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EXTENSION SERVICE
Review
DECEMBER 1961



**Hurricane Carla
Disaster and Victory**

**Short Courses Link Bankers
to Extension Work**

Putting Soil Surveys to Use



32/12



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

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

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

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EAR TO THE GROUND

This final issue of 1961 marks my finale as editor of the *Review*. Next month a new editor, Walt Lloyd, takes over this desk and I move down the hall to another job.

Your new editor brings a wealth of experience to the job. Walt has been on the FES information staff since 1942 and previously worked 8 years in USDA field offices. Let him hear from you occasionally. I know he will appreciate your ideas on how to bring you a more useful magazine.

One of my last duties as editor was taking part in a meeting to plan issues for 1962 and 1963. This meeting was typical of the kind of cooperation I've received as editor. Assistant Administrator E. W. Aiton and FES division directors took time from their busy schedules to help us plan future special issues.

In the last 4 years, I've found everyone in Extension—in county, State, and Federal offices—willing to lend a hand. This kind of cooperation made my job easier.

My visits to county and State offices were infrequent because of monthly deadlines to meet. But I think I learned more about Extension—the problems an agent faces as well as the satisfaction he gains

from his work—just riding down the road visiting with a county agent. I learned the kind of information you were looking for—the kind we could bring you in the *Review*.

I read recently about an editor of a national newsletter who was asked how he accounted for his newsletter's popularity. He said they always find some person on the staff who knows absolutely nothing about each subject being reported. If this person understands the item as written, it passes the test and is published.

This is how I've tried to do my job on the *Review*. I've looked at each issue and each article as if I knew nothing about the subject. If I could understand it, I figured it would be easy for you folks in the field with a lot more extension know-how and background than I have.

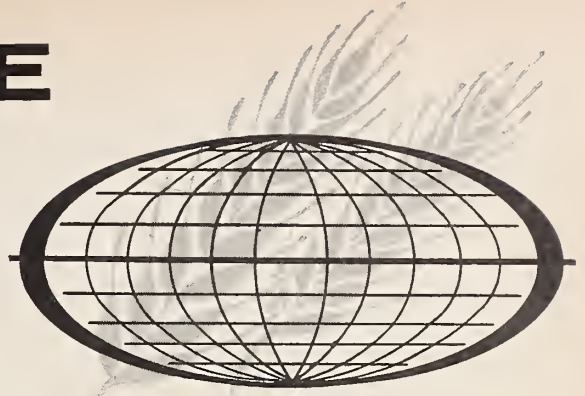
In my new job, I'll be doing work I've been engaged in part-time for the last year and a half. My main duty will be helping extension workers make effective use of direct mail—circular letters, newsletters, and other messages aimed at a specific audience. I'm excited about the possibilities in this area and am looking forward to working with you.—EHR

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AGRICULTURE TODAY and TOMORROW



by ORVILLE L. FREEMAN, *Secretary of Agriculture*

WHAT goals do we seek for American agriculture today and tomorrow? How far have we progressed toward achieving these goals?

What are some of the problems and difficulties that confront agriculture more critically today than ever before? What are some of the approaches necessary to solve these problems and meet these difficulties?

Meeting Basic Needs

One fundamental goal of all agricultural effort throughout history has been the production of primary goods to meet basic human needs. And as societies advance and farm productivity increases, a base is provided for industrial growth. In approaching this goal—providing food and fiber to meet human needs and on which to base economic growth—American agriculture is a tremendous success.

We have gone a long way toward producing abundantly enough to meet the needs of the people for the products of our farms. We have not been as successful in distributing these products to all who need them. But, we are making progress.

The tremendous productive success of agriculture in the United States is a major factor in our high level of living and in our industrial development. But its economic rewards today accrue chiefly to the general public—to the consumer who gets more and better food, at less real cost, than anywhere else in the world at any other time in history.

Abundant productivity is not enough, unless those who produce

that abundance receive a fair reward for the capital, labor, and managerial effort they invest. In this respect, we fall so far short of our goal that average per capita farm income is less than half that of the nonfarm population.

The paradox is that to a large extent our very success in reaching for the goal of abundant productivity contributes to our failure to reach the goal of adequate farm income.

To achieve this goal, an overall national agricultural policy or program must be directed toward adequate incomes for farmers and based upon a clear recognition of the implications of an economy of abundance. This is a major challenge that American agriculture and the American public must face.

Resources for the Future

Another goal of utmost importance is concern for resources in both the immediate and distant future. We must assure adequate soil and water resources for coming generations. And we must consider how to meet future needs for recreation and enhance the values of rural life.

The above are three broad goals for American agriculture today and tomorrow. Maximum progress toward these goals can be attained only if we consider them in light of the tremendous changes inherent in the scientific and technological revolution of today, with its implications of an economy of abundance and of an interdependent world.

In this context, American agriculture faces a great challenge.

The challenge is whether we can

utilize our abundant farm productivity and insure farmers the opportunity to earn a fair reward, without exploiting either the taxpayer or the consumer. At the same time, we must maintain the values of our American owner-operated family farm and conserve our natural and human resources.

Research and education have taught the American farmer how to produce abundantly. They have not yet shown us how to manage that abundance in the best interests of all.

Science has shown us that we can produce more abundantly than we can consume. But social science has not yet shown us how to engineer this efficient productivity to benefit the producer.

Technological advance has decreed that a constantly dwindling number of farmers, on fewer acres, can continue to increase total production. But we have not yet determined how to make the best use of those excess acres. Nor have we developed programs for maximum benefit of the human beings whose labor is no longer needed by efficient agriculture.

Educational Challenge

We can and must find the answers to these questions—without delay. We can do it by devoting to these problems the same kind of talent, ability, study, and research that we have given to problems of increased production.

This presents a major challenge to our Land-Grant Colleges, to our Experiment Stations, to our Extension Service, and to the Department of *(See Goals for Agriculture, page 252)*

On Guard Against A Constant Threat

by FRANK A. TODD, Assistant to the Administrator for Emergency Programs, Agricultural Research Service, USDA

GUNS and butter will win the war. This familiar statement points up the strategic importance of food during wartime. Food production in wartime has a priority rivaling arms and ammunition.

In peacetime, too, maintenance of high levels of food production is vital to the Nation's strength and security. Agriculture has always been our most basic industry.

And in war or peace, agriculture is faced with a constant threat. The possibility exists that our food production can be curtailed or destroyed by foreign diseases and pests—introduced by accident or by design.

Types of Entry

Army officials have warned that biological warfare—destroying food and fiber at the source through diseases and parasites—is a real threat. It could play a decisive role in a war not decided with pushbutton speed.

Biological warfare employs disease agents, insects, and parasites to weaken or destroy humans, livestock, crops, or food supplies. It can come from within a country's borders or be launched from without.

Sabotage through deliberate use of a livestock or crop disease or pest can be devastating. Spores of a grain rust, for example, could be released on the winds and spread rapidly over a wide area. A virus released in a stockyard, a large feeding center, or other livestock assembly area would spread fast and far.

A constant threat to our agriculture is the possibility of a highly contagious disease or destructive pest slipping past our border inspectors. Occasionally one of these gains entry accidentally, despite our precautions, or an established pest breaks out with new vigor.

Foot and mouth disease gained entrance to this country six times be-

tween 1902 and 1929. It was eradicated each time but took the lives of over 325,000 domestic animals and 22,000 deer.

A chafer beetle was found recently at Idlewild International Airport, New York, having gained entry in a plane from France. This is a major pest in Europe, attacking over 60 different fruits, vegetables, and field crops. This incident illustrates the constant hazard from accidental introduction of insects or diseases.

Witchweed is another serious concern. If it became widespread in this country, it would destroy more corn than the European corn borer.

Fortunately, we have the machinery to cope with these threats, in peace or war. A vast network of Federal, State, and local agencies is built into our protection system. Special arrangements exist for dealing promptly with serious outbreaks.

Protection System

Our protection system is centered in the U. S. Department of Agriculture and involves Federal-State-local cooperation. The Department provides centralized national protection against diseases and pests through six divisions with headquarters in Washington.

Assistance is given by the Armed Forces, Bureau of Customs, Public Health Service, and many industry groups such as shippers, cargo forwarders, longshoremen, and treating-plant operators.

All farmers and those who work with farmers or deal with their products have vital duties in the plan. Each should understand how he fits into the protection pattern and what to do in case of emergency.

The key to the defense against animal-disease outbreaks is an organization in each State for keeping informed and administering controls

when an animal-disease emergency arises. This is a cooperative State-Federal organization headed by the Federal veterinarian in charge and the State veterinarian. All reports of animal-disease outbreaks should be reported promptly to the Federal veterinarian in charge or the State Veterinarian.

Responsibility for curbing plant diseases and pests rests with the Plant Pest Control Division of Agricultural Research Service, USDA. These programs are administered cooperatively with States, other government agencies, and some with the governments of Canada and Mexico.

The organizations and plans for dealing with disease and pest emergencies in peacetime have been integrated into the plan for national defense. ARS is represented on all USDA State Defense Boards and some USDA County Defense Boards.

The ARS representative on these boards makes certain that plans are available to carry out wartime control activities. He is prepared to obtain support materials and services needed to carry on control measures in the event of emergency.

County agents and other members of the USDA County Defense Board should report promptly any serious or unfamiliar outbreaks of diseases or pests. They also need to keep farmers alerted to on-the-farm practices which will prevent or minimize disease and pest problems of livestock and crops.

New Publication

Further information on how extension workers can help cope with these threats will be contained in an ARS Special Report to be issued shortly for use by county agricultural agents.

This report, *A Leaders' Guide to Agriculture's Defense against Biological Warfare and Other Outbreaks*, describes the nature of the problem and gives details on the reporting and protection system. One of the main recommendations is that extension workers urge farmers to report to county agents quickly any unusual crop or livestock disease or pest. County agents can check and, if need be, get the information to the proper specialists for identification and needed action.

Hurricane Carla: Disaster and Victory

by A. B. KENNERLY, Assistant Extension Editor, Texas

Few persons were interested when we first began talking civil defense back in 1960," says Lee A. Wilson, Jackson County agricultural agent. "Some insisted they would rather not live through an atomic attack. But such resistance to living melted away when Hurricane Carla hit."

Hurricane Carla struck the Texas Coast south of Jackson County. It moved inland between Edna and Victoria behind the greatest mass movement of people ever evacuated in a natural disaster. A staggering total of 500,000 men, women, and children escaped from the areas of extreme peril to places of safety.

Defense Test Run

Carla furnished the need for an urgent and extensive dry run, if 20 inches of rainfall could be called dry, for civil defense organizations. Like many other counties over the Nation, civil defense in Jackson County was an untested, paper organization. What this county learned and what it is doing now to strengthen its organization is an amazing story.

"Our county was the scene of both a shelter for families fleeing the storm and an area suffering disaster," Wilson explained. "Winds reached as high as 150 miles an hour and battered us from Sunday morning until early Tuesday.

"A break-down in communications proved to be the most severe block in civil defense operations," Wilson observed. "Telephone service began flickering by Sunday noon. By night-fall, not a telephone was in operation. A good communications system, we learned, must be built around battery radios and generators."

As the storm worsened, more resources were brought into service. RACES, a temporary amateur radio service, provided unexpected relief to

the county sheriff's network and to the radio network of the Texas Department of Public Safety.

Because the storm was slow in moving up the Gulf, there was plenty of time to alert the public. Civil Defense Coordinator William F. Dewey, working under the direction of County Judge William H. Hamblen, dispatched news on Saturday to radio stations in nearby Victoria, El Campo, and Houston.

These radio stations were later sent messages through the RACES network to be relayed back to Jackson County families who had battery radios.

"Many people still hold an image of county agents as walking sources of information on farming," Wilson says. "But during a disaster, they turn to him for help in his new role of organizing resources to assist people with their problems. Because our office has contacts with so many resources on county, State, and National levels, we were able to unite these for a common purpose."

When fallen trees obstructed traffic on roads, Wilson knew oil company people who had winch trucks. These trucks quickly removed the obstructions. When a helicopter flew in to assist following the storm, Wilson directed the crew to isolated farm families cut off by floods. He knew of bedridden persons and sent medical aid.

Extension agents in other counties were equally alert to needs of the people. The county and home demonstration agents in Hardin County



Hurricane Carla, causing millions of dollars of property damage in Texas, gave extension workers an opportunity to test their civil defense plans in actual operation during this disaster.

were on duty in their offices around the clock, helping welfare officers care for 2,000 refugees.

County Agent Rayford Kay of Matagorda County reported damage to 90 percent of the homes and barns in a 10-mile strip along the coast, with 50 percent totally destroyed. Crops were destroyed and thousands of head of livestock lost.

Extension agents in counties on the edge of the storm assisted in caring for refugees who had left the coast in bumper-to-bumper caravans. They helped register the families and provide food and shelter.

Ready for Rehabilitation

While gales of wind measuring up to 60 miles an hour were lashing at College Station headquarters, extension specialists were preparing mimeographed releases telling families along the coast how to rehabilitate their farms and homes.

Snakes by the thousands were reported to be climbing into cars and other shelters. One of the first releases sent to agents concerned ways to avoid harm from snakes. Other releases going in the same mails were helps on reclaiming thawed foods, caring for clothing, reclaiming home furnishings, rebuilding barns and fences, and controlling mosquitoes and insects in the flooded country.

Joseph P. Flannery, Federal Extension Service, wired Texas Editor Tad Moses that bulletins were available which would be helpful to the stricken (See Hurricane Carla, page 252)

Learning to Understand Research

by C. E. SCARSBROOK, Professor and Soil Chemist, Auburn University, Alabama

To sell a product you need to know the product.

Because one job of extension personnel is to "sell" the benefits of agricultural research, Auburn University started a course to help extension workers understand the scientific research process. This course, *The Philosophy and Interpretation of Agricultural Research*, is a required part of a program leading to the Master of Agriculture degree.

The graduate program was initiated by extension workers through the county agents association. Agents were convinced they needed a program to keep up with changes in technical agriculture, social science, and communication techniques. This led to establishment of the graduate program in June 1958.

Area Classes

Courses are taught at five locations to minimize travel for county personnel. Four-hour evening classes are held once a week. Three quarter-hours of credit are given for successful completion of each course.

The language in the research course is usually limited to what is familiar to students. Some definitions of new terminology are required but, when possible, we substitute descriptions and examples.

The course introduction describes some historical changes in philosophies of science, scientific activities, personal qualities required of scientists, and differences between scientific and other research.

Students are usually aware of the importance of both basic and applied

research. However, we explain why advanced science could not exist without technical language and that the language of science is mathematics.

Simplified Approach

We express the scientific method in a four-step outline—Observation, Hypothesis, Experimentation, Interpretation. The outline makes it simple and easy for students to "walk" through the reasoning and operations in experimental research.

Observation. The meaning of observation, as used in the scientific method, is explained. Included are the scientist's recognition of the problem and experiences in areas related to the problem.

Hypothesis. The hypothesis is presented as the idea for the research. It asks a question or questions that the experiment is designed to answer. We emphasize the importance of this step.

Experimentation. General characteristics of laboratory and field experimentation are described. Examples illustrate the principles that determine whether a project should begin in the laboratory and progress to the field or vice versa.

Discussion of sampling takes up a major part of the course. Students may not be aware that the experimenter nearly always works with a sample. Here the first insight into possible errors in experimentation is observed.

Some of the most widely used experimental designs are illustrated. This serves two main purposes: to show that the arrangement of treatments is important in determining the information that can be obtained, and to demonstrate the use of the principles of randomization and replication.

Apparently the ease with which most students learn to appreciate the importance of error terms, the means of increasing precision, and the control of bias are directly related to the time previously spent on the principles of sampling.

Interpretation of data. A short session is given on the concepts of scientific proof. Many students are not aware that science advances by correcting errors in what was pre-

viously proved. This leads into discussion of the use of probability in interpreting data.

Utilization of statistical values is illustrated by applications of the standard deviation, significant differences, and correlation coefficients. Few mathematical calculations are required. Statistical measurements and sampling require more time to understand than any other subject covered.

Student Reactions

Several suggestions from students have been incorporated in the subject matter. For instance, one was to trace the work of an actual research project from its conception through publication. This ties into one bundle the philosophy and mechanics of a specific research problem.

Individuals come into the class knowing from experience that they need to understand the scientific research process. This generates an intense interest in the classroom.

An initial task was to learn how much students knew about the subject matter of the course. This was determined through written problems at the beginning of each class involving principles not previously covered.

The written problems also made students aware of the questions concerning an unfamiliar principle. When the concepts involved in the problems were discussed later, most students recognized them as part of the previous written work. This apparently helped them retain these principles.

Understanding Results

It is too early to measure the results of the subject matter on the extension program. Extension workers sometimes ask researchers why a certain probability level was selected or similar questions never asked in the past. We are sure the course has brought better understanding between research and extension.

The enthusiasm and interest of students in this course leads to the statement, "They help you teach." What teacher could ask for more?



and Home Development, community development, program projection, and other activities require greater vision, planning, and competency. Communications and transportation facilities have expanded and improved.

The educational level of the masses has increased. Technical information, research results, and know-how are widely distributed.

Supervisor's Role

Extension has expanded in size, responsibility, and performance. Its relationships are far flung, intricate, and more difficult to coordinate. Thus supervision has become a more critical part of Extension.

Do new extension supervisors understand the requirements of the position? Do they recognize the many complex jobs to be done? Do they know how to perform the tasks for which they are now responsible? Can the time, effort, and frustrations involved in becoming effective supervisors be reduced by systematic induction training?

A training program can help new supervisors adjust from technical subject-matter training and county experience to supervisory areas. Research and printed information support such a program.

Advance planning and early supervisory training are important since continual and sometimes unexpected changes occur. Pressure to fill supervisory positions quickly usually exists. This also creates a major training problem. A forward looking policy—with personnel trained or in training for key positions—has merit.

Each supervisory staff varies in experience, training, age, and ability. Currently, 31 percent of the supervisors in the southern and western regions have been in supervision less than 2½ years. Another 37 percent are over 50 years of age; 9 percent are nearing retirement age.

Administrators responsible for designing procedures to provide continued, effective supervision are faced with many questions. What selection procedures will be used? What opportunities for additional training are available? What should an induction training program for extension supervisors include?

Individual supervisory training needs vary widely because of different background, college work, extension experiences, etc. So any plan for training must be flexible.

Different training may be needed for supervisors whose responsibilities include all phases of extension work than those who have more limited responsibilities. Planning for program content, methods of procedure, and teaching-learning situations for new supervisors must be preceded by knowledge of those to be trained.

After their problems are identified, supervisors must be involved in the solution. Experience warns that until the supervisor evaluates and criticizes himself, he is not likely to profit satisfactorily from training.

Certain procedures are suggested for conducting effective induction training for new extension supervisors:

- Analyze the duties and responsibilities of supervisory positions and develop job specifications. Clearly defined and written job descriptions are helpful guides in the selection, orientation, and induction of new supervisors.

- Plan in advance for filling supervisory positions. This would be a real asset if coordinated with preparatory training programs for personnel who might fill these positions.

- Focus early training on attitudes and understanding of responsibilities and opportunities. For example, new supervisors might spend time in the State office on a planned agenda guided by experienced personnel.

- Travel with experienced supervisors, or others, to observe methods and work on specific supervisory problems. This would help develop confidence and insight into the job.

- Encourage new supervisors to consult with other extension and resident staff.

- Encourage participation in the supervisory course at a regional summer school prior to or soon after appointment. New supervisors also should be encouraged to participate in the first regional supervision workshop following their appointment.

- Encourage new supervisors to attain advanced degrees with emphasis in supervision or related fields.

(See Early Training, page 250)

EARLY TRAINING HELPS SUPERVISORS TO SUCCESS

by **DR. MARDEN BROADBENT**, *District Extension Director, Utah*

Editor's Note: The following is the last in a series of articles on extension supervision by Dr. Broadbent and Cleon Kotter.

MODERN professional extension workers face greater requirements for training and proficiency than their predecessors.

Extension program emphasis has broadened in marketing, conservation, and public affairs. An increasing and mobile population, greater technological changes, and increased interests in research are being experienced.

Rural Areas Development, Farm

Short Courses

Link Bankers to Extension Work

by HOWARD DAIL, *Extension Information Specialist, California*

NEW understanding and appreciation of farmers' management problems came to some 90 California bankers in 1960 and early 1961. They took part in locally oriented farm management short courses for bankers in San Joaquin Valley counties.

California extension workers organized and conducted the courses. Extension specialists, the entire agricultural advisor staff of Tulare County (13 persons), and several from the Kings County staff helped.

Two successful courses in Fresno County started the program. Then came one for 30 bankers in Tulare and Kings Counties. And three others were scheduled this fall.

Why should bankers be interested in a farm management short course? Here's what one said, "The farmer and the banker should work together as a team. This cooperation can only result in better understanding."

Tulare and Kings County bankers attending the first of the eight 2½ hour sessions soon found that the meetings would be busy.

Extension Economist Burt B. Burlingame led off with a discussion of the increasing importance of management as a factor affecting profits. He concluded with points to consider in sizing up a farmer's management ability—knowledge, judgment, recognition of problems, skill in carrying out decisions, and ability to learn.

Continuing orientation, Edward A. Yeary, farm management farm advisor, discussed management analysis as a guide in loan-making decisions.

Setting the pattern for many talks that followed, Farm Advisor Maurice Hogan described the county dairy situation. He discussed capital requirements; costs of feed, labor, and replacements; differences in feeding programs; and ways dairymen can hold down costs. Economist Burlingame and Kings County Farm Advisor H. S. Etchegaray gave further information.

At the second session, three experienced university staff members dealt with farm management topics. These included development of dairy management guides and planning and budgeting for dairymen and poultrymen.

The third session was devoted to livestock. Robert Miller, Tulare

County farm advisor, discussed beef cattle production.

Burlingame discussed cattle ranch management analysis, using a case example. Forest grazing permit operations also were explained.

The fourth session concerned cotton, sugar beets, forage crops, oil crops, cereals, and vegetables. The fifth dealt with economic principles, soil management, fertilizers, and citrus and olive production. Production of grapes, fruits, and nut crops was featured at the next meeting.

Firsthand View

A field tour by bus was a high point of the course. The bankers saw a dairy herd of 650 cows on an 840-acre ranch. They visited fruit and nut growing operations and a ranch where alfalfa, cotton, barley, corn, blackeyed peas, olives, and peaches were grown.

Feed lot operations, with a capacity of 9,000 cattle, attracted much interest. Bankers also looked over citrus and tomato growing operations. At each stop, farm advisors and owners explained the operations.

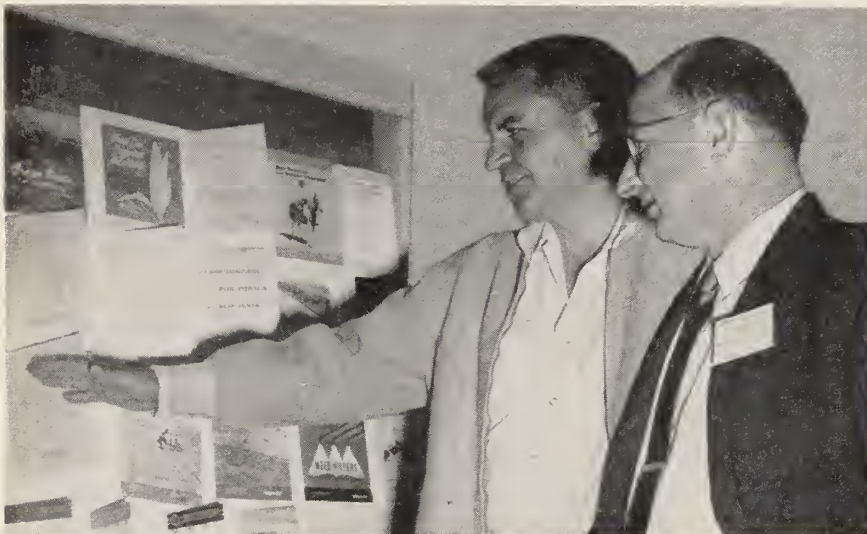
The opening part of the final session was a summary of the field trip by Tulare County Extension Director Sheldon Jackson. Other subjects included legal aspects of agricultural pest control, sample budgets for pest control, review of agricultural economic literature, and a review of the 1961 feed grain program.

By the end of the course, each banker had a binder handbook of reference material from the talks, cost analysis sheets, and other data.

A Lemoore banker reported, "Having moved here this past year, this training was of much value to me. It gave me an excellent picture of agricultural problems here."

Another bank representative said, "We've had a tremendous program of much value to me. Learning more about the Agricultural Extension Service and what it has to offer was no small part of the benefits."

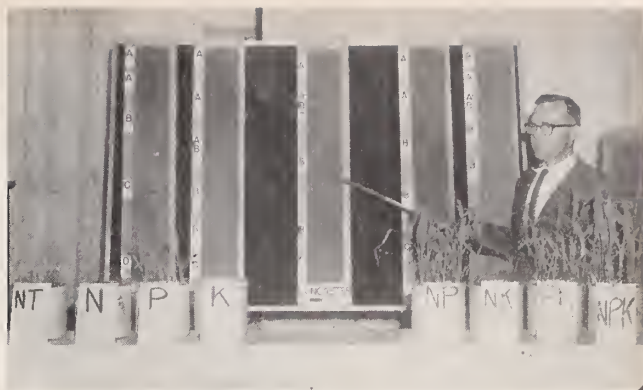
In summarizing the key features of these courses, Burlingame said, "They provide local application of farm management principles. Most important, they furnish a basis for followup contacts between bankers and farm advisors."



Banker Robert Sproul (left) and Extension Specialist Burt Burlingame talk over extension publications displayed during the short course for bankers.

Putting Soil Surveys to Use

by **ROBERT A. BOHANNON**, *Extension Specialist in Soil Testing*, and **O. W. BIDWELL**, *Experiment Station Agronomist, Kansas*



Dr. Robert A. Bohannon points out pertinent examples in a discussion of Saline County, Kans., soil fertility requirements.

THE best meeting I've attended in a long time." This is the way one farmer described a recent community educational meeting about the new Brown County, Kansas, soil survey report. Three nights later this farmer brought several neighbors to a similar meeting in another part of the county.

Meetings that cause this kind of reaction don't happen by accident. They are the product of preparation, cooperation, and know-how.

In a series of 5 evening meetings in Brown County, the attendance of 647 people represented about 45 percent of the county's farmers. Similar successful soil survey programs were conducted earlier in Saline and Geary Counties. As more soil survey reports roll off the presses, educational meetings will be conducted in other counties.

This educational effort was initiated so information in new county soil surveys could be put to use. The objective is to train farmers, businessmen, and other interested persons in use of soil survey reports and maps.

Cooperate and Plan

Extension, Soil Conservation Service, and county leaders work together in planning and carrying out these programs. During the planning phases, they are guided by a publication, *A Proposed Soil Survey Distribution and Utilization Program for Kansas*.

During advance planning, the extension agronomist, area conservationist, and experiment station personnel work closely with the county

agent and county work unit conservationist. Success of the soil survey educational efforts depends primarily on the county agent and work unit conservationist. After they understand the survey, they appreciate how it can be used in studying and solving local problems.

Next the county agent, work unit conservationist, and State extension and SCS representatives meet with local leaders to organize the educational program. The planning session is often preceded by a tour to observe principal soil types in the county.

At the planning meeting, the group names action committees, decides dates and locations for meetings, and other program details. Local leaders then work with the county agents on publicity and meeting arrangements.

Teaching Farmers

Farmers are taught how to use a soil survey report and map in one evening lesson. Facts are shown on soil formation and properties, farm planning, soil management and yield potentials, and how soil survey reports and maps are prepared. Each speaker makes short, illustrated presentations.

Soil monoliths, slides, soil texture samples, flannelboards, growing plants illustrating fertilizer response, and a large county soils map colored with fluorescent paints are used for visually emphasizing important points. A soil survey, attractively presented, can be an appetizing educational dish.

At the Saline County meetings,

for example, O. W. Bidwell described the soils map and pointed out information which farmers need to consider in evaluating land for rental or purchase. Jay Payne, work unit conservationist, discussed the importance of good land use and treatment and how a soil map is basic to a farm conservation plan. R. A. Bohannon concluded with a discussion relating soil type to soil management, soil testing, crop selection, crop sequence, and range management.

Then soil survey reports were distributed. Each person was encouraged to locate his farm on the soil map, identify the soil symbols, and read the discussion on soil management. They soon found that what at first had seemed complex was, with some interpretive assistance, fairly simple. Before the meeting closed, everyone present understood how to use the soil survey report and map.

The success of an educational program depends on seeing that the information is used properly. Carrying through the use of soil surveys will improve our education, research, and conservation application programs.

Unlimited Possibilities

This introduction of county soil survey maps and reports is the beginning of a program of continuing emphasis on soils and related problems. Familiarity with soil types will help farmer-county agent discussions of soil testing, fertility, and management.

County soil test summaries can

(See *Soil Surveys*, page 253)

Organizing a Development Task Force

by JOHN B. MITCHELL, *Extension Rural Sociologist, Ohio*

DURING World War II, the Navy used task forces to reduce enemy strongholds. Every resource was utilized in the assault. Special units carried out specific jobs in a coordinated effort to gain a common objective.

In a similar manner, Extension can marshal its varied resources in an educational assault on low-income areas—Operation Rural Areas Development. The various skills and knowledge of the extension staff can be mobilized to tackle the multiple problems of these areas.

Coordinated Attack

One agent and one specialist can make a dent in one or two problems. But a coordinated effort of all available resources of Federal, State, and local agencies and organizations can have a much greater impact.

An extension task force can deploy the various skills and knowledge of the staff in tackling the multiple problems of underdeveloped areas. At the same time other resources, community leaders, local organizations, and other government agencies, can be focused on the same problems.

Many areas have serious problems of underemployment and inadequate diet, along with low family incomes. Many adults may have less than average education or lack in leadership skills and knowledge of community organization.

Hilly land or other soil or terrain problems may make farming difficult. Forest resources may have been abused and neglected. Farmers need technical assistance in agronomy, farm management, and various livestock and crop enterprises.

The county staff, resource development agent, district supervisors, and specialists can help local people map out a comprehensive, coordinated

assault on the problems. Local citizens should be involved in every phase. Organization and agency representatives can add their resources.

County leaders and extension agents should review the local situation together. They need to gather facts on what has happened in the county, area, and State; identify problems; and inventory human and natural resources.

Through this process of fact finding, discussion, and assessment of resources, everyone involved can gain a greater understanding of the situation. Then the group can map out a plan of action with alternate ways of overcoming area problems.

All the efforts and knowledge can be integrated in a timetable of operations. Primary and secondary objectives and short range and long range goals should be outlined. Community, county, or area committees or councils can be formed to implement the work.

Many educational programs can be conducted at the same time, such as a soil fertility campaign and the organization of a marketing association for timber products.

Units of Action

A special unit, composed of an agronomist, dairy specialist, agricultural agent, and soil conservation representative can help local farmers tackle the soil, pasture, and crop situation.

The home agent and the family life, family economics, and nutrition specialists can help people grapple with family relations and better diets. County staff and rural sociologists can conduct leadership training sessions. They can assist committees and councils in defining problems and considering alternative courses of action.

The 4-H agent, family life specialist, school officials, and local groups can explore problems such as high school student drop out rate. They also can develop plans for community recreational programs.

Specialists in forestry, wildlife, and rural sociology can work with county staffs and local organizations on an area basis in developing multiple land use opportunities. Outdoor recreational facilities, hunting areas, tourist attractions, and farm vacations for urban residents are among the possibilities.

The supervisory team can facilitate a coordinated plan of attack by county staff and specialists. They can keep staff members informed on developments, progress, and objectives attained. They can keep in touch with agency personnel at the State or District level. These liaison activities strengthen and promote coordination of work at the area and county level.

As certain phases of the program are achieved, evaluation sessions should be held. Work may need to be stepped up in certain areas and reduced in others. Each success calls for re-evaluation and perhaps a shift in tactics.

The coordinated plan of an extension task force can reduce the magnitude of problems in underdeveloped rural areas.

EARLY TRAINING

(From page 247)

- Encourage new supervisors to develop long-time professional improvement programs. This would give direction to their in-service and advanced training efforts based on individual needs.

Some supervisory problems may not be solved by formal training. Training may only create awareness of difficulties, stimulate a desire for improvement, and develop insight into responsibilities. Thus solving of actual problems may be left to supervisors who have developed these insights and confidence from knowing the job.

A well-conceived induction training program has merit in assisting extension supervisors. How well such a training program fulfills this purpose depends on the administrators, supervisors, and others involved.

Make Your Job SIZZLE not FIZZLE



by **BERNICE STRAWN**, *Home Management and Equipment Specialist, Oregon*

ARE your extension cash registers ringing with sales of better food buying practices? Sales of good color choice in dress? Sales of traffic safety?

When a family tells you they have used an idea from your program, you have made a sale. It's exciting to get action and see other people benefit.

But what about the time you lug heavy visuals, give a talk, and find everyone goes back to the old routine. Your idea fizzled.

Selling Tips

How can you make your cash registers ring every day? Here are some tips from successful salesmen.

Don't make 'em drink—make 'em thirsty. People resent being made to do anything. To sell your idea, you've got to make them want to do it. How? By playing on basic emotions and needs.

All people have basic needs: to feel important, to feel appreciated, to have an easier life. If you can prove your ideas will help satisfy one or more of these needs, you are on the way to making a sale.

No one does things voluntarily unless he wants to do them. That is the key to selling ideas. You are a want stimulator.

Whip up enthusiasm. Believe in what you say. If you don't, you'll be trying to sell an empty box. To believe, you have to get involved yourself.

Enthusiasm, belief, sincerity, and confidence come from preparedness.

For example, you can't sell someone on rearranging her clothes closet unless you have adapted the lesson to your own situation and get excited about what it does for you.

Step into other people's shoes. Know what your "customers" are thinking about, what will interest them. Give them something to reach for.

Use the you-and-me approach. Make your audience a partner in the business. Give them responsibility. If you ask someone to do something, take time to tell them why the job is important.

In Yamhill County, Home Agent Dorris Roy asked homemakers to fill out a lengthy questionnaire for evaluation of a workshop. The women were in a hurry to leave but Dorris explained why she needed the information. She made them partners and got the job done.

Selling Ideas

There's a difference between preparing for a small audience you know and a large one that doesn't know you. Your leaders come to listen and take the story back to others—but to get results they still need to have every point proved. An audience that doesn't know you will listen only if you command their attention.

First decide what you want the audience to do as a result of your program. What will you leave in their minds? This is what you have to build up to from the beginning.

Sell the sizzle. Tell your audience what the idea will do for them. Fit

the "sizzle" to the audience—and to the idea.

A sizzle to one person may be a fizzle to another. For instance the new cookbook for women who hate to cook sells like hot cakes to some women. Those who love to spend hours in the kitchen wouldn't give it a cold stare.

Don't write—telegraph. Get the audience's attention with the fewest possible words.

Plan each sentence to build up to selling the idea. Check back over your material—is it all necessary? Are you tangled in so many details that you've lost the main point?

The audience needs some meat but watch out they don't choke. And be highly selective of any technical data given to homemakers. They want ideas ready mixed and pre-cooked for instant use.

Prove Your Points

Say it with flowers. A telegram of congratulations is fine but if you send flowers, too, that proves you mean it.

Make your demonstration dramatic. Use showmanship, especially with large audiences that don't know you.

At a Lane County laundry festival Agents Velma Mitchell and Virginia Houtchens didn't just tell how to launder different fabrics. They staged a dramatic demonstration including a style show of washable garments of many new fabrics. These were the flowers—home grown ones, too, because the unit members had made the dresses.

Flowers, or proof, may take other forms, too. Activities for people at your meeting help them prove to themselves that ideas are practical. For instance, if they calculate the food values of their own diet, they sell themselves on the need for change.

Ask yourself, "Have I helped the audience recognize what they want and helped them decide how to get it?" If you have, then you're ready to close.

The last, but an important, part of the program is the closing. When you want to make a sale, the best approach is, "Okay, folks, let's go."

(See *Sizzle Not Fizzle*, page 252)

HURRICANE CARLA

(From page 245)

en families. He offered two publications of special interest to the storm victims: AH-38, First Aid for Flooded Homes and Farms, and H&GB-68, How to Prevent and Remove Mildew. Almost 50,000 copies of the publications were rushed to College Station and then sent to agents for distribution in the devastated area.

Then came the cleanup and a check on weaknesses in the civil defense program. Several meetings have been held since the storm to strengthen the program.

"People in some occupations are more dependable than others," observes William Dewey, civil defense coordinator. "Persons who have seen combat duty in the armed services can be given responsible places of leadership; foremen and higher level employees of major industries accept responsibility, as do public school authorities."

Wilson points out another group of unusual help. "Ministers were helpful at several public shelters where hundreds of persons clung to the slim hope the storm soon would pass."

Unusual situations emerge from such an experience. Civil defense authorities learned, for example, that disposable diapers were high on the list of necessary items. Future plans call for locations in the county for hand-operated gasoline pumps for use when electric power is off. Home food freezers will be moved in trucks to a central generator and put on the power line. A public kitchen will be constructed.

A central intelligence room, probably in the courthouse, will house 21 persons, 3 deep for each of 7 key positions in civil defense. Two amateur radio operators will be stationed in the room. Mobile radio units will be assigned to different parts of the county to maintain communications.

Extension agents along the Gulf Coast have had an opportunity to tighten their lines of authority and communications in civil defense. No one who lived through the experience now takes a dim view of civil defense.

Recognition of the work and planning of Extension teams came from Vice President Lyndon B. Johnson. He wrote Director John E. Hutchin-

son, "All Texans in the area hit by Carla benefited by your prompt and efficient action. Those who may be victims of the next emergency will profit by the information and plans you are now accumulating."

GOALS FOR AGRICULTURE

(From page 243)

Agriculture. It presents a challenge that some would prefer to avoid because it involves controversial matters, because it relates to the formulation of public policy, because it deals with matters that cannot be proved or disproved by chemical analysis or controlled experiments.

But we cannot avoid this challenge. We cannot avoid it because it deals with the welfare of human beings, with the future of our resources and our children, with principles and ideals relating to human dignity, and with values we regard as vitally important.

We cannot allow machines to displace men, either in agriculture or industry, without providing those men the opportunity to find and qualify for other employment.

We cannot allow most of our ablest young farmers to be forced out of agriculture—the one industry that is absolutely essential to human survival—because farming offers economic incentives so much lower than other occupations.

And we cannot allow modern economic trends, such as the increased need for capital and credit in farming, to jeopardize the continued existence of our owner-operated efficient family farm system.

If we are to accept this challenge, we must do more than come up with answers formulated by experts. Research for increased productivity in agriculture was not enough—the knowledge and techniques had to be brought to the farmer himself. Social engineering can be assisted by experts, but it cannot be adopted by them.

So one of the biggest tasks ahead will be one of education. It will be a task of public discussion—arriving at sound policy decisions in a democratic manner through participation by farmers and by the nonfarm public as well.

The "constituency" of agencies that have done such an admirable job in educating farmers will need to be expanded to include all citizens. Farm policy is no longer made by farmers. Consumers need to understand that progress in agricultural research benefits them much more than it benefits the farmer.

The public needs a far better understanding of farm problems and their relationship to the economy as a whole. It needs to become aware of the fact that mechanization on the farm and automation in the factory are twin aspects of the technological revolution. Either can bring about dislocation and personal hardship—or the blessings of abundance—depending on how they are handled.

Decision-making in a democracy on matters as important and as involved as these is never simple or easy. But it is the American way.

I am confident that the same agencies of study and research and education that have contributed so much to agricultural progress can meet this challenge. They must meet it if they are to continue to hold their rightful place in American life.

SIZZLE NOT FIZZLE

(From page 251)

Save some strong closing points. Don't fizzle out at the end. Summarize, briefly.

Ask them to buy. Give a choice between something and something, not something and nothing. For example: Which month will you be a discussion leader? Not, can you be a discussion leader?

Welcome objections. The best prospects are often those who object. This shows they are listening and thinking. You can turn objections into strong selling points if you plan ahead.

After answering objections, again make an appeal for action. Ask them to buy.

Say it with a sizzle, telegraphically and with flowers, but don't forget to ask them to buy.

Selling is a challenge that calls for the human touch. In this age of agricultural adjustment, selling can be improved by technology but it can't be replaced by a machine.



The Montgomery County, Tenn., Farm and Home Community Center houses group meetings, demonstrations, a library, cooking and sewing facilities, and the county extension offices.

Do-it-yourself Community Center

by SHERMAN BRISCOE, *Information Specialist, USDA*

COOKING schools, sewing clinics, workshops, laundry demonstrations, teas, receptions, dinners, meetings, and other activities are held in the Farm and Home Community Center of Clarksville, Tenn.

Many 4-Her's do practice work in the center, especially cooking and sewing. The homemakers' county council meets there. Farmers come to discuss knotty problems with their county agent; rural women come for pointers on improved homemaking.

It's hard for people to imagine how they got along without the center. It houses a library, auditorium, model kitchen, and offices for farm and home agents. Ninety percent more visitors now come to the extension offices.

Sprouting Idea

Home Demonstration Agent Margaret Harlan had such a center in mind for more than 20 years. And the home demonstration club women worked nine years on the project before the center materialized in 1956.

After she came to work in the county in 1934, Miss Harlan men-

tioned occasionally how nice it would be to have a center. But first the depression and then the war prevented the people from giving serious thought to the idea.

Action started at a home demonstration club meeting in December 1947. One homemaker suggested that the group look into the possibility of building a center. So a committee was assigned this task.

In March 1948, a ways and means committee was appointed to find ways of raising funds for a lot and center. Within weeks, homemakers were holding dinners, barbecues, hayrides, picnics, and educational tours to such cities as Chicago, Cleveland, and St. Louis.

Little by little their funds accumulated. By 1954, the ladies had \$4,000. They bought a lot, obtained a building plan from Extension Architect Max Falkner, and recruited volunteer craftsmen to put up the building.

Miss Harlan was the hub of the wheel which turned out the center. She arranged transportation for volunteer workers and delivery of their dinners, prepared by club members. Despite the extra work,

Miss Harlan did not slacken the pace of her regular home demonstration program.

Actual construction was done by volunteer workers, who took turns working nearly 12 hours a day from May until September. And when the builders had finished, the club women carried out the paint job.

Equipping for Use

After the building was completed in 1955, donations of equipment and supplies poured in. Gifts included 2,500 books for the library, a piano, a record player, and 1,500 records.

The women installed a modern kitchen with enough tableware to serve 100 persons. They bought chairs for the auditorium, sewing machines, and a motion picture projector.

Today the homemakers own an attractive brick and cinder block center and owe only a small mortgage. They are meeting their note and maintaining the center with rental of the auditorium and offices.

"This is an outstanding example of what rural women can do under effective leadership to improve their communities," says Bessie Walton, assistant State extension agent.

SOIL SURVEYS

(From page 249)

be completed by soil types. Soil fertility research as well as demonstration plots can be conducted on well defined soil types, enabling more precise predictions concerning fertilizer response.

Soil survey information may become useful in other areas, too. Cities are starting to rely on soil information for zoning purposes. State highway departments and geologists are interested in soil type information from the standpoint of road construction and grass establishment. Land appraisers, real estate men, and farm representatives of banks are also keenly interested in soil surveys. So, many varied educational programs for specialized groups may be needed.

Extension, SCS, and experiment station personnel have joined in an educational effort which will enable the farmers of today to pass on to the farmers of tomorrow a better soil heritage than they inherited.

What 4-H Means to a Community

by OTTO G. HOIBERG, Head, The Hall of Youth, Nebraska Center for Continuing Education, University of Nebraska

IT was a lazy June day in Turkey. My family was enjoying a picnic lunch on the tranquil shore of the Aegean Sea.

A truck filled with laughing, singing children came by. As they passed, the youngsters waved enthusiastically and held high a white flag bearing four green K's. It was a Turkish 4-K (4-H) club on an outing.

The 4-K youth movement has gained a strong foothold in Turkey since it was introduced by American specialists a decade ago. The Turks are impressed with its potentialities for the enrichment of personal and community living.

In the U. S. we have long recognized the benefits of an active 4-H club in the community. Few voluntary organizations have drawn more vigorous and consistent support from the American community over the years. This indicates a basic harmony between the attainments of 4-H and the fundamental goals of the community.

4-H Contributions

4-H club contributions to community life have impact in three ways.

First, 4-H provides adults an opportunity for creative social participation to develop leadership. The number of men and women who have grown in personal and social stature through roles in 4-H is legion. The club program has provided valuable experience and understanding which are reflected in the quality of work done by these leaders in other phases of community life.

Second, an active 4-H program contributes to community life through personal development of the youth. Skills and techniques learned by the 4-H club member

make him a more effective participant in the life of the community.

Even more important are the attitudes and interests developed in youth through various club activities. Skills and techniques learned may become obsolete in time. But a positive attitude toward learning may endure throughout a lifetime. And new interests will broaden an individual's horizons and make him a more resourceful, valuable participant in community living.

A third type of contribution to the community is the community improvement projects which 4-H clubs undertake. For example, there is warmth and friendliness in the sign: The 4-H Clubs of X County Welcome You.

If a 4-H club is to fulfill these responsibilities toward its community, certain guideposts should be kept in mind.

It is essential, for example, to utilize the resources of the local community as fully as possible in developing the 4-H program. These resources include physical environment, social institutions, and individual citizens.

Full employment of these has a double advantage. It makes club members conscious of their community's assets and encourages them to identify themselves more fully with it. Such orientation is important if the growing child is to mature as an integral part of his community.

A second guidepost calls for careful adaptation of program content to the needs of individual club members.



4-H provides opportunities for social participation and leadership development in both youth and adults. This discussion group was attending a leader training session in Kearney, Nebr.

Adult leaders may feel that with a fairly adequate knowledge of the biological, social, and psychological characteristics of children, they are in position to determine program content for a 4-H club. This is only partially true.

The ideas and wishes of the club members must also be considered. Many youth programs have floundered because they have been developed exclusively by adults and handed to youth "on a platter" in ready-made form.

As much as possible, the young people concerned should share the important decisions involved in program formulation. This results in more realistic and suitable programming. And it has the added advantage of helping the young people feel that it is their program.

Keeping Current

Keeping a program geared to needs is difficult in the present rapid social changes. 4-H club work has extended to young people living in cities. This entails a definite need for new ideas in programming. Similarly, the gradual urbanization of rural areas creates a constant need for innovation.

The vitality of the 4-H movement of the future will hinge on its ability to adjust to new conditions. With adequate adaptability, courage, and vision, its basic responsibilities toward the community will continue to be fulfilled.

junior leaders

Go Into Action

by **GLORIA OLSON**, *Richland County Home Extension Agent, North Dakota*

A JUNIOR leader is more than a good club member. He is a club member who guides the thoughts and actions of others toward a particular end. This is the thinking behind Richland County's program for junior leaders.

Junior leaders have worked with adult leaders in our county for several years. But they have received special emphasis since the 4-H leaders council asked for a definite junior 4-H leader educational program.

A junior leader's role in the local 4-H club is important. These older members help younger members with projects and activities while growing in leadership, poise, and confidence themselves. Before junior leaders can grow as 4-H members, they must realize how much can be gained by helping others.

An important purpose of the Richland County junior leaders program is to encourage older 4-H members to maintain active membership in the local 4-H club. The older members, carrying out the duties of a junior leader, will play a more active role in the local club.

Leadership participation in assisting members with records, projects, demonstrations, and award applications will help develop mature young junior leaders.

To prepare the junior leaders, a series of four evening meetings were held in the county. A different topic was stressed at each meeting: Your Job as a Junior Leader, How to Conduct a 4-H Meeting and Officer Training, Demonstrations and Public Speaking, and Good Records and Award Applications.

Time was allowed for recreation as well as subject matter discussion. Junior leaders conducted recreation which they could use in their clubs.

The North Dakota Junior Leaders 4-H project was used as a reference. Role playing, group discussion, demonstrations, and lectures by extension agents were popular.

A program for the year was outlined and sent to all junior leaders at the beginning of the period. Reminders were mailed to members before each meeting and the public was informed via newspapers and radio.

In addition to the educational meetings, a Christmas party and camp for junior leaders were held. The camp program, planned by 4-H junior leaders, was held on a weekend. Junior leaders from surrounding counties also participated. The program featured recreational leadership training, an IFYE talk, and recreational activities.

It's difficult to evaluate this program in just one year. But participation in county events indicates that it is producing results.

Four times as many 4-H'ers took part in the county demonstration event this year as compared to the previous year. Three times as many entered the public speaking event.

Evaluation forms were sent to adult leaders. They responded enthusiastically and asked that the program be continued.

We feel junior leaders will naturally be better leaders if they are given encouragement and responsibilities.

Correction

The Georgia Winter School course to be taught by Starley Hunter, Federal Extension Service, will be Extension Evaluation. It was incorrectly reported in the November issue as Operations and Administration in Extension.

Monthly Revisions in Publications Inventory

The following new titles should be added to the Annual Inventory List of USDA Popular Publications. Bulletins that have been replaced should be discarded. Bulk supplies of publications may be obtained under the procedure set up by your publication distribution officer.

- F 2042 Commercial Growing of Sweet Corn—Revised 1961
- F 2180 Equipment for Clearing Brush from Land—New (replaces F 1526)
- M 859 Loose Housing System for Dairy Cattle—New (replaces AB 99)

The following publication has been declared obsolete because of changes in insecticide recommendations. All copies should be disposed of.

- L 403 Chiggers—How to Fight Them



Richland County junior leaders (right and left rear) take pride in their younger club members' participation in the county demonstration event.



Washable Wearable Wrinkle Resistant WOOL

WASH it and it won't shrink. Wear it and creases and pleats stay put. Hang it up and wrinkles disappear. That is today's new wool.

Wool—reliable and ever-popular—has an important place in family wardrobes.

Wool is especially good for cold weather wear because it helps hold body heat. The fabric also protects against sudden changes in skin temperature. Wool fabrics absorb moisture without feeling cold or clammy or sticking to the skin.

New Characteristics

Research has made it possible to do more with wool than ever before. It now can be made mothproof and stain repellent.

Mothproof treatments can be carried out either before the wool material is put on the market or at a dry cleaner's after purchase. Scientists also are trying to combine mothproofing with a shrinkproofing treatment.

Shrinking, once a problem with wool, now can be controlled. U. S. Department of Agriculture scientists have discovered ways to shrinkproof wool fabrics so they can be washed safely.

Wash-and-wear wool is prepared by coating the fibers with an ultrathin chemical film.



The new treatment has proved successful for shrinkproofing wool suits, knitted wear, blankets, and other goods. Treated garments go through machine washing, dry cleaning, and wear stress, yet keep their dimensions, colors, softness, and resilience. And they dry without wrinkling.

Treated socks didn't shrink after 35 washings and lasted longer than untreated ones. Pilling, the formation of small balls of wool on the fabric surface, also was reduced.

Shrinkproof treatments can be combined with the USDA-discovered method of putting permanent pleats

and creases in wool fabrics. Creases stay through long wear, exposure to rain and high humidity, and machine laundering.

Pleated wool skirts, for example, needed only light pressing to look neat after being washed.

Will it wrinkle? Wool is naturally wrinkle-resistant. And casual wrinkles, such as those caused by sitting, usually come out as soon as the wearer changes position.

The elasticity of wool allows the distortion of overstuffed pockets and tension at the knees and similar places. Yet the material will return to its original contours when washed or dry cleaned.

Versatile Fabric

Wool is versatile. It is constantly being used in new ways.

Silk and wool are combined in soft, resilient tweeds. Linen is blended with wool for special lustrous effects. Cotton is used with wool to make a washable flannel and fabrics of unusual texture. Blended with man-made fibers, wool adds absorbency, resilience, and warmth.

Wool traditionally has been a yardstick of quality and value in wearing apparel and many other textiles. Alert agricultural researchers will make it continue to be so today and in the future.

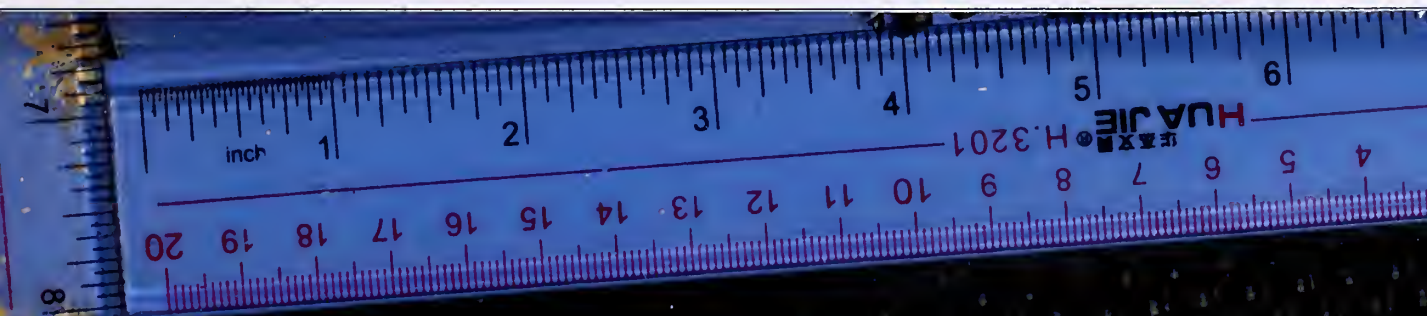
Are you telling America's greatest success story—the story of agriculture—to nonfarm groups in your area? This is No. 8 in a series of articles to give you ideas for talks, news articles, radio and TV programs, and exhibits.

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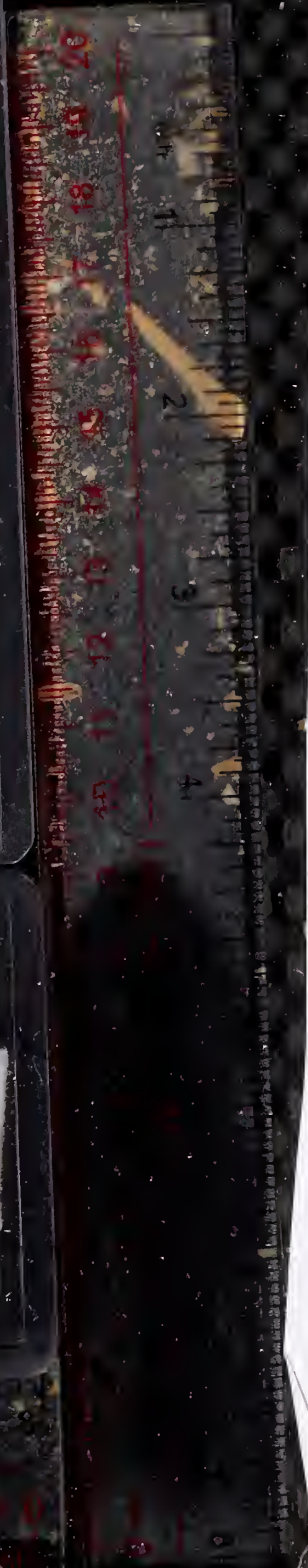
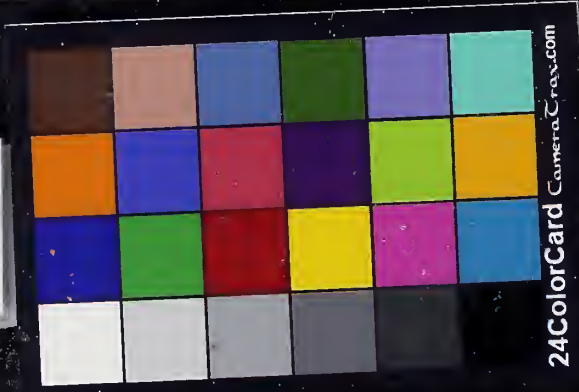
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