it without their help and the assistance from Vocational Rehabilitation," Joe said.

Industry Supporter

Young said Farmer has become one of the strongest supporters of the pork industry in Hoke County. "He's interested in not just his operation but everything that affects the welfare of the industry," Young said. "He goes to educational meetings, reads everything he can find on hogs, and calls us regularly when questions come up."

Despite depressed hog prices, Farmer is planning for the future. He and his father have a nursery building about 70 percent completed "We don't owe a cent on it, although we have slowed down on it until pig prices go back up," said Joe, ever the optimist.

Said Young, "This is more than just another hog operation. It has made it possible for a man to feel that he is earning his own way in the world. There's no substitute for that."

O'Neal agrees. Recalling his work with Joe, the former Hoke Extension agent said, "Joe's smart, eager to learn, and does an exceptionally good job within his physical limitations, and his father picks up there and does the rest. The most important thing about it is that he can say, 'I raise hogs for a living.' That's pretty impressive when you think about it."

Ricks observed: "I've worked with farmers who had as much drive and determination as Joe, but theirs came from a desire to make money. Joe's comes from a burning desire for personal achievement." □

Scientists Scout Pest Secrets

Howard Frisbee
Cooperative Extension Service
The Ohio State University

Most insects in Ohio have almost no privacy these days.

Scientists, armed with computers, weather heat-unit reports, insect life-cycle information, and movement data gathered by troops of field scouts, know almost as much about the lives of Ohio insects as the Internal Revenue Service does about taxpayers. Now they are charting almost every insect movement in the state.

In fact, if insects beat Ohio residents to a meal of sweet corn or devour their alfalfa or roses, they can no longer claim it was a sneak attack—Ohioans could have known the facts in time to outmaneuver them. Similar information is also available there about plant disease germs and viruses.

Farmers and homeowners in Ohio can get up-to-date information on the insect or disease situation by dialing the "Pest Management Hotline," (614) 422-8264, to listen to short tapes prepared daily during the growing season by Extension specialists at The Ohio State University (OSU). This dial-a-tape service began in early May.

"In recent years Extension specialists have intensified efforts to learn more about insect and disease movements and to keep county agents better informed about conditions in their counties," said Bruce Eisley, research associate at OSU. The link between the specialists and agents includes newsletters, phone calls, and training meetings. Also in 1979, for the first time some important newsletters were fed to a few county offices through computer terminals. Additional counties will be equipped to receive instant delivery of these computer newsletters during 1980.

This intense look at insects and diseases and efforts to alert plant growers of potential damage to crops or gardens is part of a nationwide Integrated Pest Management Program (IPM), conducted by various state Extension Services in cooperation with SEA-USDA. The program is designed to reduce economic loss due to pest damage through early detection of potential hazards. In most cases, early awareness of the intensity of a pest infestation can mean more effective applications of costly control measures or, perhaps, show that no such measures are needed.

Methods

"Ohio Extension specialists have been able to keep on top of insect and disease information through a variety of methods," said B.D. Blair, Extension entomologist and coordinator of the Ohio Pest Management Program.

For example, accumulated heat-units or day degrees help predict insect events. Blair explained that insects develop according to the amount of heat units during a season. Thus entomologists can check the accumulated units at any given time and tell at what stage of development some of the insects will be.

Light traps also guide insect movement predictions. Much insect damage is caused by worms, but before the worms there are eggs and, in many cases, before the eggs, moths. Many moths are attracted to light and can be captured in light traps. A network of light traps in Ohio, Indiana, and Kentucky was established in 1978.

In Ohio, daily catches from these traps are mailed to OSU to be identified. And Ohio plus other midwestern states report these daily catch data—identifications and numbers—to a computer at Purdue University in Indiana where the material is stored for use by pest management personnel. These data can be accessed by the specialists at OSU through a computer terminal.

Since movement of many moths is from southwest to northeast in the U.S., moth trap catches are helpful in determining what species may be moving into a given area and when crop growers should start looking for them.

Temperatures are recorded each day at Ohio national weather stations with the ag-weather unit at Purdue. These are translated into accumulated heat units at a base of 48°F, day degrees at a base of 44°F and a base of 50°F. They are used to predict insect events including hatching, growth stages, flight, mating, and oviposition. They also help determine a more exact timing for control applications to alfalfa weevils and other insects.

In 1979, 50 scouts checked 600 fields per day for signs of insect activity or diseases in such crops as alfalfa, corn, soybeans, and tomatoes. During the growing season, they monitored 49,067 acres in 27 counties in about one visit per week.

Most of these scouts were college students specially trained in insect and disease identification by Extension entomologists. They reported field conditions regularly to the crop producers and Extension personnel. These early reports of insect infestations permit control implementation before significant damage is done.

During the growing season, Ohio plant growers send damage reports and specimens of insects and plants for identification to specialists in all pest-related OSU departments: Entomology, Plant Pathology, Agronomy, and Horticulture. Many of these reports originate with people involved in the pest management program, including the scouts. Specialists at OSU also keep informed of developments in nearby states by letter, phone, meetings, and conference calls.

In 1979, three newsletters, aimed at different audiences, kept concerned personnel throughout the state informed about pest management. Scouts received 37 newsletters, county agricultural agents with organized pest management programs received 17 newsletters, and each Ohio county agricultural agent received 37 newsletters about pest and pest-related problems.

Other Services

In addition to the dial-a-phone service for Ohio producers and industry personnel, a second dial-a-phone setup recorded messages about twice a week for Extension personnel. This machine carried information on how to do a "push test" for stalk rot in corn, how to sample roots for laboratory counts, and identifying nematodes.

Another pest management tool is the programmable calculator. Three counties are currently storing pest management field history information in these calculators. Scouts visit fields weekly for about 20 weeks each year to gather insect, weed, and disease data. This information is recorded, then filed for future reference. Some counties now have information on fields scouted for the past 7 years. This involves seven files with about 140 weekly surveys in them.

The calculator can store this information and record it on magnetic strips. By assembling the information on specific fields and storing it on these tapes, entomologists are able to quickly review events in the fields without looking through a number of files.

"We are constantly competing with insect and disease pests for use of all types of plants," said Blair. "More and more, modern science is permitting us to outwit the pests and protect our sources of food, beauty, and health. Scientists are learning more about the lives of pests and are using this knowledge to improve the lives of people." □

Involvement Grows Through Landscaping

Kurt Rogers
Former Publication Editor
Mississippi State University

The very human needs to dig, plant, and make the environment more attractive are being met by a short course in landscaping developed by the Mississippi Cooperative Extension Service (MCES). Through this course, Mississippians met last winter to plan new or amended landscaping for their homes.

Jim Perry, MCES landscape specialist, developed the course when he became concerned 3 years ago about the lack of results from landscaping meetings. Clients came to his sessions, but rarely followed through with any actual landscaping improvements. And county agents also teaching landscape design told Perry essentially the same story. A new approach was needed.

New Approach

Perry began by developing new educational materials. A tabloid newspaper, *Selecting Landscape Plants,* details plants ranging from ground cover to large trees. It teaches the cultural requirements of various plants and how they can fulfill such landscaping purposes as foundation plantings, screening, and shading.

He also put together a landscaping workbook, *Planning the Home Landscape,* which leads the reader through a step-by-step process from making a plot plan to completing a planting plan. It contains a drawing instrument, tracing paper, and a scaled grid. With the workbook, an individual can create and utilize an original landscaping plan for his or her home in 1 year or when finances permit.

With materials in hand, Perry canvassed county personnel about interests in landscaping and sought agent input on what the course should cover.

After completing a detailed line of study, he began field testing in 1979. Seven short courses were offered in four locations throughout the state.

Enthusiastic Response

The results were dramatic. A survey in the summer of 1979 following the field testing revealed:

- 100 percent of the participants had developed a workable landscape plan for their property
- 50 percent had begun installation according to their plans
- 25 percent had completed all of their planned landscaping
- 25 percent had not yet begun installation.

In addition, county Extension personnel reported enthusiasm and a sense of satisfaction among course participants.

Perry believes it's individual involvement that makes the course work. "The client must register for the course and be committed for four 2-hour sessions," Perry says. "Then he or she begins by making a plot plan of the property that leads to a completed landscaping plan. The client simply has too much invested in the plan not to carry through with the actual planting."

Fred Rose, assistant county agent in Oktibbeha County, believes the course is successful because it meets a real public need. Rose, who gave the course for the first time in February 1980, said that 23 of the 28 registrants completed all four sessions.

"We wanted to limit class size to 18 so that we could give more individual help," Rose said, "but the response was too great." He added that participants take sincere pride in their completed plans because they appear so professional.

Course Content

In the course's four sessions, the participants begin by identifying landscape problems. They complete an overall site analysis, and develop a plot plan.

In the second session, clients work on their individual plans and develop ideas on foundation plantings and tree and shrub placement. They also bring soil samples to be analyzed by MCES, free of charge.

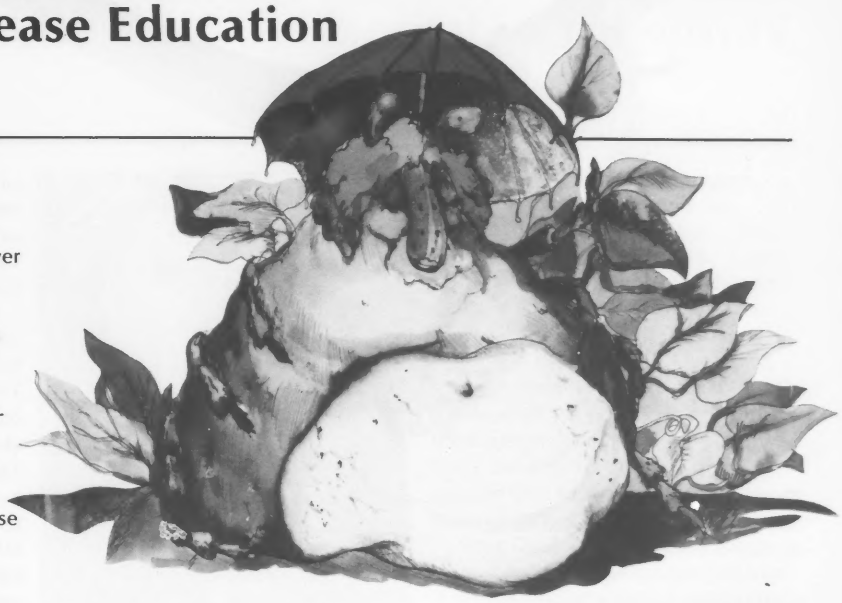
The third session details plant selection and requirements. Participants tour local homes and nurseries where different varieties of landscape plants are labeled and are shown how they will appear when well established.

The fourth session covers transplanting, soil preparation, and plant propagation. Pruning, fertilization, and other cultural practices are also discussed.

After the final meeting, the Extension worker teaching the course spends 15 to 20 minutes with each participant in a critiquing session, reviewing his or her completed landscaping plan. This helps create pride and further encourages the client to complete the actual landscaping. □

Tilda the Terrible Tick— Preventive Disease Education

Barbara Whaley
Former Extension Specialist
North Carolina State University



Tilda the Terrible Tick has turned traitor to her cohorts by warning school children in North Carolina about Rocky Mountain spotted fever (RMSF).

She is the mascot for the children's segment of an Extension educational program designed to teach children, teenagers, adults, and health and educational professionals in North Carolina how to prevent RMSF. North Carolina has led the Nation in both number of cases and deaths due to this disease for the last 6 years.

Southern Problem

In the southeastern U.S., ticks often cause significant nuisance and health hazards, especially in recreational areas. One species, the American dog tick, is particularly bothersome because it can transmit RMSF germs to humans.

The disease was named for the region where it was first discovered, but in recent years it has become more of a problem in southeastern states. The number of cases in North Carolina has increased from 141 in 1972 to 204 in 1978—with the 1978 figure representing about one-third of the total cases reported for the surrounding six states. The disease claimed 11 lives during 1977 and 1978.

There is no effective vaccine against RMSF. Control of the American dog tick over large areas is not practical because of its diverse habitat and widespread distribution. Therefore, preventive disease education is an important approach to this problem.

In March 1978, Charles Apperson, Extension entomologist for North Carolina State University, received a $12,000 grant from the North Carolina Agricultural Extension Service to develop a pilot educational program about RMSF. That spring, he met with other entomologists, Extension agents, health and medical professionals, and graphics specialists to discuss the problem. The lack of any visual aid program about ticks and RMSF—for any age level—convinced the groups that a slide-tape presentation would be the most appropriate format for reaching a large audience.

Problems Overcome

The problems of communicating preventive disease education, especially about ticks, to groups of varied ages and educational levels could not be solved by one general information program.

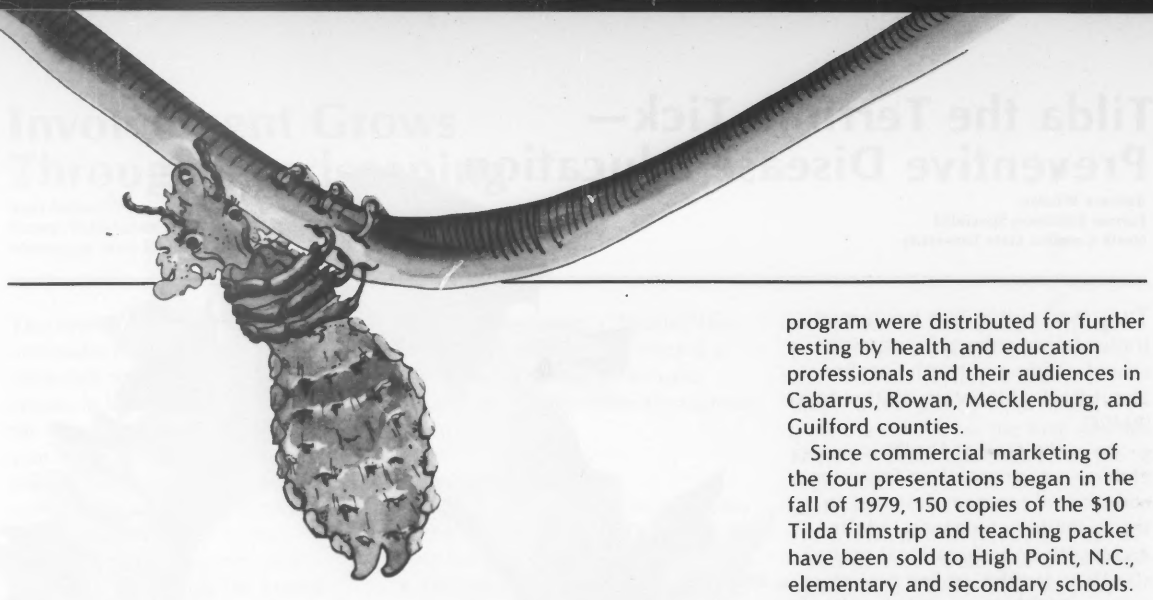
Jane Coble and Barbara Whaley, Extension program specialists, suggested that several programs —one for young children, one for teenagers, and one for adults— would probably be a more suitable answer to the problem. A fourth program, designed for the special informational needs of health and education professionals, was also planned.

The programs had to overcome several common misconceptions about ticks held by all of these groups. Even an enthusiastic and receptive audience might need some convincing that a burning cigarette is not the most effective method of removing an attached tick. Other fallacies about tick biology and the RMSF disease cycle had to be dispelled, and preventive exposure measures discussed and reviewed.

Also, explanation of the symptoms and the seriousness of RMSF had to be handled in a skillful and sensitive manner. Most importantly, Apperson and the team knew that the program had to be entertaining to gain and hold the interest of the audience.

Tilda the Terrible Tick

Three of the programs were formated in a conventional slide-tape presentation. However, the children's program required a more creative approach. Al Brothers, head of the North Carolina Graphic Design Division suggested using a cartoon character; and Krista Brickey, graphics illustrator, undertook the task of creating "Tilda, the Terrible Tick."



Characterizing Tilda

The character of Tilda had to be dichotomous—scary yet enticing.

Brickey, remaining true to the eight-legged, sightless anatomy of the American dog tick, painted Tilda as a pleasantly fat, yet menacing evil arthropod. Tilda's voice was captured on tape by a professional actress who managed to produce a convincing mixture of coarse, scratchy laughs and enticing yet cautious warnings about her potential danger. Background music, pulsating to a crashing climax, completed the total effect of making Tilda really terrible.

Program Content

In order to hold the interest of young children, Tilda had to say a lot in just a few minutes.

Personal responsibility for bodily health in the form of prevention needed to be emphasized. Also, the possibility of serious illness and death had to be dealt with realistically to avoid exaggeration of the facts and panic reaction.

In less than 10 minutes, Tilda talks about her family's biology, habitat, and eating habits. She warns children about sickness which may result from tick bites. Then she urges children to have an adult remove a tick immediately using tweezers or the fingers covered with a piece of paper towel.

Preventive measures—such as using insect repellant, putting flea-tick collars on pets, and checking the body two or three times daily for ticks—make up another part of Tilda's discussion. After showing the audience what she looks like in real life, Tilda warns children to, "Remember to look out for me 'cause I'll be looking for you!"

In classrooms where Tilda has been previewed, teachers comment favorably on her reception. Third, fourth, and fifth graders especially enjoy the slides of an overstuffed Tilda burping as she talks about eating a long, leisurely meal.

"We'd like to see more programs produced by this group," said a fourth grade teacher who showed Tilda to her class. "The approach gave children an opportunity to see that some things need to be talked about even if they are unattractive because they must be faced during the growing up process."

Program Distribution

Tilda and her three counterparts were pilot tested by Extension, health, and educational agencies in four North Carolina counties. The slide sets were first reviewed and revised in late 1978.

In early 1979, copies of the program were distributed for further testing by health and education professionals and their audiences in Cabarrus, Rowan, Mecklenburg, and Guilford counties.

Since commercial marketing of the four presentations began in the fall of 1979, 150 copies of the $10 Tilda filmstrip and teaching packet have been sold to High Point, N.C., elementary and secondary schools. The three other presentations, available in slide-cassette form with teaching packets for $35, are shown at PTA meetings and by various agencies. Although the programs are available to anyone in the country, distribution thus far has been in North Carolina only.

Louise Joins Tilda

Louise the Louse is preparing to join Tilda in her educational crusade. Louise is the character in a new filmstrip created to teach children about head lice control. Slating it for distribution in North Carolina elementary schools this year, Extension officers there hope the film will help halt the spread of head lice, which has reached epidemic proportions in some elementary schools.

Like Tilda, Louise is a friendly, but scary character. She entertains children while she teaches them about the biology and control of head lice. Since head lice are considered more of a nuisance than a serious health problem, only one film about them—directed at a school-age audience—has been produced.

Those interested in obtaining the children's films or the slide-cassette tapes can write to the North Carolina Extension Service, Visual Aides, G-5 Ricks Hall, North Carolina State University, Raleigh, North Carolina 27607. □

"The Backyard Gardener" Takes Root

Kathleen DeMarco
Extension Editor
University of Georgia

From a distance, most backyard gardens seem harmonious. They're a quilt of greenery and vegetable color.

But when viewing a home garden closer, you see a giant network of vines, leaves, and creepy crawlers. Then you realize that gardening is composed of many elements. The same is true of gardening television shows. Imagine the complexities involved in not one, but several programs of "The Backyard Gardener" (BYG), presented statewide by the Georgia Extension Service (GES).

The series is a joint venture of the University of Georgia campus Public Broadcasting System (PBS) affiliate, WGTV (Channel 8-Athens/Atlanta) and the communications department of GES. Two of its editors, Joe Courson, television-radio editor in Tifton, Ga., and Kathy DeMarco, television editor in Athens, Ga., cohost the series, which runs 10 weeks every spring and 4 weeks every fall. The last program in the spring is a live, call-in show. DeMarco is the series' producer.

What's in the TV Garden

Each program, except the call-in, is divided into four main parts: vetetable gardening, floriculture, ornamentals, and lawn and turf. Each section usually has an "anchor person," who is both an expert in some type of gardening and has on-camera experience. They are joined by entomologists, plant pathologists, and nutritionists who appear on about 30 percent of the programs.

For instance, when the calendar dictates that the floriculturist, Doug Crater, discuss annuals, Extension also includes an explanation of disease control in flowers by one of their plant pathologists, Gene Moody.

This year, they added a section on designing the home landscape and took it up during earlier programs. Programs aired in late spring addressed problems with lawn maintenance.

Dick Collier, Columbus (Ga.) City Extension Director, presents a vegetable gardening show-and-tell for viewers on "The Backyard Gardener."

Although the series concentrates on horticulture, it also deals with nutritional aspects of a garden. Paulette Ybarra, Extension home economist in food and nutrition, covers topics like storing garden vegetables, identifying and drying herbs, and cooking vegetables on the grill.

TV Garden Grows

What the home viewer sees in front of the camera is only one-tenth of what goes on behind the lens. Putting many 30-minute programs together takes months to prepare.

Plans for the spring series are made the previous fall. At that time, DeMarco meets with the WGTV program director to choose the dates of the spring telecasts. Then she contacts the production department to determine the days for videotaping and logs them in the schedule. Next, the head of the production department assigns one of his directors, Clate Sanders, to the BYG project and the first of many meetings between Sanders and DeMarco begins.

After DeMarco presents a rough format to Sanders, they discuss how it will be implemented. A more efficient series has fewer guests and no guest speaks longer than 5 minutes. Bridges between segments are filled by the cohosts. Courson introduces most programs, and DeMarco closes them.

From this original plan, Sanders introduces other innovations. For example, rather than seat all of the talent on a mock patio, he suggested that a newslike set be built for the hosts, surrounded with decorative panels and a chromakey board. Although a low-budget series, BYG is on statewide television and must compete with such syndicated productions as "P.M. Magazine."

While the set is built, other visual requests go out from the producer. Extension artists prepare designs for the chromakey board and panels, set type for word slides, and prepare the mechanical for a large poster to be used in promoting the programs.

Now, the guests are invited. County agents cover areas that involve two or more horticultural disciplines. Specialists prepare their notes and decide which props they will need. Detailed sheets of their subtopics, slides, props, and dates available for taping are sent to

Georgia Extension horticulturist Gerald Smith demonstrates how to "airlay camillias" on a segment of "The Backyard Gardener."

DeMarco. She funnels requests to the art department, juggles schedules to match available studio time, and assigns a program assistant to order the nearly four dozen plants needed on the set from the university greenhouse.

Plans for promoting BYG begin, too. Duties are handled by the WGTV promotion department, which prepares on-air promotion and news releases for statewide newspapers and radio stations. An equal amount of promotion work is done by Virgil Adams, Extension news editor, and Roland Brooks, Extension radio editor, who write materials for the statewide news and broadcast release packets.

Soon, DeMarco prepares detailed formats for each of the nine programs that will be videotaped. Copies are distributed to the director, studio manager, and guests. The cohosts write their on-camera copy.

This copy and the program outlines for individual specialists and county agents are then transferred to station teleprompter paper. Increased use of the teleprompter has helped on-camera appearances of guests, by improving their eye contact and making them appear less rigid on the set. But only the cohosts read them verbatim; specialists and agents are not encouraged to "read or lecture" to the home audience.

At last, the week of taping arrives. The first morning is reserved for station engineering. As gaffers check lights and cameras are chipped, the set is dressed for the week and last-minute negotiations between director and producer continue.

Monday afternoon is set aside for taping the first program. A rehearsal is scheduled for 1:30 and actual taping is begun by midafternoon. For the next 4 days, two programs are rehearsed and taped per day and by Friday afternoon the last program is "wrapped."

Produce Goes To Market

The fruits of Extension's labor are distributed 2 weeks after taping. April through June broadcasts are aired on both WGTV and the Georgia Educational Network (GETN), which has transmitters in cities throughout the state. WGTV plays BYG at 6:30 p.m. Friday, and GETN replays every show but the call-in at 2:30 p.m. on Saturday.

Last minute promotion to state garden clubs and commercial garden centers alerts the public to upcoming telecasts. At last, Extension and PBS personnel can sit back and savor the harvest from April through June.

Before the staff rests on its laurels, though, it indulges in what it calls "weed pulling," or self-criticism. Improving camera performances is one priority. The staff also has considered holding a television workshop for guest horticulturists and showing them in active poses. Finding a better replay for GETN broadcasts has been recommended, but getting a slot in a crowded PBS lineup is difficult.

By pulling these "weeds" after their spring season, the staff hopes to reap a better crop of programs in the fall. □

A Poultry Professor's Magic

Sally Dana Willson
Extension Editor
Cornell University

"Which came first, the chicken or the egg?" Learning becomes meaningful, especially when it relates to a "living" classroom experiment.

In rural upstate New York, second graders hurry to school in the early morning to see if their incubating chicks have hatched.

With the confidence of college professors lecturing to a biology class, sixth graders at a school in Albany explain the life cycle of the chicken to a group of parents.

On a barren street in Harlem—with neither tree, flower, nor blade of grass in sight—a crowd huddles outside a bank window to watch a scraggly chick fight for life. This living exhibit is part of a 4-H-sponsored school project.

Teacher-training Workshop

Throughout New York over the past 15 years, scenes like these have occurred because of the work of Edward Schano, professor of poultry science education for youth at Cornell University in Ithaca, New York. Schano is a teacher-trainer of incubation and embryology.

Schano travels around the state, delivering teacher-training workshops set up by local 4-H agents. In his 15 years as a teacher, he has developed an educational package on incubation and embryology that includes lesson plans, charts, slides, cassette tapes, and posters. The package is available to the public through the New York State 4-H Poultry Science Program.

Designed to help teachers use incubation and embryology as a method of teaching children problem solving and life appreciation, his workshops have been a success.

"The incubation and embryology material is exciting," said one 4-H agent. "It inspires kids to want to know more about biology, math, composition, and the use of the library. It opens the door to one of the greatest miracles of life—the transformation of a seemingly lifeless egg into a fully developed living chick!"

Describing the effect of Schano's program on schools in his area, another agent said: "This school has been electrified—it's an excellent teaching tool. It shows youngsters how life begins and can also be tied in with sex education."

It's been estimated that about 4,000 teachers and 80,000 school children from rural, suburban, and urban areas in New York participate in the program annually. Requests for Schano's materials have come from Maine, Rhode Island, Massachusetts, New Jersey, and states farther to the south and west.

Television Debut

Because the demand for teacher-training workshops and materials have increased over the years, last year Schano created a three-part television series called "Incubation and Embryology." In the series, produced by the Educational Television Center (ETV), Schano explains how to construct and operate an incubator, observe and care for embryos, and brood chicks. The series is part of the New York State 4-H Poultry Science Program and is available to the public in five different color formats from ETV, Cornell University, Ithaca, New York 14853.

Schano's television series is benefiting an increasing number of teachers throughout the United States. And this means more scenes of children hurrying to school, children teaching parents, and crowds huddled together learning about life. □

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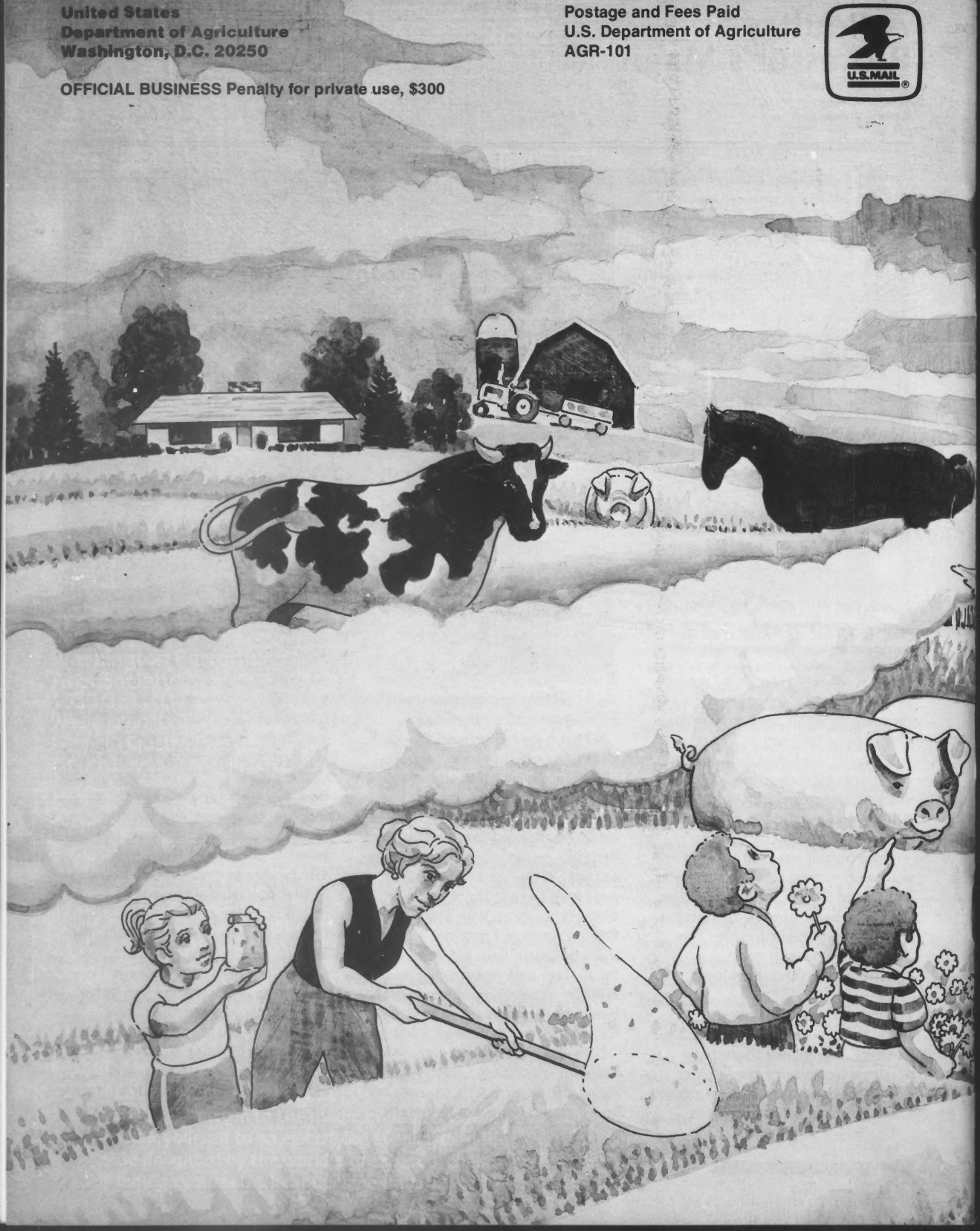

Fall 1980
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extension review

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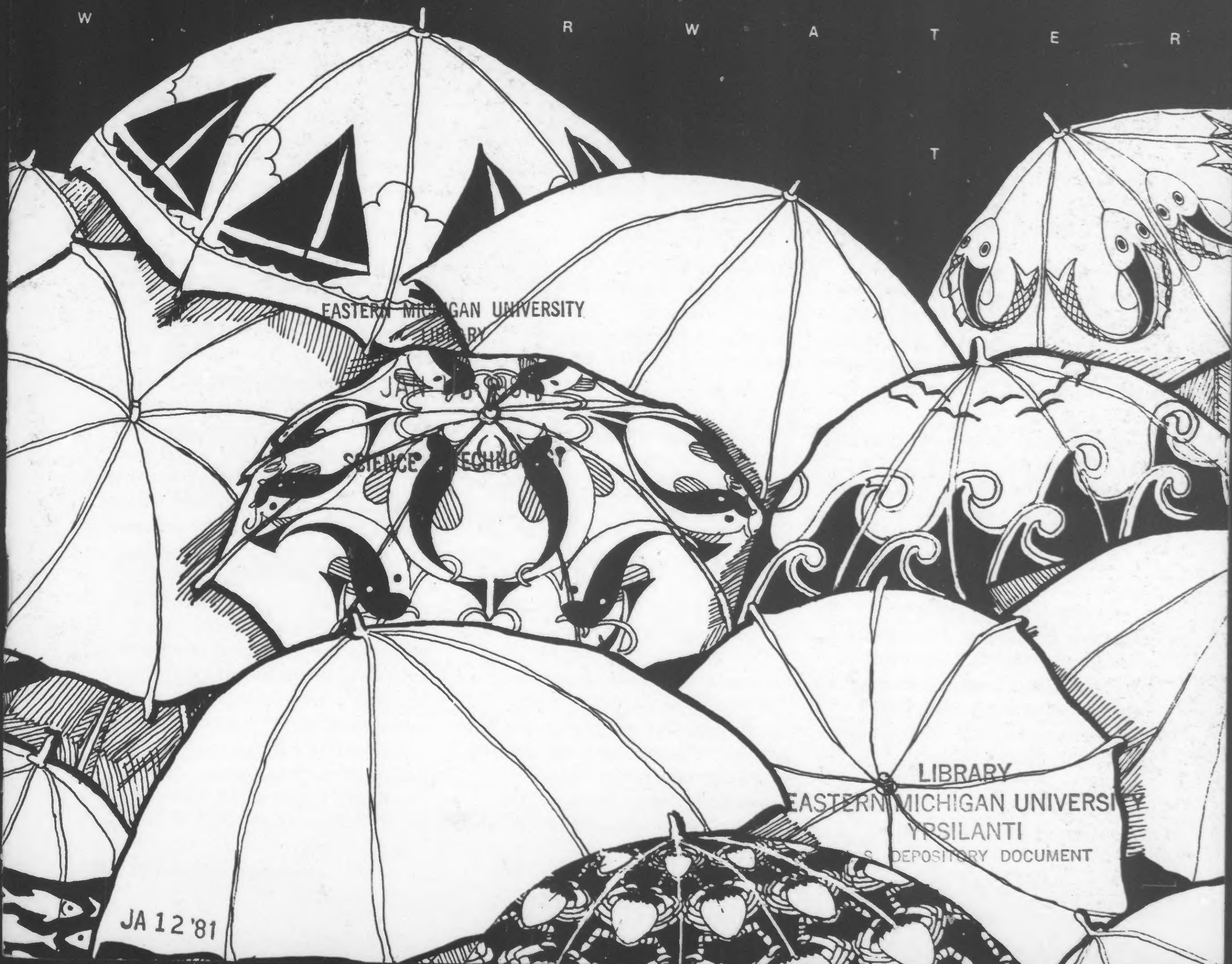

review

Mary Nell Greenwood—Challenge and Change for Extension in the 1980's

Mary Nell Greenwood is a manager on the move. Greenwood became Administrator for SEA-Extension in August 1980.

Since then, she has crisscrossed the country, challenging Cooperative Extension and its more than 17,000 county agents and state specialists to meet the opportunity for change that the 1980's offer.

Wherever she travels—to county agent association conferences, land-grant meetings, volunteer leader forums, or at one-on-one discussions with local leaders, cooperators, and decisionmakers—one part of Dr. Greenwood's message is always the same:

"Cooperative Extension will be bypassed in the next decade if we do not recognize the need to lead with new and more successful ways to produce and transfer knowledge and information to rural and urban families."

Whenever Greenwood speaks, she emphasizes that one of the strengths of Extension is its unique partnership—on the federal, state, and local levels—"with each investor sharing in funding and program determination."

Her Extension career is an excellent example of how that "unique partnership" interacts to extend USDA's research through an informal education system for people in more than 3,100 counties across the United States.

Prior to joining the SEA-Extension staff, Greenwood was director of Extension at the University of Missouri where she coordinated educational programs for four campuses and worked with county and regional staffs in program development. In 1978, Greenwood came to USDA as associate deputy director for SEA-Extension and became acting director in December 1979.

Born and raised on the family farm in Breckenridge, Mo., she began her Extension career in 1951 as a county home agent in her native state. "When I was a county Extension worker many years ago and many miles from Washington, D.C., I'm not sure that I even realized there was a national staff in the nation's capital," Greenwood says. "Often, county agents don't relate to that part of the system."

Greenwood sees county agents, state specialists, and the SEA-Extension staff as "partners in an important educational enterprise. The existence of that partnership for more than 60 years is the strength of the Cooperative Extension system." She recently told state specialists in Virginia that "all elements of this partnership must be strong and viable in the future to be effective."

Greenwood views the county and area Extension staff as "our largest human resource investment—our direct link to the people of this country. As Extension meets the opportunities of the 1980's, it is this people involvement in the planning and conducting of our educational programs that will assist county staff in determining priorities and identifying opportunities within future state and national programs."

In a recent address to the National Association of Extension Home Economists in West Virginia, Greenwood targeted the following critical concerns for future Extension education programs:

- *Energy*—Production and conservation of energy on the farm and in the home have top priority. Extension specialists, now headquartered at the new SEA Energy Centers recently established at Tifton, Georgia, and Peoria, Illinois, will serve dual roles. They will translate research findings for CES educational programs, and feed consumer and farmer needs back to the researchers.
- *Human Nutrition*—The addition of a special program unit within SEA for human nutrition research—SEA Human Nutrition—has greatly expanded Extension's education research base. Also, SEA-Extension and USDA's Food and Nutrition Service have funded 16 pilot efforts to supplement the EFNEP program in reaching more families, with special emphasis on food stamp recipients.
- *Air, Water, and Land Conservation*—Effective conservation of prime farmlands and clean and adequate water are major concerns for many families. One major problem involves implementing 208 water-quality managment plans in 13 pilot projects with our sister USDA agency, ASCS.
- *Small and Part-time Farm Programs*—Extension must address the educational needs of small-farm families, including improved management practices, on both the farm and in the home.
- *Inflation*—Home economists, must assist families with budgeting, assessing lifestyles and goals, and better management of their resources.
- *Pesticide Application Training*—Work in this area will continue under an interagency agreement to transfer $1.366 million from EPA to SEA-Extension.

Greenwood recently told county agents in West Virginia, "Because we are equipped for change and new programs, we have an excellent opportunity to become more responsive—responsive to society's everchanging needs, including those of our constituents, advisory groups, local leaders, and decisionmakers."

Motivating Extension to shape its future through program change, Mary Nell Greenwood continues to be an administrator on the move. □

contents

extension review

Vol. 51 No. 4
Fall 1980

Bob Bergland
Secretary of Agriculture

Anson R. Bertrand
Director of
Science and Education

Mary Nell Greenwood
Administrator
SEA–Extension

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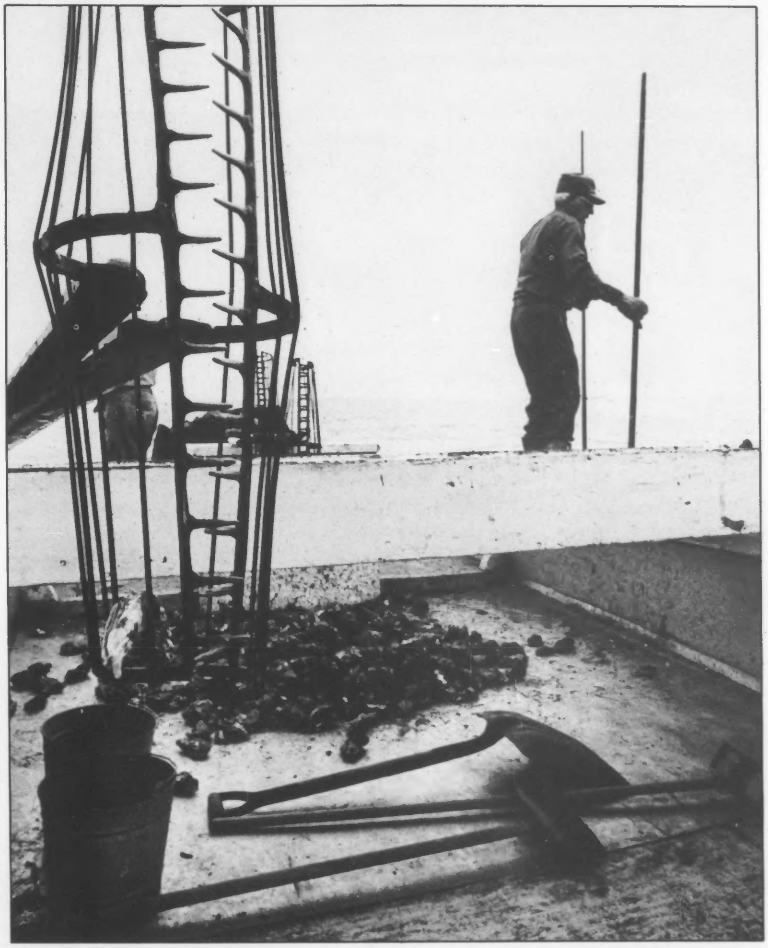
Chesapeake Agent—A Man for All Seasons

Jack Greer
Marine Advisory Program
Cooperative Extension Service
University of Maryland



Don Webster is a man for all seasons. During oyster season he may take to the tong boats to see how the harvest goes. In summer, he keeps up with crabbers. And during tax season, he takes off his gloves and pulls out a calculator to help watermen manage their finances.

Don is an Area Extension Agent for the University of Maryland's Marine Advisory Program—his territory includes Maryland's Atlantic Coast and the Chesapeake Bay.

Don works with the watermen of the Chesapeake—their way of life deeply rooted in the heritage of the Bay. Unlike the large operations of commercial fisheries in some areas, these watermen generally run small, one- or two-boat businesses, sometimes passed down through generations of a single family.

One of Don's main concerns is the lack of communication between the watermen and the research community. "I work with the scientists and the state agencies, but I work with the watermen too. And everyone has a different perspective."

To bridge such communication gaps, Don has helped organize a number of joint ventures aimed at bringing together people with different approaches and different backgrounds—all focusing on a common interest or problem.

Oyster Programs

The oyster spat cruise is an example. For the past several years, researchers have gathered spat samples each fall.

The charm of the Chesapeake—gulls, boats, and hard-working watermen. (Photographs by Skip Brown, Sea Grant photographer.) Above right: As an Extension marine advisory agent, Don Weber, left, works with area watermen to farm Maryland's Atlantic Coast and Chesapeake Bay.

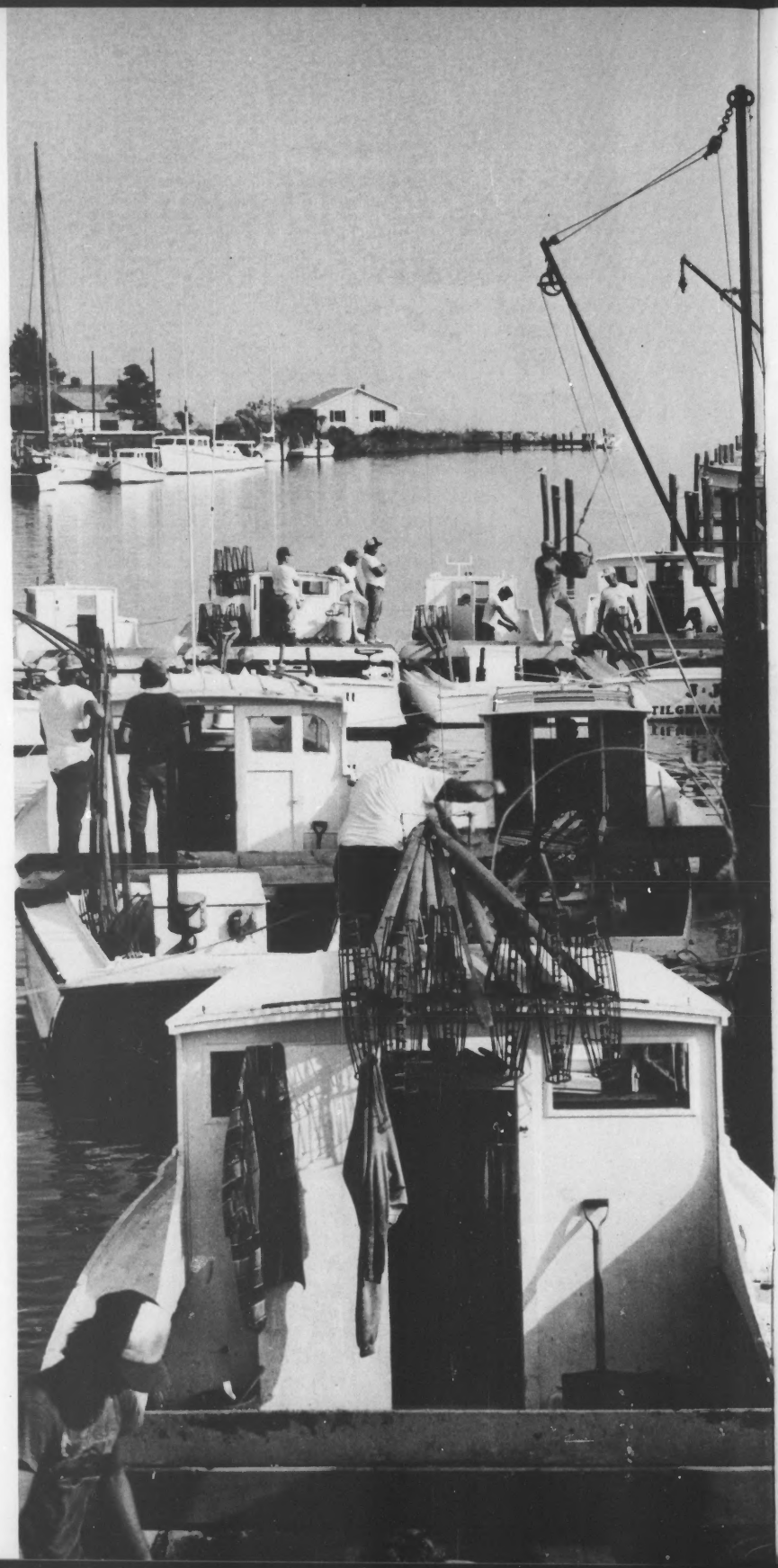
Some watermen, though, have remained critical. "You went to the wrong bars," they suggested. Or, "You didn't dredge right." To bring together the knowledge of watermen and researchers, Don helped organize a more comprehensive spat cruise, and letters of invitation went out to presidents of watermen's associations and other interested groups.

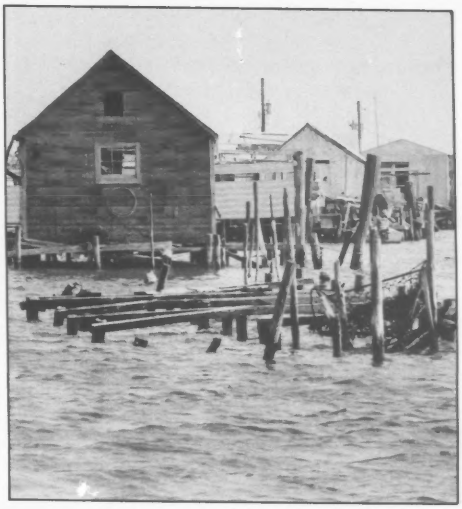
"The important thing," notes Don, "is to get everyone out on the boat together so they can see exactly what goes on. It's true, too, that on a boat some kind of bond develops. It helps break down barriers."

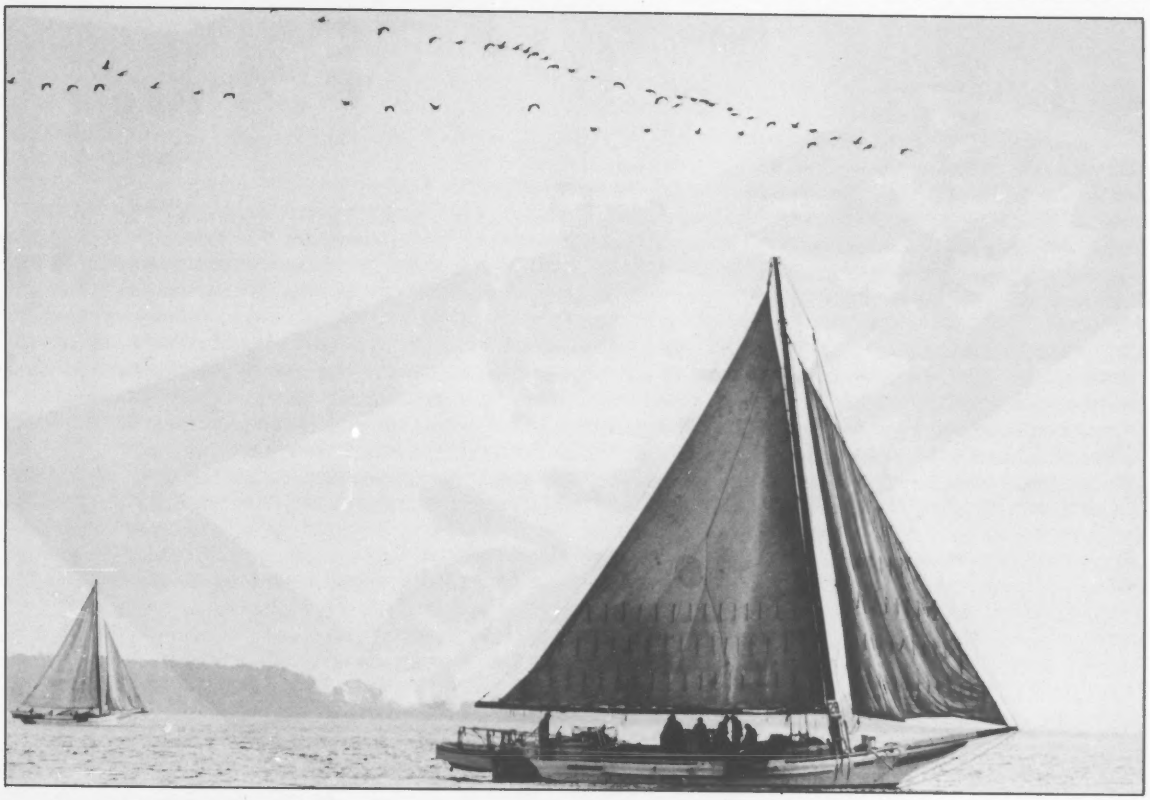
More than 100 people spent 10 days this year aboard the research vessel *Aquarius* during the most recent spat cruise. Representatives from industry, state management agencies, schools, citizen advisory groups, and the news media joined watermen and researchers as they tested the oyster bars. At the suggestion of the watermen, the researchers set aside time to examine additional sites. The trip also gave the watermen a chance to observe how the research team positioned the boat and gathered oysters for observation and testing.

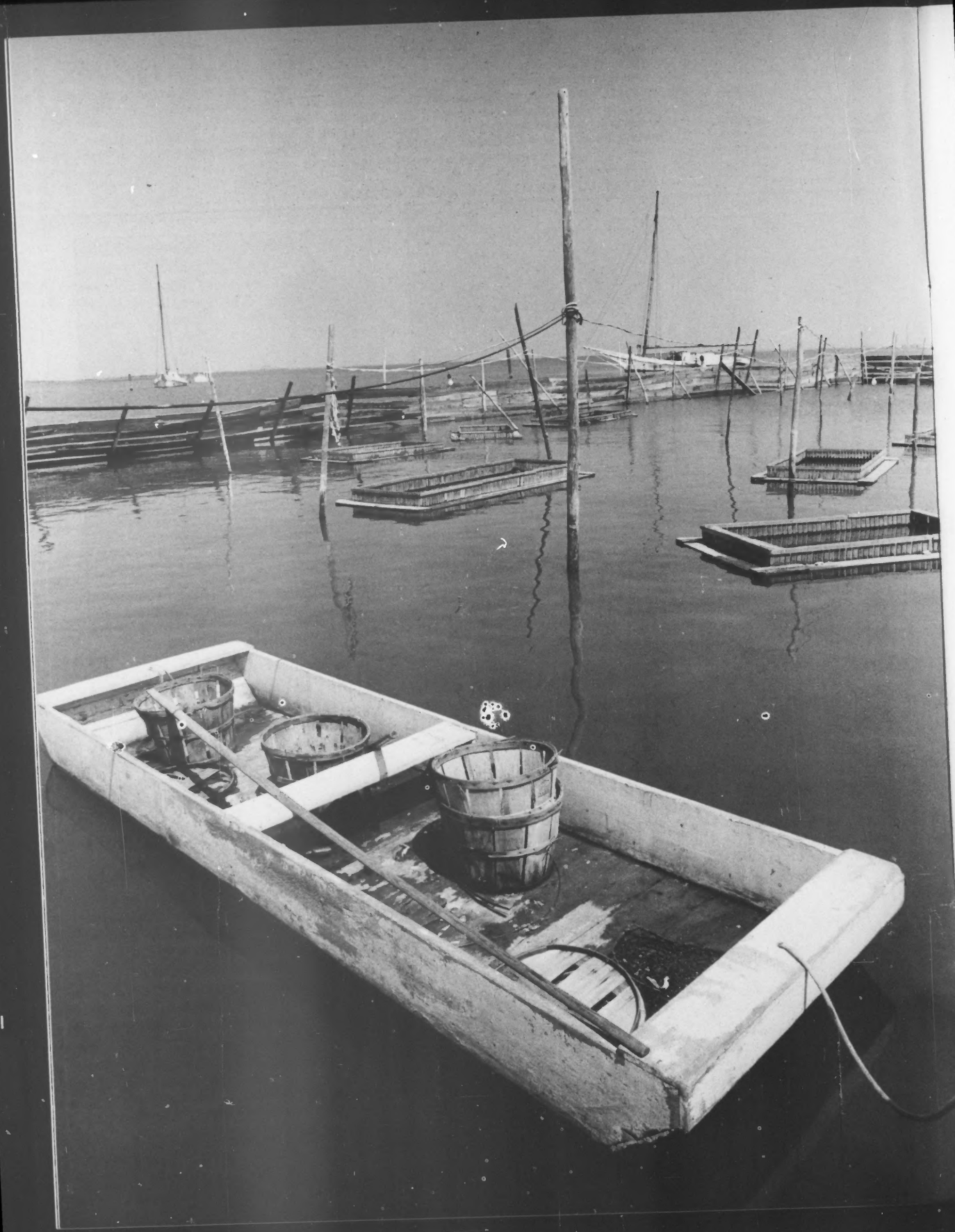
Luckily, the 1980 spat survey turned up piles of young oysters clinging to "culch" (old shell, wood, even sunken bottles), an indication that harvests should improve. An added benefit is increased understanding among different groups interested in oysters. At the same time, comprehensive news coverage of the cruise continues to bring the oyster industry before the public eye.

With harvests increasing, emphasis for the industry may fall on marketing problems. "Not a bad problem to have to work on!" says Don.









Because of his close area contacts, Don plays a central role in organizing the annual oyster culture conference. Introducing the speakers, sharing jokes with the audience, and moving among watermen, industry representatives, and scientists alike, Don keeps the conference moving.

Oyster culture—growing oysters on leased Bay bottom—becomes more important as human demand increases and natural supply wavers. Though the technology for growing mature oysters in controlled environments is improving, hatcheries now supply spat for natural bars, where the oyster mature until ready for harvesting by conventional methods. Such initiatives should help turn the tide of the oyster decline, pushing Bay output back toward first-of-the-century levels.

Money Management

Don has also played negotiator between commercial watermen and the Internal Revenue Service (IRS). Traditionally Bay boats worked on a share system. After taking certain costs off the top, including a share for the boat, crew members divided new profits equally among themselves. Not pleased with this system, the IRS passed rules requiring boat owners to pay deckhands salaries, turning captains into bosses and crew members into wage earners. Next the IRS ruled that commercial fisherman working small boats could once again call themselves independent contractors and pay on a share basis, but boat owners had to report every share paid each deckhand.

To help clarify new demands for accurate and comprehensive recordkeeping, Don set up workshops and developed self-help publications. Working with IRS staff he developed the *Tax Guide for*

Commercial Fishermen, and he collaborated on the *Watermen's Recordkeeping Manual.*

Don asked a waterman's wife (a bookkeeper for a large CPA firm) to speak at the workshops. "I know what you go through," she'd tell the other wives. "You need the records at the end of the year and you find them stuck all over the insides of the boat cabin. You've got to keep after 'em."

Don assumes other roles as well—loan counselor, for instance. To help watermen as they trade up to larger boats or improve their present boats with new diesels or hydraulic tonging rigs, Don steers them toward special government-assisted loan programs designed for commercial fishermen.

And after the bitter freezes of the winters of '77 and '78—which left oyster grounds covered with ice and oystermen out of work—Don helped families find special assistance. The Small Business Administration (SBA) makes available long-term, low-interest loans in such situations, but since government officials cannot offer help in preparing loan applications, paperwork posed a problem.

Along with Extension specialists Norm Bender and Mike Paparella, Don issued press releases, distributed loan applications, and took to the road. Traveling from town to town, he visited as many as three or four families at a stop, leaving completed paperwork in his path.

Education Programs

Putting people in touch with the information they need—that's one of Don's basic responsibilities. Part of this effort includes educational programs in fisheries. "I would like to see an expanded role for 4-H programs for commercial watermen's kids, a program that could teach them *practical* things," Don says.

Some of the letters Don receives come from frustrated city-dwellers tired of traffic and the daily rat race. "They've gone down to Tilghman Island, home of one of the Nation's last commercial sailing fleets, and seen the watermen picturesquely tonging from workboats and they want to know how to make a living that way." Of course tonging oysters by hand during the cold winter months proves less than ideal.

What does he tell the frustrated office worker who wants to work the water? "Start off slowly. Run a trotline during the summer and see how you like it. Then try tonging oysters. I wouldn't advise chucking everything on a waterman's life until you've tried it. That office might start to seem very comfortable."

Don can speak with some authority on the aches and pains of a waterman's life. For a long time he had his own 40-foot Bay-built tong boat moored at Tilghman Island, and he lives by the Bay—near the quaint town of St. Michaels.

Don grins, "even though I grew up a 100 miles from the shore in northern Jersey, I remember going down to the Atlantic to watch the fishing boats come in."

After studying commercial fisheries and resource development at the University of Rhode Island, Don found an opportunty in Maryland's newly developed Marine Advisory Program, a joint effort of the Cooperative Extension Service and Sea Grant. "It was a groundfloor operation," he says. "We had the chance to establish a lot of the direction ourselves."

That direction points toward an active and assertive approach to Bay-related problems. Through his publications, workshops, conferences, and connections, Don continues to make important contributions to the practical application of marine science. Those who understand the special way of life that flourishes along the banks of the Chesapeake Bay appreciate having Don Webster there—an agent for every season. □

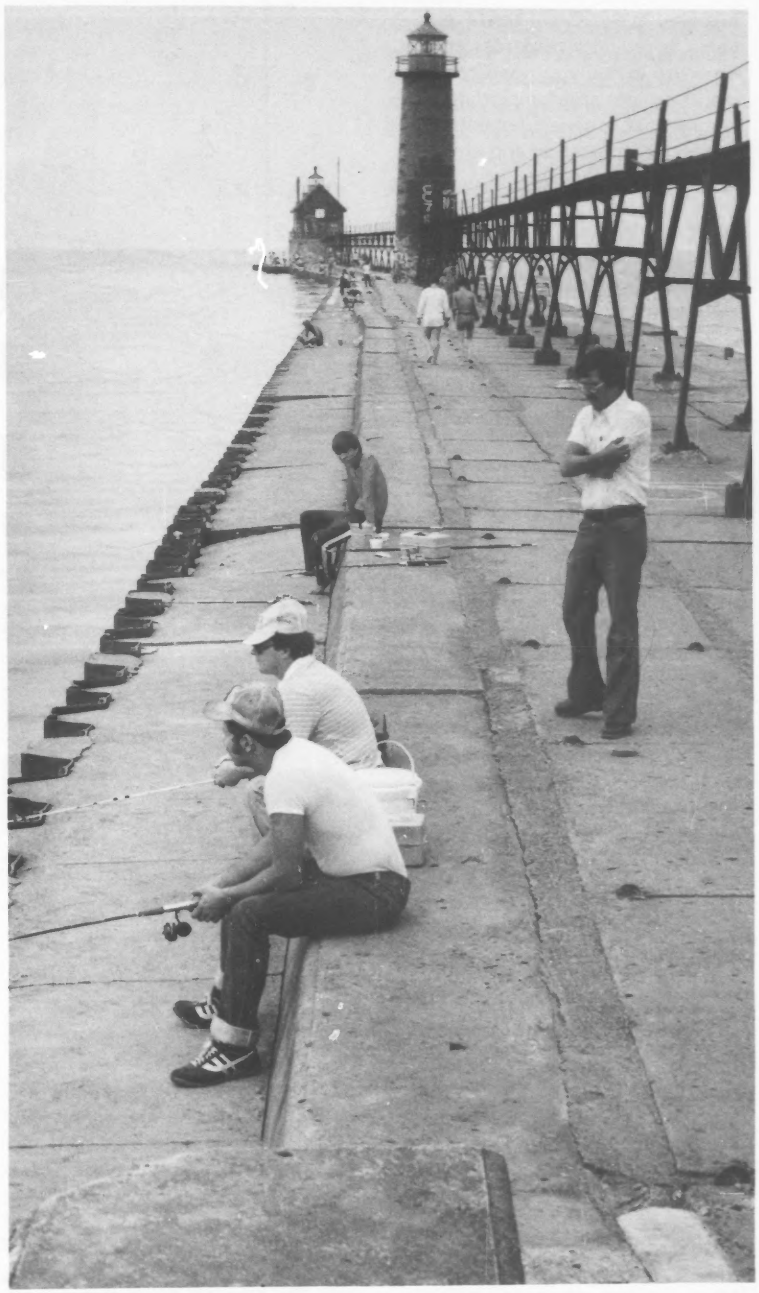
Michigan Sea Grant Takes to the Water

Marcia Bradford
Former Information Coordinator, Sea Grant
Michigan State University

The Great Lakes are a source of fun and recreation for boaters, sports enthusiasts, and vacationers in Michigan. They also provide income for commercial fishermen, marina operators, and persons employed in the shipping industry.

As the popularity of the lakes has grown, however, so have the problems connected with them. The lakes' various uses often conflict with one another and sometimes conflict with nature, resulting in water pollution and contamination by toxic substances. Need for better management of these valuable resources has become evident in recent years.

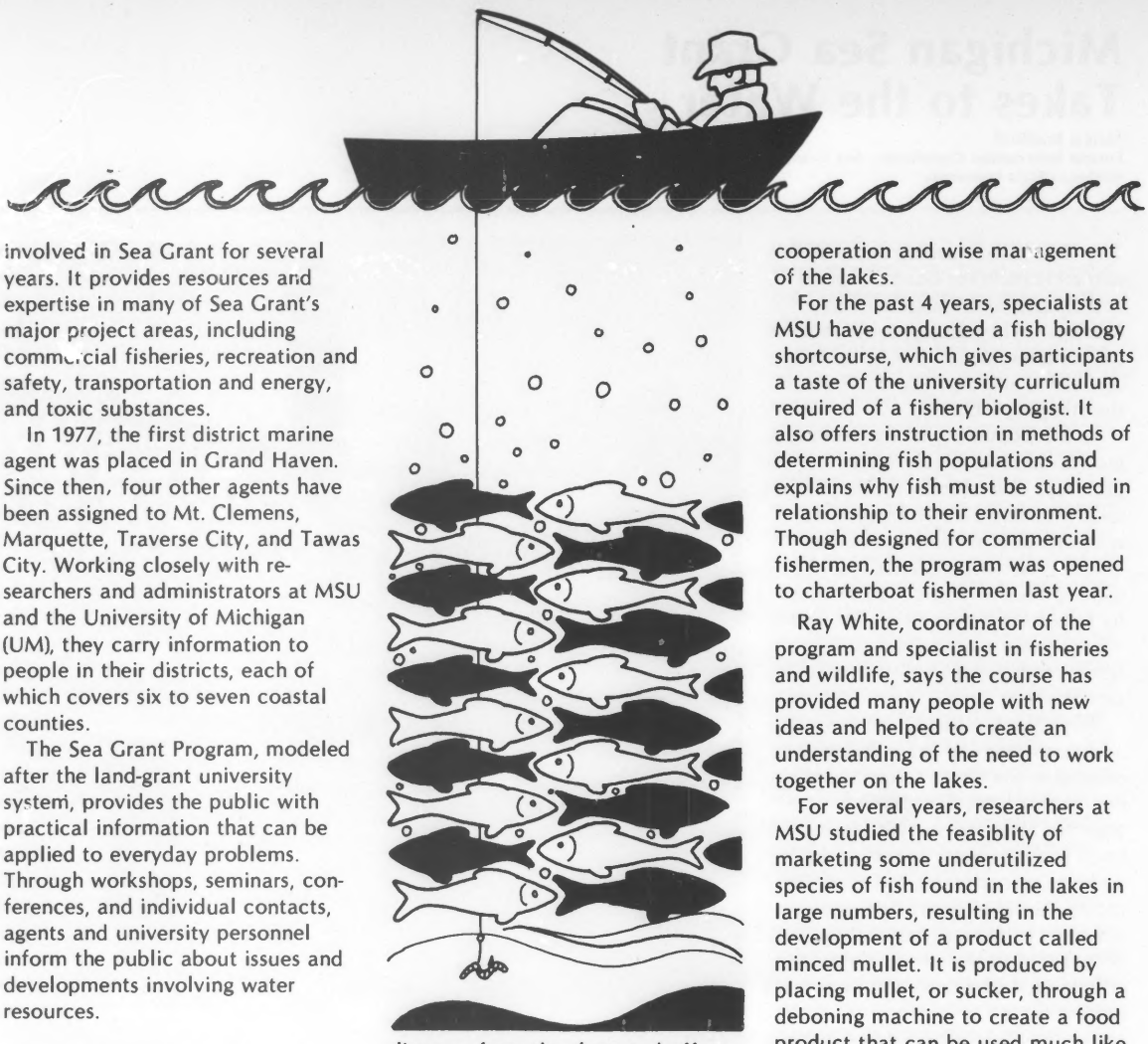
The Michigan Sea Grant Program addresses many of the problems related to the Great Lakes and their connecting waterways, which together form the second largest body of fresh water in the world. In addition to correcting the problems facing the lakes today, the program attempts to prevent future misuse and danger to the waters through educational programs and awareness projects.



Extension and Sea Grant Work Together

Signed into law in 1966, the Sea Grant College and Program Act was developed to establish a solid base of practical and useful knowledge at colleges and universities throughout the Nation, drawing on scientists and engineers committed to water resources. Using the knowledge gained from research, Michigan Sea Grant works to create a better understanding of the need for wise use and protection of the Great Lakes.

Though the Michigan State University (MSU) Cooperative Extension Service did not become an official partner until 1977, it has been



involved in Sea Grant for several years. It provides resources and expertise in many of Sea Grant's major project areas, including commercial fisheries, recreation and safety, transportation and energy, and toxic substances.

In 1977, the first district marine agent was placed in Grand Haven. Since then, four other agents have been assigned to Mt. Clemens, Marquette, Traverse City, and Tawas City. Working closely with researchers and administrators at MSU and the University of Michigan (UM), they carry information to people in their districts, each of which covers six to seven coastal counties.

The Sea Grant Program, modeled after the land-grant university system, provides the public with practical information that can be applied to everyday problems. Through workshops, seminars, conferences, and individual contacts, agents and university personnel inform the public about issues and developments involving water resources.

Fighting Shoreline Erosion

Shoreline erosion has been a major focus of the Sea Grant Program for many years. Winds, waves, longshore currents, ice, and floating debris attack the banks during periods of high lake levels, resulting in large property losses for owners of shoreline property. Researchers study the effects of various protective measures and advise the public on the best ways to prevent erosion.

A recently adopted short-term approach to shoreline erosion involves the use of old tires in a free-floating breakwater. Bound together and attached to a steel frame, the tires are placed a short distance from the shore to buffer the action of the waves against the banks. In some cases, marina owners use these structures as storage docks for boats.

Because no structure can completely protect property against erosion, Sea Grant staff members urge property owners to gather information and seek advice before building structures on land close to the water.

Focus on Fisheries

Great Lakes fisheries are another area to which Sea Grant devotes much time and effort. Working with both sport and commercial fishermen, the program encourages cooperation and wise management of the lakes.

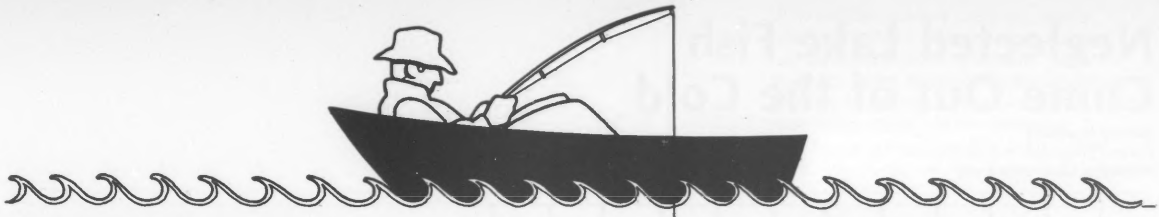
For the past 4 years, specialists at MSU have conducted a fish biology shortcourse, which gives participants a taste of the university curriculum required of a fishery biologist. It also offers instruction in methods of determining fish populations and explains why fish must be studied in relationship to their environment. Though designed for commercial fishermen, the program was opened to charterboat fishermen last year.

Ray White, coordinator of the program and specialist in fisheries and wildlife, says the course has provided many people with new ideas and helped to create an understanding of the need to work together on the lakes.

For several years, researchers at MSU studied the feasiblity of marketing some underutilized species of fish found in the lakes in large numbers, resulting in the development of a product called minced mullet. It is produced by placing mullet, or sucker, through a deboning machine to create a food product that can be used much like hamburger. The product, officially introduced at the Bayport Fish Market in Bayport last fall, is now available in a chain of grocery stores in Michigan.

Niles Kevern, Sea Grant associate director, says many of the fisheries in the upper Great Lakes region have shown an interest in the product and it may soon be processed in other areas.

"The product is beneficial to both the producer and the consumer," Kevern says. "It provides a good, inexpensive source of protein to consumers, while giving fishermen a market for fish which are available in large quantities."



Sea grant scientists are closely studying the presence of toxic substances in the Great Lakes, and in certain species of fish which inhabit them. Researchers continue to look for ways to reduce amounts of contaminants in the lake fish, and agents demonstrated trimming and cooking methods that can significantly decrease the amounts of contaminants in prepared fish.

In addition, the agents offer advice on how to care for freshly caught fish and how to select fish at the market. They demonstrate several methods of preparation and explain the best methods of cooking the various species of fish.

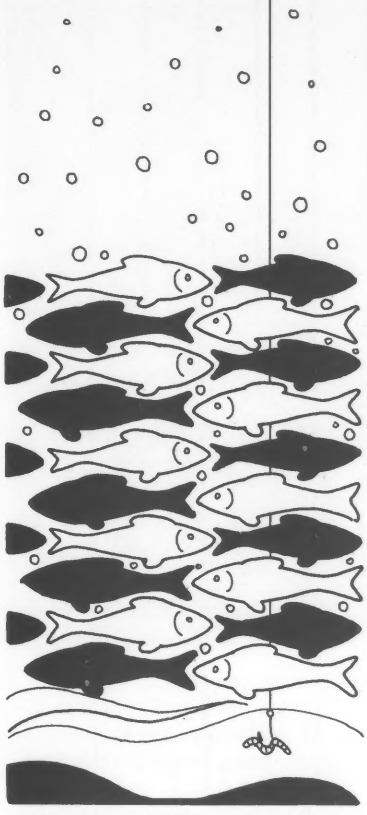
"I always advise people to follow the standards required of commercial fishermen when they cook or smoke fish," says Jim Humphreys, marine agent for the Upper Peninsula. "This gives them some safe guidelines to follow and lessens the chance of food poisoning, which could result from improperly cooked or prepared fish."

Safety Tips

Safety is an important aspect of all Sea Grant activities. Agents and specialists at MSU and UM offer tips on safe boating, swimming, diving, and many other forms of water recreation.

A cold-water safety education program currently being developed will offer instruction on reviving cold-water near-drowning victims. The program is the result of research done by Dr. Martin Nemiroff, of UM's Medical Center. He found that persons can be revived even after long periods of submergence in cold water, usually without suffering any brain damage.

This is possible, Nemiroff says, because humans sometimes exhibit the mammalian diving reflex, consisting of a complex series of body responses that shut off blood circulation to all parts of the body except the heart, lungs, and brain when there is sudden face contact with cold water. When this happens, the oxygen remaining in the blood gets transported to the brain, where it is most needed.



Discovering Marine Careers

Developing an interest in marine careers is another effort of Sea Grant. Though there are many job and career opportunities available in this area, most persons don't look into these options when seeking an occupation.

To help young people become aware of the opportunities the agents give talks and prepare materials for 4-H groups and schools. Steve Stewart, marine agent in Mt. Clemens, has prepared a publication, available through MSU, listing and describing vocational, technical, and professional marine careers.

Another project for young people is the Great Lakes Heritage Program, directed by Pat Livingston, 4-H youth agent in Wayne County. Working with 4-H'ers in Detroit's downriver area, Livingston directs projects, workshops, and field trips which teach the importance of protecting the environment and explain the role of the Great Lakes in the lives of Michigan citizens.

Marina Maintenance and Management

Sea Grant also provides information on maintenance and management of large and small marinas. Chuck Pistis, marine agent in Grand Haven, works closely with marina owners in his area, making personal visits to boat and marina operators when possible to keep them updated on the latest developments in their business.

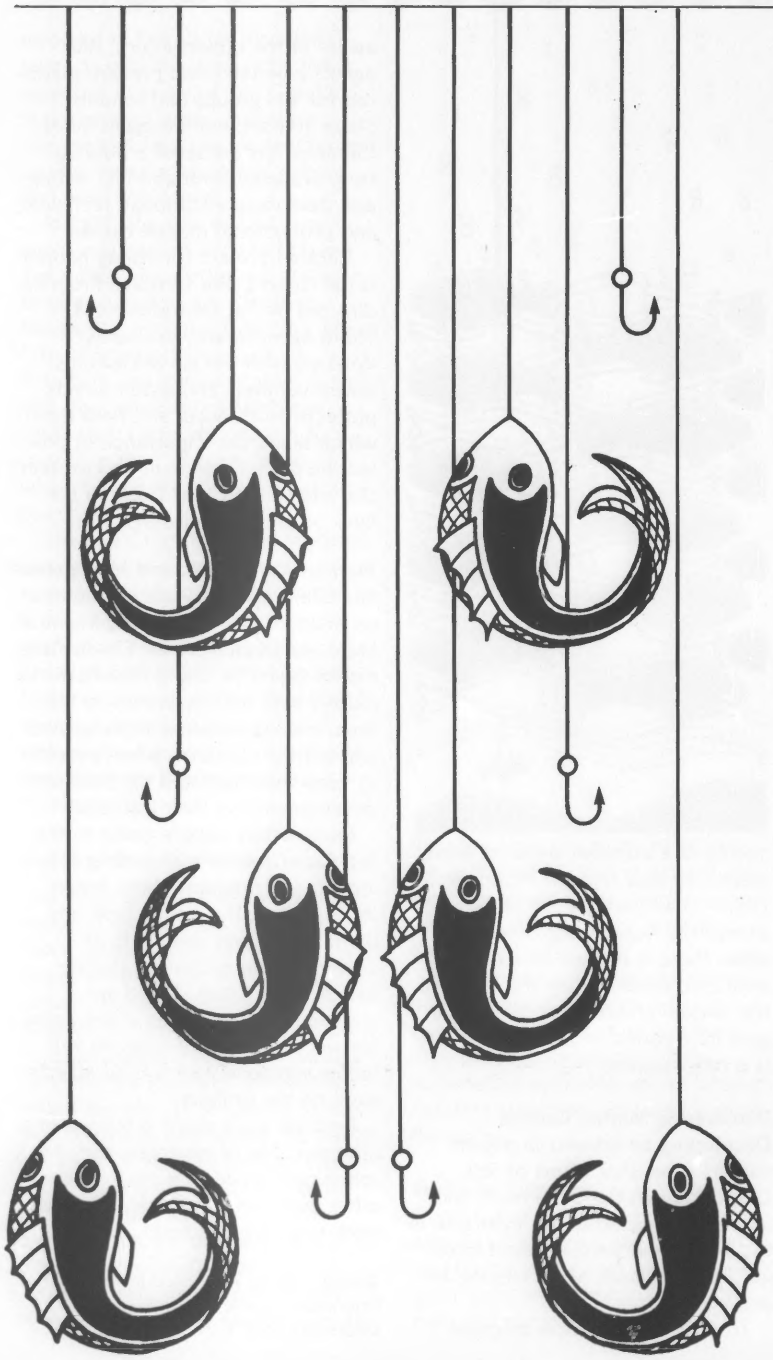
Quite often, people come to the Sea Grant agents with problems not included in program plans. When this happens, the agents look into the problem and, with help of university administrators, decide whether Sea Grant should get involved. In most cases, if the agent himself cannot be of help, he will locate someone who will be able to work on the problem.

Because each agent is trained in a different area of expertise, they are sometimes asked to work in districts other than their own. Sometimes all work together as a team. □

(Editor's Note: *Reprinted from* Extension Quarterly, *Michigan State University, Vol. 1, No. 1.)*

Neglected Lake Fish Come Out of the Cold

Marcia Bradford
Former Information Coordinator, Sea Grant
Michigan State University



A sucker is an easy catch in Michigan because there are so many. They used to be considered undesirable, but now they are receiving credit, along with carp, another fish, as a low-cost, high-protein food source.

Once cast from fishing nets, these fish have been the subject of research at Michigan Sea Grant (MSG) and the Michigan State University (MSU) Cooperative Extension Service for more than 5 years. Their introduction as a highly usable food product may benefit the state in several ways.

Carp and sucker, both available in large quantities in the Great Lakes, were first studied for their potential to help Michigan's commercial fishery, which has been limited in recent years by declining stocks of traditionally popular fish.

It was found that carp and sucker are high in protein and low in fat, cholesterol, and calories—proving their label, "trashfish," a misnomer.

Marketing Minced Mullet

Niles Kevern, MSU professor of fisheries and wildlife and former associate director of the MSG program, was among those who studied the feasibility of marketing underutilized species in Michigan. Because sucker is an extremely bony fish, a method of deboning by machine was developed to process it into a hamburger-like product called minced mullet.

Once the product was developed and tested, Kevern began working with Forest Williams, owner of a commerical fishing operation on Saginaw Bay, to see if it would sell.

Williams was enthusiastic from the beginning. "We were catching so many sucker and there was no market for them," he explained. "About 80 percent of the fish we caught in the net were being tossed

With a little culinary creativity and a boning machine like this one, sucker can be turned from "trashfish" into seafood. Niles Kevern, former associate director of Michigan Sea Grant, left, plans marketing strategies for deboned sucker, or minced mullet, with Forest Williams, owner of the Bayport Fish Market.

back—now we have use for them."

MSU's deboning machine was placed in the Bayport Fish Market in late summer of 1979 and production of minced mullet began. Tom Vescio, owner of a chain of Saginaw supermarkets, agreed to store the frozen fish until the supply was sufficient to begin sales. A press day held the following fall informed area media about the new product.

Although commercial fishing activities in Michigan halt during the winter months, news about the potential of both carp and sucker continued to spread around the state. Lois Thieleke, coordinator of Sea Grant's Expanded Food and Nutrition Education Program (EFNEP) informed Extension home economists of the many ways these fish can become a part of the family menu.

"Trashfish" Taste Test

"What are fishermen who catch carp doing?" Thieleke asked one audience. "They're throwing them away or putting them in their garden. They make excellent roses, but we say you can eat them!"

Thieleke uses the serve-first-explain-later demonstration method. Workshop participants tasted minced fish chowder, and "sloppy jonahs," fish patties of carp and barbecued sucker on bread. Many liked the dishes, but were surprised to learn what they had been eating.

Serving carp and sucker in an attractive manner, with more colorful side dishes, is important when introducing it to families and friends, Thieleke said. "Let's face it, we eat with our eyes. If it doesn't look attractive, we aren't going to eat it."

Underutilized fish is also diet food. When baked, broiled, or steamed, carp and sucker are low in fat—containing one-fifth the fat of hamburger—and are easily digested.

Tom Rippen, MSU graduate assistant in food science, assisted with some of the demonstrations. He showed participants proper methods of cutting and filleting freshly caught fish. He also showed the importance of trimming away all fat in order to reduce the possibility of consuming any contaminants in the fish.

Proportioning Population Problems

Minced mullet and other foods made with carp and sucker may soon prove beneficial to commercial fishermen and consumers, but in a larger sense harvesting of these species could improve the quality of the Great Lakes fishery.

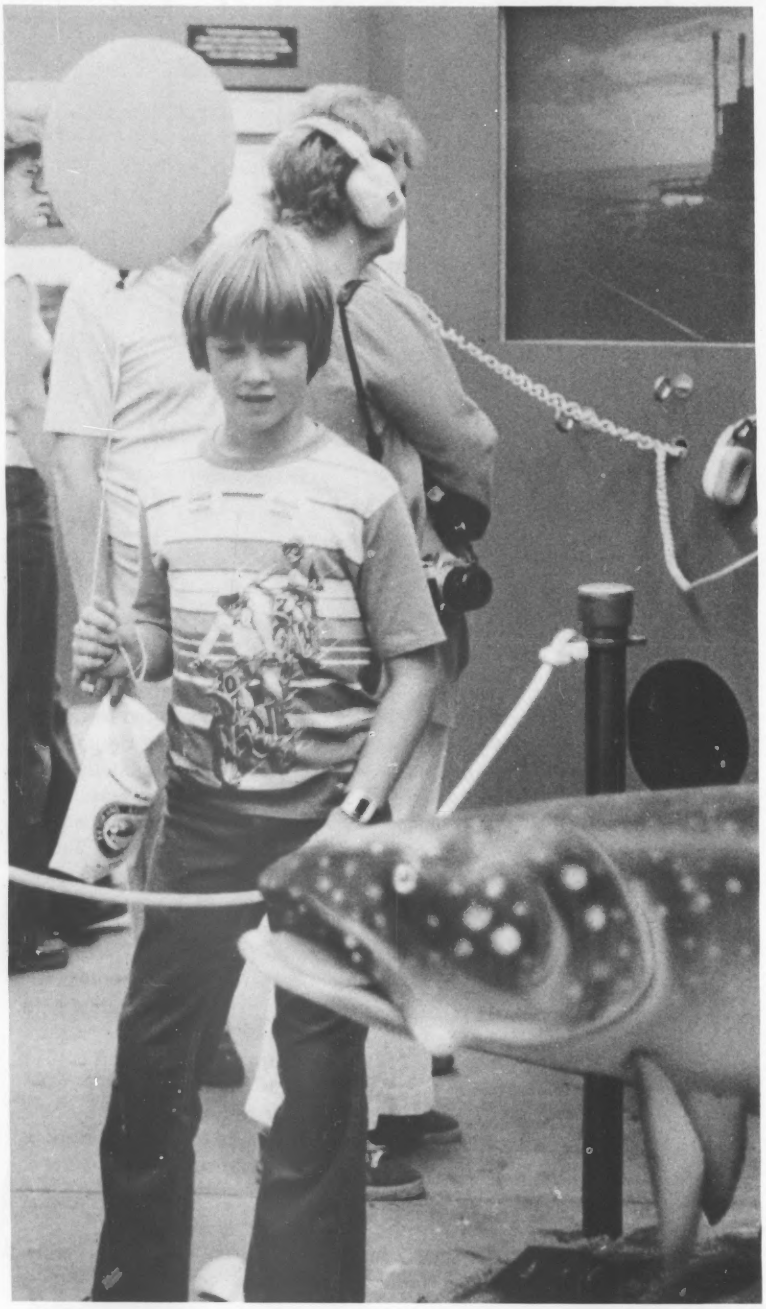
"Successful sales of the fish could help strike a better balance in the fish populations in the Great Lakes, says Eugene Dice, marine adivsory services program leader for Michigan Sea Grant. "In recent years the fish population has tilted toward greater numbers of less desirable fish and fewer of traditionally popular eating fish," he says.

In May 1980, promotional activities such as in-store displays and free literature began to publicize the availability of minced mullet in Saginaw area grocery stores. MSU Cooperative Extension personnel monitored sales of the product, sold in 1-pound packages complete with recipes on the cover.

The operation in Bay Port is expected to become self-sufficient in the near future with assistance provided by the Marine Advisory Services component of Sea Grant. The fishing industry and Extension hope that Bay Port will set an example for commercial fishing businesses in Michigan and along the Great Lakes. □

Lawrence the Lake Trout

Julianne Agnew
Minnesota Sea Grant Extension Program
University of Minnesota



"Hello. Say, I was lying here thinking about how long fish have been around. You probably don't know it, but my ancestors have been around for at least the last 10 million years in the Lake Superior area. That's quite a while, isn't it?"

Wherever Lawrence the Lake Trout appears, people take notice. They may smile at first, but after a moment or two, most are thoroughly engrossed in what he has to say. He catches the attention of the young and the young-at-heart alike.

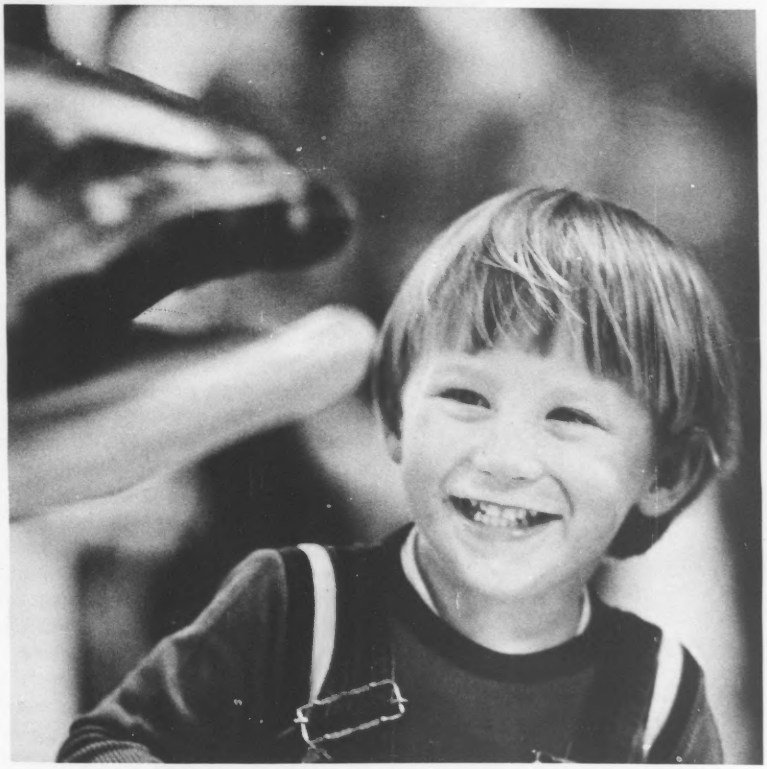
Lawrence the Lake Trout, an animated, electronic fish, is almost considered a "regular" staff member of the University of Minnesota Sea Grant Extension Program based on the Duluth campus. Lawrence appears at schools, senior citizen centers, special exhibits, and fairs with Bruce Munson, marine education agent for the Extension program.

Using animated animals and characters is not a new idea, according to Lawrence's boss, Minnesota Sea Grant Extension Director Dale R. Baker. Taking the idea of an animated character a step further, Baker approved of the talking-fish concept early in 1978 as an educational tool for Sea Grant.

"Before you can educate people, you have to attract their attention. That is what Lawrence does," says Baker. "Through him, Minnesota Sea Grant agents are able to introduce the subject of Lake Superior to people and, we hope, spur them on to more questions about the lake and what Sea Grant is all about."

Lifelike Lawrence

Lawrence is 5 feet long and constructed of a special molded fiberglass. Built by a Minneapolis firm, he was patterned as authentically as possible after a real lake trout.



Instead of ordinary fish insides, however, Lawrence's inner structure consists of electric motors and wires. In addition to moving back and forth on a pedestal made to look like an underwater reef, Lawrence has dorsal, pectoral, and pelvic fins which move similarly to those of a real lake trout.

According to Munson, the fish's mouth is operated by a series of electric motors. A control box coordinates the mouth action of the fish with the voice of a person coming over a tape recorder or a microphone in a live presentation.

"There are no levers, no strings," says Munson. "Lawrence is not a marionette or puppet." He explains that Lawrence operates most effectively when the speaker is concealed, so that the audience can't see who is actually talking.

Lawrence the Lake Trout debuted at the Minnesota State Fair in the summer of 1978, becoming an instant hit. In his first appearance, it is estimated that he chatted with approximately 120,000 fair visitors, making him a "No. 1 Attraction." This past summer, Lawrence was again the center of attention at the University of Minnesota's exhibit. He celebrated his first birthday as a mechanical fish at the 1979 fair.

"Actually, I'm 30 years old, according to lake trout chronology," says Lawrence in one of his tape-recorded scripts. "People have a hard time keeping up with us fish. They just don't realize that you can tell the age of a trout by counting the rings on its scales. It's much the same as counting the rings on a tree."

Extension Educator

But, as mentioned earlier, Lawrence is not just for show. According to Baker, the main purpose of the talking fish is to educate the public about the Great Lakes and in particular, Lake Superior—the largest of the five freshwater lakes.

"Children will listen and talk to Lawrence on topics they would never converse about with an adult. It's amazing how much information that fish knows! Surprising to me is the fact that adults get much the same thrill out of talking to Lawrence as the children," says Baker.

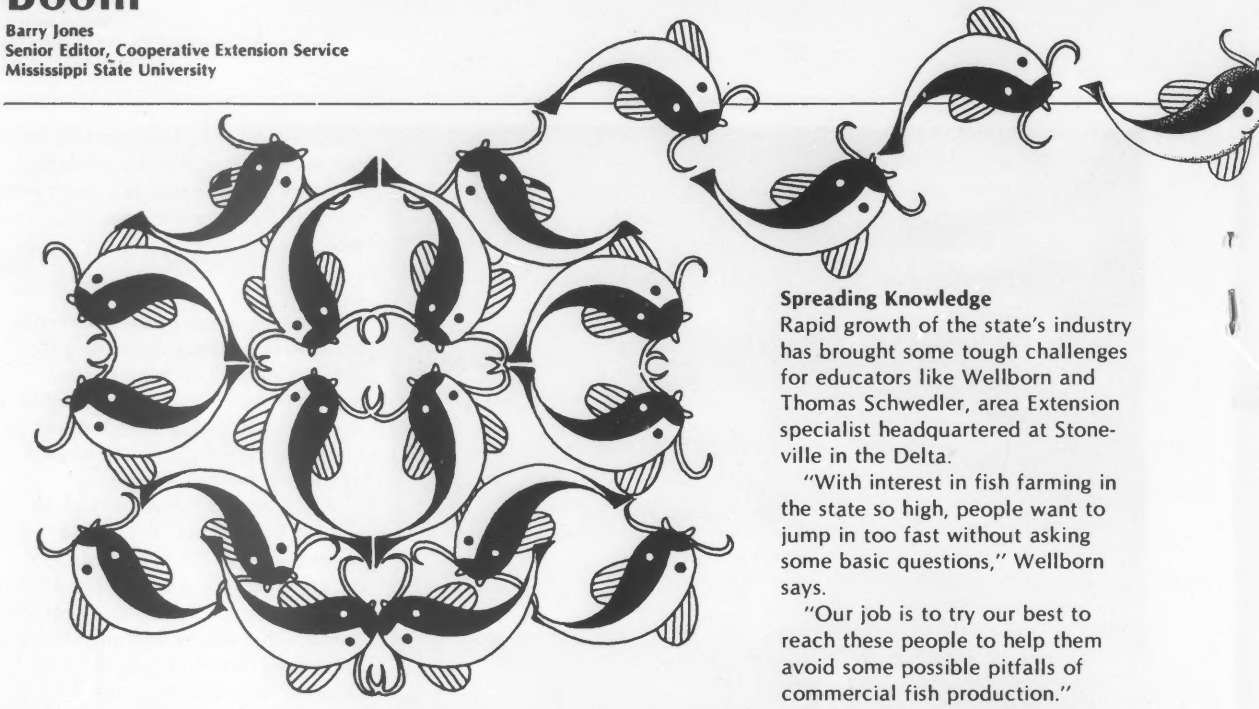
In addition, Lawrence informs his audience about Sea Grant Extension and its four program areas: fisheries, marine education, recreation, and coastal engineering. Since his creation, Lawrence has visited with preschool youngsters, elementary and secondary school students and teachers, senior citizens, various members of the university community, and the general public. He has been interviewed by newspapers and has appeared on television several times. He also accompanies Munson on educational trips throughout northeastern Minnesota.

When he's too old to hold public appearances (that is, when his mechanical parts are too costly to repair), Lawrence will probably retire to a museum. For now, however, Lawrence is alive and well and ready to spout off about Sea Grant at the touch of a button. □

(Editor's Note: *Reprinted from* Sea Grant 70, *Virginia Polytechnic Institute and State University, Vol. 9, No. 8)*

Catfish Lead Industry Boom

Barry Jones
Senior Editor, Cooperative Extension Service
Mississippi State University



With channel catfish far out front in the race, commercial fish farming in Mississippi is continuing to grow at a healthy rate.

Thomas Wellborn, Mississippi Cooperative Extension Service (MCES), wildlife and fisheries leader, says the state remains the Nation's commercial fish production leader by a wide margin.

Vital Statistics

"More than 27,300 acres are devoted to farm-raised channel catfish," Wellborn says. "Of that acreage, approximately 24,460 are in food fish and 2,900 in catfish fingerlings. With another 1,670 acres in bait minnow production, Mississippi farmers are devoting about 29,000 acres of water to commercial fish farming."

Phenomenal growth of the industry in the state has been most dramatic since 1977, says Wellborn. Between May 1977 and March 1980, commercial fish farming grew from 18,470 acres to the present 29,000 acres for a 57.2 percent increase.

Of the total commercial fish industry, catfish fingerling production showed the most dramatic increase in 1979-80 with acreage increasing 735 acres to represent a 33.9 percent increase. (See accompanying article.)

Expansion of the commercial fish industry in the Mississippi Delta has a decisive edge, and that's where most of the Magnolia state acreage is centered.

Availability of high-quality water, soil type, and the flatland there gives that region 92.8 percent (25,400 acres) of all the catfish acreage in Mississippi, says Wellborn. In contrast, the southern part of the state has 3.8 percent and the northeast region has 3.4 percent of the total catfish acreage.

"This same relationship is true for bait minnow production," Wellborn says. "The Delta is ahead."

Spreading Knowledge

Rapid growth of the state's industry has brought some tough challenges for educators like Wellborn and Thomas Schwedler, area Extension specialist headquartered at Stoneville in the Delta.

"With interest in fish farming in the state so high, people want to jump in too fast without asking some basic questions," Wellborn says.

"Our job is to try our best to reach these people to help them avoid some possible pitfalls of commercial fish production."

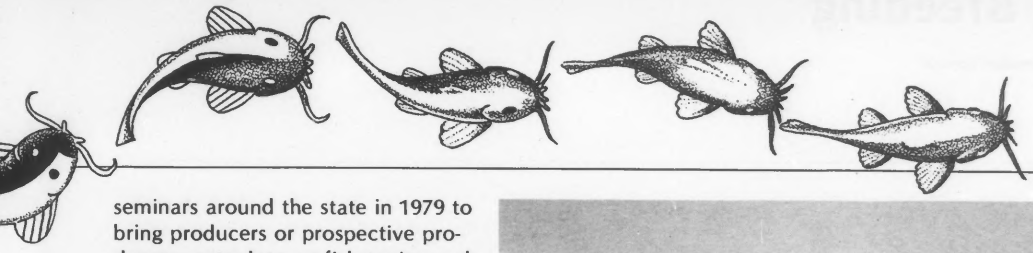
Fish farming is not always as simple as it looks, Wellborn says, and he often visits producers asking these important questions:

- Will the land hold water?
- How much dirt has to be moved for pond construction?
- Is good quality and quantity of water available?
- Where will the fish be sold?
- Who will harvest the fish?

Potential fish producers must resolve these and other important problems before investing their money in catfish production.

Educational efforts with Mississippi fish farmers are accomplished by personal contact, by county Extension agents and fisheries specialists with individual landowners, workshops and seminars, a highly successful direct-mail newsletter for catfish producers, and other methods.

Wellborn and Schwedler conducted the seven workshops and



seminars around the state in 1979 to bring producers or prospective producers up-to-date on fish topics such as: site selection, soil types, stocking and feeding rates, recordkeeping, inventory, and water management.

Because interest and demand for catfish fingerlings are so high, especially in the Delta, a workshop on fingerling production was held at Stoneville during the spring of 1980. More than 100 producers attended. A workshop slanted specifically for the new catfish producers had to be expanded into three workshops in September 1980 because more than 70 people signed up after the first announcement.

Another MCES department, the Food and Fiber Center, also has been working with producers on planning and forming a Farmers Cooperative Fish Processing Plant in the Delta.

Demand for information on catfish production pours into the state from many directions and Extension specialists frequently lead Delta tours for farmers from other southern states.

In June 1980 USDA officials participated in a fact-finding tour, and in September 1980 a group of Belgian fish farmers visited the region.

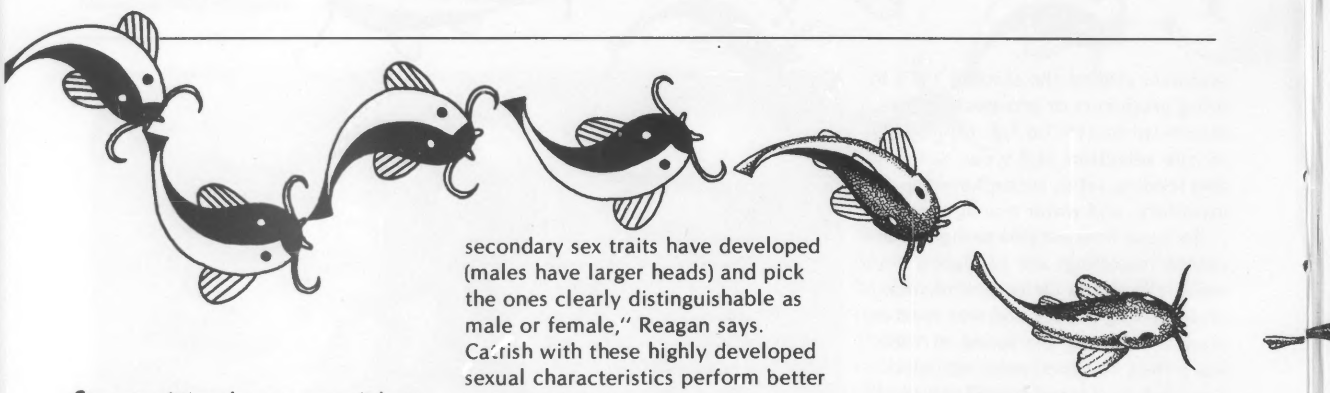
Industry Projections

Interest in the industry does not appear to be anywhere near its peak, nor does Wellborn think it will peak anytime soon. Some forecasters predict another 18 percent acreage rise during 1980, but Wellborn said a 10 percent rise is more realistic.

The picture remains bright at least through 1985, when Wellborn is projecting that more than 43,000 acres of water will be devoted to commercial fish production in Mississippi. □

Fingerling Breeding

Barry Jones
Senior Editor, Cooperative Extension Service
Mississippi State University



Since traditional sources can't keep up with demands of the expanding Mississippi Delta catfish industry, catfish farmers there are learning how to breed their own catfish fingerlings—small catfish used as food for larger catfish.

At a "Fingerling Production Seminar" organized by the Mississippi Cooperative Extension Service (MCES), more than 100 farmers learned that breeding fingerlings—traditionally bred by the U.S. Fish and Wildlife Service and private hatcheries—is not easy.

Breeding Obstacles

Fish experts showed farmers that they can rear fingerlings economically and successfully on the farm only after confronting and overcoming a number of obstacles.

Some obstacles are purely physical, says Richard Coleman, MCES fisheries and wildlife specialist. Farmers must select a proper location at a pesticide-free site with a good water source and topography suitable for drainage.

After a location is found, the "judgemental art" of selecting fish by sex comes into the picture, says Roland Reagan of the Department of Wildlife and Fisheries at Mississippi State University (MSU).

"The producer must select brood fish on the basis of how well the secondary sex traits have developed (males have larger heads) and pick the ones clearly distinguishable as male or female," Reagan says. Catfish with these highly developed sexual characteristics perform better as brood fish, he says.

Reagan advised that brood fish should be at least 3 years old and the pond should be stocked with 80 to 100 pairs of fish. Females should weigh 1½ pounds, he says, and males should reach 3 or 4 pounds.

A Little Romance

Spawning containers—a romantic environment for the catfish—also are important; but which type or color works best seems to be a matter of preference based on experience. Some producers advocate wooden nail kegs, others use galvanized trash cans, and still others prefer milk cans painted black.

Whatever the choice, Reagan suggests farmers match one container with every pair of fish in the pond and when "spawning begins check the cans every other day."

As the fish begin to spawn in the spring, a producer becomes more than a casual observer doffing "waders" to monitor and maximize the spawn. In some cases, catfish will produce only a partial spawn which should be collected, or the parents may eat the eggs. Reagan says getting all of this partial spawn also will increase chances for a second spawn.

Male catfish are capable of spawning up to three times. Females spawn only once per season and lay about 2,000 eggs per pound of body weight.

"The egg masses are put into a container and kept out of bright sunlight," Reagan says. "In some cases there will be dead eggs in the mass. These must be cleaned off entirely because this is the first place fungus attacks."

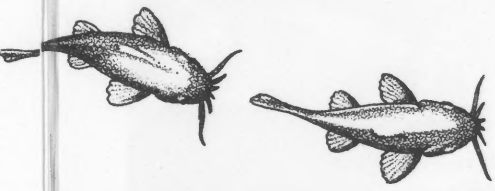
Once these eggs are collected from spawning containers, they are transferred into the hatchery. Here they must be maintained just under the surface with water constantly moving over them. Many producers use paddle aerators to keep the water moving over the eggs—a process the male catfish performs in the wild.

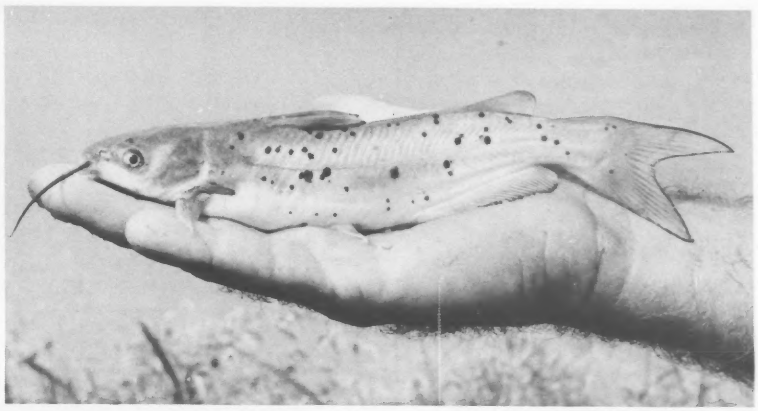
"A minimum of one complete change of water in the tank every hour is necessary," says Coleman. "Water with a pH level between 6.5 and 8.5 is ideal."

Preventing Disease

Disease is a critical factor in the hatchery. In fact, Tom Wellborn, MCES fisheries and wildlife department leader, says disease prevention is "the key to raising fingerlings on the farm." He stresses the need for disease-free brood ponds and brood fish as the starting point, along with treatment of eggs in the hatchery.

New Arrivals
When water quality, temperature (78 degrees Fahrenheit), and disease conditions around the eggs have been controlled for about 8 days, eggs begin to hatch.





The process of moving the fingerlings from hatchery into holding vats also begins. These vats can be made from anything ranging from aluminum to concrete, depending on producer preference.

Once the fingerlings are ready to enter ponds, the delicate process of "tempering" the water in the vat to the temperature level of the pond begins. Some producers do this by slowly pumping pond water into the vats. Others heat the vat water.

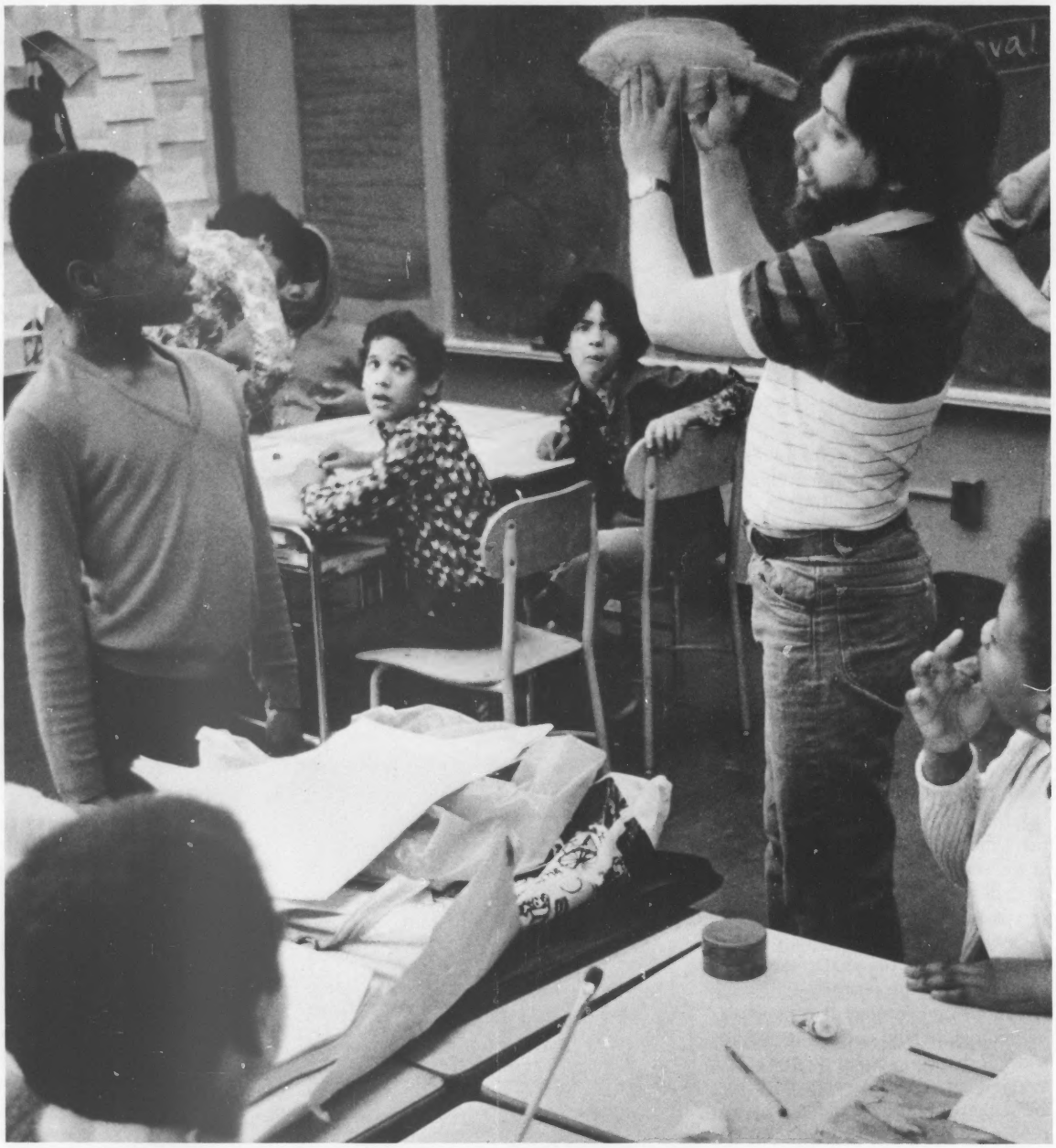
Tackling the Challenge
Once the fingerlings are in the pond, the delicate, lengthy job of catfish "midwifery" is completed. But as fish experts tried carefully to explain at the seminar, the process can be an expensive, labor intensitive, and very risky undertaking.

Only those, they say, who are willing to tackle the challenges of understanding the proper "romantic" environments for catfish, psychology behind catfish behavior, and the disease prevention and engineering needed to accomplish all of these should consider producing catfish fingerlings.

After all, playing "midwife" to a million catfish is no simple task. □

The Marine Mobile

Sally Dana Willson
New York Sea Grant Extension Program
Cornell University



He can't take a fish out of water and teach it to swim. But, Jay Dagress, Maine Mobile instructor, can use it to stimulate classroom discussion on the evolution of fish scales.

Printing with fish? Children test their skills at this ancient Japanese art as Linda O'Dierno, Sea Grant specialist relates this technique to a lesson on fish as a nutritious source of protein.

The Marine Mobile doesn't have wheels, but it travels to New York schools introducing inner-city kids to an experience with their marine environment.

One of several educational projects of New York's Sea Grant Extension Program, the mobile isn't a vehicle. It consists of a teacher, Jay Dagress, and a paraprofessional, Vilma Conaway, and a week-long series of lessons on subjects including New York's wetland life, ships and ports, and waterways.

Dagress and Conaway introduce teachers and students to the history of the New York Harbor and how it helped shape the city's development. Japanese fish printing develops art skills as children learn why fish have scales and how marine foods contribute to people's dietary needs.

A New Twist in Field Trips

"Since inner-city schools can't provide field trips, the Marine Mobile brings field trips to the classroom," says Linda O'Dierno, Sea Grant marine education specialist in New York City.

After each lesson, Dagress and Conaway leave class assignments with the teachers. If the children complete them, the Marine Mobile will continue lessons for another week.

The flood of letters children send to Dagress reflect their enthusiasm. And the mobile is also popular with the 110 teachers it reaches.

"We have more requests for the service than we can handle," says O'Dierno. "If the school systems continue to pick up some costs, we will be able to expand," she says.

More Marine Education

Further north in Buffalo, Rochester,

and other upstate areas, New York Sea Grant specialist Dave Greene, marine biologist, works with educators to teach children about the cycles of water and the need to respect these cycles so usable water is available in the future.

"We tend to take water for granted," Greene says. "People often don't realize there's an end to it—that there's a limitation to the water we use, that there's a threshhold of contamination beyond which water does not recover."

Through Greene's work with teachers, children learn about the complexity of water on field trips to streams, ponds, wildlife refuges, and lake shores. Along Lake Erie, for example, Greene explains how birds sustain plant life by eating aquatic plants and seeds along the shoreline—making reseeding of plants, shrubs, and trees possible.

Waterfront Redevelopment

Showing people in New York City how to redevelop their waterfront as a living, recreational, and commercial area, is another ongoing New York Sea Grant effort.

"It's a matter of educating city officials that the East River is the hottest area for mixed-use redevelopment," says Steve Lopez, Sea Grant specialist in New York City. Lopez regularly provides important waterfront information to officials and civic groups. Recently, he assisted in a $300 million project in east midtown Manhattan that combines private residences, hotels, public recreation, shops, marinas, and restaurants. The same project is also working to rehabilitate facilities for live-aboards at the 79th Street Boat Basin.

"Much public access to waterfronts has been lost over the years as industries and other groups have purchased real estate in these areas," says Lopez. But before granting redevelopment rights to contractors, city officials now require that a portion of the land be set aside for public use. This policy, says Lopez, will be particularly beneficial to low-income groups which up until now have had few chances for recreation.

Lopez also helps city residents and officials through Sea Grant-sponsored workshops for local people interested in restoring old buildings along the shore for public use. Local residents, officials, business people, and various grassroots groups attend these sessions to get help in designing and planning renovations. As a result, an abandoned asphalt factory is being converted to a three-story recreational arts center, and an old fireboat house has been converted into an educational center for energy and the marine environment.

"Imagination," Lopez says, "can help redesign the waterfronts so different communities can use them again." □

Texas 4-H'ers Build Sand Dunes

Ellen Pomerantz
SEA Information Staff
Washington, D.C.

Tidal waves from Hurricane Allen began ripping through the Bryan Beach, Texas, shoreline on August 9 this year, flattening sand dunes that took 4-H youth and nature more than 3 years to build.

But, the 4-H'ers weren't unhappy. "Sand dunes are on suicide missions," explains Charles Moss, Brazoria County Extension marine agent and participant in the county's 4-H sand dune reclamation project.

"The kids understood this was a self-destructive project. They were real pleased that the dunes did their job protecting the shore and are enthusiastic about kicking off another project next January," he says.

Sand dunes naturally block some of the ocean's tidal thrust, acting as the shore's first line of defense against storms. "Hurricane Allen points out the importance of a continuing sand dune reclamation project," Moss says. The 4-H'ers have been asked to reclaim the beach of neighboring Surfside, which was more heavily damaged by the hurricane than Bryan Beach.

Tree Traps

Members of the Sea and Shore 4-H Project Group of Pearland, Texas, began rebuilding sand dunes along a 1,000-foot stretch of Bryan Beach in 1978. Under the leadership of 4-H volunteer H.C. Moore, the youth planted old Christmas trees sideways in the sand, trapping the sand to form dunes. After the dunes began to form, they planted grasses to hold them together.

Hurricane Carla had washed away many sand dunes in this area in 1963. More recently, dune buggies and motorcycles had destroyed the natural grasses that grow in the sand. Seeking a solution to this problem, Moss approached the Sea and Shore 4-H Project Group with the idea of building dunes.

With information from the Soil Conservation Service on other coastal areas and guidance from Moss and Moore, the youth strategically placed the trees to collect the sand. High tides, wind direction, and existing dune lines must be considered to trap sand effectively, says Moss. The Texas Parks and Wildlife Department, Corps of Engineers, and Brazoria County also cooperate in the project.

The cost of the project is minimal. "Using Christmas trees that would have been disposal problems, pick-up trucks, stakes and twine to hold down the trees, and volunteer labor, the project cost less than $20 last year," Moss says.

Congressional Citation

In the January 29, 1980, Congressional Record, Congressman Ron Paul (R-Texas) cited the 4-H'ers for their work. Noting that other beach reclamation project proposals estimated costs ranging from $16 to $48 million, he said that "one very imaginative group (4-H) has undertaken a positive program with a total cost of $10."

In addition to helping the environment, the project is a good learning experience for the 4-H'ers. "They love it and they learn about the beach environment," says Moss.

The 4-H'ers have already begun to contract for this season's used Christmas trees so they can continue their project after the Christmas holidays. And plans for the 4-H'ers to reclaim other areas along the Texas Gulf Coast are being considered. 4-H is also planning educational programs to explain the project to the community, so people do not inadvertantly destroy the new dunes.

A 4-H task force in Texas is preparing an information package that will be available to anyone interested in conducting a sand dune reclamation project. □

(Editor's Note: *Preston Sides, Extension youth specialist, Texas A&M, contributed background material for this article.*)

Satellite Weather Reporting

Tom Gentle
Extension Marine Communication Specialist
Oregon State University

"Looks like we'll get some rain early tomorrow from the tail end of this weather front," said Tom Shafer, pointing to some arrows and lines on a weather chart.

Shafer, a commercial fisherman out of Newport, Oregon, was studying the printout from the Weatherfax machine aboard his boat, the *Donna*. It was as warm and sunny a summer afternoon as you're likely to find on the Oregon coast.

The next morning rain swept through Newport, breaking that sunny spell of summer.

Although he has no intention of becoming a weather forecaster, Shafer is participating in a satellite weather reporting project conducted by the Oregon State University (OSU) Extension marine advisory program and the National Aeronautics and Space Administration (NASA). Two OSU Extension marine agents—Paul Heikkila in Coos County and Robert Jacobson in Lincoln County—are project coordinators.

Seasat

The project began as an attempt to find commercial applications for the information gathered by the Seasat satellite.

From high above the earth, this satellite could "read" certain sea level weather conditions. Its sophisticated sensors reported the direction and speed of weather fronts, wind velocity and direction, wave heights and direction, surface water temperature, and water color changes.

"This information has tremendous value for fishermen," said Heikkila. "More important, it can save lives and equipment by giving advance warning of bad weather. It can also be used to locate certain types of fish, which could reduce cruising time and fuel use."

The Seasat satellite beamed this information to a receiving station in Kodiak, Alaska, for computer analysis and interpretation. The resulting weather data was relayed from Kodiak via another satellite to a radio station in La Jolla, California, for rebroadcast to the Oregon fishermen and other potential users (including offshore oil exploration companies and the deep sea mining industry).

For the Oregon commercial fishing project, NASA supplied VHF (Voltage High Frequency) receivers and printers for six fishing boats that represented the diverse range of Oregon fisheries. The printer converts the information into a weather chart covering the entire West Coast.

Unfortunately, the Seasat satellite, which worked beautifully for 3 months following its launching in 1978, failed due to some internal short circuit. However, since the system for delivering information to possible commercial users was in place, other satellites and weather reporting sources—including the Nimbus 7 satellite, the Navy weather report, and reports from ships at sea—have replaced the defunct Seasat.

Project Goals

"We have two goals in the project," Heikkila said. "We want to know if fishermen can use this information to their advantage. And we are keeping track of the accuracy of the information received so NASA can get an idea of how accurate their

satellites are and perhaps do some fine-tuning on them."

What do the fishermen involved think about the project so far?

Tom Shafer claims the weather information is much better than what he has been able to get from any other source, even though he would like to have the reports updated more often.

"During the winter crabbing season, the weather readings were 80 to 90 percent accurate," Shafer said. He cited two instances while salmon fishing during the summer when the satellite reports saved him from severe rough water and possible damage to his boat.

Kyle and Kathryn Vanderpoole, who fish for albacore tuna out of Charleston, Oregon, had some problems with the machinery installed on their boat, the *Tiffany*. But when the machines work, they have found the system to be quite beneficial.

"This method of reporting weather does help us find tuna, but that's secondary. Saving lives is most important. Weather reporting in the past has been so inaccurate that we've been in danger," said Kathryn Vanderpoole.

The *Tiffany* can stay out for 2 months at a time. If the weather report is wrong, they sometimes have to come in 200 miles. A more accurate report can help the Vanderpooles skirt a storm, saving time and money.

Larry Ivy, who fishes for shrimp and black cod out of Coos Bay, is less enthusiastic about his experiences with the research project. "The reports I've been getting seem to be either a day early or late," he said. He mentioned one instance when 5- to 10-knot winds were forecast, but Ivy had to come in to port with 35-knot winds pushing him around.

Information Use

The satellite information is also advantageous for locating certain types of fish, such as albacore tuna, salmon, or shrimp. For instance, coho and chinook salmon prefer temperatures ranging from 48 to 54 degrees Fahrenheit. These fish often concentrate where nutrition-rich water meets warmer, less productive waters, river plumes, or water from near-shore currents.

Surface color, temperature, and ocean roughness all give clues to these areas. With accurate information from the satellite, fishing vessels could search out these areas faster and use less fuel.

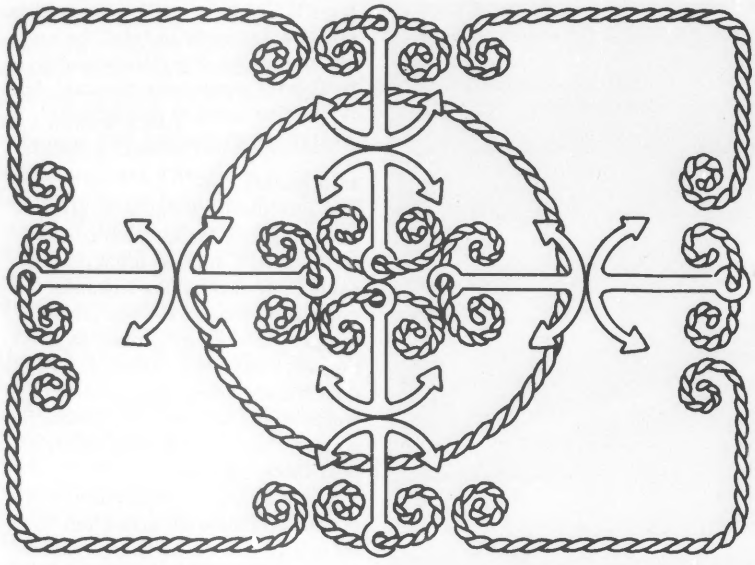
However, readings for water temperature and surface color changes have not been reliable. According to Heikkila, the Seasat satellite had a more technically advanced capability for measuring water temperature and color changes than any of its replacements. The present project is scheduled to end in February 1981.

Although this novel weather reporting system is a qualified success only because the sophisticated Seasat satellite failed, the two OSU Extension marine agents and the participating fishermen think the basic idea has great promise.

The ultimate beneficiaries could be the 10,000 commercial fishermen along the Oregon coast who catch a variety of fish, including salmon, albacore, dungeness crab, Pacific shrimp, and bottom fish (flatfish, whiting, black cod, ling cod, and rockfish). Another 8,000 people process and handle the catch. □

Kentucky's Marinas Join Forces

Glenn Kreag
Tourism and Recreation Specialist
University of Kentucky



Kentucky marina owners have proven that small business owners working together can solve many problems plaguing their industry. By joining forces with the Kentucky Cooperative Extension Service (KCES) to form the Kentucky Marina Association (KMA), marina owners have profited from educational programs and organized legislative efforts to solve their problems.

Less than 5 years ago, the story was quite different—most marina owners had never met. Many owners thought that association with other owners would lead to "trade secret" theft and customer pilfering. Still, the marina industry was thriving with many marinas expanding.

Was there really a need for marinas to organize? Would a combined effort succeed where individual efforts failed? KCES at the University of Kentucky's College of Agriculture decided to find out.

Organization

Glenn Kreag, Extension tourism and recreation specialist, visited several marinas in the state discussing mutual concerns with owners and operators. These owners wanted an effective voice in state government, improved pricing for moorage facilities, and better business management skills. Some marina owners thought that a statewide business organization could address these needs and explore other opportunities. They requested the assistance of Extension in organizing such a group.

Three actions were necessary before the first organizational meeting could be called. First, a survey was sent to all Kentucky marina owners and operators, asking them to identify current problems or needs and to respond to questions about a proposal to form a marina association. Second, organizers personally contacted representative marina owners around the state. The visits established rapport with owners and helped organizers learn more about individual situations and problems on various lakes and rivers in Kentucky. Finally organizers developed a program for the first meeting, featuring many marina operators as speakers and panel members. By building communications between owners, the program would also help end negative attitudes of many.

The first meeting, held in June 1976, attracted 30 people from various marinas and state and federal agencies interested in marinas. There, interim officers and committees were appointed to organize KMA.

The organization was officially created 5 months later at the first annual meeting. A constitution was adopted, dues set, and a nine-person board of directors elected. By organizing, KMA had progressed further than many marina owers expected. And by the end of the first annual meeting, marina owners and operators and various government agencies were becoming acquainted and finding out that they could learn a lot from each other.

Group Effort

While communication was an important goal, other goals were vital in proving the viability of the organization. Could KMA really accomplish benefits that could not be developed by individuals?

The KMA Board of Directors wasted no time getting to work. In one of its first projects, the board contacted the Corps of Engineers to solve problems stemming from low-water levels on Lake Cumberland. They began developing a group insurance program to reduce premium costs; asked KCES to conduct a survey of marina facilities and moorage rates in Kentucky; and voted to lend financial support in two lawsuits—one concerning sales

A water side restaurant could be a profitable venture for many marina owners. Relaxing in the restaurant at Eddy Creek Resort and Marina on Lake Barkley, Glenn Kreag, Extension specialist, discusses this prospect with Nita Ewing, executive director, Kentucky Marina Association.

tax on gasoline and the other dealing with the payment of sales versus use tax on rental houseboats.

KMA chose projects with two criteria in mind: which problems were most significant to members, and which problems they had a good chance of solving.

Overall, project results were surprising. Every project has achieved at least limited success, except the group insurance program. Most important, both lawsuits were ruled in favor of marina owners. Nearly every owner realized savings of thousands of dollars, and that was a big plus in establishing KMA as an important, viable organization.

Recent efforts have focused on changes in marina lease contracts with the Corps of Engineers. Proposals have been made through the Corps of Engineers District in Nashville and have received favorable attention. These proposals are currently under review in Washington, D.C., where any decision to adopt them would be implemented nationwide.

Education Opportunities

Educational opportunities for marina owners have not been overlooked. Member meetings are held twice yearly and include a wide variety of topics, activities, and speakers. Some programs are designed to help marina owners with advertising and brochure development, merchandising, and marketing. Others respond to problems or opportunities, including pump-out facilities, water enforcement problems, and insurance. Also, government agencies, including the Corps of Engineers, U.S. Coast Guard, Tennessee Valley Authority (TVA), Environmental Protection Agency (EPA), Kentucky Department of Public Information, and the Kentucky Department of Revenue, have presented programs. Representatives of marina-related organizations, including the Boating Industry Association, Association of Illinois Marine Enterprises, United Marine Publishing, and the Marina Marketing Management Magazine, have also addressed KMA meetings.

Suppliers and manufacturers of marine products are also invited to join KMA. Because many marine owners were not familiar with many suppliers and manufacturers or the products they offer, exhibits are displayed at KMA member meetings each year. Comments from marina owners indicate this service is helpful in selecting products and, in many cases, substantially decreasing costs and increasing their revenues.

Because little information was available about the marine industry in general, KMA requested more data about the marina industry in Kentucky from KCES. Extension conducted an initial survey of facilities and moorage rates in 1976.

Following that, KMA requested more detailed business data, compiled to measure the size and scope of the industry and various averages for individual marinas. The resulting business information analysis has been well received and KMA has requested that KCES repeat the survey on a continuing basis.

After its first 3 years, KMA has become an established and beneficial organization. Operating solely on membership dues, the board of directors initiates and carries out new programs. Several KMA members also volunteer to work on individual projects. The association has shown an ability to select projects important to the marina industry and carry them to completion.

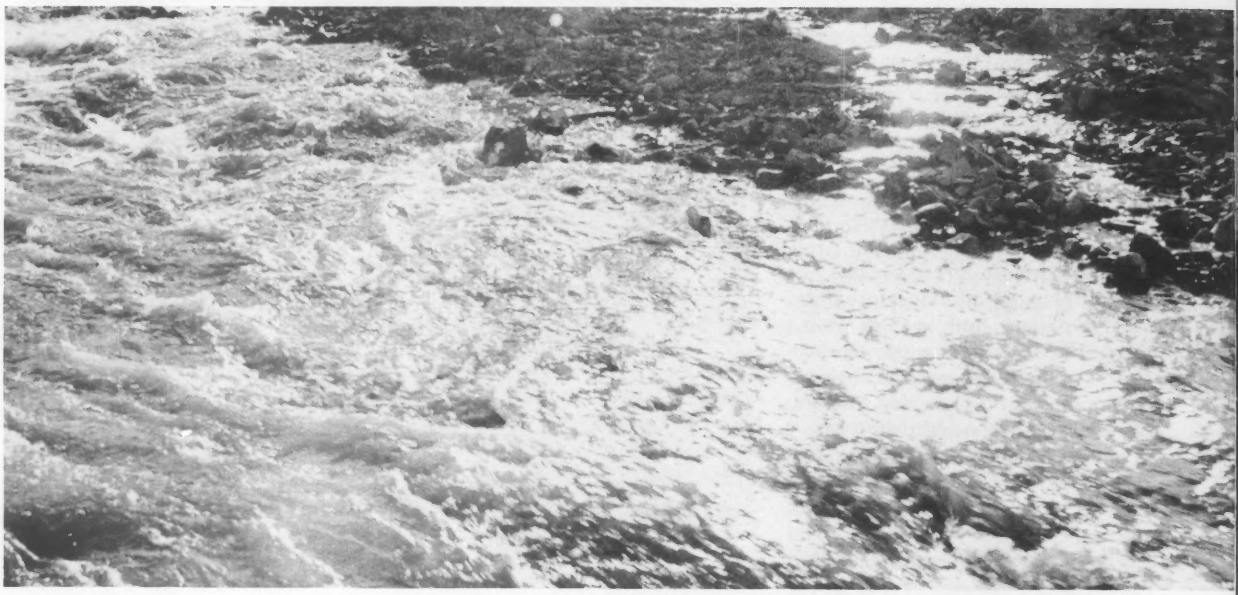
The success of KMA can be attributed to wise decisionmaking and willingness to work. Above all, KMA has maintained a cooperative rather than an adversative role in its work with government agencies and legislators. Results can be measured in terms of increased profits for all marina owners in Kentucky. □

Clean Water for Rural America—Extension's Role

Lowell D. Hanson
Extension/EPA Liaison, Environmental Protection Agency

Merrill L. Petoskey
Deputy Administrator—Natural Resources, SEA-Extension

J. Michael Sprott
Director, Alabama Cooperative Extension Service; Chairman, ECOP Subcommittee on Agriculture, Forestry, and Related Industries



Since the 1960's, Extension Agent Bob Raver and SCS District Conservationist Bobby Rakestraw in Montgomery County, Maryland, have worked with dairy farmers on the rolling Piedmont soils to control erosion and keep cattle manure out of the streams. Their program is having positive results. From 1970 to 1979, erosion-stopping no-till corn acreage has increased from less than 1 percent to 89 percent in the county. With assistance from federal cost-share payments, barnyard drainage in the county is now being diverted away from streams.

In November 1979, farmers from 10 regions across Minnesota attended a 208 Water Quality Management conference to decide on a final state agricultural water pollution control plan. These farmers expressed concern about whether or not they wanted to "wear the black hat"—to be considered "police" to their neighbors by asking them to adopt better water management practices. At a critical point in the discussion, a grizzled, veteran Morrison County Soil Conservation District Supervisor said, "I'll wear that black hat—someone has to knock on some doors and change this farming up and down the hill, and I'm ready to do the job!"

These are excellent examples of changing attitudes, and adoption of improved farming practices that hold promise for making water cleaner in rural America. This article reviews some aspects of the National Water Quality Management (WQM) program of the Environmental Protection Agency (EPA) and Extension's interest in increased cooperation with EPA and other agencies in striving to correct water pollution problems.

Extension Environmental Policy

The foundation for a formal, positive approach to the environmental quality issue by Cooperative Extension Services (CES) was developed in 1975 by the Extension Committee on Organization and Policy (ECOP) Subcommittee on Environmental Quality. Their report, *A People and Their Environment,* states, "environmental programming demands a higher priority in present and future Extension activities." When the needs of local people coincide with government priorities, Extension can—through its education program—play an important role in getting new programs accepted and used.

Water Quality Programs

Clean water! Most people would agree this is what we want. But we want a lot of other things, too—including flush toilets, cheap industrial products, and abundant food for ourselves and for export.

No tillage crop production is remarkably effective in reducing soil and wind erosion in much of America's prime farmland. The combination of rapid adoption of this method by farmers and its effectiveness in stopping sediment delivery to streams promises to improve rural water quality.

Our Nation has a long history of developing and using resources and then disposing wastes throughout the environment.

In 1972, Congress passed the comprehensive Federal Water Pollution Control Act amendment as an effort to reverse this policy and get control of water pollution. Some important amendments, particularly for agriculture, were added in 1977. These amendments, referred to as the Clean Water Act, provide the basic framework for the Water Quality Management Program, a joint project of EPA and state and local water quality agencies. Highlights of this program are helpful in seeing how Extension's programs may fit into this national effort.

One important section of the Clean Water Act—referred to as "208"—authorizes areawide waste treatment management. The term "208" triggers different reactions from different people. In general, farmers' initial reaction to 208 was defensive and negative. EPA in farm communities was immediately associated with a big, inflexible federal agency. However, as 208 plans have been developed since 1976 in most states, farmers have been reassured as their neighbors and organizations, such as Soil Conservation Districts, became heavily involved in the planning process.

Today, 4 years later, state 208 plans are rapidly being completed. They have identified a wide variety of pollution problems, but there are questions about the true extent of nonpoint source agriculturally related water pollution. A basic problem in evaluating the seriousness of rural water pollution is that methods and quality standards to measure nonpoint source pollution are difficult to establish. This is particularly true for waters carrying sediment from eroding cropland.

Clean Water

The Federal Water Pollution Control Act calls for fishable and swimmable waters by 1983, only 2 years away. So the next few years will have to be a period of accelerated action, if the agricultural community is to assume its share of responsibility for protecting land and water resources.

Agency Roles

Now let's look at how Extension can work with other agencies and the public in implementing the 208 program. The main elements for developing such an interagency program include:

- An understanding between USDA and environmental agencies that a *high degree of water quality* can be obtained while maintaining and improving *efficient agricultural and forest production.*

• A fully cooperative interagency and intergovernmental (WQM) program using the appropriate competencies of each agency. Logical roles for agency leadership and for various elements of WQM have already emerged from the 1980 Rural Clean Water Program (RCWP).

• A more specific program of incentives directed to land operators in order to reduce water pollution sources. These incentives include *education and information, technical assistance, cost-sharing of better management practices,* and *regulations.*

Recent Developments

The period from 1976 to the present has been one of gradual development of communication and cooperation on water quality programs between CES and EPA. Here is a brief chronology of events:

1976-1978

• Vim van Eck, West Virginia soil specialist, while on a sabbatical, served on the staff of the EPA Water Planning Division.

• Model Implementation Projects began in seven states as a joint EPA-USDA effort.

• An EPA-Extension Executive Committee was organized to help develop cooperative programs.

1979

• Fred N. Swader, Extension agronomist from Cornell, served as the first EPA/Extension Liaison in the EPA Water Planning Division.

• A SEA-EPA Memorandum of Understanding listing specific items of cooperation between the two agencies was developed and implemented.

• Congress passed the RCWP giving SEA and CES responsibilities in the program regulations.

• A $1.3 million nonpoint source water quality program was requested as part of the SEA Smith-Lever budget.

1980

• Lowell Hanson, Extension soils specialist University of Minnesota, served as the second EPA/Extension liaison in the EPA Water Planning Division.

• North Central Extension Directors developed a plan with EPA to establish pilot Extension Liaison regional positions at Chicago and Kansas City.

• ECOP—Agriculture, Forestry, and Related Industries (ECOP-AFRI) Subcommittee Chairman J. Michael Sprott addressed the National Water Quality Management Conference and endorsed increased Extension involvement in 208 implementation programs.

• Plans were made for four 1981 regional Extension Workshops on Water Quality by ECOP-AFRI Subcommittee.

• CES staff in 14 states with RCWP projects developed educational and technical assistance plans in cooperation with other agencies.

Although a solid framework of cooperative effort is developing at the national level between the agencies involved in the rural water clean-up effort, the most significant cooperative programs are at the state and local level. In most states, CES has developed strong programs relating to pesticides, animal waste, nutrient management, and conservation tillage. In 15 states, CES has contributed directly to the organization and direction of the State 208 planning process.

Will This Program Work?

Although the program today is not a neat package all wrapped up to ensure a system of farm practices that will quickly make all rural water pristine and clear, it can work. Given support from progressive farm community leaders, it's a program that can make steady progress towards solving some tough conflicts between bringing home a milk check and keeping manure and soil out of the creek running by the barn.

Who is in charge? No one person or agency—and that's the way it should be for a problem that covers 900 million acres of farmland and thousands of miles of rivers, creeks, and lake shores. The people—through the process of electing officials and working through thousands of local governments, Soil Conservation Districts, and Extension committees—are really in charge of this kind of program. It's up to them to support the basic goal that each land user is responsible for farming or forestry practices that prevent problems for his or her neighbors downstream.

Dick Kunau, a retired county agent from Goodhue County, Minnesota, said 30 years ago, "A farmer doesn't put conservation on the land until he has conservation in his head." That insightful observation also applies to attitudes towards water pollution control and underscores the key role Extension can play in providing information and credibility for water quality. □

(Editor's Note: Information on water quality programs is being coordinated for SEA-Extension by the staff of Merrill L. Petoskey, deputy administrator for natural resources. For more information about the program write to the office at Rm. 5929-S, USDA, Washington, D.C. 20250, or call at 202-447-7947.)

A 4-H Fish Tale

Patricia Miller
Associate Editor
Midland Cooperator,
Wisconsin

For 4 days in July, more than 30 4-H'ers and their leaders thought fish, sought fish, and caught fish from Lake Superior to the St. Croix River to the lakes of northern Wisconsin.

This fascination with fish was the key ingredient to the *1980 4-H Natural Science Tour,* a trip prized by conservation-minded 4-H'ers throughout Wisconsin. As an award for top-scoring conservation projects in the state, five 4-H clubs won places on the trip.

Sponsored by Midland Cooperatives, Inc., Mutual Service Insurance, and Federal Cartridge Corp., the tour focused on the fishing and shipping heritage of the Lake Superior region.

Kicking off the 4-day fish frenzy were tours of the *S.S. Meteor,* the last surviving whaleback tanker now permanently anchored at Barker's Island, Duluth-Superior harbor, Superior, Wisonsin.

Tackle Tackling

On the second day, the group settled down to the pursuit of fish in earnest. First they learned how to hook the big ones without spending a fortune by making their own tackle.

Brows knit in concentration and fingers fumbling with chicken feathers, chenille, deer-tail hair, and sure-to-stick-them hooks, the students tackled fly tying and jig making.

Armed with their handmade lures, the kids set out after wary lake trout that swim in the 100-foot deep waters of Lake Superior.

To experience first-hand sport fishing on the largest and coldest of the Great Lakes, 20-foot power boats carried the 4-H'ers 10 miles out from Superior. There, with lines, skis, weights, and tackle, they lured the lunkers from the deep. By day's end, 12 trout had met their matches.

The proof is in the picture for this 4-H'er's fish tale. Dean Zwiefelhofer of Bloomer, Wisconsin, flaunts the five-pound lake trout he caught in Lake Superior. (Photo by Patricia Miller, reprinted from Midland Cooperator, *Wisconsin)*

On the third day, the upper reaches of the St. Croix River provided a different window on Wisconsin aquatic life.

Paddling canoes and decked out in masks and snorkles, the 4-H'ers probed the river for bait creatures and walleyes lurking in the shadows.

Lake Fishing

Sun-burned and paddle-weary, the group headed for a flowage near Gordon, Wisconsin, to try their luck at lake fishing.

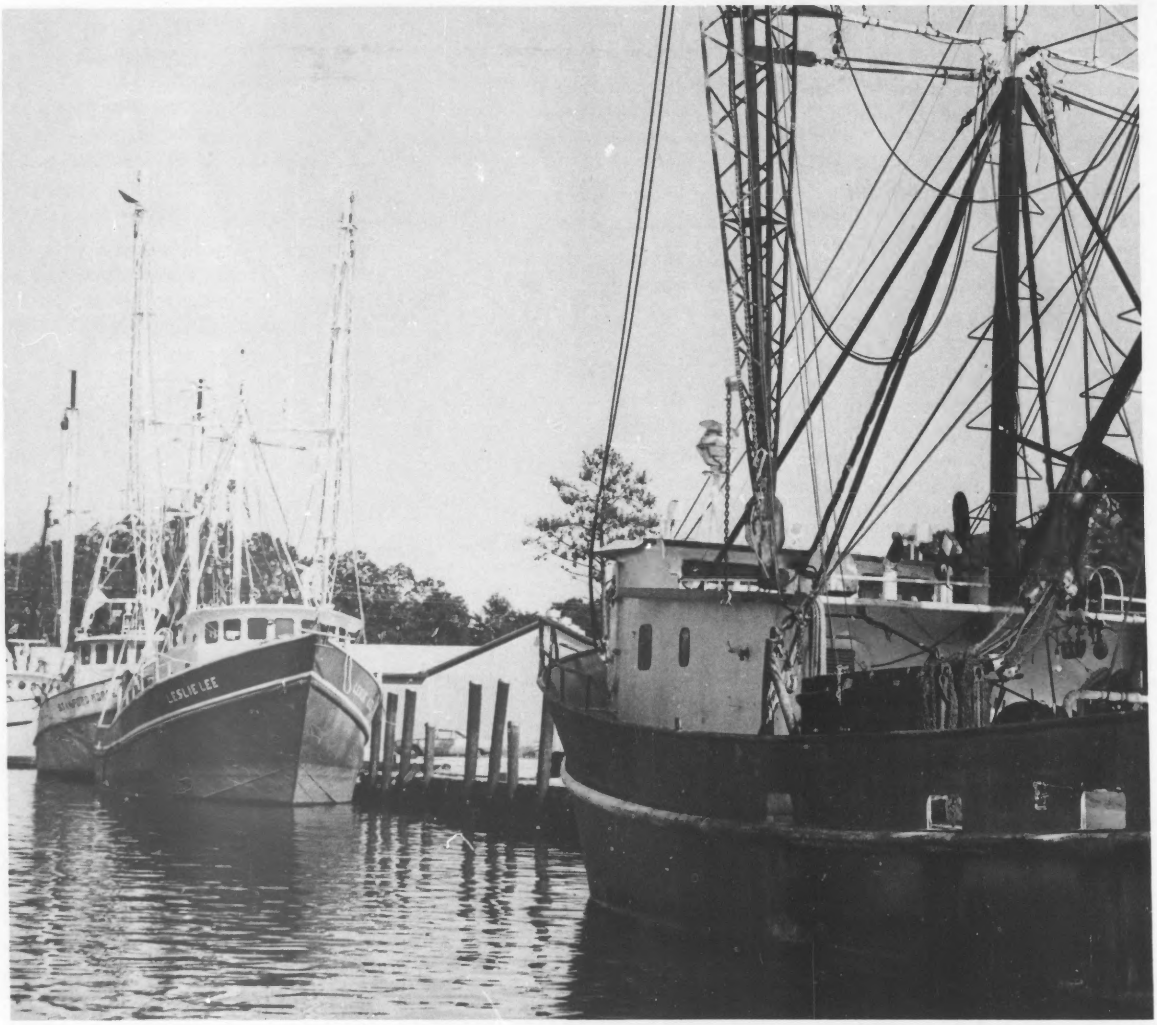
For some, it was their first experience baiting a hook or untangling a line. Luck was with them as sunfish and bluegills took the hook and found their way onto the 4-H'ers' stringers.

On the final day, students headed for the lab at the University of Wisconsin-Superior to learn the secrets of successful filleting, investigate river critters under microscopes, and determine the age of fish by the rings on their scales. □

(Editor's Note: *reprinted from the* Midland Cooperator, *Vol. 48, No. 16, Superior, Wisconsin.)*

Marine Extension—The Alabama Approach

Mac Rawson
Marine Resource Development Specialist
Auburn University



Reaching out to the Gulf Coast lines, the Alabama Cooperative Extension Service (ACES) at Auburn University provides program assistance to the state's $50 million marine industry through the Alabama Marine Advisory Service.

Part of Sea Grant, the Marine Advisory Service plans basic educational programs that help marine industry producers and consumers in Mobile and Baldwin counties identify and solve problems within three major Sea Grant areas—Coastal Resources Development, Food from the Sea, and Coastal Recreation.

In 1972, five Alabama universities joined the Mississippi-Alabama Sea Grant Consortium. Originally modeled after land-grant concepts of research, education, and extension, Sea Grant has expanded to meet the unique needs of marine interests.

Programs

The Alabama Marine Advisory Program has targeted programs at coastal community development and the seafood and recreation

industries. Staffing reflects both the community resource development influence and the need to provide the broadest technical expertise with limited staff.

The three state specialists—Bill Hosking, economics; Gale Trussel, recreation; and Mac Rawson, marine resource development—serve the coastal area and meet the needs for statewide programs in such areas as consumer education from their Mobile office.

Through cooperation with the Mississippi Sea Grant Advisory Service program, administered through the Mississippi Cooperative Extension Service (MCES) and by the Alabama county and state Extension resources, this staff meshes Extension Service resource and expertise.

The county Extension and information service staffs' experiences with community credibility contacts and work with people have proven invaluable to the advisory service program. In addition, these staffs have provided access to local and state mass media.

Seafood Park

By participating in the programs of the Mobile Area Chamber of Commerce, the Advisory Service has been able to play a role in planning such projects as the Seafood Industrial Park now being considered for Alabama. The park would process facilities needed as fishermen increase their catch of finfish that are presently not utilized fully.

The proposed Chamber project, now being considered by the Regional Planning Commission and the Alabama Development Office for in depth feasibility studies, may eventually result in a Seafood Industrial Complex that will employ over 300 people.

Competition for the limited natural resources along the Gulf Coast has spurred many heated conflicts between environmentalists and developers. The Advisory Service provides everyone interested in the coastal area with the information necessary to make these important decisions.

Providing an opportunity for people to voice their concern on development of a coastal area plan, the Advisory Service has helped plan questionnaires and has conducted problem identification workshops about dredging and dredge spoil disposal. Disposal of dredge soil from Mobile Bay and Mississippi Sound channel expansion projects is perhaps Alabama's most serious marine environmental issue.

Shrimping

Shrimping is the backbone of the Alabama seafood industry. Fifty million dollars worth of the landings can be attributed to shrimp in 1979. Yet the shrimping industry is in great difficulty as a result of rising fuel prices, a reduced harvest, and generally declining prices.

For a week, the Extension agents worked as "boat hands" on a shrimp boat to gain the confidence of shrimpers and also to spot areas where the average shrimper could improve in efficiency.

The Advisory Service programs for the shrimpers provide technical information that can enable the industry to increase fuel efficiency and find new species of fish to harvest. The innovation of twin trawls—a shrimp trawl design that catches approximately 20 percent more shrimp—is one example. This trawl allows for a greater catch with the same amount of fuel. The industry, within a matter of three years, has made a major conversion to this type of trawling gear.

One possible alternative to the problems of the shrimping industry may be diversification by harvesting finfish. The most profitable shrimp season runs from June to December. In the past, even during the off-season (January through May), shrimpers have been able to make enough to meet expenses. Unfortunately, in the last year the harvest of shrimp was down. This, combined with low prices and high fuel costs, made it impossible for shrimpers to turn a profit in the off-season. The Advisory Service therefore has encouraged shrimpers to consider other fisheries during these slower months. A number of the boats were successful this year in longlining for tuna and swordfish during the off-season.

Also, a new regional program has begun that will demonstrate ways fishermen can conserve fuel. It provides them with information on new, more fuel-efficient technologies as they become available to the industry.

Consumer Education

Advisory service specialists, working with the food and nutrition specialists of the state Extension staff, have developed a series of publications on buying and handling seafoods, as well as a resource book that will provide Extension home economists throughout the state with information they can use in educational programs.

The Sea Grant Program cannot now afford to develop such an extensive network as that which exists in the Cooperative Extension Service. Only through working together and providing the necessary cooperation between the programs can Sea Grant efforts become known to the state as a whole. □

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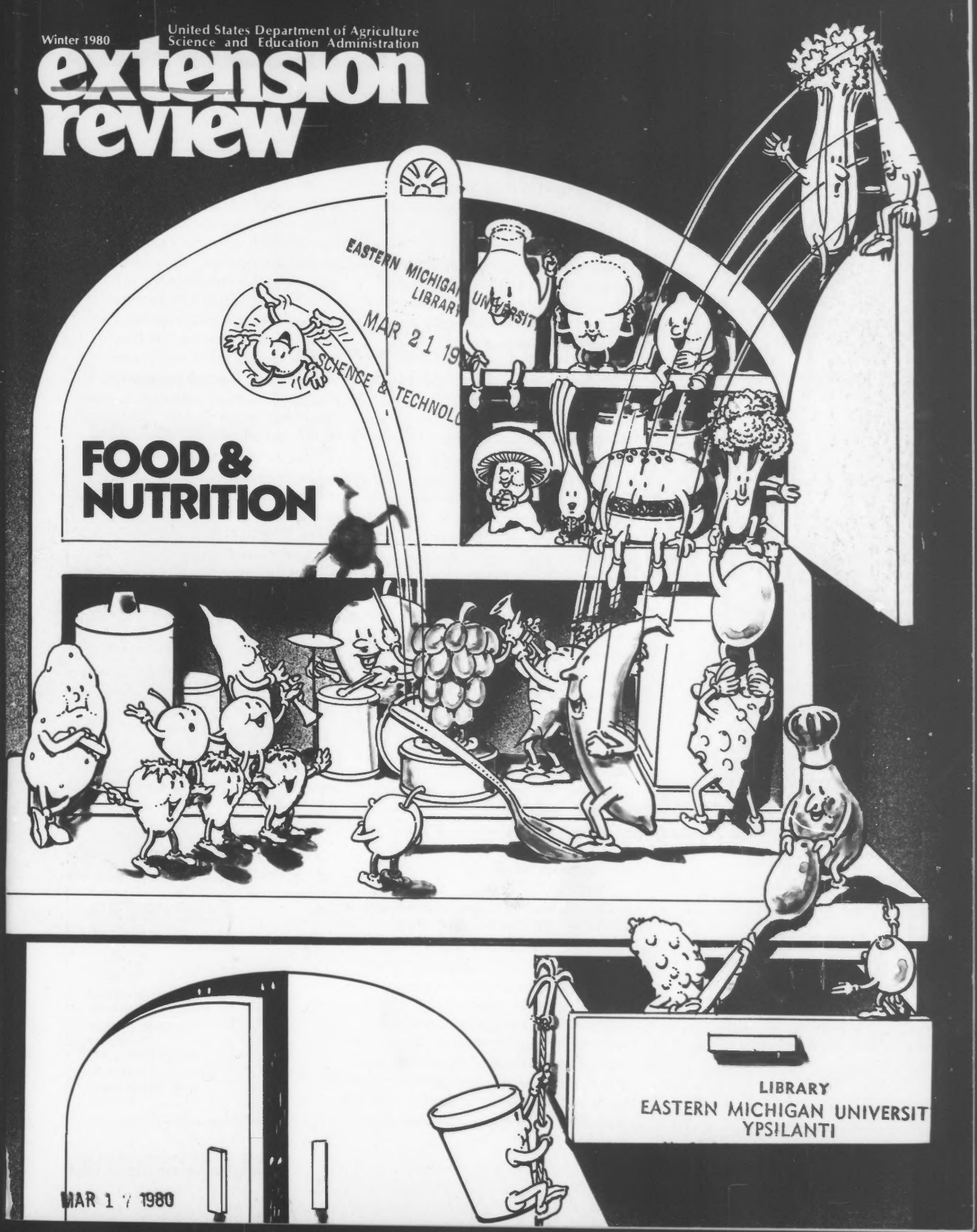
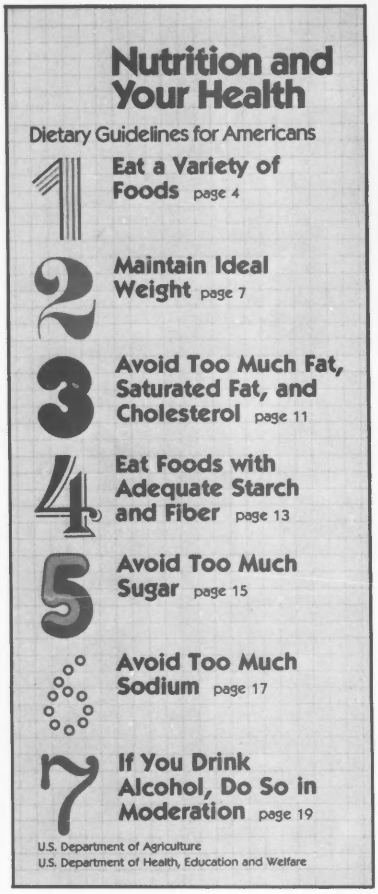
Winter 1980

United States Department of Agriculture
Science and Education Administration

extension review

FOOD & NUTRITION





What should you eat to stay healthy?

This seemingly simple question eludes a simple answer.

To clear up some of the confusion about nutrition, diet and health, scientists from USDA and the Department of Health, Education and Welfare (HEW) have joined forces to provide some advice on improving eating habits to maintain good health.

Secretary Bob Bergland and Surgeon General Julius B. Richmond of the U.S. Public Health Service announced a set of seven dietary guidelines in February.

"People constantly ask me," Secretary Bergland said, 'Is eating this or that bad for me? Will I be healthier if I eat more of something or less of something else?' Americans are clearly interested in good nutrition and concerned about how what they eat will affect their health. For a long time, we had nothing but conflicting statements from a variety of sources. Now the scientists of USDA and HEW are making recommendations based on an emerging consensus within the scientific community."

"We're not telling people that there is one ideal diet or a nutritional insurance policy that will keep them healthy," Bergland said. "These are general recommendations and within them individuals can make their own choices from a variety of foods."

Pointing to changes in nutrition policy, D. Mark Hegsted, administrator of the SEA Human Nutrition Center, noted that "for decades our nutrition message has been 'eat more'—more foods to provide protein, vitamins, and minerals in order to prevent deficiency diseases. Today we recognize that we need to shift our concern to include not just the quantity of foods eaten but also the relationship between those foods and health. The message of the guidelines is 'be moderate' rather than 'eat more.'

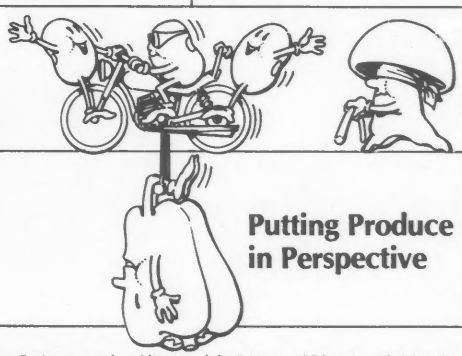
"Americans are confronted today with an expanding food supply which offers many opportunities for over-consumption and even more opportunities for food selections which may make negative contributions to health.

"We recognize that more research is needed to further elucidate the finer details of the relationship of diet to chronic disease onset and prognosis. We recognize that we may need to change our advice to the public as our knowledge grows. But we feel strongly that, in the interim, the public has a right to some simple, understandable guidance about what to eat. We feel that the dietary guidelines provide that guidance."

The Human Nutrition Center will be producing other guidance materials such as menus and recipe suggestions and new food guides to help people translate the dietary guidelines into practice.

Copies of the guidelines have been distributed to state Cooperative Extension nutrition specialists. Extension county offices may request additional copies on publications shipping order form SEA-91. Public inquiries for the publication may be directed to the Office of Governmental and Public Affairs, USDA, Washington, D.C. 20250.

contents



extension review

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Bob Bergland
Secretary of Agriculture

Anson R. Bertrand
Director of
Science and Education

Mary Nell Greenwood
Acting Administrator,
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, 1980. 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 3137-S, USDA, Washington, D.C. 20250, Telephone: (202) 447-6133.

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Editor: Patricia Loudon

Assistant Editor: Michael A. Meliker

Extension Profile: The "Whirlwind" World of Wirth

Betty Fleming
SEA-Extension Information Officer
Washington, D.C.

Consider this challenge. You're an Extension home economist in Philadelphia attempting to reach a significant number of the 1.8 million population with a food and nutrition consumer education program. What methods do you use?

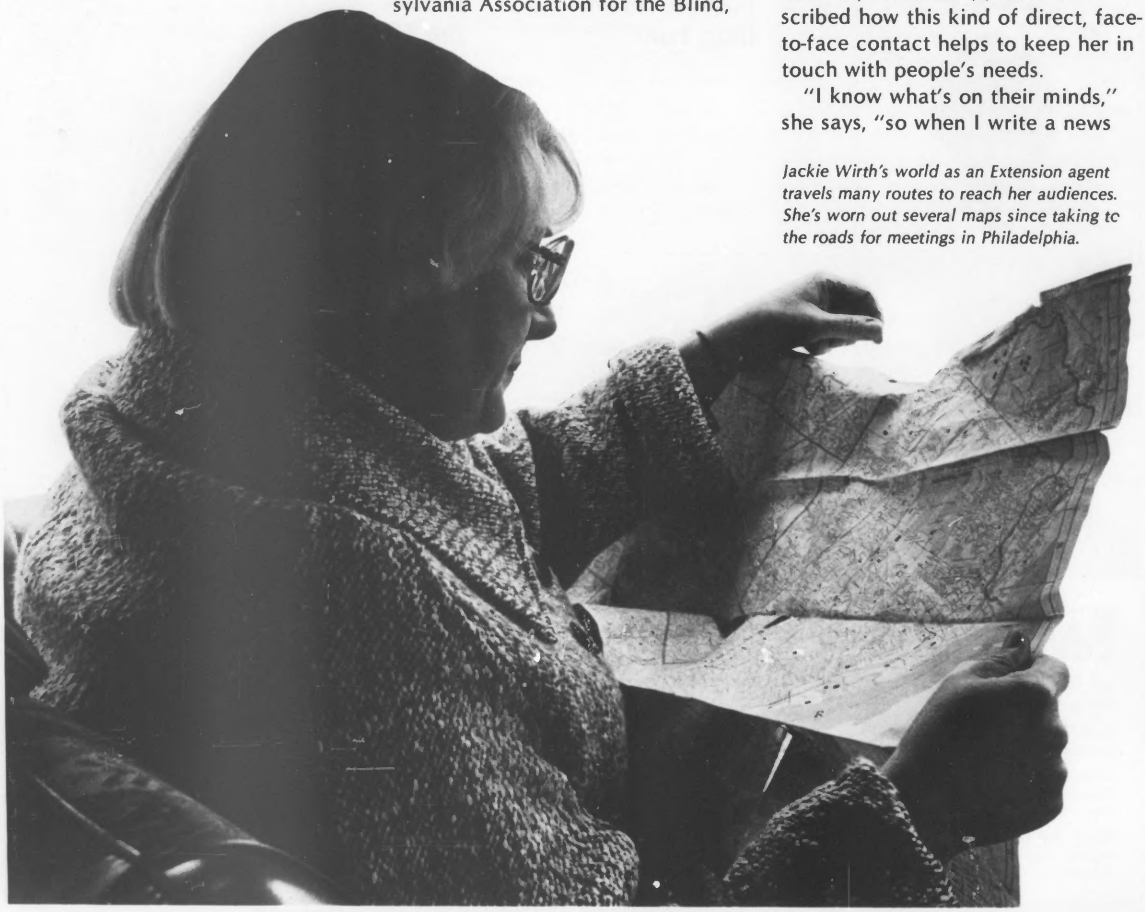
Jackie Wirth has this job and, the best description for her particular approach is "whirlwind!"

Approach

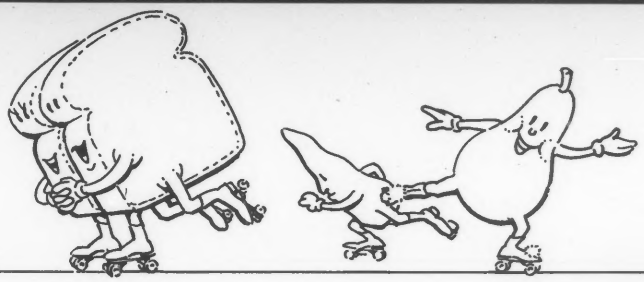
During a week period, Jackie scheduled meetings with the Pennsylvania Association for the Blind, Wyoming Branch Library, Dixon Day Care Center parents, International Ladies Garment Workers Union retirees, Calvary Church 50+ Club, Fox Chase Branch Library, Paschall Day Care Center parents, Kensington Nursery parents and a Wellesley College alumnae group. Total attendance at all these meetings—more than 300.

One meeting was scheduled on a holiday; another on a Saturday. Sometimes, there were three meetings in one day. During a pit stop at a nearby restaurant, Jackie described how this kind of direct, face-to-face contact helps to keep her in touch with people's needs.

"I know what's on their minds," she says, "so when I write a news



Jackie Wirth's world as an Extension agent travels many routes to reach her audiences. She's worn out several maps since taking to the roads for meetings in Philadelphia.



release or do a radio or TV show, I can be on target."

For ample feedback, she encourages audiences to participate, air views, ask questions. Her meetings can definitely be described as lively!

Jackie's focus is mass media. Money management and food and nutrition are her top priority consumer subjects at this time. With nearly 20 years of Extension experience (including 3 years in Pennsylvania), Jackie has developed her own mass media philosophy. "I don't aggressively promote myself or Extension, or regularly call the media with ideas," she says. "That's not my style. I do send two news releases to 40 papers and radio-TV people every Friday. I keep in touch that way and those releases are a gentle, soft-sell reminder that I'm here, that I have good information, and that I'm a resource.

"The media call me, and I respond as quickly as I can. If I can't help, I refer them to someone else. I like them to call, rather than have me be out there trying to peddle something."

Newspapers

Bulletin newspaper food editor Sarah Casey says that's what she likes about the news releases Jackie writes. "They're not selling anything. Most of our stuff comes from self-interest groups pushing a product," says Sarah. Telephone calls, mostly food and nutrition questions, drive a busy food editor up the wall. Sarah is happy to refer callers to Jackie for more information.

Jackie averages one to two arti-

The mailbag overflows for Extension secretary Beverly Harrell when Jackie offers a publication on radio, TV, and in local newspapers.

cles (usually with credit) per month in the *Bulletin* (circulation: 536,300). She may also have six to eight stories per year in another daily, the *Philadelphia Inquirer* (circulation: 847,500). Reader response to these stories is often overwhelming. A recent canning publication offer in these two daily papers plus the *Philadelphia Daily News* and weeklies brought close to 600 requests.

Radio-TV

On the TV side, Jackie annually averages 15-20 9-minute TV shows for KYW-TV's daily "Farm, Home and Garden" series. Gary Geers, who's hosted this show for nearly 27 years, says that . . . "Jackie is one of the best home economists on the air. She comes prepared." Gary is currently working with more than 75 Pennsylvania, New Jersey, and Delaware Extension agents for his show.

"We don't repeat any topics," says Gary. "I look for a new slant, a fresh approach. Jackie knows what I want and watches the news to see what's current." The show has an estimated 250,000 viewers, 53 percent of the available viewing audience at that hour.

Jackie also regularly does radio call-in shows for Philadelphia's

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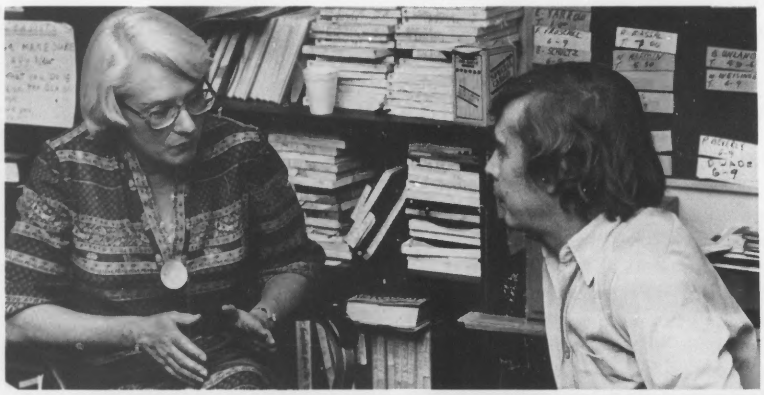

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1 Jackie and Frank Milani, Philadelphia Radio Information Center for the Blind program director, discuss plans for an upcoming show.

2 Jackie explains how smart shoppers can take advantage of coupon offers to save on food expenses.

3 Learning to make nutritious, economical beef stew is a tasty lesson for these EFNEP youngsters and their EFNEP aide, Alease Bey.

4 Philadelphia Bulletin food editor Sarah Casey, left, food news reporter Denice Kachin, center, and Jackie plan a feature on home canning.

Radio Information Center for the Blind (RICB). The program reaches about 3,000 subscribers through FM receivers tuned to receive a special signal carried by WUHY-FM (an educational station). Volunteers often read her releases on the air.

As a result of her visibility, Jackie gets calls to do evening news spots, telephone call-in shows, and cable TV shows. When radio-TV stations interview community leaders to develop their FCC ascertainment listing of community problems, they contact Jackie. "That's when I really know they know I'm here," says Jackie.

State backup for Jackie Wirth is good. She gets a useful state news packet every other week. People such as food and nutrition specialist Louise Hamilton, food scientist Jerry Kuhn, and food economist Harold Neigh are valuable resources to both Jackie and the Philadelphia print media.

Topics

What kinds of food and nutrition topics does Jackie focus on? The need for supplementary vitamins, feeding your preschooler, snacks, salt, sugar and additives are some of the current concerns she's recently

1 Workshop participants ask questions and pick up publications after a meeting.

2 Libby Goldstein, left, manager of the Philadelphia urban gardening program, and Jackie decide which jars of home preserved food take the prize.

3 What better way to study nutrition labeling than to pass out empty cereal cartons and study labels?

4 Jackie and Judy Olive, coordinator of Philadelphia's EFNEP, ponder a tough nutrition question.

tackled. "I try to address topics that should be done," she says, "not just the easy issues."

In addition to state backup resources, she depends on reputable print sources including basic nutrition textbooks for help. Jackie frequently takes reference books to meetings. "If someone asks me a specific question and I don't know the answer, I look it up for them right there if I can," says Jackie. "I'm not afraid to say I don't know and that I'll provide an answer later."

Problems

What kind of problems does an urban Extension home economist like Jackie Wirth face? Here are a few:

- An office mimeograph machine with "100,000 miles on it" is barely capable of producing the 26,000 copies of the five different newsletters Jackie puts out, in addition to other staff members' mailings.
- Franking newsletters costs money (8½ cents each for 3rd class bulk rate). Jackie is encouraging libraries and day care centers to pick them up in bulk quantities for distribution instead of using the mail.
- USDA publications are increasingly difficult and expensive to obtain in quantities needed for urban areas.
- State publications budgets are limited. There are few state fact sheets, so Jackie producers her own. She writes and publishes single-concept sheets on topics such as winter squash, snacks, asparagus, potatoes, pickles, and jelly.
- Some Extension administrators feel that talking to groups organized by other people leaves an Extension home economist without support groups of her own. From Jackie's point of view, this method allows her to concentrate on teaching, not promotion or recruitment. (Jackie makes no effort to take down names of people who attend these organizational meetings for followup effort. She does give each group an idea of what Extension has to offer.)
- Food and nutrition inservice training may be 1½ to 2 days a year (. . . "if we're lucky," says Jackie). Brief updating is also available at an annual conference. Jackie, a home economics generalist who's only had four introductory courses in F&N plus Extension inservice training says she could use more.
- Accountability with mass media is tough. Jackie is trying to keep the names and addresses of those who request publications as a result of radio, TV and newspaper work. She plans to follow up to see if they've used the information. Also, this clientele could be contacted for future meetings.
- Urban office phone lines are limited. With one *Philadelphia Inquirer* item, Jackie received 100 phone calls. She tries to discourage media from including the phone number in stories.
- Philadelphia city/county supplies low-rent office space, but that's all. This means that audio-visual materials, exhibits, demonstration and publication supplies are scarce. "We can borrow visual aids from Penn State," says Jackie, "but they're 200 miles away and it takes 2 weeks via the mail to get anything."

Satisfactions

What are the satisfactions in an urban Extension job? Jackie says she gets her rewards when people say . . . "I didn't know where else to call." . . . "I knew you'd have the answer." . . . "Is Mrs. Wirth there? Oh, thank God!" (a canning problem) . . . "I'm glad to see something good is coming out of our tax money."

Other Programs

Philadelphia also receives Extension food and nutrition information from two other home economists—Judy Olive and Libby Goldstein.

Judy Olive coordinates the Expanded Food and Nutrition Education Program (EFNEP) in which paid nutrition aides teach low-income homemakers how to improve their families' diets. She works with a staff of 12 to reach over 400 families with food and nutrition information. Judy writes a regular "Menu of the Month" feature for the *Philadelphia Tribune* (a minority biweekly with 160,000 circulation).

An ADA registered dietitian as well as an Extension home economist, Judy is a valuable nearby

KYW-TV host Gary Geers and Jackie rehearse a "Farm, Home and Garden" show on canning equipment.

resource for Jackie Wirth's media programs. A F&N resource person for Pennsylvania's SE regional Extension staff, Judy also works with 50 or more organized groups such as the handicapped, training both staff and clients.

Libby Goldstein manages an Extension urban gardening program in which more than 8,000 city families learn to grow and preserve their own food. "Nutrition is a definite part of what we do," says Libby. Judy Olive trains six garden assistants in nutrition. Jackie Wirth teaches them food preservation. Libby also writes news releases, a regular weekly gardening column, and yearly garden guide supplements for the *Philadelphia Daily News* (circulation: 233,300), a "City Green" newsletter, and radio-TV scripts. She operates a Hotline Garden Phone that handles an average of 2,500 calls per year.

Feedback

Are you an urban Extension home economist trying to extend food and nutrition information to residents in your city? What are the problems you face? What solutions have you tried? Jane Voichick, acting assistant deputy director of food and nutrition, SEA-Extension, would be happy to hear from you. A followup *Extension Review* article with your ideas and suggestions might be possible. Write to her at: Food and Nutrition, SEA-Extension, U.S. Department of Agriculture, Room 5404-S, Washington, D.C. 20250.□

Calories Decrease—Diets Improve

Stu Sutherland
SEA Information Specialist
Washington, D.C.

Americans are eating diets lower in calories but of a generally better nutritional quality than they were in 1965. And Americans are eating out more frequently.

A panel of nutrition experts from SEA's Human Nutrition Center presented these conclusions during the USDA 1980 Outlook Conference held last November.

The panel used data from the Nationwide Food Consumption Survey, begun in spring 1977 but not yet fully analyzed, and the 1965 Household Food Consumption Survey. They compared food expenditures, amounts of food consumed and nutrient content of diets of U.S. citizens over the 12-year span.

Frances J. Cronin, SEA home economist, summed up differences in amounts of food used by households as reflected by changes in energy (calories) and nutrient levels. She also explained how information was obtained from about 15,000 households in the 48 neighboring states for the 77-78 survey.

Information on household food use came from interviews with persons identified as being most responsible for food planning and preparation. Trained interviewers used an aided recall schedule to obtain the kind, form, quantity, and cost (if purchased) of each food and beverage eaten in the household during the 7 days prior to the interview.

Households were contacted at least 7 days before the interview and asked to keep informal notes to assist them in recalling the food eaten during the 7-day period. This procedure differed from that of previous surveys, when households were interviewed at the time of first contact.

Cronin also explained that she was reporting average quantities of food and nutrients from household food supplies in terms of an "equivalent person." This equivalent person is equal to 21 meals eaten at home in a week (based on 3 meals a day), and is used in an attempt to adjust for meals eaten away from home by household members and for meals and snacks eaten in the home by guests and employees.

Survey Comparison

A comparison of the two surveys showed changes in our population's

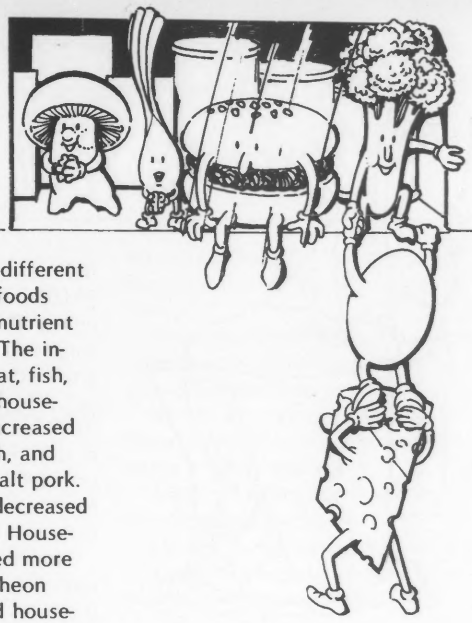
age distribution during the last decade. Bureau of the Census statistics indicate a decline of about 6 percentage points in the percentage of the population (from 1965 to 1977) under 18 years. Those between 18 and 44 years increased over 4 points and those over 64 increased 1 point.

The number of households with one or two members increased, while the number of households with five or more members declined.

Cronin noted that further analysis will be necessary to assess the impact of these changes, and pointed out that data being presented are average values, which mask variations among the households.

She said there was a 10 percent decline in food energy, probably due to a decreased use (in 1977) of milk and dairy products, bread and cereals, fats and oils, and some sugar-based foods. However, there was not a decline in the levels of vitamins or iron, and only the level of calcium in food used decreased over the 12-year span. Cronin concluded that food had a higher nutrient density in 1977 than in 1965.


NEW STORE HOURS
7 a.m.
to
10 p.m.



In general, households at different income levels in 1977 used foods which were more similar in nutrient content than those in 1965. The increased consumption of meat, fish, and poultry by low-income households (in 1977) reflects an increased use of all types of meat, fish, and poultry, except bacon and salt pork. The low-income group also decreased their use of eggs and beans. Households in this group consumed more pork, poultry, fish, and luncheon meat, and less beef than did households in most higher income groups.

Households in the lowest income group increased use of vegetables between 1965 and 1977 to a level similar to or higher than that used by other income groups.

Households in the lowest income group also increased their use of fruits from 1965 to 1977, with most of the increase in citrus fruit and juices.

Average nutrient levels for households in the lowest income group surveyed generally improved more than those at other income levels. Both the nutrient levels and amounts of food used, at the various income levels in 1977, were more uniform than in data from the 1965 survey.

Food Dollars

SEA home economist Mary Y. Hama compared the way food dollars were spent and summed up several trends and patterns.

Money spent on food away from home increased from 17 percent in 1965 to 24 percent in 1977. Hama said households with relatively high incomes, both in 1965 and 1977, used more of their money for food away from home than did low-income households, But, the average money value of food used at home per person was only 20 percent higher for the highest income group than for the lowest income group.

Some changes in food consumption patterns appear to have taken place during the 12-year period, Hama said. Households spent more of their food dollar in 1977 to buy meat, poultry and fish; fruit; soft drinks, punches and prepared desserts. Less was spent on eggs, dry legumes and nuts; fats and oils; and the sugar, syrup, jelly and candy food groups.

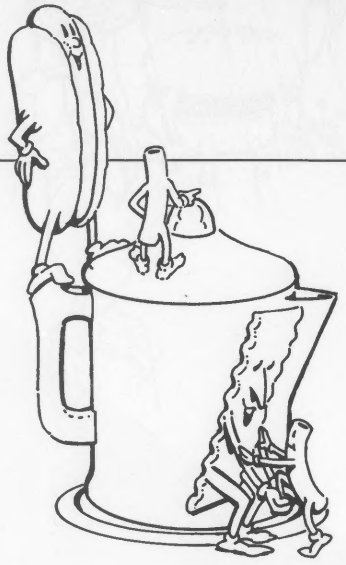
Hama also noted that average quantities of foods used per person has also changed since 1965. In addition to those food groups that changed in food dollar values, alcoholic beverages underwent a marked change in quantity consumed. This may reflect the greater use of beer and wine, for which a larger volume intake has been typical, and to people's increased candidness in revealing their alcoholic consumption, Hama concluded.

Nutritive Content

Home economist Eleanor M. Pao compared average nutritive content of diet changes and related them to the 1974 Recommended Dietary Allowances (RDA).

Caloric intakes of all survey sex-age groups were lower in 1977 than in 1965—below the RDA by about 10 to 25 percent. The sharpest drop of all groups was infant intake of feed energy, protein, fat, and calcium. For most adult groups, calcium intakes were close to or above the 1965 levels.

Pao noted that mean weights of people in most groups in 1977 were similar to mean weights for 1965. Thus, she said, the drop in caloric intake does not appear to be associated with loss of weight. Perhaps a sedentary life style is more common in the 1970's than in the 1960's, Pao concluded.



The mean intake of protein for infants decreased from 39 grams in 1965 to about 25 grams in 1977. Pao said this sharp drop may reflect a change in composition of baby formulas from those made with evaporated cow's milk, as was common in the 1960's, to formulas developed to resemble human milk in the 1970's. Human milk has about one-third as much protein as cow's milk.

Infant iron intake in 1977 was more than twice that in 1965, but the average iron intake for 1- to 2-year-olds was much lower—about 45 percent below the 1974 RDA. Females aged 12 to 50 years had an average iron intake between 35 and 40 percent below the RDA, as was the case in 1965.

Diets of older men and women seem to have decreased least among the groups in energy, protein, and fat, Pao reported. Their average calcium, vitamin A and vitamin C intakes were highers. Pao noted that intakes of protein and fat declined for most sex-age groups in 1977.

Average nutrient intakes for protein, vitamin A, riboflavin, and vitamin C met the 1974 RDA for all sex-age groups in 1977. Vitamin C in diets increased considerably from 1965 to 1977.

Total Consumption

D. Mark Hegsted, administrator of the Human Nutrition Center, said total food consumption of Americans appears to be at a very low level. Yet, he commented, we are as big and fat as we ever were, so he feels obesity may be gaining on us as we become more sedentary in our lifestyles.

Commenting on the way food is being wasted, Hegsted said there appears to be great opportunities to conserve food in the same way there are opportunities to conserve energy—explaining that the two are not unrelated.

He said the survey comparison is encouraging as it indicates that former differences (spread) are coming closer together between the various income levels in dollars spent for food and the kinds of food used. He felt lower income groups had been assisted by food programs between 1965 and 1977, so they now share more fully in the country's abundant food supply.

At the same time, Hegsted said, 3 percent of all households report they do not have enough food, and this rises to 9 percent in low-income groups. Much remains to be done, especially in a country that may waste nearly half of the total food available.

Though we complain about food costs and other faults of the food system, Hegsted said, food costs for most Americans are low compared to the rest of the world. He didn't think most U.S. citizens would willingly trade what our agricultural and food systems have achieved compared with that available in other parts of the world.

Given the fact that the 1977 survey data came from 15,000 households, and also includes data on 34,000 individuals who consumed nearly 20,000 different products, Hegsted concluded that to produce any kind of report is a formidable task. He also noted that statistical data can be exploited for a variety of purposes, both legitimate and not, and urged everyone to use the food consumption survey data honestly and constructively.

The most recent survey is the sixth done by USDA since 1936. The data was compiled and studied by SEA employees in the Consumer and Food Economics Institute of the Human Nutrition Center.

When completed, the survey will provide detailed information on food used by households, from which the nutritional quality of household food supplies can be estimated. It will also provide data on home production of food, household income, participation in food programs, education and employment of household heads, and other factors that might affect food consumption.

Dr. Frances Cronin, Dr. Eleanor M. Pao, and Mary Y. Hama are located in the Federal Building, Room 336, 6505 Belcrest Road, Hyattsville, MD 20782.

Editor's Note: This article was compiled from four papers presented at the 1980 National Agricultural Outlook Conference. They are; "Nationwide Food Consumption Survey Implication" (Hegsted), "Nutrient Consumption Patterns of Individuals in 1977 and 1965" (Pao), "Changes in Household Food Consumption in the U.S., Spring 1977 and 1965" (Hama), and "Changes in Nutrient Levels and Food Used by Households in the U.S., Spring 1977 and 1965" (Cronin). Copies of these papers are available on request by writing to The Editor, *Extension Review*, Outlook Papers, Room 3137—South Building, USDA, Washington, D.C. 20250.

Dial Direct —FNIC

Susan Schram
Extension Program Leader—Family Living
Michigan State University

Are you looking for just the right film on nutrition to show to young children?

Have you been asked to do a presentation on nutritious snacks for pre-school teachers?

Would you like to review some literature or films to help you become a better manager?

Are you looking for a reference on vegetarian cookery?

There is a new resource available through USDA that can help Extension agents and lay leaders with these and other needs in the field of food and nutrition. It's the Food and Nutrition Information Center (FNIC), located at the National Agricultural Library in Beltsville, Md.

The Center was open previously only to those involved in child nutrition programs administered through the USDA's Food and Nutrition Service (FNC). Recently, however, FNIC has expanded its collection of food

Slides on Extension topics from A to Z can be borrowed from FNIC. Robyn Frank, FNIC chief, helps Maryland Cooperative Extension Service's Dorothy Van Zandt select slides for an educational program.

and nutrition materials, making its resources available to Extension personnel.

If you need anything from a short, entertaining film on nutrition to references for an indepth paper on a current nutrition issue, the Food and Nutrition Information Center can help. Extension agents using it have reported FNIC's film collection to be particularly outstanding.

Interested in contacting the Center? Its specific services now include:

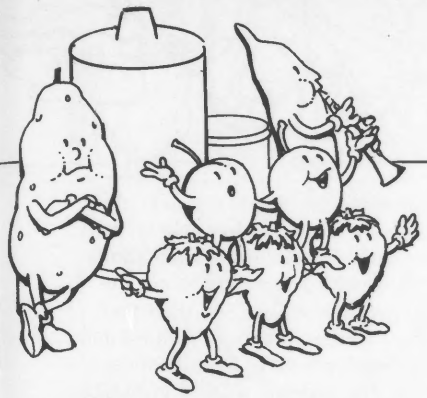
- Lending of books and audiovisuals—motion pictures, filmstrips, audiocassettes, videocassettes, film loops, posters, charts, games, and transparencies
- Providing photocopies of journal articles upon request (in accordance with copyright law, Title 17, U.S. Code)
- Providing comprehensive reference services, including referral services, and computer searches of major data bases

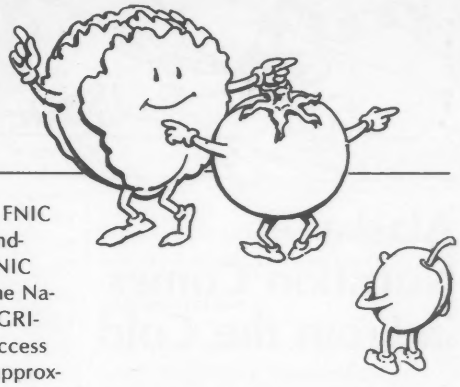
The Center's policy regarding the lending of materials is as follows:

- Books may be borrowed for a period of 1 month
- A maximum of six journal articles may be requested at a time; photocopies will be provided
- A maximum of three audiovisuals may be borrowed at a time for a period of 2 weeks (order not more than 1 month in advance)

All Center services are available free of charge. Extension agents and others may access FNIC's collection by reviewing the Center's catalogs, or through use of the computer.

Films may be borrowed from FNIC for a 2-week period.





Catalog

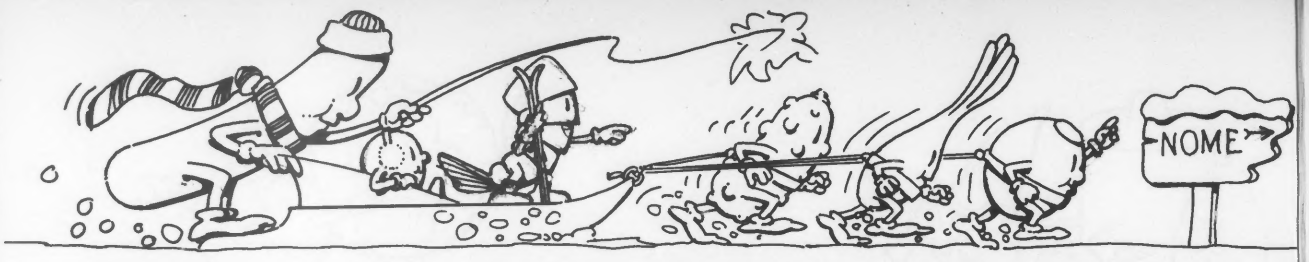
The FNIC catalog is currently being revised. A limited supply is currently available from the Center free of charge. In the near future, however, the complete retrospective catalog will be available from: Oryx Press, 3930 Camelback Road, Phoenix, AZ 85018, phone (602) 956-6233. Contact Oryx Press for price information.

For computer access to the FNIC data base, check with your land-grant university library. The FNIC data base is integrated with the National Agricultural Library's AGRICOLA (Agricultural On-Line Access file). The data base contains approximately 16,000 citations. If your university library cannot assist you, FNIC technical information specialists are trained to search these data bases as well as MEDLINE, the National Library of Medicine's on-line data base. Allow a minimum of 2 weeks for response.

The Center is looking forward to hearing from you. Requests for Center services may be submitted by letter, telephone, or personal visit.

FNIC has a 24-hour monitor to record telephone requests outside business hours. Contact: Food and Nutrition Information Center, National Agricultural Library, Room 304, Beltsville, Maryland 20705. Telephone: (301) 344-3719.□

FNIC information specialist Bill Feidt has access to more than 100 bibliographic data bases to help Extension agents in their literature searches.



Alaska—Nutrition Comes in From the Cold

Ellen Ayotte
and
Marguerite Stetson
Nutrition Program Coordinator
University of Alaska

Impossible to spread the nutrition message over 586,000 square miles in Alaska?

To youth and adults? To isolated cities and villages? Not so, says the CES Nutrition Coordinator and the eight district Extension home economists.

In the past, diligent district agents used a potpourri of methods to provide nutrition education to isolated areas. Repeat performances, year after year, drained professional time. Gaps remained in villages that could be visited as well as audiences that could be reached.

Volunteers

Because youth in schools was the biggest audience gap, Ellen Ayotte, district home economist, organized volunteers to teach single "mini" nutrition lessons in the classroom. That was 5 years ago. Ten to fifteen teachers asked for these lessons. By 1978, more than 120 teachers expected, and demanded, that the volunteers visit their classrooms. During this same year the volunteers reached over 3,000 youth . . . and their teachers.

Customized teaching lessons were worthwhile. Both students and teachers gained knowledge. At the same time the volunteers discovered textbooks fraught with misinformation, such as: "Balanced breakfasts prevent tuberculosis." It was time to work directly with teachers. Teachers needed knowledge for selecting appropriate textbooks. They needed skills for teaching the students.

How do you get teachers to participate in a nutrition workshop? What kinds of materials and methods do you use? These were some of the initial questions facing Nutrition Program Coordinator Marguerite Stetson. The Western Hemisphere Nutrition Congress opened the door for Stetson. Sharon Young of the California Dairy Council (CDC) reported on a new nutrition education system. It was tested in California with elementary children. "The results of our testing show that 80 percent of the students achieve mastery level of the material."

Multi-cultural Materials

As a nutrition educator, Stetson had found few methods that could guarantee results. Further checking with CDC proved that the material was equally successful with multi-cultural and multi-economic audiences. This was what Alaska needed.

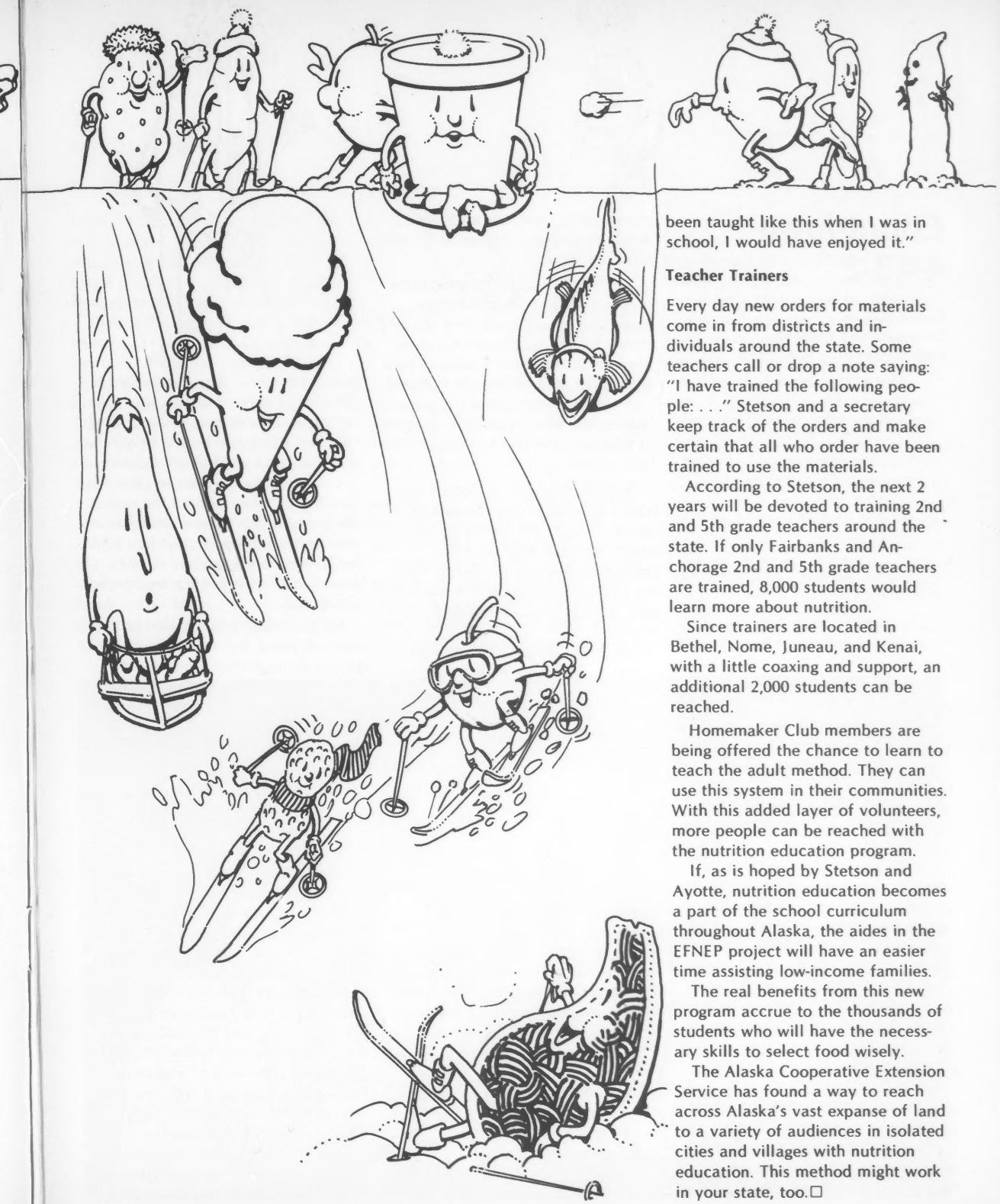
Within weeks, Stetson was in California learning how to use the CDC materials. She found not only elementary materials, but also systems designed for junior high and adults. Armed with permission to use the materials in Alaska, she tried the adult system in Barrow with Eskimo women involved in health education. The material worked in Alaska.

Back in Fairbanks, Stetson planned a course for teachers. At the same time, the Alaska CES editorial staff wrote articles for the media. Local and other Alaskan newspapers printed these articles about the success of the nutrition education project in Barrow.

Forty-five teachers enrolled in the first workshop. Within 3 months, over 100 Alaskan teachers were trained to use the materials and to teach others. Each workshop had the teachers involved with using the "consumer program" for adults. As teachers became involved in analyzing their own diets and foods offered for coffee breaks, they were quick to point out: "That donut is an 'Other'." "I better select milk for lunch, that's a group I have been missing." "Look here, I have the milk group, meat, fruits and vegetables and bread—a balanced meal."

These statements indicated that the awareness level of education was in the process. If they go on to make changes in their eating patterns, the "adoption" stage of behavior is reached.

Nutrition does not have to be dull. While using the materials in a classroom, the teachers commented: "Even my reluctant learners expressed interest in this project." From the students: "Can't we go a little further today?" "If we plan this meal for lunch, we will need the following food groups to balance the day." . . . From a nurse: "If nutrition had



been taught like this when I was in school, I would have enjoyed it."

Teacher Trainers

Every day new orders for materials come in from districts and individuals around the state. Some teachers call or drop a note saying: "I have trained the following people: . . ." Stetson and a secretary keep track of the orders and make certain that all who order have been trained to use the materials.

According to Stetson, the next 2 years will be devoted to training 2nd and 5th grade teachers around the state. If only Fairbanks and Anchorage 2nd and 5th grade teachers are trained, 8,000 students would learn more about nutrition.

Since trainers are located in Bethel, Nome, Juneau, and Kenai, with a little coaxing and support, an additional 2,000 students can be reached.

Homemaker Club members are being offered the chance to learn to teach the adult method. They can use this system in their communities. With this added layer of volunteers, more people can be reached with the nutrition education program.

If, as is hoped by Stetson and Ayotte, nutrition education becomes a part of the school curriculum throughout Alaska, the aides in the EFNEP project will have an easier time assisting low-income families.

The real benefits from this new program accrue to the thousands of students who will have the necessary skills to select food wisely.

The Alaska Cooperative Extension Service has found a way to reach across Alaska's vast expanse of land to a variety of audiences in isolated cities and villages with nutrition education. This method might work in your state, too.□

Countdown 4-4-3-2

Ronnie Malone
Extension Home Economics
Rutgers University, New Jersey

One summer, a Rutgers community assistant working in the Paterson, New Jersey EFNEP program posted a "Guide to Good Eating" poster on her apartment door. Soon a handful of Spanish-speaking youngsters from her church gathered to see what was happening.

Because her apartment is small, she used the hallway outside to show them one of the 4-H Mulligan Stew films, "Countdown 4-4-3-2." The Mulligan Stew boys and girls and their message turned them on.

"They really identified with the youngsters in the film," says Manuela Rodriguez, the nutrition aide. The neighborhood kids decided to be like them—a nutrition group.

Word of mouth soon increased their membership to 15 youngsters between the ages of 8 and 15. They scraped together enough money to buy one T-shirt. The shirt with its "4-4-3-2" and "NEP Kids" messages advertised a cake sale on Main Street in Paterson. Motorists bought out their wares.

The 4-4-3-2 stands for the recommended daily servings from the basic four food groups. And the NEP stands for the Nutrition Education Program (as EFNEP is known in New Jersey), an outreach of the Cooperative Extension Service at Cook College on the New Brunswick campus of Rutgers, the State University of New Jersey.

One hot day later in August they held a lemonade sale. Customers asked, "What's the 4-4-3-2 on the shirt?" Because they used the special lessons and fun sheets during weekly meetings with Rodriguez, they were able to answer every question.

Eventually, they raised enough money to buy each member a T-shirt.

A story describing the group and its project was circulated to Passaic County newspapers. Soon the Paterson *Evening News* featured the NEP Kids with a story and photo of several youngsters wearing their T-shirts.

To make sure El Diario-La Prensa, the New York City-based Spanish daily newspaper, used the story, Rodriguez contacted a reporter there.

Jose Davila came to a meeting in her crowded apartment with his photographer. The subsequent story was practically a nutrition lesson in itself.

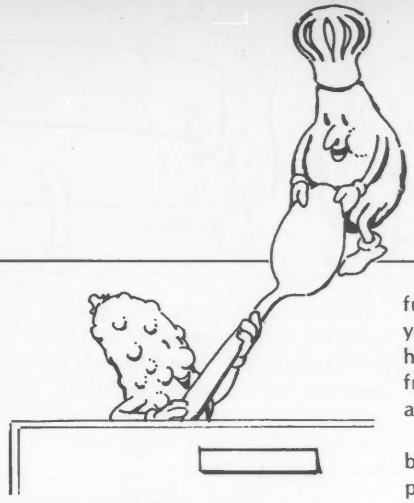
During the summer, the group planned and prepared picnics in nearby parks. Conversation always related to how picnic food should be chosen and why it requires special care.

In the fall, the NEP Kids planned a Halloween party. Rodriguez surprised ten of the group with certificates of merit. The five who did not receive them were disappointed. "Ah, but you missed some of the meetings, and you did not deserve it," she told them. However, the "graduates" then tutored the rest of the group and four new members as well. Beverly Bowman, Maritza Cortez, Unise Cortez, and Esteban Fiqueroa are volunteer leaders for the group now.

No junk food was allowed at this party. Instead, homemade fruit punch, pumpkin pie, and peanuts were served. Because they have learned their nutrition lessons well, the kids all understood *why* these foods formed a better party menu.

"Mrs. Rodriguez is very committed," says Patricia Brennan, Extension home economist in Passaic County who supervises the Nutrition Education Program there. "She really does an all-out job. In working with individual program homemakers, she knows that she can't teach anything but nutrition. So she does a fantastic job of referrals for non-nutritional problems."

And the NEP Kids have learned to share. After their fund-raising paid for the T-shirts and the Halloween Party, their treasury had $5.75 left. Rodriguez told them of a destitute family she had visited. They had no food, food stamps had not begun, and emergency food from the church couldn't be available until Sunday. The NEP Kids gave their money to buy milk and bread that



Friday. Rodriguez since enrolled the family in the Nutrition Education Program, where they are making much progress, especially in food budgeting and use of food stamps.

Earlier this year the group proved that Easter baskets don't have to contain candy. They made construction paper baskets for some 25 children at a Paterson day care center. Each was filled with nuts and popcorn. And they put on a nutrition skit and danced to one of the Mulligan Stew songs for the youngsters.

In addition to reaching out to others, the NEP Kids have earned a place in the community. "Two store-owners donated to their project funds," says Brennan, "because they are involved in such worthwhile projects."

One day Rodriguez met a contact from Aspira, Inc., a Puerto Rican educational agency. "How can you keep the group interested in such a boring subject as nutrition?" she was asked. "Because I plan activities and projects that relate to nutrition but are interesting and fun for the children, too," she replied.

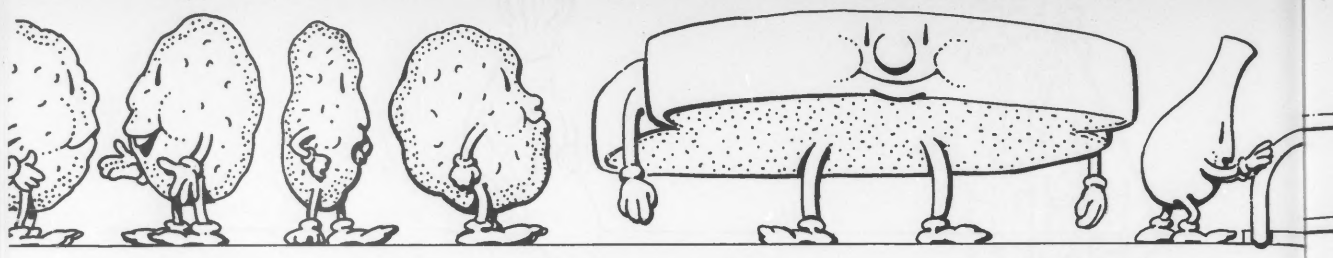
Another plus in her success stems from a rap session following every lesson. All participate and all listen—and there is no judging or criticism. Sometimes youngsters tell funny tales on themselves; one youngster visited Puerto Rico with his parents and didn't know a cow from a pig. But he was able to share and laugh about it with his friends.

Now the group is working on breakfast lessons combining food preparation and good nutrition.

For warmer weather later this year, they plan a special project—a picnic trip to nearby Garrett Mountain.

You can figure that menu out for yourself—it'll be Mulligan Stew.□

The NEP kids squeeze nutrition facts from citrus fruits. Wearing their 4-4-3-2 T-shirts attire are, from left, Kimberly Bowman, Theresa Silva, Miguel Correa, and Jimmy Cortes. (Photo courtesy Paterson Evening News)



In 4-H—Food is More Than Fun

Is the true image of the average American teenager that of a junk food junkie—with sugar-laden soda pop and empty-calorie snacks the mainstay of their daily diet?

Cooperative Extension 4-H Youth programs for kids and volunteer leaders across the country are attempting to erase that negative image once and for all.

Kansas

In Kansas, 17-year-old Debbie Anderson, researched a project in her local community on "Nutrition and Cancer." After interviewing doctors, and studying cancer research papers and published material, Debbie compiled a 39-page report. She concluded that a well-balanced diet, with fewer snacks and greater amounts of fresh fruits and vegetables, not only make people healthier, but diminishes the chance of getting cancer.

Anderson also worked with room mothers at local schools to provide more nutritious snacks at school parties and taught food-nutrition to 14 mentally retarded adults 4 hours every Saturday at Johnson County Community College.

Her expertise in the food and nutrition program won her a $1,000 scholarship from General Foods Corporation and a position with the International English Peace Corps in the United Kingdom through the American Field Service.

California

Another scholarship winner was Janet Henderson of Davis, California. Janet worked on a 4-H allergy project—planning the diet of a young girl allergic to many flours and sugars. "Just a few variations introduced into Amy's diet brightened her day and made eating more fun," the 4-H'er explained.

While working on the allergy project, Janet became fascinated with nutrition, and this influenced her career choice—pediatric nutrition specialist. She also assisted in forming a special food-nutrition club that doubled in size under her leadership. Earlier this year when Janet's physician prescribed Vitamin A for an eye problem, she began another project researching vitamins. Using information from the University of California Nutrition Center, she discovered additional sources of Vitamin A in foods she can eat.

Kentucky

In Kentucky, Laura Simms cooked dinners for 80 people at a nursing home for 2 months last summer. Besides learning about foods, she also learned to communicate better with the elderly. Laura presented many programs on nutrition to the home residents, and developed a program on good shopping habits for the Boyle County Senior Citizen Club.

Other Winners

Other General Foods scholarship program winners included:

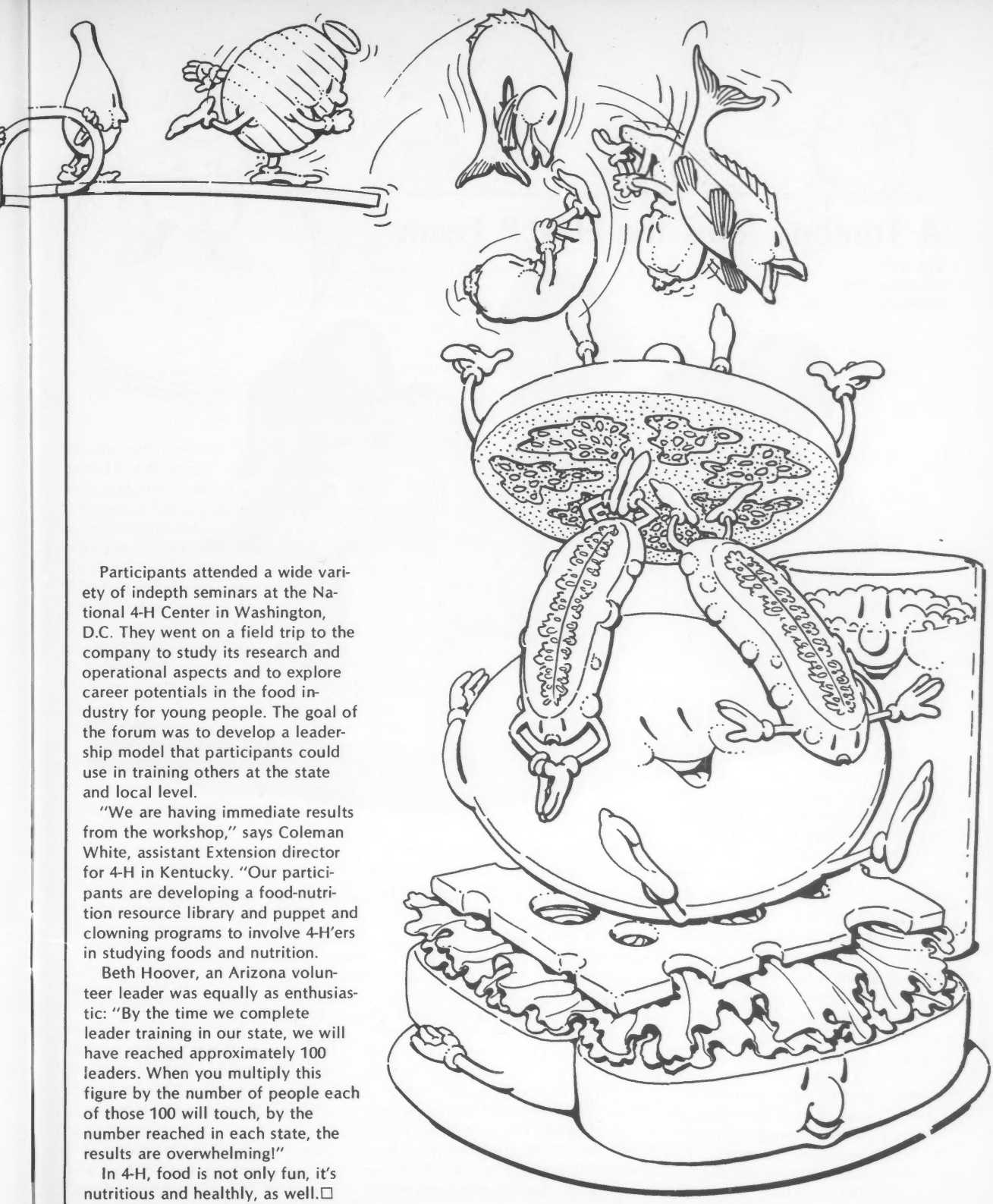
- Susan Deal, Minnesota, who taught school children that snacks don't have to be "junk food."
- Mary Detten, Oklahoma, who organized a puppet show to teach younger kids in 4-H the importance of good nutrition.
- Teresa Woodward, Tennessee, who helped low-income and handicapped adults plan well-balanced meals and shop for groceries based on cost and nutrition value.

Another award winner was Jill Nash of North Carolina. Jill made a television spot announcement used to alert the public to the danger zones in food temperatures. "If your food is from 40° to 100° it is in what is called the danger zone," she said. "We did a test showing that if the food is just under 42°, bacteria is growing." She also used a coloring book to teach food safety to mentally retarded children. Jill received a $1,000 scholarship from the Reynolds Metals Company in the 4-H Food Conservation and Safety Program.

Volunteer Leaders

4-H'ers like Jill, Mary, and Teresa gain most of their knowledge about food and nutrition from volunteer leaders—the backbone of the 4-H/Youth program across the Nation.

Last fall, more than 150 volunteer 4-H leaders and Extension staff from 44 states and the District of Columbia attended a special leadership forum. The forum addressed two important needs in the 4-H program—strengthening skills of adult volunteer leaders and effective food and nutrition programming. The forum was made possible through a grant from the Campbell Soup Company.



Participants attended a wide variety of indepth seminars at the National 4-H Center in Washington, D.C. They went on a field trip to the company to study its research and operational aspects and to explore career potentials in the food industry for young people. The goal of the forum was to develop a leadership model that participants could use in training others at the state and local level.

"We are having immediate results from the workshop," says Coleman White, assistant Extension director for 4-H in Kentucky. "Our participants are developing a food-nutrition resource library and puppet and clowning programs to involve 4-H'ers in studying foods and nutrition.

Beth Hoover, an Arizona volunteer leader was equally as enthusiastic: "By the time we complete leader training in our state, we will have reached approximately 100 leaders. When you multiply this figure by the number of people each of those 100 will touch, by the number reached in each state, the results are overwhelming!"

In 4-H, food is not only fun, it's nutritious and healthly, as well.□

A Tomboy Joins the EFNEP Team

Rob Williams
Extension Editor
University of Georgia

"When I graduated high school, I wanted to teach children full time; all day, everyday. Being an EFNEP aide has given me the opportunity to do so."

Standing 5-foot-4, she was the smallest player on her high school basketball team. At 18, she is the youngest nutrition aide in Georgia.

Jackie Brown seems to enjoy doing things the hard way.

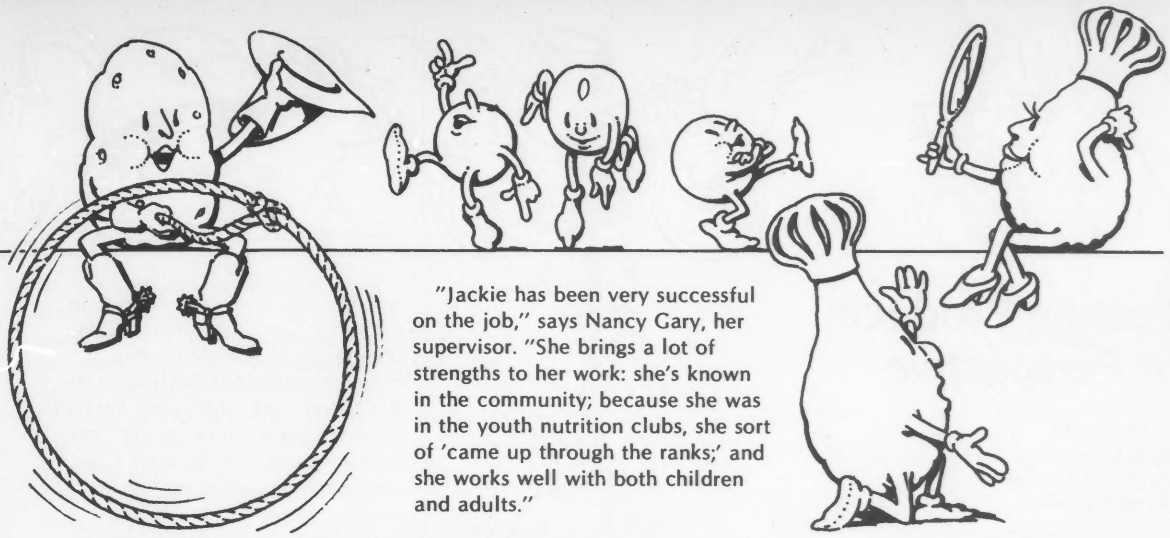
The second oldest of seven children, Jackie grew up—and still lives in a housing project in South Augusta. Her father died several years ago; her mother a year ago.

In 1970, Jackie was a scrappy tomboy shooting baskets and playing football with the other kids at the local community center. Like all kids her age, she liked to eat—anytime, anyplace.

EFNEP

Two women, Shirley Ball and Guy Ann Corn, would come to the community center one afternoon a week to teach the youngsters about food and nutrition. It was a new program sponsored by the U.S. Department of Agriculture, the University of Georgia, and the Richmond County Cooperative Extension Service. While it had a long official name—Expanded Food and Nutrition Education Program (EFNEP)—kids knew it meant something good to eat.

According to sources with EFNEP,



the program grew out of a 1965 national health survey which showed that there was a direct relationship between a family's income and the nutritional quality and adequacy of their diet. People were also not aware of their nutritional needs and how to satisfy them with their limited resources.

Georgia participated in a pilot study of new methods to teach nutrition to low-income families. The program has expanded to 40 Georgia counties and to other states.

Teaching

Jackie, who had cooked for her family on a regular basis since she was in the fourth grade, was soon teaching the younger children as a volunteer junior leader.

When Jackie graduated from high school, she still taught the nutrition classes at the community center.

"But I wanted to teach children full-time; all day, everyday," says Jackie. "I still do."

She worked as a substitute teacher the first year out of high school and continued to meet with the youth at the center to talk about nutrition or shoot baskets. Though not as scrappy as before, Jackie still jumps into most pickup games.

In March 1978, Jackie was hired as a nutrition aide for Richmond County EFNEP.

"Jackie has been very successful on the job," says Nancy Gary, her supervisor. "She brings a lot of strengths to her work: she's known in the community; because she was in the youth nutrition clubs, she sort of 'came up through the ranks;' and she works well with both children and adults."

Community Involvement

EFNEP aides work a lot like salespeople. They go door to door, peddling their product—education. But even though the education is free, doors are often closed on them.

"Most of the people know me, but I still try to tell them about my job and what I'm doing right at first," says Jackie. "If they don't want me, I don't force them."

Jackie's job is to teach families how to make the best use of their food resource, how to budget their food money, and the basics of good nutrition.

In the EFNEP office in the Ervin Towers building in Augusta, signs read:

- "Eat three balanced meals everyday."
- "The Basic Four: the meat group, the milk group, the bread and cereal group, and the fruit and vegetable group."
- "Spinach gives you iron."

"But nutrition is not the hardest thing to teach people," says Jackie. "I guess the worst problems I find are that people don't know how to budget their money for food and they don't know which foods are best for their family."

"And if they fix the right foods, they fill up the kids' plates and just feed them too much," she says. "I guess most of the people I visit would be shamed to tell me if they didn't have enough food. I don't go into their business. Sure a lot buy the wrong kinds of foods."

While Jackie has to go knocking on doors to find new families to join EFNEP—she has 45 families she visits on a regular basis—the kids come flocking to her. Whenever they see her car pull up to the same community center where she played a few years ago, the kids come running for the same reason Jackie first came running in 1970: to eat.

Food Models

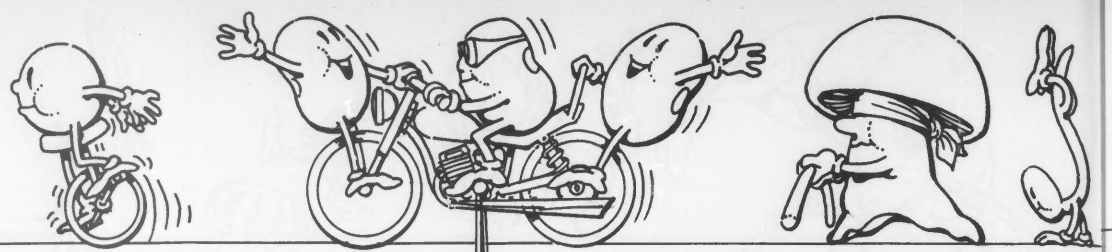
And they will eat anything that's not nailed down. Jackie uses very realistic plastic food models to teach meal preparation and food groups. To a casual observer it appears as if the models will disappear down gaping gullets before the real food arrives.

While a quick game of marbles on the floor or the "babble of tongues" disrupts the nutrition lesson, the youngsters seem to learn what foods fit into what groups and how to make nutritious snacks like "pat-a-pizza" or "corn doodle cookies."

Of course there is rapt attention at the end of class because that's when they get to eat the "lesson."

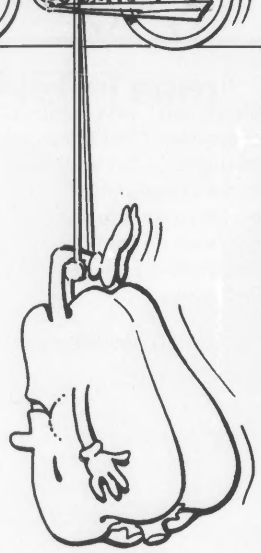
In addition to the 40 hours a week she works with the families in EFNEP, Jackie donates several hours a week to the Gwinnett Street Free Clinic.

"I just like helping people. One day I might need some help."□



Putting Produce in Perspective

Susan Reynolds
Home Economist
The Alabama Cooperative Extension Service



Today's grocery shoppers are confronted with a wide array of fresh fruits and vegetables. Many are uncertain about wise produce selections. Which type winter squash to buy, or how to obtain the fresh coconut that their recipe requires presents them with problems.

Extension can provide the answers. But Extension agents or volunteers may not be readily available to answer questions and provide educational materials at the supermarket or "point-of-purchase". Extension in Alabama and Tennessee found a solution to this dilemma by providing training and materials for the attendants stationed in grocery store produce sections.

Dual State Effort

During 1979, the Kroger Company's Southland Division, based in Nashville, Tenn., requested a program for their produce attendants. Louise Baker conducted a training session in Nashville for more than 40 Kroger produce attendants in her area. In Knoxville, Sue Cox conducted the session for 20 attendants. Pat Brogden conducted the session for 30 Chattanooga employees. Each of these women is an Extension food marketing agent in the area. I also conducted a training session, for 22 produce attendants in Alabama.

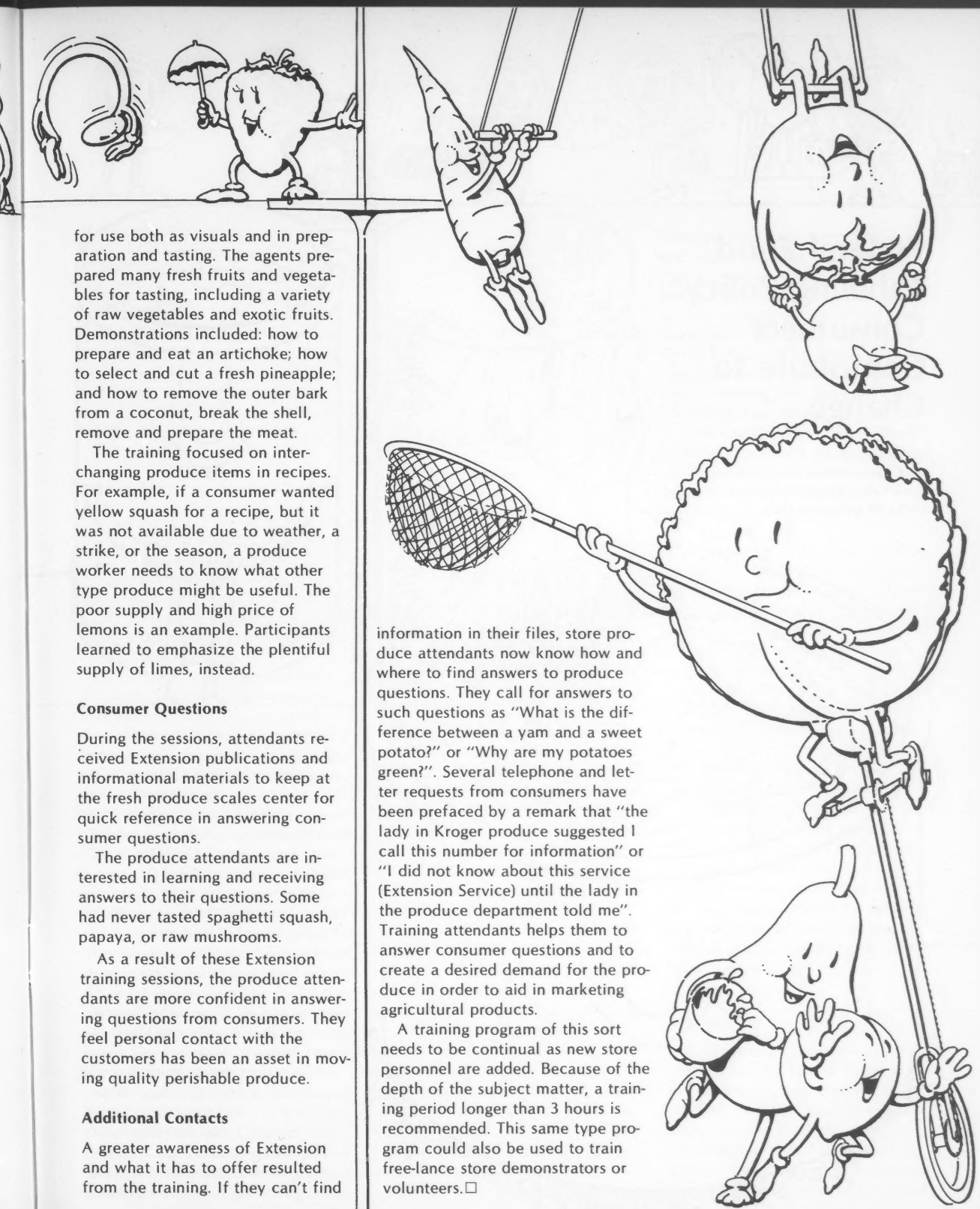
The produce attendants wanted information to give customers on selection, care, and use of various perishable produce items. Although, at each session, the more familiar fruits and vegetables were stressed, emphasis was also placed on exotic fruits and odd vegetables—namely anise, bok choy, sun chokes, kiwi, mangoes, bean and alfalfa sprouts, papayas, artichokes, pomegranates, and avocados. These vegetables are often as nutritious, useful, and economical as the familiar ones.

New products, especially ones that present a possible growth for the production and marketing industry were emphasized. Specialty items, fruit and vegetables with a specific ethnic demand were included. For example, certain local markets have a growing demand for oriental items resulting from new residents in the area.

Through present day marketing, produce items are appearing in local markets that are unfamiliar to a majority of customers. Therefore, the on-the-spot produce attendant can be the most important factor in determining if a customer will venture trying an unknown item or continue to pass it up.

Training Sessions

Each 3-hour session began with an informal, fun pretest. Slides of fresh produce were shown, and the grocery store provided fresh produce



for use both as visuals and in preparation and tasting. The agents prepared many fresh fruits and vegetables for tasting, including a variety of raw vegetables and exotic fruits. Demonstrations included: how to prepare and eat an artichoke; how to select and cut a fresh pineapple; and how to remove the outer bark from a coconut, break the shell, remove and prepare the meat.

The training focused on interchanging produce items in recipes. For example, if a consumer wanted yellow squash for a recipe, but it was not available due to weather, a strike, or the season, a produce worker needs to know what other type produce might be useful. The poor supply and high price of lemons is an example. Participants learned to emphasize the plentiful supply of limes, instead.

Consumer Questions

During the sessions, attendants received Extension publications and informational materials to keep at the fresh produce scales center for quick reference in answering consumer questions.

The produce attendants are interested in learning and receiving answers to their questions. Some had never tasted spaghetti squash, papaya, or raw mushrooms.

As a result of these Extension training sessions, the produce attendants are more confident in answering questions from consumers. They feel personal contact with the customers has been an asset in moving quality perishable produce.

Additional Contacts

A greater awareness of Extension and what it has to offer resulted from the training. If they can't find information in their files, store produce attendants now know how and where to find answers to produce questions. They call for answers to such questions as "What is the difference between a yam and a sweet potato?" or "Why are my potatoes green?". Several telephone and letter requests from consumers have been prefaced by a remark that "the lady in Kroger produce suggested I call this number for information" or "I did not know about this service (Extension Service) until the lady in the produce department told me". Training attendants helps them to answer consumer questions and to create a desired demand for the produce in order to aid in marketing agricultural products.

A training program of this sort needs to be continual as new store personnel are added. Because of the depth of the subject matter, a training period longer than 3 hours is recommended. This same type program could also be used to train free-lance store demonstrators or volunteers.□

Federal Food Labeling Policy: Consumers Contribute to Change

Paula Klevan
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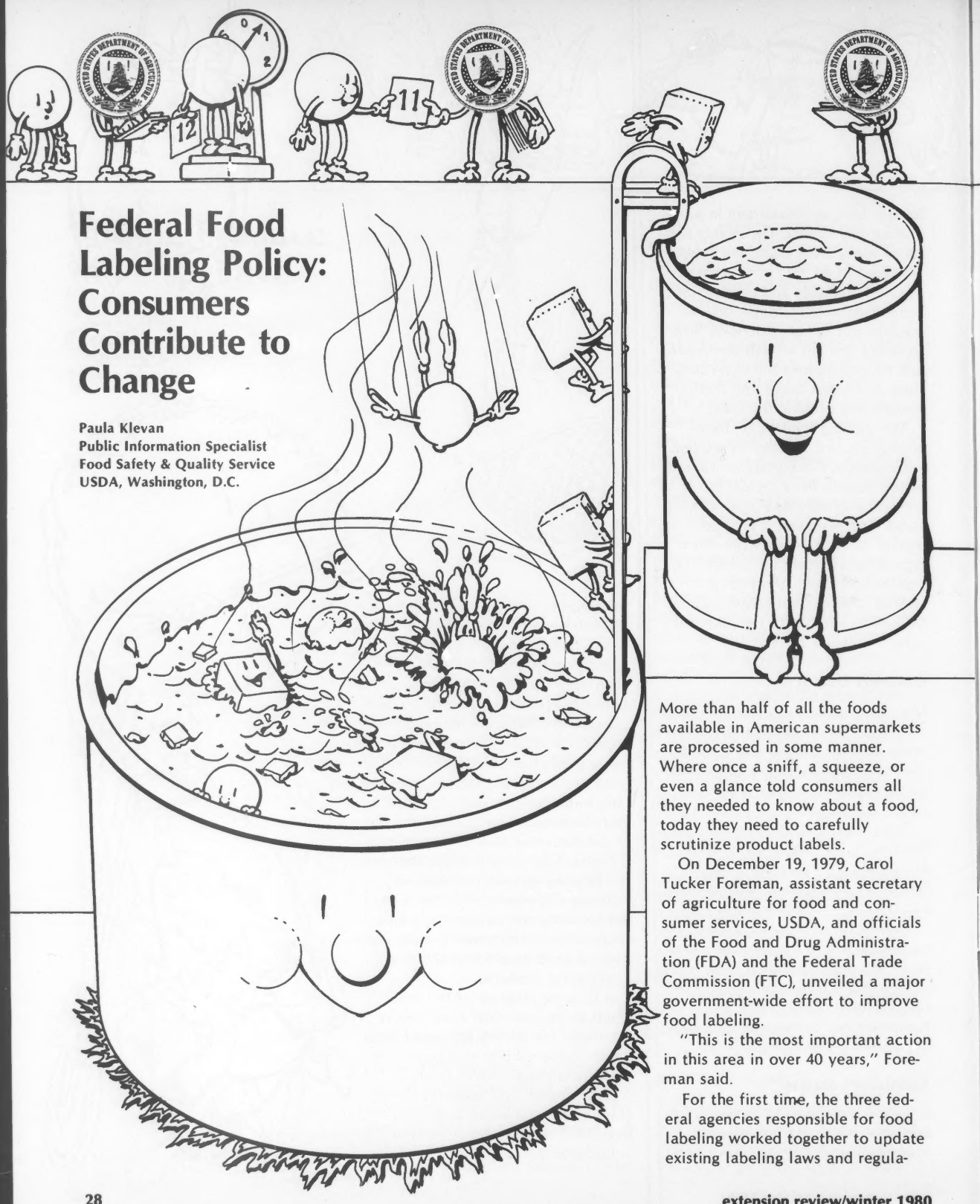
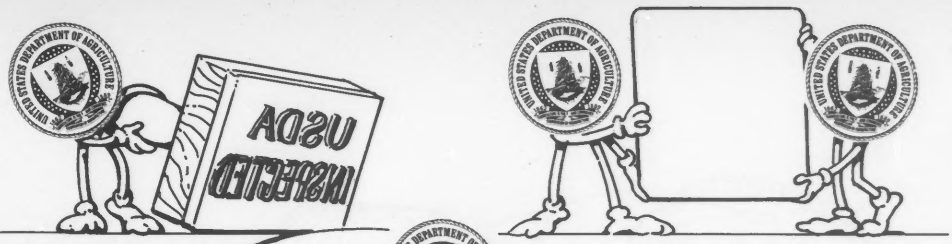


More than half of all the foods available in American supermarkets are processed in some manner. Where once a sniff, a squeeze, or even a glance told consumers all they needed to know about a food, today they need to carefully scrutinize product labels.

On December 19, 1979, Carol Tucker Foreman, assistant secretary of agriculture for food and consumer services, USDA, and officials of the Food and Drug Administration (FDA) and the Federal Trade Commission (FTC), unveiled a major government-wide effort to improve food labeling.

"This is the most important action in this area in over 40 years," Foreman said.

For the first time, the three federal agencies responsible for food labeling worked together to update existing labeling laws and regula-



tions. And—for the first time, consumers had an opportunity to fully participate in this policy-making process.

"The American consumer knows more today about the effects of diet on health than most scientists knew only a few decades ago," said Foreman. "This knowledge is essential because the foods we eat now are not the simple foods of yesteryear."

Responsibility

Food labeling is the shared responsibility of three agencies. USDA's Food Safety and Quality Service (FSQS) regulates the labeling of meat and poultry products. FDA handles all other food products. FTC ensures that food advertising is both truthful and accurate.

In the past, these agencies have not fully coordinated their regulatory actions. They also have had to deal with recent dramatic changes in food processing armed only with labeling laws passed more than 40 years ago. The result: a confusing and inadequate food labeling system.

Foreman said the agencies decided that if they are to really serve consumers, they ought to write regulations that are as consistent as they possibly can be. "Then we thought," she said, "if we're going to write regulations about labels for consumers, it's important to find out what consumers want."

In 1978, the agencies initiated an intensive information-gathering campaign, holding public hearings across the country. Individual consumers and consumer groups in Wichita, Kans.; Little Rock, Ark.; Washington, D.C.; San Francisco, Calif.; and Boston, Mass.; had an opportunity to express their views about food labeling.

The agencies also invited written comments, and FDA conducted a food shopper survey. Hundreds of consumers testified; more than 9,000 put their thoughts in writing.

"The fundamental purpose behind food labeling is consumer education," said Foreman, "so we were really pleased to find consumers so responsive to our call for help."

Consumer Concerns.

Less than 10 percent of the respondents expressed specific concerns about present food labeling policies. This fact might suggest that consumers aren't really interested in food labeling. Yet, the comments demonstrated that many consumers would like to know more about the foods they buy.

For example, the shopper survey showed that a majority of consumers are worried about preservatives, artificial colors and flavors, salt, sugar, and other substances that may pose a health risk to some people. This implies that there are quite a few people who would read food labels if only they provided useful and usable information. Clearly, there is a gap between what people want to find and what they do find on food labels.

"Consumers told us that first and foremost, they want more ingredient information on food labels, and they would like this information to be expressed in amounts, if at all possible," Foreman said.

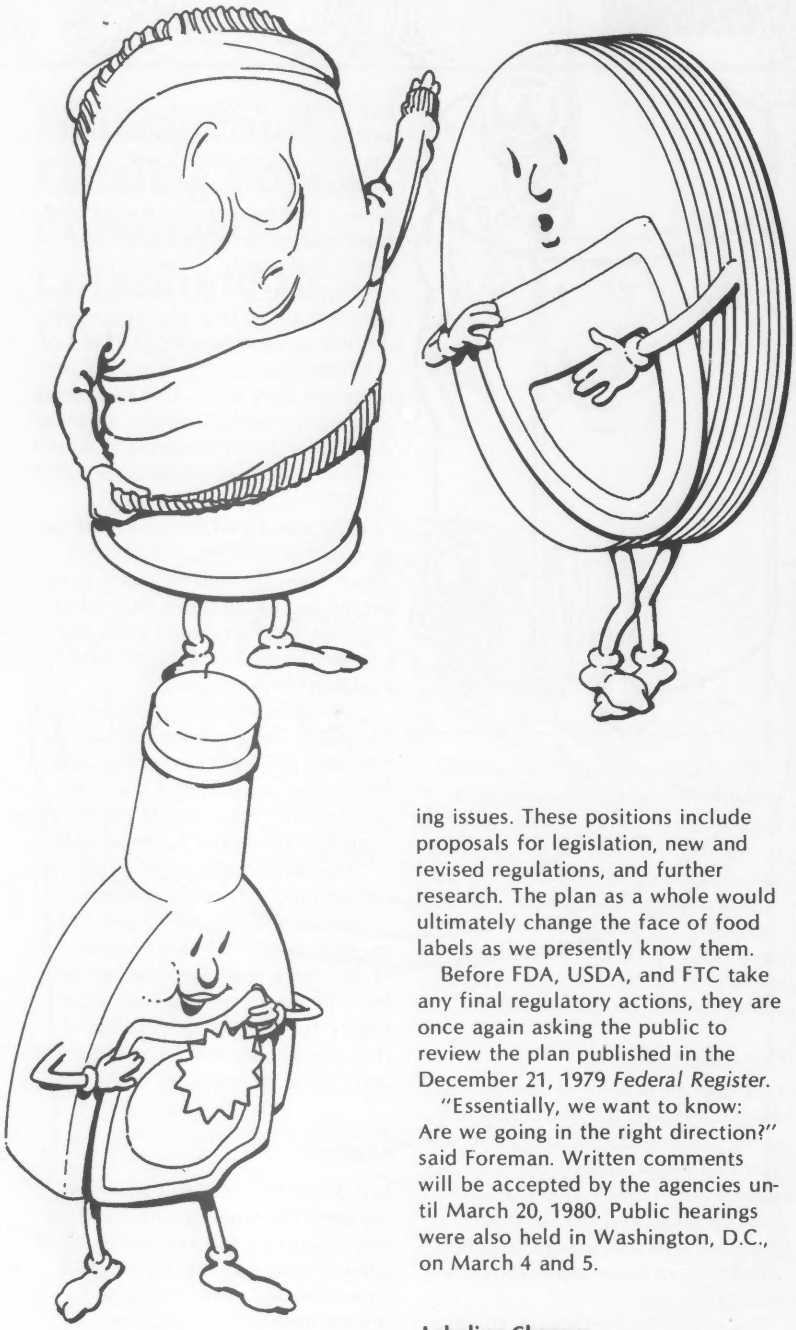
They also asked for more, improved nutrition labeling, information about when product freshness is expected to change (open date labeling) to appear on more foods, and greater federal control over food fortification practices.

Consumers also want to find more "readable" language on food labels. "Perhaps the most distressing problem facing consumers is the complex labeling language they must contend with daily," Foreman said.

"The current labeling regulations do not fully reflect the scientific consensus that has developed linking diet to health," said Foreman. "It has been suggested that we eat less salt, sugar, and fat. Consumers need informative food labeling so they can choose foods to help them make those changes."

Response

In a direct response to consumers, the agencies evaluated all the data they collected, and reviewed current labeling laws and regulations with an eye toward modernizing and streamlining federal food labeling policy. They came up with tentative positions on a number of food label-



ing issues. These positions include proposals for legislation, new and revised regulations, and further research. The plan as a whole would ultimately change the face of food labels as we presently know them.

Before FDA, USDA, and FTC take any final regulatory actions, they are once again asking the public to review the plan published in the December 21, 1979 *Federal Register.*

"Essentially, we want to know: Are we going in the right direction?" said Foreman. Written comments will be accepted by the agencies until March 20, 1980. Public hearings were also held in Washington, D.C., on March 4 and 5.

Labeling Changes

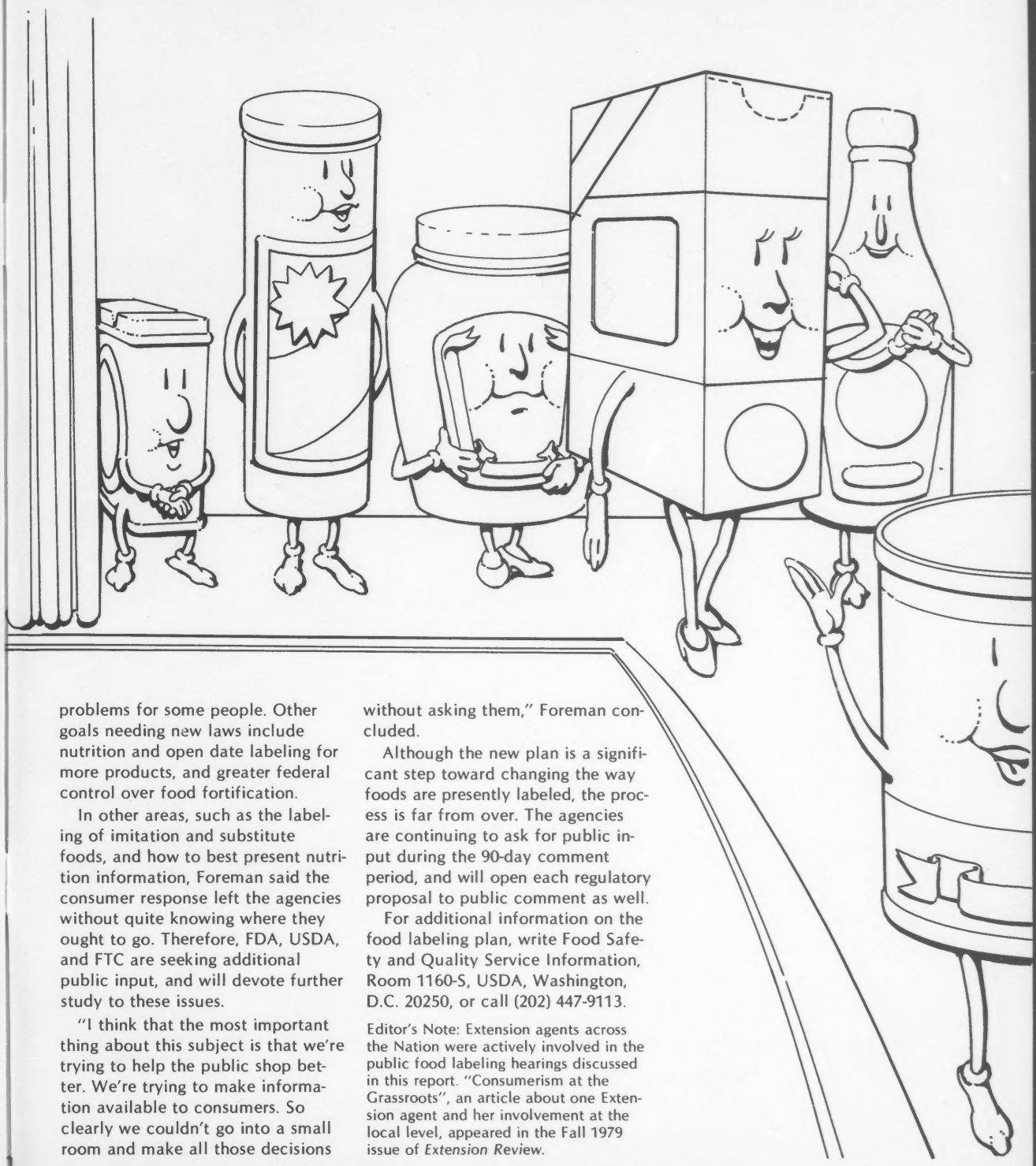
Unless there is overwhelming opposition to the plan, consumers can expect to see some changes in food labeling this time next year. Soon after the close of the comment period, FDA and USDA intend to publish a series of proposed regulations. One new labeling feature would help consumers make use of information that is presently required on the labels of all processed foods. Many consumers are apparently unaware that ingredients are listed in decreasing order by their weight—the first ingredient is the most abundant; the last ingredient, the least abundant. A mandatory label statement would explain this fact in simple language.

Another regulation that FSQS-USDA expects to propose would provide consumers with information on amounts of significant ingredients in meat and poultry products. These ingredients, such as the beef in beef stew and the turkey in turkey pot pie, would be expressed as percentages.

Other proposals would include measures to provide more complete information on fats and oils present in foods; provisions to label certain meat and poultry products with information on calories, fats, and other nutrients as part of the nutrition label; and mandatory open date labeling for such products as frankfurters, bacon, sausage products, and sliced luncheon meats.

"In some cases, it was clear what consumers want," Foreman said, "but we're going to have to ask Congress to pass some new laws in order to enable us to go that way."

Additional legislative authority is needed before the agencies can require that labels list the amounts of all ingredients present in foods, list all colors and spices by their specific names, and list flavors that have been found to cause health



problems for some people. Other goals needing new laws include nutrition and open date labeling for more products, and greater federal control over food fortification.

In other areas, such as the labeling of imitation and substitute foods, and how to best present nutrition information, Foreman said the consumer response left the agencies without quite knowing where they ought to go. Therefore, FDA, USDA, and FTC are seeking additional public input, and will devote further study to these issues.

"I think that the most important thing about this subject is that we're trying to help the public shop better. We're trying to make information available to consumers. So clearly we couldn't go into a small room and make all those decisions without asking them," Foreman concluded.

Although the new plan is a significant step toward changing the way foods are presently labeled, the process is far from over. The agencies are continuing to ask for public input during the 90-day comment period, and will open each regulatory proposal to public comment as well.

For additional information on the food labeling plan, write Food Safety and Quality Service Information, Room 1160-S, USDA, Washington, D.C. 20250, or call (202) 447-9113.

Editor's Note: Extension agents across the Nation were actively involved in the public food labeling hearings discussed in this report. "Consumerism at the Grassroots", an article about one Extension agent and her involvement at the local level, appeared in the Fall 1979 issue of *Extension Review*.

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