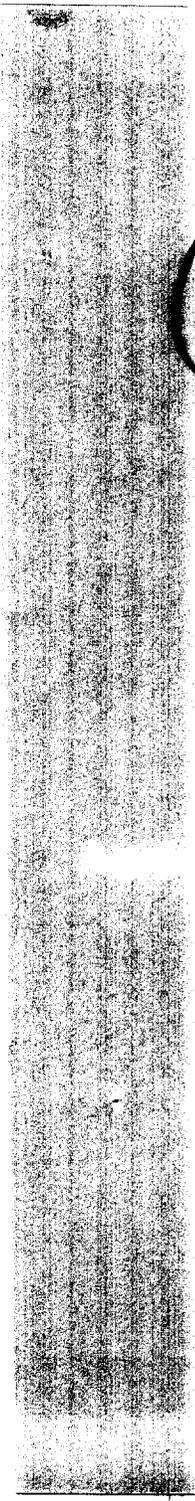


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*...
his knowledge ...
...
... he ...
... what he does*

by Bryant Wood and Hodley Read

NUMBER IN A SERIES

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Man builds his progress upon what he knows.

He gains his knowledge through what he sees, what he hears, and what he does. He creates institutions to store his knowledge and to discover new knowledge.

This process of gaining knowledge — whether the process be formal or informal, is *education*.

In agricultural education, man has created research laboratories and experiment stations to help him gain the knowledge he needs to produce food and fiber necessary for life. He also has created an extension service to interpret and transmit this knowledge to all who want and need it.

Mass communication plays a vital role in this educational process. This booklet explains why communication is important and suggests principles upon which to build an effective agricultural communications program.

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This is one of a series of booklets designed to answer questions about agricultural communications.

The booklets were edited and published by the National Project in Agricultural Communications, East Lansing, Michigan, in cooperation with the Office of Food and Agriculture, International Cooperation Administration, Washington, D. C.

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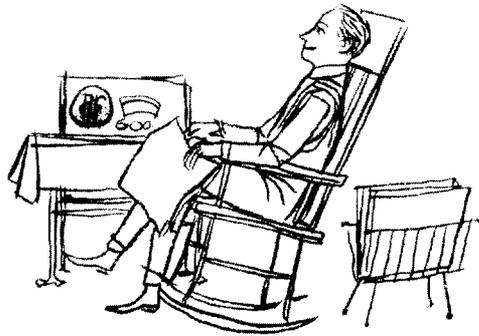
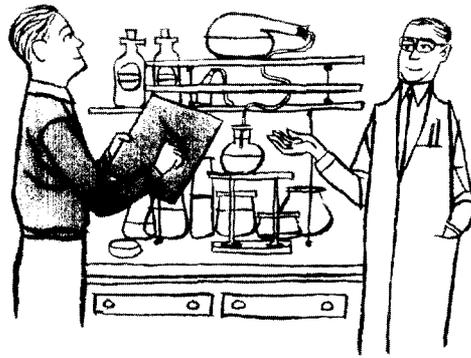
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Agricultural progress depends upon people. For true progress, people must know; must understand; must act. How far people progress depends largely upon their access to accurate and reliable information—information they can use to help solve their problems.

The United States system of agricultural research and education is based upon these principles. Science investigates problems and builds a store of knowledge. Classroom and extension teaching transmit the knowledge to people who want and need it.

This system of agricultural research and education is known as the "Land-Grant System." It is so named because many years ago the federal government granted land to each state to provide funds for establishing agricultural colleges and experiment stations. Today the system includes 69 land-grant colleges and universities and 51 state agricultural extension services, as well as one or more agricultural experiment stations in each state.

The strength and effectiveness of this system grow out of a philosophy of basing research, academic instruction, and extension programs on the expressed needs of people.

People make known their problems. The solutions grow out of scientific investigation. Extension interprets the scientific information so it has a direct bearing on the problems.

Communication is essential to agricultural development. It is the vital bridge that carries the results of research from the laboratory to the field. A steady flow of accurate, understandable, factual information links the scientist with the farmer.

Experience in the United States shows that agricultural communications can:

Speed the adoption of improved practices, by getting information about them to large numbers of people quickly and efficiently.

Help meet farming emergencies by giving farmers timely information on weather, markets, insects, diseases, and other rapidly changing conditions.

Help increase understanding between farm and city people.

Briefly then, at least three kinds of resources are needed for rapid agricultural progress:

Capable scientists at work on the problems of farm people.

Farmers who have confidence that science can help them.

A bridge of communications to carry knowledge from the source to the user.

An agricultural extension service has one main job—to get helpful information to people. Extension is the *connecting link* between the *sources* of knowledge and the *receivers* of knowledge.

There are three parts to this job of getting information to people. (1) Getting the new knowledge from a source; (2) interpreting the knowledge so people will understand it, and (3) transmitting the interpreted information to the people who will use it.

State agricultural extension services in the United States therefore are organized to gather, interpret and transmit knowledge. "Specialists" in various subject-matter fields—for example, livestock production, crops, dairying, poultry—obtain new knowledge from their scientist colleagues. They then interpret it in terms of its practical application, and pass it along to farmers through local or county extension workers serving families at the farm level.

Extension specialists and county workers use "personal" methods of getting information to farmers. They visit farmers; study their farming systems; suggest ways to improve their businesses. They also use "group" methods, including meetings, farm tours, and demonstrations.

But personal and group methods alone can not reach all of the people who want and need information. So extension also uses "mass" methods—such as printed publications, weekly and daily newspapers, magazines and journals, radio, television, motion pictures, and exhibits—to reach large numbers of people quickly.

Using mass methods effectively takes people with specialized training and abilities. Information specialists must know how to write newspaper stories about agriculture in such a way that newspapers will print them. Similar skills are needed in planning, writing, and editing printed reports and publications farmers want to read. Information specialists also must know how to use radio and television, visual aids, and exhibits—and in some cases, even produce motion pictures. Finally, they must be able to help subject-matter specialists and county workers to develop their skills in using mass information methods.

Information specialists are members of the agricultural information office or the extension information office. The function of this office is to use "mass" methods in carrying out the objectives of the extension program. It is responsible to the director or head of extension work.

Typical state extension office methods

PROGRAMS OF THE ILLINOIS AGRICULTURAL INFORMATION OFFICE

To what extent a state agricultural information office uses mass communication methods depends upon the information to be transmitted, the audience, and the "opportunities" available to use mass methods. To illustrate, consider the audience and the opportunities in a typical farm state—Illinois.

Audience. The primary audience in Illinois is 200,000 farm families. It is a literate audience. Almost everyone can read and write.

Farmers live on individual farms. More than half of them own their own land.

Nearly all the families own at least one radio and subscribe to at least one daily newspaper and to one or more weekly newspapers. In addition, most of these families receive at least one farm magazine, and sometimes as many as four or five.

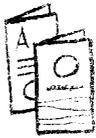
Available channels. In Illinois many opportunities exist for transmitting information. These are some of the available channels:

- 100 daily newspapers
- 500 weekly newspapers
- 85 radio stations
- 22 television stations
- 1 bi-weekly state farm magazine
- 5 regional or national farm magazines

In addition, many farmers subscribe to livestock or other specialized publications. Farm organizations, to which most farmers belong, issue publications. Many agricultural manufacturing companies issue trade papers or magazines and send them free to farmers.

A RANGE OF BASIC SERVICES

On the basis of the above analysis we see that Illinois farmers can be reached through a number of basic services:



Publications. Since nearly all the farmers can read, one of the most effective ways to reach them is through simple, easy-to-read, "popular" publications.

The original manuscript for a publication is prepared by the extension specialist or research worker and is edited and illustrated by publication editors of the information office.



Newspaper and magazine releases. The agricultural information office maintains a regular news service for Illinois newspapers and for state, regional, and national farm magazines.

Newspaper stories are short—200 to 400 words. One story might tell farmers how to prevent mastitis in dairy herds. Another might give recommendations for killing flies with a new chemical. A third might report the outlook for livestock prices during the next 60 days. Stories and articles for magazines are usually longer and often are illustrated with photographs or drawings.

To insure accuracy of information and build mutual confidence between authority and writer, stories are always checked with the subject-matter specialist before they are sent to newspapers.

Radio. The news service to Illinois radio stations is similar to the news service for daily newspapers. Short news items are mailed regularly to all radio stations in the state.

Tape-recorded talks and interviews by agricultural specialists are also supplied to stations.

Television. Television services include complete farm programs on film; photographs, slides and art work with accompanying script; suggestions for stations to use in developing local programs.

Visual aids. These important services include photography, art, exhibits, and presentation aids.

Black and white photographs are used in publications; to supplement feature news stories; as part of exhibits; are made into sets of "slides." Motion pictures also are produced and used in extension teaching.

Most publications require both illustrative art and cover designs. Many extension workers use posters, flannelgraphs, and flash cards as presentation aids in meetings and demonstrations.

Exhibits and other teaching aids range from simple chalkboards to elaborate displays. A specialist in farm buildings may want to build a model of a barn or a model farmstead layout. A swine specialist may need an exhibit to show a farmer how to mix rations for little pigs.

INFORMATION OFFICE

One of the most important functions of the agricultural information office is to train others in the use of mass methods.

Only a few extension workers have had special training in mass methods before going on the job. There is need, therefore, for a continuous program of in-service training for county extension workers, specialists, and research workers. The agricultural information staff usually conducts this training.

Some training is done on an *individual* basis. A county extension worker asks for help in planning a series of radio programs. An-



other asks for help on preparing news stories, taking pictures, or building exhibits.

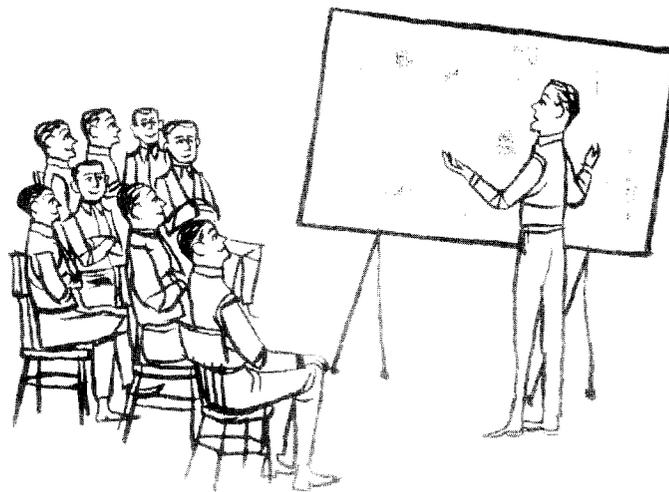
The information office also conducts information training schools, conferences, and workshops for *groups* of county workers and specialists.

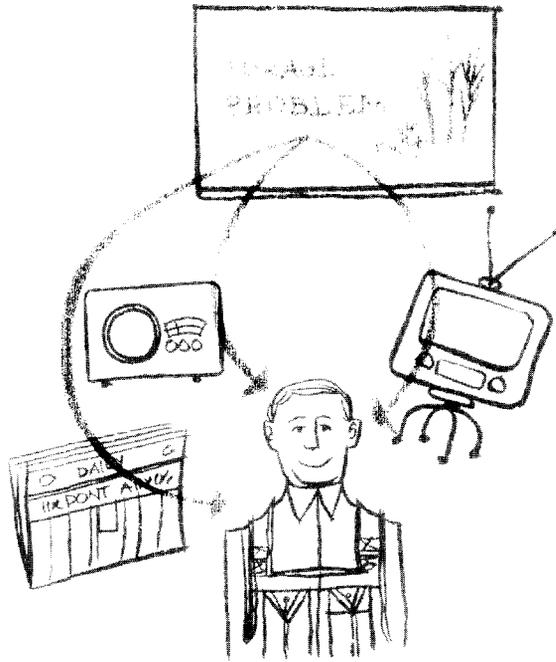
In addition, the agricultural information office in nearly every state supplies county workers with information "aids." These aids consist of outlines for news stories, suggestions for radio programs, and a variety of other information helps and suggestions.

Each service of the information office is related to the other and all are coordinated. A combination of services may be used to transmit the same information, as in a campaign.

For example, the farmers of a state may need information to help increase production and use of forage crops. The extension service organizes an educational campaign that may last one year or as long as five. The program may include establishment of demonstration plots in different parts of the state; a series of tours and demonstrations; a state-wide short course; a conference at the state college of agriculture.

As the campaign is planned, the head of the information office and his staff work closely with the administration and with the various extension specialists. One publication or a whole series may be needed.





News stories on forage production and utilization will be prepared. A series of talks and interviews on forage production will be recorded for radio broadcast. The visual aids section may prepare sets of color slides, exhibits, or posters on different phases of forage problems.

Maximum public attention is focused on the problem. The farmer may first read the information in his local newspaper; he may hear it on his radio. A week later he may attend a meeting or take part in a tour where the subject is discussed. He may receive a publication on the subject from the county extension worker or from the state extension service.

It is this close coordination of information methods in educational programs that have helped make extension effective in the United States.

In educational campaigns the following pattern is used in urging farmers to accept or adopt a new practice.

Inform people about the discovery or development of the new practice.

Interest people in the possible application of the practice to their own farming situation.

Inspire people to want to try the new practice—at least in a small way. This usually means providing convincing reasons such as the successful experience of other farmers who have tried the practice.

Instruct people in the steps involved in adopting the practice.

LIAISON WITH PRESS

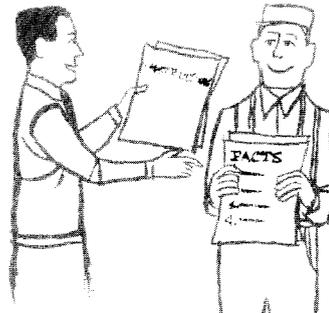
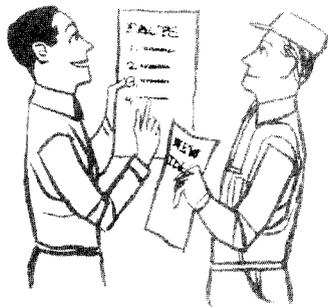
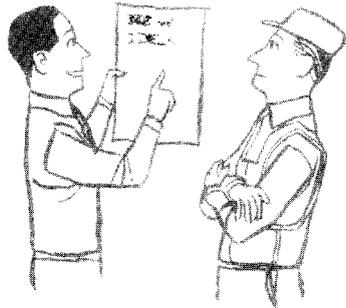
The agricultural information office provides liaison between the extension service and the mass outlets—newspapers, radio and television stations, and farm publications,

Each year many newspaper, radio, and magazine farm editors visit the information office to arrange interviews with specialists and research workers.

Six Steps in Establishing An Agricultural Information Office

Obviously, the system of transmitting agricultural information that has proved successful in the United States can not be adopted intact in every other country. Modifications must be made on the basis of literacy and the special problems and needs of the audience, as well as available resources and facilities.

Basic principles remain the same, however: The job of the agricultural information office is to gather accurate and useful information and transmit it to the people in ways that they will understand. In establishing such an office, six key steps should be considered.



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DETERMINING SOURCES OF INFORMATION

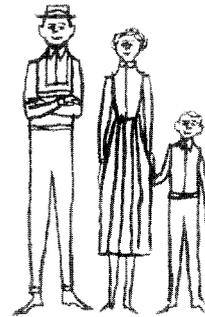
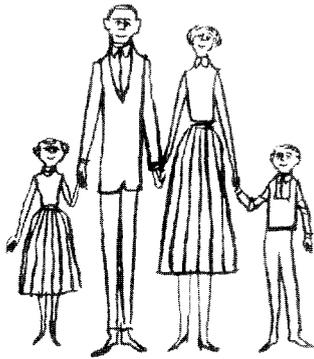
Identify all possible sources of accurate, up-to-date farming information. What institutions are doing research? How can the results be made available to the information office?

DETERMINING AND REACHING THE AUDIENCE

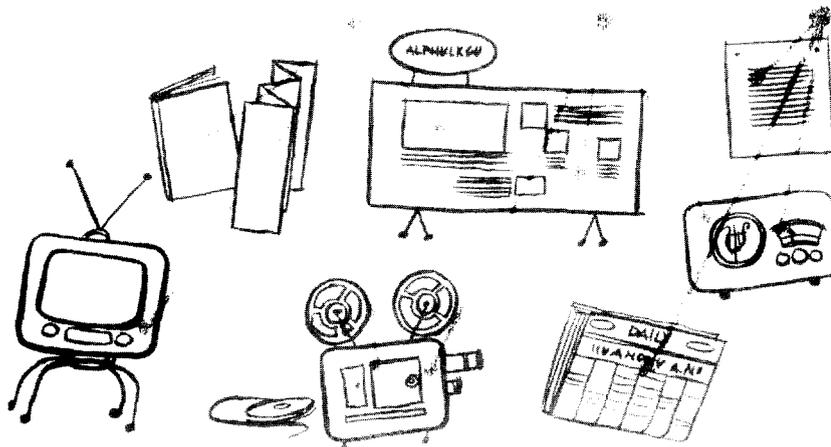
You will want to know *who* your audience will be, *what* help and information they will need the most, and *how* they can be reached. Here are a few of the many questions that should be considered.

Will the audience include city people as well as farmers and land owners? Do all the people speak a common language or are there several languages or dialects? Are there religious customs and beliefs that must be considered?

How many of the farm families can read news stories, magazine articles, or publications? What about radio? Do they have radio sets in their homes or in their villages? Can they be reached with motion pictures, slides, or posters?



If leaflets and other publications are to be prepared, how can they be produced? Are there facilities for letter press printing? Mimeographing? Offset reproduction?



What kinds of newspapers are there? Does your target audience read them? Would these newspapers carry agricultural news?

What kinds of agricultural magazines and trade papers are published? What is their circulation? Who reads them?

How many radio stations are there? Does radio reach the audience you want? Would radio stations carry agricultural programs?

Are there facilities for making and using motion pictures? Posters? Exhibits?

Writing and editing. Publications may range from simple leaflets and bulletins to detailed reference materials. Releases for newspapers and magazines or circular letters and other direct mail materials may be needed.

Photography. Services might start with providing simple black and white pictures to post on bulletin boards. These could also be used as teaching aids for extension workers and as illustrations for bulletins and leaflets or for newspapers and magazine features. Motion pictures and slide sets might be produced for extension meetings.

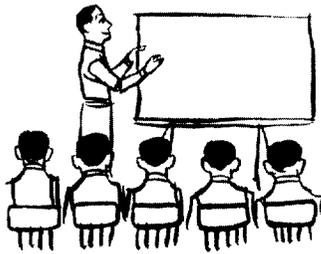
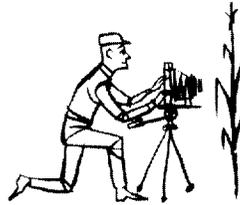
Art and exhibits. Illustrations might be prepared for publications and for flannelgraphs, posters, and other teaching aids. Displays and exhibits might be designed and produced.

Radio. Services might range from supplying local stations with news releases or tape recordings to presenting regular farm programs.

Training. Helping local extension workers to reach people effectively—through tours, demonstrations, meetings, exhibits, and posters, as well as through mass media—may be one of the most important jobs of the information office. The only way of reaching people in some areas may be through the local extension worker.

The size of the information staff will, of course, depend upon the kind and number of services performed and the funds available.

At first the staff might consist of only one person to do the various tasks—edit publications, write news stories, take pictures, pre-





pare exhibits, and so forth. As demand for services increases, other staff members could be added—specialists in news writing, photography, radio, and other communications media.

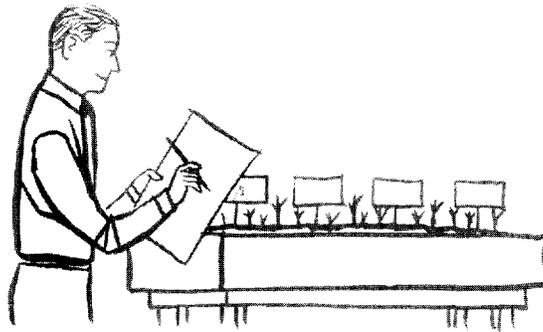
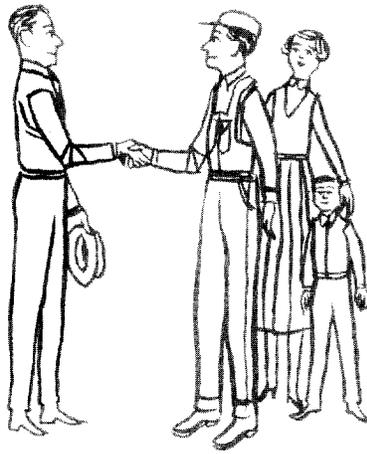
If you can not build an adequate staff at once, you can often obtain specialized help from existing government departments or agencies. For example, a newly established agricultural information office might get photographic or exhibit help from an established visual aids or photographic section in the Public Health Department.

Information workers should be well qualified. The information specialist serves in a liaison role between the scientist and the public. He must strive to win the confidence of both through accurate, careful, and perceptive writing and editing. Research workers and extension specialists welcome competent information specialists as team workers in improving agriculture and the conditions of rural people.

Ideally, a member of the agricultural information staff should have the following qualifications:

He should *have an understanding of farm people* and be able to “speak their language.” Preferably he should have been born and reared on a farm, or have lived on one for some time.

He should *know the science of agriculture*. He should be a graduate of an agricultural college or have had agricultural courses in



college. This will help him to understand the new knowledge being developed by agricultural scientists. In addition to speaking the language of the farmer, he should understand the "language of the scientist."

He should *know communication techniques*. An information worker who writes farm news stories must write the kind of stories that newspaper editors want. A publications editor must know how to organize material and write in clear, simple language. He must also be familiar with printing and with layout and design. A visual aids specialist should be skilled in one or more of the areas of photography, art, and exhibits.

The information worker should also be able to teach others to use his methods.

Finding people for the job. Agricultural college students often show aptitude for journalism or an interest in photography or visual aids. These young people might be considered for positions as beginners. Or capable newspaper reporters, artists, or photographers might be found whose backgrounds and training would qualify them as potential agricultural information specialists.

Some countries have started courses in information methods for prospective extension workers. Students who do well in such courses often develop into able information specialists.

An agricultural information office must have certain equipment and materials to function. For example, one type of camera might be needed for black and white pictures—another for color slides—a third for motion pictures.

Other photographic equipment may be necessary, such as a tripod, light meter, special lenses, carrying cases, projectors, and dark room equipment.

For writing and editing services such equipment as typewriters, a mimeograph machine, and possibly an offset duplicator will be needed.

Equipment for exhibit production might range from a few simple hand tools to a completely equipped shop.

Agriculture depends upon research to find out what kind of rations are best for feeding livestock; what variety of wheat will give the highest yield; what kind of fertilizer is best for cotton. Research can also help determine what kinds of information efforts will produce the best results.

Three of the most important areas in which studies are needed are:

Audience. You must know people in order to do a good job of reaching them with information. Study the characteristics of people in the various audiences. Find out what practices farmers are now following and why.

Evaluate the success of educational programs. Did the farmers receive the new information? Did they believe it? Did they adopt the new practices that were recommended? Why? Why not?

Methods of reaching people. Know the comparative strengths and weaknesses of the different information media and the most effective ways of using each method. What advantages do newspapers have over radio in certain situations? When should both be used. How

effective is color in a publication? How big should the pages be? How much better is a publication with pictures than a publication without pictures?

Training. Since training is an important function of an information office, know how to make training effective. When training people in groups, how large should the groups be? How much time should be spent on one subject? What kinds of training aids should be used?

In 1954, agricultural administrators and editors of U. S. land-grant colleges and universities attended a conference on agricultural communications. The purpose of this conference was to reappraise the role of agricultural information work as part of agricultural education in the United States. Here are some of the guideposts that were listed.

1. The agricultural information office should be responsible to the agricultural administration and should be housed with this administration.
2. All agricultural information workers should be responsible to the head of the agricultural information office.
3. Agricultural information should be coordinated with other institutional or agency facilities, but should not be under the control of non-agricultural officials.
4. The head of the agricultural information office should participate in the administration's development of programs and policies.
5. Agricultural information staffs should be composed of specialists, each assigned to do a particular type of job.
6. There is need for evaluation and research into the effectiveness of all methods of communication to determine the best combinations to use.
7. Communication training involves two areas: training of professional communication workers; and training of those who use communication skills as a tool in research and extension work.