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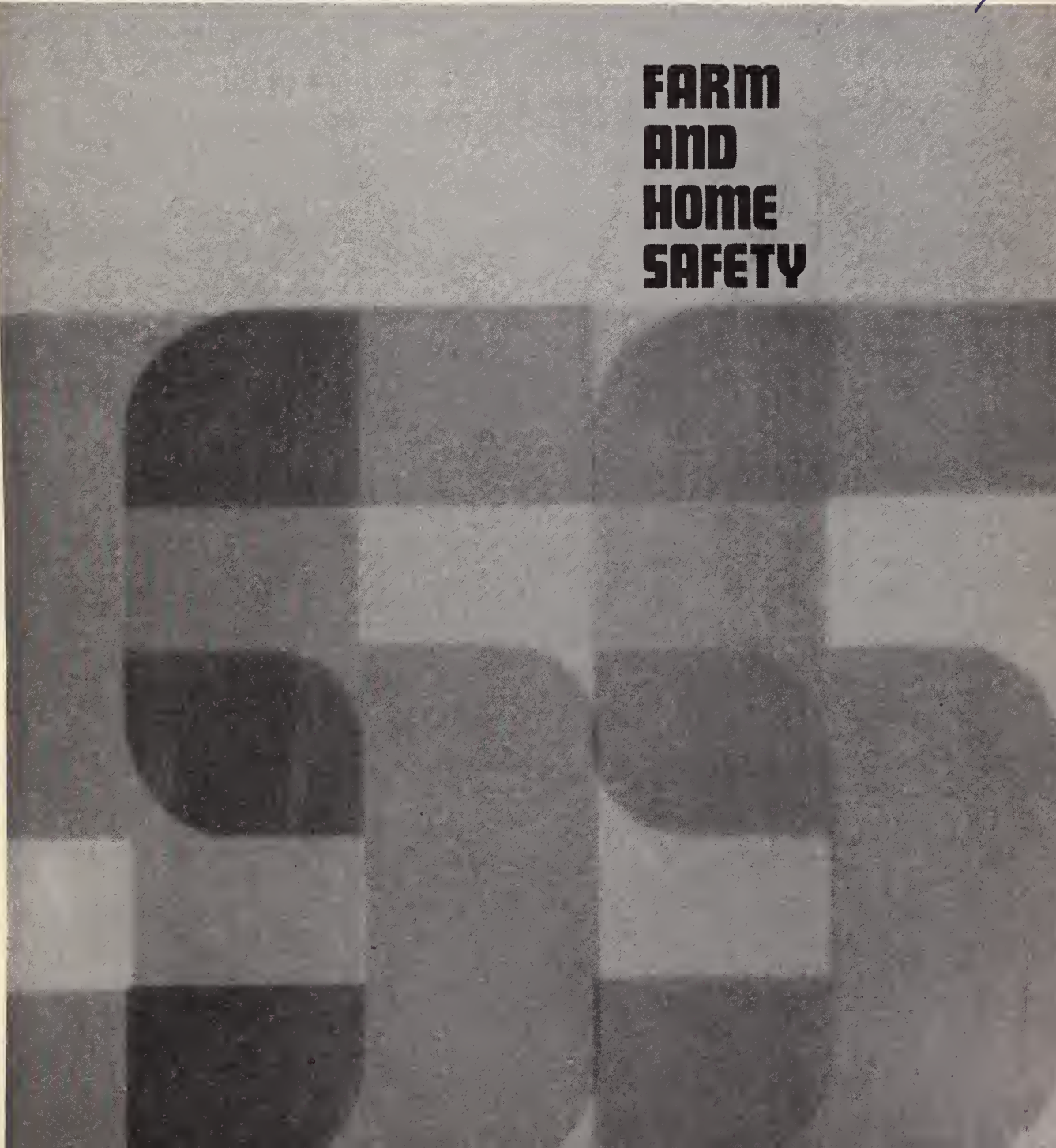
EXTENSION SERVICE

CURRENT SERIAL RECORDS

REVIEW

34/3

**FARM
AND
HOME
SAFETY**



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

The Review offers the Extension worker, in his role of educational leader, professional guidposts, 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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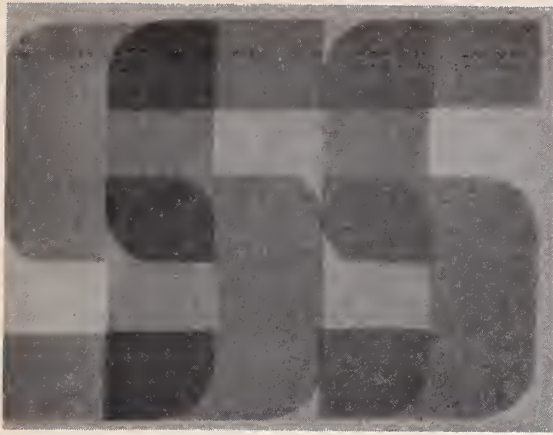
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EDITORIAL

It is a distinct pleasure to announce that Carolyn Yates has joined the Review staff as assistant editor. Miss Yates transferred to Federal Extension Service from USDA's Foreign Agricultural Service where she was on the staff of *Foreign Agriculture* magazine. Prior to that she edited the FAS weekly publication *Foreign Crops and Markets* that was recently combined with *Foreign Agriculture*.

Miss Yates is a graduate of Bridgewater College, a rural college in Virginia's Shenandoah Valley.—WAL



SAFETY-- A TEAM APPROACH

by W. B. WOOD
Director of Extension, Ohio

FATAL accidents on farms in Ohio have been reduced considerably. In 1946, 507 farm people were killed in accidents; by 1961 this figure had dropped to 350, a reduction proportionately much larger than the decrease in farm population during that period. Ohio's farm safety program began one day in the autumn of 1939 when a group of agricultural leaders met in a conference room of a downtown Cleveland hotel to consider ways of reducing accidents to farm people.

The group included Harry C. Ramsower, director of the Ohio Cooperative Extension Service; Harry Pontious, safety director of Nationwide Insurance; and Harry Sane, superintendent of the division of safety and hygiene, Industrial Commission of Ohio.

The men talked about the high accident rate on Ohio farms. Did the economic plight of farmers have anything to do with it? Was it another outgrowth of the Depression, or was farming just getting more dangerous as an occupation? As the discussion progressed, those participating became more and more convinced that an educational program was needed, designed to make farm people more safety conscious. Such a program was a natural for Extension, which was accustomed to working with rural people. The program fit well into the general philosophy of Extension—"Everyone can benefit

from education"—"Most people will help themselves if they are shown the way."

"We will assume the major responsibility for such a program," said Director Ramsower.

This was a start. But where was the money to finance the program coming from? Before the meeting ended, the group had organized the Ohio Farm and Home Safety Committee. Its membership was to include the leaders of all agricultural organizations and agencies in Ohio and its first objective was to find a way to finance a full-time safety specialist who could spearhead farm safety activity throughout the State.

Two years later the Division of Safety and Hygiene, Industrial Commission of Ohio, agreed to finance a safety specialist who would conduct his work under the supervision of the Ohio Cooperative Extension Service. This was the arrangement from 1941 until 1955 when the Extension Service assumed responsibility for financing the specialist.

Through the years, Extension in Ohio has used four major approaches in building its safety program:

1. planning with county agents and State specialists.
2. assisting all farm organizations and agencies in Ohio to carry out safety education programs.
3. working with commercial firms and trade associations.
4. using mass media.

County agents have been encouraged to work into their regular programs safety aspects which apply in

specific circumstances. For example, a corn harvesting demonstration staged by a county agronomy committee might emphasize picker safety. In a Christmas preview conducted by a Home Demonstration Council, women might actually discuss selection of safe toys, fireproofing of Christmas trees, or safe placement of the tree in the home.

Leader training plays an important part in the safety programs of home economics and 4-H Clubs. Thousands of leaders are trained each year, and then return to their own clubs to repeat the lessons they have learned. Ohio 4-H Clubs have tied safety to their club work through safety talks, contests, "open-road-to-safety" drives and safety activities at camp.

In 1958 and 1959, tractor-tipping demonstrations appeared in 82 of Ohio's 88 counties. More than 125,000 persons saw these Extension-sponsored demonstrations. They were followed in 1961 and 1962 with miniature tractor-tipping demonstrations, using a 1-3 scale model of a farm tractor powered to perform as a full-sized tractor. More than 400 of these demonstrations were staged through the county Extension offices by representatives of the Division of Safety and Hygiene, Industrial Commission of Ohio. They are believed to be partially responsible for the decided drop in fatalities resulting from the farm tractor.

Extension works with dozens of organizations and agencies in Ohio in developing and carrying out educational safety programs. These include such groups as the Farm Bureau, Grange, FFA, vocational agriculture, vocational home economics, the State Department of Health, the State Fire Marshal, SCS, and FHA.

Recognizing the importance of safety to the overall welfare of farm people, many commercial firms and trade associations have asked Extension for help in planning safety programs. Oil companies, farm implement firms, insurance companies, and electric companies and cooperatives are included in this group. Extension has provided leader training, planning, consultation, and preparation of educational materials for their various publics.

(See *Team Approach*, page 60)



ARS research worker demonstrates proper use of respirator when spraying pesticides on fruit trees. ARS-33-76 lists protective equipment that has been tested in ARS and found satisfactory. Every Extension office should have a copy.

by BYRON T. SHAW, Administrator
Agricultural Research Service,
and Coordinator, USDA Research

Using Pesticides Safely

PESTICIDES are a modern necessity in agriculture, forestry, and public health protection. Chemical pesticides have helped to make possible the living conditions this Nation now enjoys. Without them, many everyday articles of food, clothing, and shelter would become luxuries; our homes, hospitals, and eating places would be less sanitary; and many pestborne diseases now under control would again spread across the world.

On the other hand, pesticides can be danger to life or health unless we use them with care.

Industry and government work together to place in the user's hands a material that will do the job he wants done—without hazard to man, animals, and plants. Governmental controls, however, operate only up to the point of sale. Though there are penalties for misuse of chemicals on foods, no Federal agencies and only a few States have laws to control the

application of a pesticide. Safe use is up to the person who applies them.

Specialists in USDA regulations and research, the State experiment stations, and the cooperative Extension agencies have long been leaders in informing the public about how, when and where pesticidal chemicals can be used safely, effectively, and economically.

Farmers, ranchmen, and rural homemakers look primarily to agricultural and home demonstration agents for unbiased, up-to-date information on the safe and effective use of pesticides. The Extension worker has a responsibility to advise on pest control, to perhaps organize community control efforts, to keep himself and his staff alert to possible pest problems, and to be ready to help in solving them.

The best advice anyone can give on safe use of pesticides is to *Follow the Label*. Information on the label of a Federally-registered pesticide

may represent months or years of research and testing.

The Pesticide Regulation Division of USDA's Agricultural Research Service is responsible for registering all pesticides to be shipped in interstate commerce. To obtain registration, manufacturers or formulators must first prove to ARS that the product, when used as directed, will be effective and safe—safe for users, safe for people living in the area where it is used, safe for crops and livestock, and safe with respect to residues in foods.

If any residue will be left on foods when the product is used as directed, the manufacturer must obtain from the Food and Drug Administration of the U. S. Department of Health, Education, and Welfare a tolerance to cover this residue. The tolerance sets a legal limit on the amount of this chemical permitted to remain on foods. Products bearing excessive residues are subject to seizure. After

a tolerance has been set, the manufacturer must check with ARS to be sure that the directions for use on the registered label will keep residues within legal limits.

The label must not only show directions and precautionary statements about safe use but also list ingredients, including chemical and common names. Inert as well as active ingredients are scrutinized in ARS because of their actions upon each other.

Research and testing to obtain information needed to establish a pesticide's safety and effectiveness may be carried on at laboratories of the chemical industry itself, at independent consulting laboratories, at State experiment stations, at Federal research laboratories, or universities.

The material is tested on laboratory animals to determine the precautions which must be used to protect humans, pets, or livestock. Such testing may involve patch tests on skin, injections into the skin and

muscles, feeding, direct injection into the stomach, and inhalation tests during spraying of chemicals. Scientists study rats and other animals fed a chemical to see if it affects their activity; growth rate; blood, organs, and tissues; life span; or offspring. If the product will leave residues on harvested food, feeding studies are required for as long as 2 years.

More and more accurate and sensitive analytical methods are being developed for determining residues of pesticides on foods. Chemists now talk about procedures that will detect chemicals in parts per billion, instead of the fractions of a part per million that were considered fully adequate a few years ago.

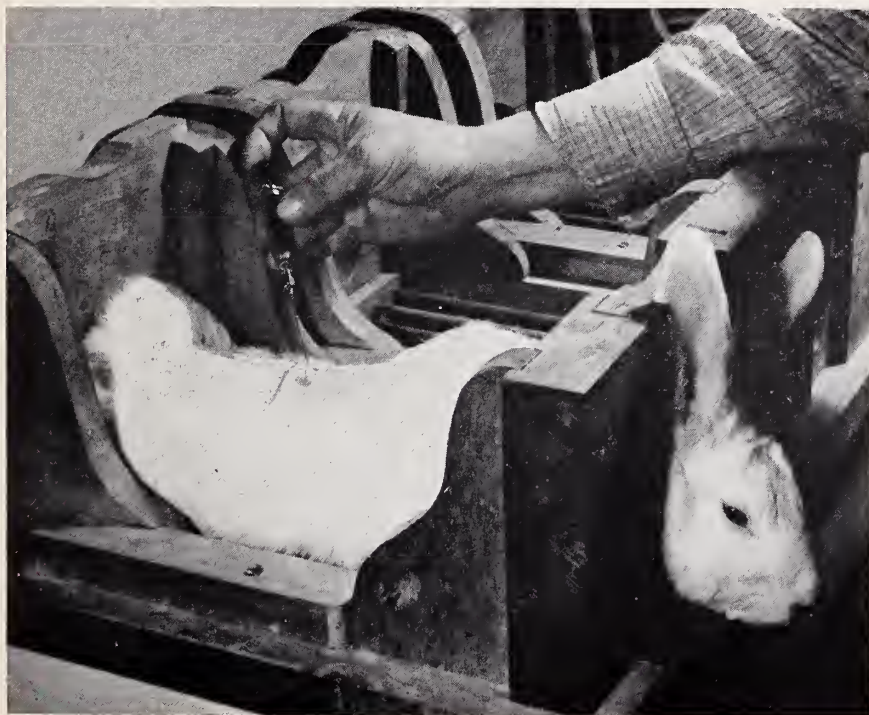
Despite these precautions, registration does not mean Federal endorsement of a pesticide for any particular use. We accept pesticides for registration—which means merely that our scientists are convinced that the proposed labeling is legal. We do not select the products that

are to be registered.

Recommendations for the chemical control of pests are made by USDA research agencies and State experiment stations. ARS research workers, in meeting their responsibility for selecting the best pest-control methods, put their recommendations into some 188 Farmers' and Garden Bul-



Right, use of granular pesticides in place of sprays can reduce chemical residues on food plants and prevent drift. Below right, beneficial wasp deposits eggs in alfalfa weevil larva. Below, pesticides applied to a rabbit indicate probable effects on humans.



letins, Leaflets, and Program Aids on many subjects. Extension Service offices should stock only the latest revisions of such publications; out-of-date advice can be misleading.

The comprehensive Agricultural Handbook No. 120, *Insecticide Recommendations of the Entomology Research Division for the Control of Insects Attacking Crops and Livestock*, is issued each spring by ARS and FES. It updates and condenses all such research recommendations, and is the most current publication of the Department in this field. A similar publication, *Chemical Control of Weeds* (ARS-22-67), carries the latest information and precautions on use of herbicides.

These Federal recommendations, which are necessarily nationwide in scope, are intended to be used as guides. State experiment stations consider Federal recommendations, along with State research and local conditions, and develop procedures for chemical control of pests within their States. In most cases, State and Federal recommendations agree.

Extension agents and other farm advisors can do much to help pesticide users understand and follow proper procedures. Extension workers can also help ARS immeasurably by promptly reporting instances where a registered pattern of use apparently is not fulfilling claims made on the label. It is important, when reporting such occurrences, to have as many facts as possible on how the chemical was used.

If recommended methods fail, users of chemicals should not use a larger dose of pesticide or try one not registered for the use they plan to make of it. Instead, they should refer their pest-control problems to qualified Extension or research agencies.

Scientists do not claim to know all the chemical and biological effects of pesticides. But our knowledge is substantial, and it will increase as additional research needs are met. The USDA is continuing to expand research on methods to control pests without using chemicals that leave harmful residues. Two-thirds of our research on insects is now devoted to biological controls, use of chemicals

We Teach Safety

by JOHN M. FERGUSON
State Leader
Kansas Extension Engineers

KANSAS Extension Service does not have a full-time farm safety specialist. In spite of this, we feel it can truly be said that we teach safety.

A report published by the Division of Vital Statistics of the Kansas State Board of Health shows that between 1940 and 1961, accidental deaths on farms decreased from 89 to 47. The best information available indicates that the percentage of injuries from rural accidents compares quite closely to the percentage of fatalities.

Our farms and farm homes have become highly mechanized during this period and have all the hazards that normally go with mechanization. Nevertheless, the number of accidents has decreased about 89 percent. Although many other factors contribute to this decrease in agricultural accidents, it is only fair to

assume that a part of this decrease is due to the educational work of the Kansas Extension Service.

All of our State specialists and county personnel attempt to emphasize the hazards that apply to their particular project area. They make a definite attempt to promote safety in their particular project field. We will discuss briefly a few of the special safety teaching efforts which have contributed to our decrease in rural accidents.

The specialists in the Engineering Extension Department have, for a number of years, taught safety as a definite part of their project work in Farm Structures, Soil and Water Conservation, Irrigation, Machinery, and Electrification. In 1960, they started a new type of safety educational work with Home Economics Unit Leaders. This work consisted of teaching them unit lessons on automobile care and safety. They, in turn, taught this lesson to all members of their units. Two members of the Engineering Extension Staff, a

Practical skills were included in the auto safety course.



(See *Pesticides*, page 61)

member of Kansas Farm Bureau Safety Department, and the local home economics agent presented these lessons to leaders.

In 1960, schools were held in two counties and 70 leaders received training; in 1961, schools were held in five counties and 58 leaders received training. In 1962, these schools were held in four counties and 120 leaders were trained.

Recently a check was made to see how many unit members had been trained by the unit leaders. In 1962, the 120 leaders receiving the training presented this lesson to 1,960 unit members. Based on the average number of unit members trained in 1962, it is safe to assume that in the 3 years these training schools have been held, approximately 4,000 unit members were trained. The members trained actually learned how an automobile engine works. They also changed tires, practiced parallel parking, participated in braking demonstrations, and studied hazards that might arise while driving.

Since the majority of these unit members were farm wives, it is almost impossible to estimate the number of people that were influenced by these training schools in automobile care

and safety. An excellent example of the reaction to these schools can be expressed by quoting a statement made by the home economics agent in Barton County.

"We Extension agents were surprised and pleased with the response to the auto care and highway safety lesson. Our leaders accepted the challenge to make a better-than-average presentation to their home units in order to stir their interest in a subject dinned into their ears every day. They succeeded. Many received the praise of their home units by being named the outstanding lesson leader of the year at the fall Achievement Day. A majority of the educational booth exhibits made by home units at this event were based on the auto care and safety lesson."

The safety program in home economics is one of longstanding and widespread emphasis. Each specialist emphasizes safety in presenting recommended practices. In addition, counties have requested leader training lessons in subject matter and methods. Discussion, group discussion-decision, demonstrations, role playing, and campaign techniques have been used extensively to create unit and community interest.

The Kansas Home Demonstration Advisory Council Safety Committee report, prepared in the annual workshop, is often used in Extension home economics unit and community-wide programs. This year the program emphasizes highway, home and farm, and water safety; it lists goals, topics for study, study materials and suggested action. Home demonstration units also participate in the National and State "Home Safety Inventory."

The outstanding unit recommended by each county is awarded a certificate of merit. The county which has accomplished the most in safety receives some safety education materials for use in the county program. These materials are provided by the Kansas Citizens Safety Council and the presentation is made by a member of the Kansas State Board of Health. Awards are given at the Safety Award Program of "Home Economics Days," held annually on the Kansas State University campus.

Safety is given heavy emphasis by the 4-H Clubs, another part of the Extension Service Program. Different but complementary approaches are made to teaching safety through the 4-H Clubs. First, safety is made a part of each 4-H project. Given special emphasis in the engineering projects (electric, tractor, auto, and woodworking) it is also an important part of clothing, foods, crops, livestock, and other projects. Four-H'ers are taught not only how to do things, but how to do them safely.

A separate activity makes it possible for both individuals and clubs to highlight safety in their club work. A carefully designed awards program encourages both individual and group efforts in two different educational approaches.

Another special safety teaching effort being made by the Kansas Extension Service is the Rural Electrical Job Training and Safety Program. This is a cooperatively-financed program involving the Kansas Electric Cooperatives Inc., the State Board for Vocational Education, and the Extension Service at Kansas State University. This is an off-campus instructional program for rural electric utility employees which utilizes adult educational methods.

(See *We Teach Safety*, page 57)

Worth Fitzgerald, KSU Extension Engineer, explains automobile parts and operations to Barton County Home Unit Leaders.



Home Demonstration Council Is Good Safety Educator

by MRS. LIONEL JARVIS
National Safety Chairman
Nat'l Home Demonstration Council

RURAL families have received years of continuing education from the Cooperative Extension Service by way of such groups as home demonstration and 4-H Clubs. When women get together with creative goals and ideas and ask for help, wheels start turning that will bring to them the knowledge they need and the desire to pursue their endeavors.

It is with a great feeling of gratitude that I attempt to tell you of the vast amount of safety education work accomplished by the members of the National Home Demonstration Council. While safety programs are carried on by home demonstration clubs and members throughout 50 States and Puerto Rico, 41 States and Puerto Rico are included in the National Home Demonstration Council.

Blessed is the leader who has not sought just the high places, but who has been drafted into service because of the ability and willingness to serve. This describes the leaders of home demonstration clubs.

Our program of work has for several years stressed many phases of safety. For the past 4 years we have held national safety seminars to better inform our leaders. We have tried to instill in the membership the necessity of bringing to families the proper attitudes and practices regarding safety and to help them move from safety attitudes and habits to social attitudes and practices which effect law enforcement.

Our national safety goals are: (1) to encourage farm equipment safety as a family project, (2) to encourage members to study electrical safety in the home, (3) to stress safe handling and storage of insecticides and pesticides, and (4) to stress the importance of recreational safety, especially safe use of firearms, water safety, and safe vacation travel.

Suggested action program: (1) study laws which apply to moving tractors and all farm equipment on the highway, (2) encourage women

to have their homes inspected for electrical hazards, and (3) conduct publicity campaigns on safety.

We were very pleased to receive reports on safety from 41 States; 4,334 clubs reported 9,478 programs on farm safety. Colorado has had State workshops emphasizing farm and harvest hazards and proper use and care of agricultural chemicals. They have distributed 50,000 pieces of literature on fire prevention and conducted surveys of farm accidents—both major and minor.

Illinois Homemaker Extension Associations have conducted sessions on medical self-help in cooperation with the Women's Committee of the Farm Bureau.

The Indiana State Home Demonstration Association has urged members of 618 clubs to check homes and farm for fire hazards.

NFPA Role in Rural Fire Protection

by WARREN Y. KIMBALL, Secretary
NFPA Rural Fire Protection Committee

RURAL fires are believed to account for about a third of the Nation's fire loss each year. The USDA has estimated that in 1961 fire losses on farms alone totaled \$163 million. Damage to other rural properties would at least equal that amount.

The National Fire Protection Association, a non-profit technical and educational organization, was founded in 1896 to promote the science and improve the methods of fire protection and prevention, and has long been concerned over rural fire waste. It's committee on Farm Fire Protection was organized in 1926 with the late Dr. David J. Price of the USDA as chairman. Dr. Price subsequently served as president of NFPA and was also a director of the Association.

In 1957, recognizing new types of rural fire hazards, other than those created by agriculture, the committee was renamed the Rural Fire Protec-

A Wisconsin County Home Demonstration Council helped organize a volunteer fire department.

Missouri Home Economics Extension Clubs furnished red flags for farm machinery used on highways.

Nebraska Home Extension Clubs presented programs on *Home and Family Protection* reaching 28,000 persons, and through their county agents they promoted seat belts.

New Jersey homemakers established a what-to-do program in case of fire or disaster for families having bedridden or aged persons.

North Carolina Home Demonstration Club members have manned emergency poison centers 24 hours a day.

South Dakota Home Demonstration Clubs stressed school bus safety.

Texas homemakers emphasized survey of hazards in the home and encouraged dog vaccine drives and the procurement of snake bite kits.

Needless to say, these accomplishments could not have happened without the help of the Cooperative Extension Service. (See *Home Demonstration*, page 61)

tion Committee. The scope statement reads:

"This committee deals with loss of life and property by fire on farms and in rural communities, prepares standards on subjects in this field and adapts for farm and rural application the general standards of the Association. Functions in both a technical and educational capacity in cooperation with the U. S. Department of Agriculture."

The Department of Agriculture is an organization member of the National Fire Protection Association and a number of bureaus and agencies of the Department are actively represented on the NFPA Rural Fire Protection Committee. These include: Agricultural Economics, Extension Service, Forest Service, and Agricultural Engineering Research.

The NFPA and USDA have long cooperated on matters concerning farm

fire safety. In addition to the Committee on Rural Fire Protection other NFPA committees and NFPA staff personnel have worked with representatives of the Department in the preparation of fire prevention literature and bulletins. Especially noteworthy is the cooperation between the Federal Extension Service and the NFPA Public Relations Department in the preparation of packets on Spring Clean-Up and Fire Prevention Week which go to all county Extension agents. The Department has two representatives on the NFPA Public Relations Committee.

The USDA's Forest Service has played an active role in the NFPA Forest Committee in preparing several publications issued by NFPA. Some of these include: Community Dumps, Community Forest Fire Fighting Equipment, Homes and Camps in Forest Areas. A book, *Chemicals For Forest Fighting*, is forthcoming.

NFPA has more than 100 active technical and informational committees working on various phases of fire protection, many of which are of concern to rural areas. Each year the Association issues the National Fire Codes consisting of seven large



Typical dairy barn fire involving hay loft.

volumes of standards prepared by the various committees and adopted by the Association at its Annual Meeting. While these standards are purely advisory, many of them are used by various enforcement agencies as

evidence of good practice. The National Electrical Code prepared by the Electrical Code Committee of NFPA Electrical Section is a prime example of a national standard prepared under NFPA procedures. In some States these standards have been adopted as laws. Two examples are: the Flammable Liquids Code prepared by the Committee on Flammable Liquids and the Standard for the Storage and Handling of Liquefied Petroleum Gases prepared by the Committee on Gases.

The Committee on Rural Fire Protection consists of 30 members representing various interests which are concerned with rural fire problems. They attempt to provide the necessary liaison between the overall activities of NFPA and the specific fire protection problems of the rural community.

For a number of years the NFPA Rural Committee has met annually at one of the State Universities or agricultural colleges to exchange information with men dealing with rural fire problems at the State and local level.

The Committee has prepared a number of texts on rural fire protection which have been published by NFPA. Noteworthy are *Fighting*

(See NFPA, page 57)

Rural dwelling fully involved in fire before arrival of fire department.



4-H'ers Promote Safety in St. James Parish, Louisiana

by TED HOLMES
Assistant Editor
Louisiana Experiment Station

A county-wide 4-H safety program has great impact on the safety awareness of people. It also creates a tremendous amount of goodwill toward 4-H work and the entire Cooperative Extension Service, according to 4-H leaders in St. James Parish, Louisiana.

The St. James safety program began in 1955 with the encouragement of a local leader who visualized the opportunities for taking safety training to the families and farms through the 4-H members. Agents liked the idea because it would give clubs a single project for all members to work on together, building unity and teaching them to work with others.

To get the program rolling, the Louisiana Safety Commission, the Department of Public Safety, farm and civic organizations, public utilities, and business firms were called on to help plan and provide teaching materials and other support.

Getting just about everybody involved has been one of the keys to the success of the St. James program. Naturally, the 4-H Club members themselves lead the promotional activities, but one result is that students from the first grade on up make safety education a part of their everyday learning experiences. They draw safety posters, write essays, learn slogans, build exhibits, act in skits, go on hazard hunts, conduct fire drills, and participate in many other activities. Trophies are awarded to 4-H members and non-members in poster and essay contests.

School officials, businessmen, civic clubs, industries, church leaders, government, and mass media representatives also sponsor awards, put up window displays, provide publicity, and give demonstrations.

"Safety Week," held just before Christmas, climaxes the year's program. While competition is not the main goal of the campaign, prizes are awarded.

In a typical campaign, students make more than 1,100 posters and

write nearly 700 essays. Virtually all businesses put up displays. Parades are held; motorists, cyclists, farmers, and industrial workers get safety reminders. Considering the announcements through mass media, it is estimated that 20,000 people are reached. ■

A 4-H Safety Lane

by MICHAEL A. McNAMEE
Extension Agricultural Engineer
Wyoming

EACH year thousands of accidents result from operating motor vehicles with faulty brakes, lights, steering, tires, and other defects. Often the vehicle operator is unaware that his equipment is defective until there has been an accident. In Teton County, Wyoming, 4-H Clubs decided something needed to be done about auto safety in their county.

Several leaders and junior leaders met with the county agent, Nels Dahlquist, to plan a county-wide automobile safety program. At the request of the Wyoming Highway Patrol, the group decided to sponsor an auto safety check of the type sponsored nationally by the Auto Industries Highway Safety Committee and a national magazine.

The safety committee's first step was to contact the Jackson Hole Rotary Club who agreed to finance promotion materials available through the National Vehicle Safety Check program. As an added bonus, the Rotarians voted to fine their members \$2 for every car they failed to have checked. All fines would go to the 4-H building fund.

The publicity committee was led by Virginia Casebeer, a junior leader. She made arrangements with the *Jackson Hole Guide*, the weekly newspaper, to print news items about the campaign. Other committee members encouraged local businessmen to call attention to safety-check day in their newspaper ads.

Arrangements made with KID-TV at nearby Idaho Falls, Idaho, provided the county agent and six junior leaders with 15 minutes time to explain the safety check and other ac-

(See NFPA, page 61)

Making safety displays and posters is regular classroom work for children in St. James Parish, La. Outstanding projects by club members and non-members get awards through the 4-H safety program.



How the Safety Specialist Multiplies His Efforts

by **NORVAL J. WARDLE**
Extension Safety Specialist,
Iowa State University

EVERYONE is interested in safety. This has been the basis of the Farm Safety Program in Iowa for 15 years. It is most important that this basic interest be taken for granted in working with people. The need is to guide and implement this basic interest in safety. Vehicles on which the basic interest can ride are important. We must carry that interest to the fruition of a safe home, community, county, and State.

The safety specialist can use these direct contacts with farm families:

1. safety meetings.
2. safety demonstrations.
3. safety talks in other meetings.
4. farm inspections.
5. farm tours by groups.
6. safety exhibits at fairs, in store windows, etc.
7. safety conferences where the participants are instructed and trained how to live safely.
8. safety contests, such as a tractor operator's contest, hazard hunts, safe farm family, safe farm.

The farm safety specialist cannot do the job alone. It is impossible for him to reach and work with each member of every farm family. To make any imprint on the tremendous problem which exists, he must be primarily an organizer, a coordinator, a source of reliable facts and information, and an encourager.

At the local level—the school, county, and community—he needs to develop devoted, volunteer safety workers. He may develop these by working with State leaders, such as the Supervisor of Vocational Agriculture, the State Conservationist, the State ASC chairmen, or the State Association of Rural Electric Cooperatives. These State leaders then can instruct and train their local personnel in carrying out farm safety programs. The Safety Specialist may personally assist in the training of these potential safety leaders. Thus many local safety specialists are developed to work directly with farm people.

The safety specialist uses the full

resources of the Extension Service to promote safety throughout the State. A variety of methods may be used:

1. individual conferences with other specialists to assist them in incorporating safety into their programs.

2. conferences with State 4-H leaders to guide and assist them in incorporating safety in the whole of the 4-H program.

3. conferences with District Extension Supervisors to train them in advising county personnel on safety programs.

4. training sessions for county Extension agents to train them to organize and carry out safety programs in the county.

The safety specialist should always be ready to help the local "spark plug" leader. He should do all he can to prime the county Extension agent to be on the alert for these safety leaders. This local volunteer leader may be like a farmer of Clinton County who has developed an active county safety committee. This committee has reduced fires, practically eliminated corn-harvest accidents, and made all residents of Clinton County more safety conscious. He says the essential members of a good county safety committee are safety workers, authorizers, financiers, and publicizers.

With this group working and supporting safety programs, accidents and fires are reduced. Such an organization in every county is of inestimable value.

Likewise on the State level, the safety specialist is an organizer, initiator, coordinator, and fact supplier. Experience has shown that when a State committee is organized and develops a vigorous program, accidents are reduced.

At the State level, numerous organizations and individuals are ready to aid the Farm Safety Program. These include farmers and farm homemakers; official USDA representatives; insurance companies and associations; TV and radio companies; State Fire Marshal; State Safety Department; Highway Patrol; farm organizations; State Departments of

Health, Education, and Agriculture; service organizations; farm supply companies; chemical companies; and many others. The task is not to find interested people, but to so organize the State safety committee or council that all interested can feel they are making a worthwhile contribution.

The development in each State will be different. There is no one way. Iowa's council has developed from a small committee organized in 1944 to this present setup:

Iowa Farm Safety Council Board of Directors

- Division I—Family Activities
 - Recreation Committee
 - Home Committee
- Division II—Fire
 - Fire Prevention and Control Committee
 - Radiation and Fallout Committee
 - Flammable Liquids and Gases Committee
- Division III—Chemicals
 - Farm Chemicals and Poisons Committee
 - Explosives and Related Hazards Committee
- Division IV—Traffic
- Division V—Farmstead and Field
 - Tractor and Machinery Committee
 - Animal Committee
 - Shop and Electricity Committee
- Division VI—Records and Research
 - Reports and Records Committee
 - Research Committee
- General Committees:
 - Statewide Programs
 - Awards
 - Publicity
 - Membership
 - Council Development

There are 145 members on these committees with 46 general members of the Council. The purpose of the Council is to develop programs and activities which will reduce accidents and fires in rural Iowa.

All of these need to be coordinated in a statewide program. The State Safety Council, State organization leaders, and State specialists in the Extension Service develop safety campaigns, contests, publicity, dem-

(See *Safety Specialist*, page 61)

Field gates located on the fence line can contribute to traffic disturbance and accidents. This diagram from *Your Rural Road Challenge* slide film series suggests proper placement for this type of gate.

Rural Highway Safety

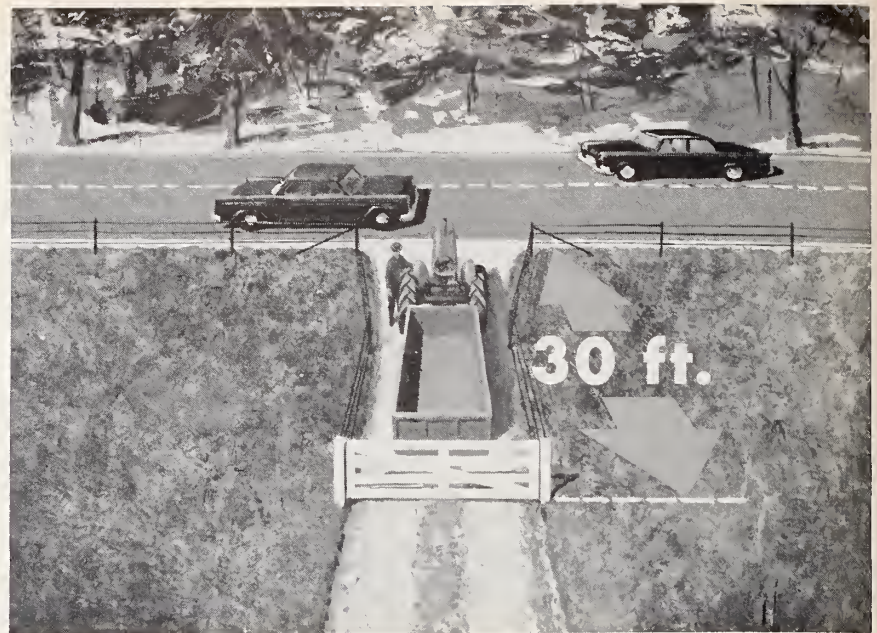
by JOHN L. MARKS, Director
Rural and Education Division
Automotive Safety Foundation

AN American President some years ago characterized the heavy annual toll of death, injury, and property damage in highway accidents as "a national disaster." By that reckoning, 1962 was the worst disaster year of all, since it set an alltime record of more than 40,000 lives snuffed out in traffic.

A large part of the traffic accident problem is concentrated in rural areas. About three-fourths of all motor vehicle fatalities in the United States occur on rural roads—though of course not all of them involve rural people. However, the accidents occur on roads and highways where they most frequently drive.

Rural residents, in fact, rely on the car and truck even more than city people do. As for farm families in particular, 80 percent of them now have automobiles, compared with a national average of 74 percent. Greater use of the motor vehicle means greater exposure to accidents.

In addition, the highway accident potential in rural areas is compounded by many special factors, such as obsolete road design and poor road maintenance. Haphazard signing and marking, blind intersections, hidden farm-access roads, and slow-moving



vehicles are also hazardous.

To cite the rising trend of motor vehicle accidents is not to imply that highway safety effort is futile. Just the reverse. It simply means that safety activity is not keeping pace with the constant increase in accident exposure due to heavy increases in population, drivers, vehicles, and travel. Experience has shown that States and communities conducting a vigorous safety program on a continuing basis have the lowest accident rates. The nation's annual traffic death toll, but for the labors of the organized highway safety movement would now exceed 100,000.

Good highway safety programs don't just happen. They are developed and carried forward by people who not only want better traffic conditions but are willing to *work* for them. An organized approach is the first essential—with citizens and public officials thinking and cooperating closely.

The biggest challenge in highway safety is to put available knowledge to work. The sum and substance of what we know about curbing motor vehicle accidents is contained in the nationally-recognized Action Program sponsored by the President's Committee for Traffic Safety. This balanced program of education, enforcement, and engineering has the strong endorsement not only of responsible

officials at all governmental levels but also of every major citizens organization concerned with the public welfare.

The nation's agricultural leaders, cooperating with the President's Committee, have recommended intensive educational efforts—through existing rural organizations and agencies—as the soundest approach to the rural traffic problem. These leaders agreed that voluntarily coordinated community-wide action will produce more substantial results than isolated group activity. In a concerted effort, goals and priorities can be more clearly defined and the rate of achievement accelerated.

This course of action is being spearheaded by the Cooperative Extension Service, which has enlisted many other organizations and agencies in the rural community. Among these are general farm organizations; farm women's and youth organizations; farmer cooperatives; farm power suppliers and agri-business enterprises; civic groups and churches; agricultural media, including radio, television, and press.

The Automotive Safety Foundation, which helped to initiate the national Action Program for highway safety in 1946, has strongly supported the work of rural groups through its Rural and Education Division. Through staff services and grant

funds, the Foundation has aided in shaping traffic accident prevention programs for all three of the general farm organizations, the major rural youth groups and women's rural organizations. Joint efforts with the Cooperative Extension Service have also resulted in a great deal of constructive accomplishment, with county, State, and Federal Extension workers making a valuable contribution in many of the projects.

One of the important activities launched by the Cooperative Extension Service was the 4-H Automotive Care and Safety Project. The aim was to develop a practical action program with particular appeal for older 4-H Club members. The task of guiding overall project development, producing materials and implementing the project on a pilot basis was entrusted to a National 4-H Automotive Project Committee, with the Automotive Safety Foundation supplying staff and financial aid. Immensely popular ever since its formative stage, this project is now sponsored nationwide by the Firestone Tire and Rubber Company.

To fill a long-felt need, State Extension safety specialists, safety directors of other rural organizations and the Foundation pooled their ef-

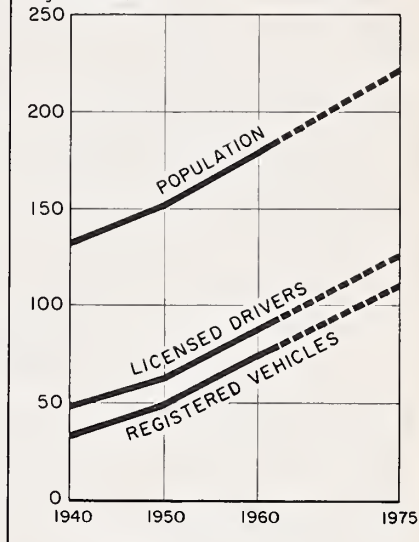
forts to prepare a comprehensive Library Reference File embracing the most useful literature in the traffic safety field. A total of 120 sets of these catalogued reference files were distributed to State Extension safety specialists and State farm organization safety directors.

Another landmark in the development of useful program material for rural safety activity was the publication of *Vehicles, Roads, People*, an exhaustive fact-book on highway transportation and safety produced by ASF in cooperation with the Federal Extension Service. It was the first full-scale document in this field designed specifically for use by Extension staffs of Land-Grant Colleges and by some 12,000 County Extension workers. With more than 17,000 copies distributed by the Foundation as a public service, the book has been widely used as an encyclopedia of essential information and as a practical aid in promoting group and community support projects in highway safety.

For the past 2 years the USDA has issued a special program leaflet directing attention to rural highway safety in connection with National Farm Safety Week. ASF developed the basic information for the leaflets.

Increase In Population, Drivers and Vehicles

Figures in millions

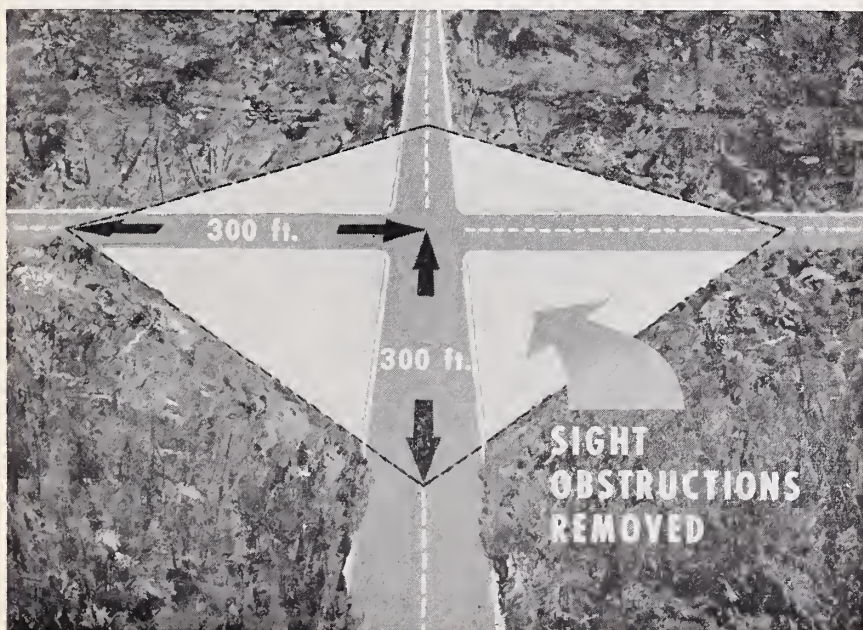


Significantly, both in 1961 and 1962, Farm Safety Week (jointly sponsored by USDA and the National Safety Council) was primarily dedicated to rural highway safety.

What are the top priorities for cooperative action in the rural community? Agricultural representatives who attended the four Regional Citizen Leadership Conferences held in 1958 by the President's Committee, pinpointed the following:

- Proper and adequate marking of slow moving farm vehicles, including lights.
- Proper maintenance of rural highways, including the removal of obstructions and other hazards.
- More emphasis and education on the importance of traffic laws and enforcement.
- Improved uniform marking devices and warning signs on rural roads.
- Surveys of local areas to determine hazards, causes of accidents, types of injury, and other information essential in carrying on a practical educational program in rural traffic safety.
- Expansion and extension of educational programs for rural traffic safety among farm and rural women's organizations and rural youth organizations.

Blind intersections are a major hazard on rural roads. Here are the recommendations for cutting back crops or shrubbery to insure unobstructed vision at such crossings.



- Limitation of the operation of tractors and transportation of farm equipment on public highways to qualified operators.

- Stricter licensing requirements and stricter law enforcement for all motor vehicle operators.

- Periodic reexamination for renewal of all drivers' licenses.

To help dramatize these priorities and stimulate activity, Extension safety specialists and other farm

safety experts cooperated with the Farm Division of the National Safety Council and the Foundation in developing a two-part package titled *Programming Aids in Rural Highway Safety*. The first section consisted of five pamphlets to aid discussion, planning, and execution of project activities. The second was a slide presentation dealing with the special hazards of rural driving and outlining steps for their correction. ASF

has made about 600 sets of the booklets and slides available to State farm safety specialists and to the State headquarters of the general farm organizations.

Rural officials and civic leaders are devoting an increasing amount of time, energy, and money to safeguard the movement of people and goods on the public highways. Meanwhile, with the incessant growth of traffic, the challenge looms larger every year. By 1975 the present 90 million licensed drivers and 76 million vehicles will have increased by another 40 to 50 percent. Annual travel which now totals about 765 billion vehicle-miles will soar to 1.2 trillion miles. All this means vastly multiplied chances for accidents.

Unless the people of America make a real effort to step up safety activities on all fronts, reliable authorities predict that the highway accident bill we will pay the next decade will add up to the astronomical total of 460,000 deaths, nearly 15 million disabling injuries, and economic losses of over \$77 billion!

We must not let that happen. ■

Motor Vehicle Accident Trends

	1940	1950	1960	1975 ¹
Highway deaths	34,500	34,760	38,200	51,000
Highway deaths (Per 100 million vehicle-miles)	11.4	7.6	5.3	4.4
Cost of highway accidents: (Billions of dollars)	1.6	3.1	6.5	9.5

¹ Projected estimate.

Source: U.S. Bureau of Public Roads

State Farm Safety Committees Ring the Bell for Safety

by MABEL C. MACK
Assistant Director of Extension
Oregon

STATE Farm Safety committees have literally sprung up all over the country in recent years. In 1944 there were four, in 1950—25, in 1960—45, and today 48 States are organized to prevent accidents.

These State committees haven't grown up by chance but rather as the result of a request by a conference group, a planning committee, or a group of citizens. These committees have grown and developed into active, effective groups through the combined efforts of many organizations and agencies working together on problems of mutual concern.

Let's take a look at these committees in terms of how they were organized, what they have done, and what they hope to accomplish. The

objective of State safety committees is to prevent accidents. Attention to this simple purpose will keep the committee on the beam. The motivation for the organization of these committees may have come from many sources—local people, local groups, or through the work of the Farm Division staff, or the Committee on State Committees of the Farm Conference of the National Safety Council.

In Oregon, our Governor's Committee on Farm Safety was organized in 1953 as a direct result of the recommendation for a "State Farm Safety Committee" made by the Farm Safety Division of the Governor's Coordinated Safety Congress held at Oregon State University in December 1952.

The safety committee was organized in Portland on February 5, 1953, with 11 persons present representing the Secretary of State, REA Co-op's

State Safety Chairman, State Department of Vocational Agriculture, State Industrial Accident Commission, Cooperative Extension Service, the National Safety Council, and one farm leader. The farmer was elected chairman and the Extension representative, secretary.

The first major problem confronting the committee was the matter of funds to finance their work. Various sources were explored, but there was no ready solution. Undaunted by a lack of funds, the committee agreed that through combined efforts—all working together—they could carry on; so by consensus agreed that the committee should continue to function, and that it should be enlarged to include representatives of all organizations interested in farm safety, and especially the farm organizations so that there would be an opportunity to work *with* not *for*

farmers. Thus the Oregon Governor's Committee on Farm Safety was launched—enthusiastic and motivated to develop an action program. This dedicated group has accomplished much through their coordinated work and by making use of all available resources.

Today the membership of the committee includes representatives of farm organizations, industry groups, radio and TV, and State agencies.

Each organization represented has helped to support and promote the educational programs at the county level through securing the cooperation of their representatives. Extension Service has had each county staff name one agent to work on safety with organization representatives in developing a county safety program at the grass roots level. The Northwest Agricultural Chemicals groups in cooperation with the State committee have added incentives through a scholarship awards program for 4-H demonstrations at county and State fairs on Safety in use of Agricultural Chemicals.

Resource Helps for the State Committee

State committees need assistance in planning, methods, and the development of materials and visual aids. Valuable help has been given during the past few years through the frequent visits of National Safety Council Farm Division staff members and through the pipeline developed by having a committee member serve on the National Farm Conference and on the Committee on State Committees of National Safety Council.

The National Safety Council asked the Oregon committee to host the first Western Regional Conference for State Committees in March 1961. The Oregon committee as host had the privilege to invite about ten county committee representatives and Extension agents, to gain ideas for county programs.

The next year, eight members of the Oregon State Committee participated in the Regional Conference at Tacoma which the Washington committee hosted. Plans are now being made to attend the 1963 conference for State committees at Boise, Idaho, March 27-29. Perhaps no other factor has been a greater motivating

force in the development of State safety committees and strengthening of programs than these conferences.

What Has Been Done

The State committee has followed the leadership of the National Safety Council Farm Conference for areas of emphasis each year. This means factual information, circulars, visual aids, and bibliographies are available from the National Safety Council.

Certain State Extension specialists serve with the Assistant Director as an Extension committee on Farm Safety including the Agricultural Engineer and Specialists in Forestry, Entomology, Family Life, Home Management, Agricultural Chemistry, Extension Wildlife Management, Radio and TV, and Information. This committee prepares packets of safety material for county Extension agents and county safety committees, especially during National Farm Safety Week, Spring Clean-Up Week, Fire Prevention Week, and Safety for the Holidays.

In 1960 the State Home Economics Extension Council women adopted Traffic Safety for their number-one community service project and have continued each year with this project featuring "Are You in the Know" (a review of traffic laws and regulations); "Seat Belt Installation and Use," in cooperation with the Jay Cee's installation program; Driver Education; and Bicycle Safety. The Extension units will continue this program on Traffic Safety next year and are also planning to start the National Safety Council program on "falls" next September.

The State safety committee encourages the organization of county safety committees or steering committees to aid the Extension agent in developing a safety program at the county and community levels. The typical county committee includes representatives of most of the organizations and agencies serving on the State committee. Their program may start with a well planned countywide observance of National Farm Safety Week developed in various ways using National Safety Council kits and packets of material prepared by State committees.

For example, Linn County, under the direction of County Agent O. E.

Mikesell, organized a Linn County Safety Council in 1955 at the request of the County Planning Council. They met once with the State committee, and then planned their activities for a minimum of two major events each year. For their participation in National Farm Safety Week, eight communities in the county were contacted and subcommittees set up. Programs were carried through farm organizations, garden clubs, 4-H clubs, FFA chapters, the Chamber of Commerce, the Mayor, and the City Council. Packets were prepared for all newspapers in the county. Their Spring Clean-Up Week is handled much the same way; the slogan is clean up, fix up, paint up.

One year, the Marion County Farm Safety Committee planned and carried out a countywide campaign against accidents with the assistance of County Extension Agent Hollis Ottoway. Since they were a heavily populated county they decided to use mass media to carry the safety message. The committee prepared a ten-page booklet entitled "Farm Safety Handbook" filled with safety hints in poetry and cartoons. This was distributed to all families on the Extension mailing list and to those responding to news releases and radio talks. Home Extension women in the county also carry a home safety program through training meetings for project leaders.

The State safety committee also has prompted many other phases of safety each year—for example, Firearms and Hunting Safety, sponsored by Oregon State Game Commission; Water Safety; and Farm Tractor and Machinery Safety.

Two other programs have been developed to meet emergencies following tragic accidents: (1) Safety in disposing of old dynamite—material prepared by SIAC and Extension Agricultural Engineer, and (2) Safety in use of pesticides—prepared by a special committee of the Industrial Hygienist, Oregon State Board of Health and Oregon State University Extension and Agricultural Chemistry staff members.

Safety training has been given each year at 4-H Summer School at OSU.

(See State Committees, page 58)

Rural Civil Defense Preparedness Also Helps in Natural Disasters

by PHILLIP F. AYLESWORTH
Program Leader Rural Defense
Federal Extension Service

It is encouraging to know that every measure recommended for Rural Civil Defense is useful in other emergencies farm families may have to deal with. A properly constructed family fallout shelter, for example, will provide good protection from tornadoes or hurricanes. Many farmers plan use of their cyclone or root cellars as the first step toward a family fallout shelter.

Sandbags which have been used to provide a shield against radioactive fallout might also be used to build dikes in a flood emergency. Civil defense fire prevention and fire fighting measures would serve equally well if fire hazards arose in everyday life. If the farmer and his family were cut off by any disaster, blizzard, tornado, flood, fire—his reserve stockpiles of clean food, feed, and water would stand him in good stead. The tarpaulins, with which he would cover his outdoor supplies of feed and water tanks, could help protect the feed and water if sandstorms, or other hazards menaced his farm.

To have a good rural defense program, some farmers will need emergency power sources, reserve fuel, and farm machinery always kept in good condition. These would be equally vital assets in a peacetime emergency. If a natural disaster were to take out power lines, rural families could receive emergency warning and advice over the same battery-powered radios they would depend on for civil defense information. Family shelter supplies of extra beds, blankets, and clothing could be useful to them or others. The possibilities are endless for emergency use of all rural defense provisions.

But to be well equipped for civil defense emergencies, a rural family must have more than material resources; they must also have knowledge. Some members of the family should be trained in first aid, home

care of the sick, and medical self-help. They need to know principles of sanitation, safe food practices, and other necessary rural defense facts. All these are useful in peacetime emergencies.

As an integral part of adequate defense, families should have well-developed and well-rehearsed home and farm emergency action plans. How much more fortunate is the family whose members know what to do if they are forced to handle similar problems created by a natural disaster. School safety plans should be suitable and adequate for any type of emergency. Neighborhood cooperative plans for joint action in the

Farm Accidents in the United States

by JOHN D. RUSH
Agricultural Economist
Economic Research Service, USDA

THE need for farm accident prevention is pointed up in a study, *Farm Accidents in the United States*, AER 17, October 1962, released by the Economic Research Service of the U. S. Department of Agriculture. The chief purpose of this report was to bring together available information on the cause, kind, and frequency of farm accidents in an effort to stimulate more effective accident-prevention programs for farm people.

The annual mortality rate for farm people from accidents continues high, ranging from 60 to 70 per 100,000 persons. A digest of on-farm fatal accidents furnished by the National Vital Statistics Division indicates that the number of fatal-accident occurrences on farms continues on a high level, despite the decline in farm population.

Nonfatal accidents occur annually to about a fifth of the farm popula-

tion, according to recent studies by the National Health Survey. About 1 in 8 of these nonfatalities are permanent disabilities; but only a small proportion are totally disabling.

event of fires, flood, wind, or other disaster would strengthen every family's chance for survival in the event of a nuclear attack.

Just as in a family or a neighborhood, the natural disaster plans and preparations of governments (community, county, State, and national) are a major source of civil defense strength. That is why government civil defense operations plans should, and usually do, include plans for natural disaster emergency operations. In the new USDA publication *When Natural Disaster Strikes*, it is said: "Disaster relief operations of USDA serve to train officials who will be responsible for similar work in a nuclear attack. Many disaster services are much the same as those which would be needed in the event of enemy attack. Where possible, an official charged with a specific defense task shall be made responsible for the corresponding function in a disaster." ■

Farm youth probably bear a high proportion of these accidents. For all occupational groups combined, youth aged 15-24 have a low mortality rate; but more than half of the deaths in this age group are from accidents. We must assume that the same situation exists with respect to farm youth.

Environmental conditions are associated with high farm-accident rates. For example, uneven ground and unstable ditch banks create special hazards in the use of power machinery. Long hours create fatigue and are an inducement to use shortcuts to reduce the drudgery. Isolation makes it impossible for some farmers to obtain first aid and medical attention as promptly as do city people.

Perhaps as many as 80 percent of all accidents are related to carelessness, including failure to recognize and reduce or remove existing haz-

ards. It is known that for children, accident rates rise from ages 1 to 4, but they drop sharply at age 5. Another peak in the rate occurs during the teens, followed by a lower rate in the median-age groups. And, finally, there is a sharp peak among older people.

About 70 percent of all farm accidents happen on the farm and in the home. On the other hand, about half of the fatal accidents occur off the farm, principally in traffic and at places of recreation. Perhaps a fifth of the fatal and more serious injuries occur in the home—from slips, falls, and handling firearms.

The study points out the need for more information on the cost of accidents. The indirect costs, such as time and wage loss, reduced income due to crop loss, are about four times the direct costs, which include only medical and hospital expenses.

A uniform farm-accident report form and definitions are needed, so that comparisons can be made among survey results, by States, and between years within the same State. For every 1,000 accidents, it has been estimated that the 1,034 persons involved have 1,230 injuries. (Sometimes more than one person is injured in a single accident and medical records tabulate more than one kind

of injury for the same person.)

Factors such as geography, climate, and the proportion of the farm population in each age group, reflect the need for prevention programs that are geared more closely to the incidence of accidents.

For children under 10 years, the "index of occurrence" of fatal on-farm accidents was highest for the Mountain States (172) and for the Northern Plains States (125).

Similarly, for the age group 10-19 the indexes of occurrence were highest for the Delta States (150); Southeastern States (138); Southern Plains States (123); and the Appalachian States (121).

For the age group 20-59, the highest indexes were for the Pacific States (115) and Southeastern States (113).

For those over 60, the highest indexes were for the Corn Belt States (123); the Lake States (123); and the Northeastern States (117).

The index of occurrence for a particular age group is (1) the percentage of the total number of fatalities for the region that fell in the particular age group, divided by (2) the percentage for the same age group, with respect to the distribution for the United States, after this quotient has been expressed as an index or percentage. The index of occur-

rence by cause was similarly calculated.

The recent trend toward large-scale commercial farming, requiring considerable capital investment, has made farm operators more vulnerable to suit if they are held responsible for injury of employees or others. Liability insurance provides a means whereby farmers, as well as others, may protect themselves against financial loss from lawsuits by employees (obtained as workmen's compensation or as employer's liability insurance) and by the general public (obtained as personal liability insurance). ■

NFPA

(from page 49)

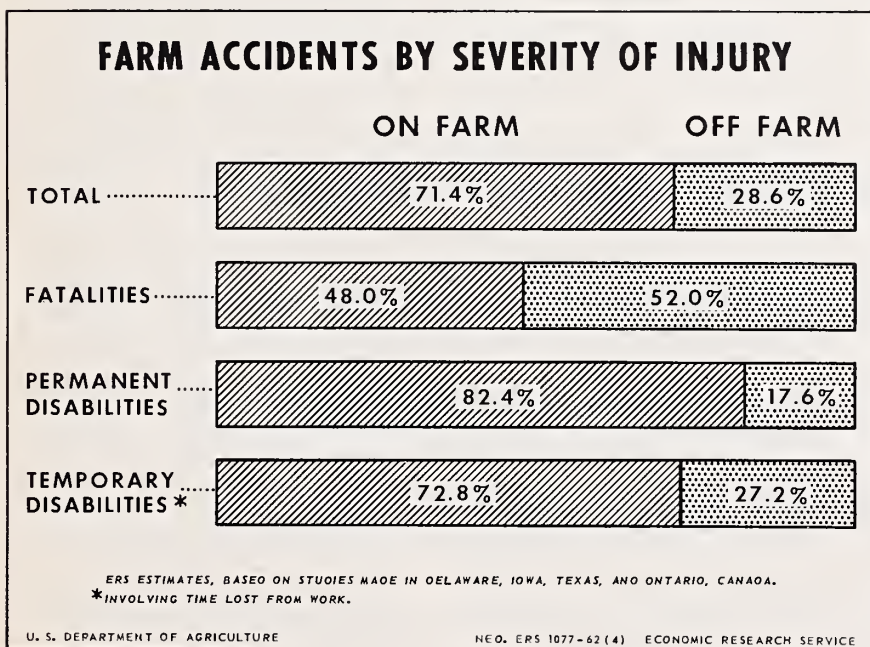
Rural Fires prepared for the guidance of volunteer fire departments in rural areas, and *Preventing Rural Fires*, outlining a year-round fire prevention program and fire prevention inspection techniques for volunteer firemen. A new text, *Private Fire Protection for Rural Properties* is in preparation. ■

We Teach Safety

(from page 46)

The instructors on this program have spent considerable time during the last year in teaching closed chest cardiac massage and mouth-to-mouth respiration. A life-sized mannikin *Resusci-Anne* has been used extensively in this training. Another phase of this program is the Hot Line Training School which is held during the fall each year. At this school every conceivable type of hot line structure is used and the various methods of working with hot lines are taught.

Although only a few of the special safety teaching efforts being used throughout the State have been mentioned, we feel that we can be proud of our Extension Service safety work in Kansas. We do teach safety, and statistics show that the number of rural accidents and rural-accident fatalities is decreasing. ■



March 6-8, 1962, marked the second time that Agriculture was involved in the President's Conference on Occupational Safety. This Conference brings together safety leaders from all walks of life to present accomplishments and measure immediate needs in various segments of American industry. The following is a summary of the 1962 report on Agriculture.

A Safer American Agriculture

THE annual accidental death toll among farmworkers is the highest of any occupation in the United States. The economic loss from farmwork accidents runs into millions. Significant technological advancements are taking place in agriculture, including farm mechanization, rapid expansion in the use of agricultural chemicals, and increased use of electrical power. Rural traffic patterns are increasing in complexity.

These facts make it imperative that agriculture vigorously increase its safety efforts on an enlightened basis. Current farm safety programs, projects, and activities have demonstrated a capacity to reduce farmwork accidents. These efforts must be expanded and increased.

The Agricultural Safety Workshop of the 1962 President's Conference on Occupational Safety presents the following as a consensus of recommendations for action.

1. *Research:* Lack of adequate information on farmwork accidents and limited research and practical application, especially in engineering and environmental safeguards, are serious deterrents to effective farm accident-prevention programs.

Recommendation:

(a) Clarify terminology and increase research and statistical services conducted cooperatively by the USDA and State agricultural colleges, coordinated by National Conference for Farm Safety, National Safety Council.

(b) Expand the role of the National Conference for Farm Safety in determining research and evaluation needs through research conferences with representation from the USDA, State agricultural colleges, industry,

and allied interests.

(c) Encourage Federal and State agencies, private industry, foundations, and professional societies to provide adequate financial support for agricultural safety research.

2. *Education:* A major key to the reduction of farmwork accidents is an educational program to inform and motivate farm residents and farm employees to recognize, eliminate, and avoid hazardous conditions and follow safe practices.

Recommendation:

(a) Encourage employment of a minimum of one full-time farm safety specialist by the Extension Service of each State Land-Grant University to give leadership in planning and carrying out the program of State farm safety committees and their component organizations.

(b) Encourage employment of a minimum of one full-time farm safety specialist in Federal Extension Service.

(c) Encourage employment of additional farm safety specialists by farm organizations and allied groups.

(d) Encourage adoption of safety by farm organizations, agricultural agencies, and allied interests as a basic part of their educational programs, including those for farm women and rural youth.

(e) Encourage agricultural colleges to include safety courses for prospective educators in agricultural and home economics areas.

(f) Increase emphasis on safety in primary and secondary schools.

3. *Leadership:* The National Conference for Farm Safety has provided effective farm safety leadership during the past two decades, and is encouraged to expand its services.

Recommendation:

(a) Seek increased cooperation and coordination, at the national level, of all agricultural groups and allied interests, through the National Conference for Farm Safety to give agriculture greater unity and more effective participation in all fields of safety.

(b) Encourage agriculture and its allied interests to take immediate steps to provide expanded financial resources necessary for the National Council for Farm Safety to carry out a program commensurate with the problem.

4. *Organization:* The present structure of State farm safety committees affiliated with the National Conference for Farm Safety provides an effective organization for coordinating the farm safety efforts of agriculture and allied groups.

Recommendation:

(a) Encourage further development and expansion of State farm safety committees with broader representation from farm organizations, agricultural agencies, and allied interests.

(b) Where needed, encourage the organization of county committees to work with the State farm safety committee. ■

State Committees

(from page 55)

These classes have included gun, home, first aid, fire, water, automotive, and tractor safety. Tractor driving contests are also held at Summer School and at county and State fairs.

What We Hope To Accomplish

1. The Oregon State Committee hopes in the near future to have a Farm Safety Specialist, administratively responsible to Extension.

2. To make a study of accidents in selected counties to determine causes and needs for education.

3. To aid all counties in developing a core committee or small steering committee to work with the agent in promoting safety.

4. To hold district meetings on farm safety to further aid and strengthen safety programs at the community level—to make Oregon a safer place to live, work, and play. ■

Using Chemicals Safely

by LEONARD C. GIBBS, Horticulturist, FES
HARLAN E. SMITH, Plant Pathologist, FES

AGRICULTURAL chemicals, like automobiles, are dangerous when used improperly. Used safely they become assets in that they enable us to protect people, livestock, and crops from the ravages of pests. On the other hand, careless, unwise, and illegal use of pesticides can be both costly and dangerous.

Perhaps the best way of fostering a better understanding of the need and necessity for using chemicals safely is by briefly reviewing the background and current situational information which confronts us as educators, disseminators of chemical information, and consumers of products on which pesticides have been used.

Agricultural chemicals, in the broad sense, include an extensive array of materials such as insecticides, fungicides, herbicides, defoliant, food and feed additives, growth regulators, hormones, stimulants, and drugs. Most chemicals are developed for specific uses and have a role in our everyday life. Some are poisonous and any of them can be dangerous if used improperly.

Today over 375 basic chemicals are employed in the production of our food, feed, drug, and fiber crops whereas prior to World War II only about a dozen were available. In reality though, it's not so much the

375 basic chemicals which create problems, it's the thousands of trade-name formulations which complicate our job.

The use of agricultural chemicals is essential to the economic production of an adequate supply of quality food, feed, fiber, and drug crops. On the other hand, public safety requires that chemicals be used safely and that residues, if any, remain within tolerances allowable. Under the Food, Drug, and Cosmetic Act, as amended by the Pesticide Chemicals Amendment of 1954, certain pesticides previously used were withdrawn because of changes resulting from increased technology and advances or modifications thereof. Withdrawal of a product from the market which has once been used also creates further problems—those of communicating with the consumer and advising him of the changes. The successful removal of a product also requires that a substitute recommended chemical be available for doing a specific job better and more economically.

The Federal Extension Service amasses and evaluates information from various sources both within and outside governmental agencies. This information is processed and disseminated to the various State Extension Services. State Extension specialists evaluate this information in

light of available research data within their respective States and develop recommendations suited to their particular situations. This data is then relayed to area and county Extension personnel who in turn pass it on to producers and the general public.

Federal information is sometimes construed as being a recommendation—this is not so. This data actually relates to the maximum quantities that can be used legally throughout the United States. States are free to reduce dosage rates and make their tolerances more stringent if they so desire. State tolerances and uses may be less than are allowable under Federal legislation but not in excess of same.

Extension staffs are already doing these things. We need to intensify our efforts, however, and do much more of our work via mass media techniques. Intensive use of radio, television, and newspapers has been made. Training meetings and short courses for agents and key personnel in chemical companies, garden centers, feed and seed stores, nurseries, co-ops, and garden clubs, are the means already being used in some areas to acquaint producers, suppliers, and the general public with the work being carried out relative to promoting the safe and proper use of pesticides for safeguarding our health and welfare. ■

SAFETY—A Challenge to Agriculture

by MARVIN J. NICOL
Assistant General Manager
National Safety Council

A serious problem in agriculture is the tragic and wasteful loss of life, work time, and resources from accidents to rural people. Annually thousands are killed and nearly a million receive disabling injuries in accidents costing \$1.5 billion. Fire accounts for 800 deaths, numerous injuries, and \$165 million in property loss yearly.

Agriculture's safety record is mediocre. Annual farmwork accident

death totals exceed those of any other occupation, and fatalities per 100,000 workers rank third. Industry has a much better record but it began accident-prevention programs in 1912 while organized farm safety work didn't start until 1944. Since then, farm accident deaths and injuries have steadily and substantially declined, demonstrating the value of cooperative, coordinated efforts in meeting farm accident problems.

In 1944 the National Safety Council established the Farm Division to deal with the specific and unique

technical, informational, and educational aspects of rural accident prevention. America was at war and pressing needs demanded that its farms produce at maximum capacity despite manpower and equipment shortages. Accidents were at high levels and much badly-needed farm labor was immobilized. The need for strong action was urgent to help maintain peak agricultural production until peace was secured.

After the war, Farm Division activities broadened. New programs and materials were developed, new

channels of implementation evolved in the founding of a volunteer network of State farm safety committees.

The work and goals of the Farm Division and the initial voluntary efforts in the States were greatly strengthened in 1947 by the formation of the National Conference for Farm Safety of the National Safety Council. This Conference, made up of leaders and representatives of agriculture, business, Extension, education, and other agencies, was instrumental in the expansion and vitality of the farm safety effort now embracing all the States. The Farm Conference meets three times yearly to initiate program planning, make recommendations, determine policies related to the direction of the national program, and to confer Farm Awards for outstanding individual or group achievement in farm safety.

Today, in its 20th year, the Farm Division functions to serve and assist the broad effort to reduce accident and fire losses to farm people. This cooperation is extended to many persons and agencies representing all facets of agriculture, rural society, and allied businesses.

Many individuals, organizations, and governmental agencies are partners in the national rural safety effort. Thousands of persons and hundreds of State and community groups voluntarily help support, develop, and implement farm safety programs. Prominent among them are the 46 State farm safety committees which work alongside the Farm Division and the Farm Conference in program activities. These State committees include leaders in agriculture, Extension, education, business, and State agencies. Nearly 800,000 4-H Club members carried safety projects in 1962, with sizable numbers of FFA boys, FHA girls, and members of other rural youth organizations equally as active. Hundreds of rural communities conduct accident-prevention campaigns spearheaded by local leadership, rural youth, farm organizations, women's groups, and the county extension staffs in these areas. Business firms contribute time, brainpower, facilities, and financial support to assure continuing progress in accident reduction.

A vital project is National Farm Safety Week, co-sponsored by the

National Safety Council and the U.S. Department of Agriculture in cooperation with State Extension Services, farm organizations, the farm press, radio, television, and other groups.

NFS Week will have its 20th observance this year, July 21-27. Materials and program guides will again be provided to State and County Extension personnel and to other rural leaders.

The Week calls attention to rural accident problems and encourages farm families to remove hazards and practice safety in all daily activities. The intensive promotional campaign involves all media reaching rural areas. Prior observances of the Week have gained wide acceptance by Extension agents and community and State leaders.

National Farm Safety Week is a successful and useful part of the total farm safety effort. It deserves full and continued support.

Achieving a relatively accident-free rural society depends on a vast network of volunteers acting as intermediate steps between programming sources and the farm population. The Cooperative Extension Service and its nationwide staff of county personnel has contributed immeasurably to the success of this effort. It is a vital link in the movement of information and education from the conference table to the kitchen table on the farm. The National Safety Council values this excellent cooperation and hopes that it will be continued and enriched in coming years.

More research and study is needed on accident causes and human factors involved as human failure is associated in over 90 percent of all accidents. The role of motivation, emotions, attitudes, physical condition, training, and other psychological factors in relation to safe or unsafe individual behavior is profound. Insight and knowledge of the complex human-accident relationship can lead to increased effectiveness in programming, communication and education that strikes at the roots of the problem. A most helpful stride, too, would be accident-reporting techniques which provide meaningful information on both causative agents and the chain of circumstances culminating in the accident. Also, reporting of minor-injury accidents to farm peo-

ple now is sketchy and improvement here would be of substantial value to those in accident-prevention work. The quality of safety programming is proportional to the quality of information and knowledge on the accident problem.

Relating farm safety to farm people requires a distinct approach, especially when compared to industrial safety. A manufacturing plant's physical structure, method of operation, management, type of work, and possibilities for environmental control are markedly more favorable to the development, implementation, teaching, and supervision of accident-prevention programs. Relatively few basic "safety sales" to top management influence the safety of many people. On the farm the situation is obviously different. The basic unit of production is the family farm. Safety rules cannot be enforced and a farmer can do as little or as much about safety as he wishes depending on his motivation and conscience. The communications job is much more difficult because millions of individuals and separate family units, rather than thousands of plant managers, must be reached with sufficient impact to achieve accident reduction.

The challenge implicit in the necessary goal of abolishing most of the extravagant loss and waste that accidents and fire impose on rural people is of considerable dimension. Excellent progress has been made and future prospects are bright. Good intentions won't do the job—it requires the maximum in leadership, study, planning, cooperation, and hard work. The investment of human effort is substantial but the dividends are priceless. The magnitude of accomplishment depends on what everyone who farms or is allied with agriculture elects to put in to meet this challenge. ■

Team Approach

(from page 43)

On the National level, many benefits have accrued for the Ohio effort by close cooperation with National Safety Council and its Farm Conference, and the Advisory Committee to the Farm Section of the National Safety Council. Participation in these

programs has given new approaches to safety education in Ohio, tended to coordinate mutual interests and resources in many other States, and added greatly to the supply of educational materials available.

Extension has used all the accepted forms of mass media to tell the safety story—newspapers, magazines, radio, and television. It supplies the newspapers of Ohio with a series of highway safety stories, illustrated with mats. Labeled as "The Charge of the Bird Brigade," this series featured different types of birds simulating automobile drivers. These stories were in addition to dozens of safety stories supplied as a regular service to newspapers and farm magazines circulating in Ohio.

Television stations ran a safety series called the "Buckeye Safety Parade." In this series eleven 50-second television spots were made which featured outstanding athletes and coaches at the Ohio State University. After 4 months, the stations reported 6,400 showings of this series. The Ohio State University Athletic Department and the Ohio Department of Highway Safety cooperated with Extension in making this series possible.

Our safety program is a team effort. Its success has been due to the cooperation we have received from our own personnel and from representatives of other organizations and agencies. This cooperation has paid off in the most satisfying of all dividends—human lives. ■

Pesticides

(from page 46)

specific to a particular insect, attractants, and basic studies of insect physiology and pathology.

Along with these responsibilities for pest-control research and pesticide regulation, ARS has responsibilities as a user of pesticides. A number of pest-control programs sponsored by ARS and cooperating States employ chemicals. Before new programs are undertaken, plans for them are closely scrutinized by the Federal Pest Control Review Board. The job of this interdepartmental group is to insure that the safest

as well as the most effective and economical pest-control practices are followed, and that all such Federal programs will properly serve national interests, including public health, agriculture, and wildlife conservation.

Whether we are in regulatory, research, or educational fields, all of us in public service have an obligation to obtain the best information available on the safe and efficient use of pesticides and to pass it on—as effectively and as insistently as possible—to those who need it. ■

Home Demonstration

(from page 48)

tension Service and its county home demonstration agents, and also guidance from other professional agencies and foundations that have helped finance our leadership conferences.

Every effort is being made to instill in the home a feeling of safety and to pass this feeling of safety consciousness on to our children. As the family is the root of the social structure of the Nation, so are their safety attitudes reflected in the Nation's safety records. Let us as a family unit further the many facets of safety economy. ■

Safety Lane

(from page 50)

tivities of the Teton County Safety Committee.

The publicity committee placed posters announcing the safety check in several store windows. The local power company used their lighted marquee to advertise the event for a full week before the check. Members of 4-H placed handbills on the windshields of every car in town the night before the check.

On the morning of last May 19, the check lane began operation with Jackson's leading citizen (now Governor of Wyoming) being first in line. Four-H members directed traffic and filled out necessary forms for a crew of volunteer mechanics who made the actual inspection. By 5 p.m. they reached their goal of 250 cars, but

there were still cars to be checked. So many, in fact, that they decided to set up the check lane again the next morning. At the end of the inspection, 386 cars, including 5 motor scooters, had been safety-checked. Besides local private and government vehicles there were 21 out-of-State cars from 14 different States driven through the check lane. There are about 2,700 motor vehicles registered in Teton County.

Safety checkers found that head and tail lights were the biggest offenders; faulty windshield wipers, steering, mufflers, and brakes followed in that order. It is interesting to note that 86 of 89 cars and 29 of 32 trucks came back for a recheck after corrections had been made.

This Teton County story was made successful by energetic, individual leadership and wholehearted community support. The safety check, like any other project, works best when the whole community is behind it. ■

Safety Specialist

(from page 51)

onstrations, inspection guides, and home and personal safety guides. These are based on accident and fire data collected and developed by reliable research organizations in the State, coordinated through the Records and Research Division of the Safety Council.

The outlines of programs, campaigns, contests, demonstrations, and other safety material are sent out quarterly in a safety kit which goes to about 800 local leaders. These leaders then carry out these programs in the county, school, community, club, or other unit. The Publicity Committee of the Council coordinates a continuing safety education program which makes use of all mass media.

Thus, by obtaining accurate information, developing pertinent programs and activities, and carrying out definite safety activities through many organizations and groups, the Safety Specialist and his hundreds of associates in safety make rural America a safer place to live. ■

National Safety Council

Major Staff Activities of Farm Division

1. Developing technical and program materials and leaflets.
2. Publishing "Farm Safety Review"—circulation 20,000. Producing the newsletter "Safer Farm Families" which is mailed to 5,000 leaders interested in rural safety.
3. Cooperating with over 200 prominent organizations in promoting farm safety.
4. Giving assistance to the 46 permanent and voluntary State farm safety committees.
5. Planning and conducting, in cooperation with the USDA, the annual National Farm Safety Week campaign.
6. Handling large volumes of mail and phone requests for materials, information, program suggestions, and talks.
7. Promoting farm safety programs and activities for rural youth organizations. Examples: FFA Safe Corn Harvest and Safe Farm Power Programs in cooperation with the Farm Equipment Institute; assisting in the National 4-H Safety Program. Close contacts are maintained with the National and State leaders of youth organizations.
8. Providing program for both adult and rural youth sessions of the National Safety Congress each October in Chicago.
9. Cooperating with and assisting State farm safety specialists, agricultural colleges, and Extension Service.

Rules for Safe Use of Chemicals

Observing the following simple rules and precautions will insure the proper and safe use of agricultural chemicals, and at the same time will help you do a better job of controlling pests.

1. Use agricultural chemicals only for the purposes for which they are specifically recommended.
2. Use only the exact amounts recommended—it's both unsafe and uneconomical to use more.
3. Apply chemicals only at the times or intervals specified on the label—be especially observant of the proper intervals between treatment and harvest.
4. Use only the recommended methods of application—read the label.
5. Guard against drift of sprays or dusts.
6. Carefully observe label precautions
 - to protect those who apply the chemicals.
 - to prevent harmful residues on food crops and animal products.

Failure to observe these rules may result in crops that are illegal for interstate shipment and subject to confiscation because of an excessive residue.

CLEAN UP!

Inspection + Correction = Protection

BOOKS

LIFE AND RELIGION IN SOUTHERN APPALACIA by W. D. Weatherford and Earl D. C. Brewer. Friendship Press, New York, 1961.

The Southern Appalachian Study, a regionwide study of social, cultural, and economic conditions in the Southern Appalachian Mountains, has been completed.

The aims of the study were: (1) to discover and evaluate changes of the last 25 years, (2) to assess the immediate and ultimate needs of the people, (3) to study the attitudes of the people, and (4) to study religious life in the area.

The Friendship press has printed the findings of one segment of the study in a paperback book entitled *Life and Religion in Southern Appalachia*. In its two sections the book discusses: the historical background and general climate of life in Southern Appalachia, and the results of the survey as they relate to religion in the mountains.

Some of the critical problems facing this area are: how to make a decent living, loss of population to other regions, need for improvement of educational opportunities, and lack of health facilities and services.

The people are characterized by their passion for justice, freedom, and independence. The environment gives them stability and ruggedness.

The general church picture in Southern Appalachia is clear.

Tests of religious knowledge show that mountain people know twice as much about the Bible as they know about their own church.

The more rural parts of the mountains have the lowest church membership.

The mountains contain a concentration of fundamentalist sects.

Churches are smaller and more numerous than the national average; there are 2.3 churches per 1,000 population to 1.3 for the U. S. as a whole. The average-size church in the study had 158 members as compared to 405 in the national average.

The book sets forth a challenge in these terms:

"Rapid changes taking place today

are bringing new cultural molds and new leadership. The church, along with other organizations and agencies, has an urgent reason for creative and consecrated involvement in this changing pattern."—*P. F. Aylesworth, Federal Extension Service*

STRUGGLE FOR EQUAL OPPORTUNITY, *Dirt Farmers and the American Country Life Association* by Orrin L. Keener. Vantage Press, New York, 1961.

This is the story of the farmer's struggle for his proper place in the American scheme of things. The forces—both those that helped and those that hindered—are set forth.

The American Country Life Association is placed most prominently among the positive forces. This is the dominant character alongside the farmer as we move chronologically through the shifting scene over the years.

The Commission on Country Life, appointed by President Theodore Roosevelt in 1908, provided the impetus for the organization of this Association. The goals of the Association were not merely economic prosperity for working farmers but a quest for a more abundant life.

The first National Country Life Conference was held in 1919. The book records the last National Conference as being held in 1944; there were 66 different State and national organizations interested in rural life present at the meeting. Here is the first and only error we detect in the book. The Association did not die. It was reorganized somewhat and moved more from an action body to a seminar group. It is very much alive today. The annual meeting was held at the National 4-H Club Center, Washington, D. C., this July.

Following are some of the highlights as the author traces the developments through the years.

The commission recommended an exhaustive survey of economic and social conditions of rural life, extension work on a national basis, and the beginning of a campaign of rural progress which should include "the holding of local, State, and even national conferences on rural progress."

The Roosevelt Commission and the founders of the American Country

Life Association made their greatest contribution in setting forth and publicizing genuine, worthy, rural-life ideals.

Men lived by unprofitable farming, some by using up the fertility of their land, some by carrying on a trade as a sideline, some by the help of sons or daughters, some by increment in land value, some by little speculations.

Farm people had studied how to live cheaply rather than how to live well; they had sold the best and consumed the poorest produce, they had kept down taxation (for schools) by withholding from the next generation the means of adequate education.

Some ignored the profitableness of agriculture and asked the farmer to raise his thoughts above and beyond mere money getting.—*P. F. Aylesworth, Federal Extension Service*

WOOL, AN INTRODUCTION TO ITS PROPERTIES, VARIETIES, USES AND PRODUCTION by W. T. Onions. John Wiley & Sons, Inc., New York, 1962.

The author presents a very comprehensive discussion (278 pages) of the technological facts about wool. This volume can serve as an excellent reference for extension workers who are confronted with the problems of wool production, marketing and processing. The subject matter is presented at the approximate readability level of college textbooks. Illustrations are used effectively and reference lists are included at the ends of chapters.—*Frank H. Baker, Federal Extension Service.*





SAFETY—Recreation's Top Watchword

by EARL FRANKLIN KENAMER
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LAWSUIT faced the farmer and ruin would result if he lost. Three persons had paid to fish in his cattle pond. The boat had sunk and one occupant almost drowned. The case? Negligence on the part of the farmer because he had rented a leaky boat! Fortunately for the farmer the case never reached the judge's gavel. Investigation proved that the anglers had been drinking and had capsized the boat.

This actual occurrence points up a need for us to consider in developing RAD programs for privately-owned outdoor recreation income projects. The aim of such development should be extra farm income. But the biggest drawback will be failure to include safety in that development.

Some of the safety aspects involved with examples of recreational projects are evaluated below.

Fishponds and Fish Camps. The privately-owned "pay" pond is a compact income producer. But a water project also harbors danger. The pond owner must be sure he has well-built boats, he must check daily for leakage and damage, specify the number of passengers each craft can safely accommodate, and provide approved life jackets.

Shooting Preserves. Here, guns will be involved and chances are that a paying guest will often be unschooled

in shooting. No more than two persons should be permitted to fire at flushed pheasants or quail. Even then the guide must take precautions to see that guests do not shoot livestock, hunting dogs, or property. Horses for guests to ride must be gentle.

Campgrounds. Pay campgrounds for tourists and youth groups have their pitfalls too. Poisonous plants must be eradicated, and rocky or marshy sites should be avoided because of snake infestation. Sanitary facilities—flush toilets, safe drinking water, garbage disposal, insect control—enter the picture. Nature trails should have warning signs where the walkway is treacherous or slippery.

Vacation Farms. Fast becoming a means of inexpensive relaxation to city folks is the vacation farm. But the owner must make sure he has no electric wiring hazards, no fire danger. He must make sure abandoned wells are closed. No one must be allowed to enter corrals where dangerous stock is confined. If horses are available for riding, a guide should go with the guests. If there is a swimming pool, the farm owner should provide a lifeguard.

The landowner who develops an outdoor recreation project for extra income should make a thorough checkup of safety conditions. Here the county agent and the RAD specialist can well serve as technicians. Extension specialists could be contacted for difficult problems. The project owner can emphasize safety points with signs. Should an accident occur after all precautions have been

taken, it will have been caused by the guest's carelessness—not the operator's negligence!



A pond or camp operator should emphasize close checking and supervision of youngsters using pole and line.