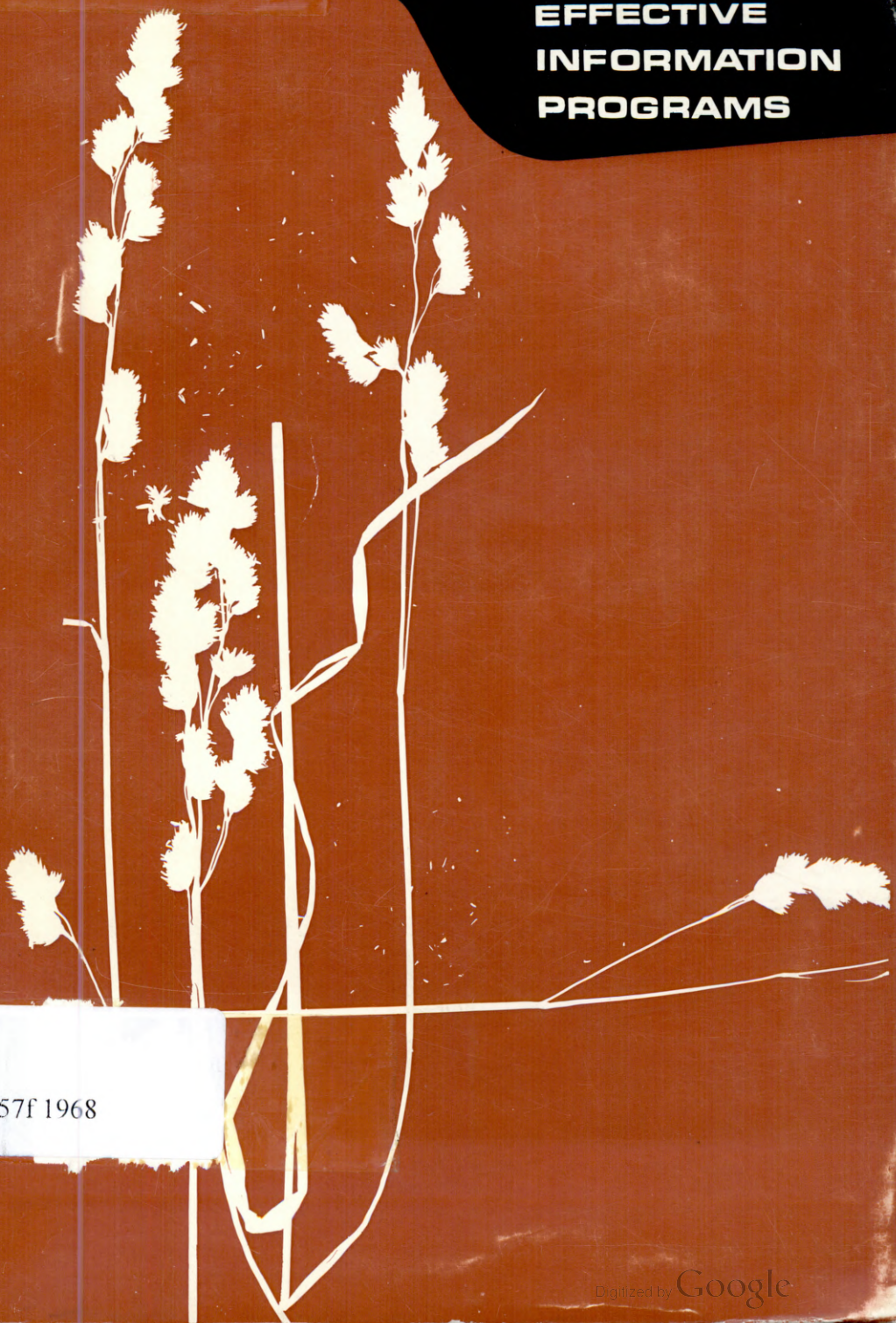
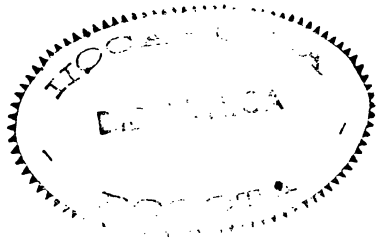
EFFECTIVE INFORMATION PROGRAMS





EFFECTIVE INFORMATION PROGRAMS

A Foundation Stone In Building Agricultural Productivity

by

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PREFACE

This is a manual about how the effective transmission of information can help in increasing agricultural productivity.

It is not a handbook with neat answers to everything about information and information services. It is not a guide with a catalog of ideas for "instant information."

It is a manual: A manual with some answers, a number of ideas, but above all with presentations to make one think, to open doors to further study and to provide sources of information for that study.

This manual is intended for the use of those charged with the responsibility of administering programs aimed at increasing the productivity of agriculture, including those in charge of information services.

The information contained in this manual is based on 10 years of experience in developing agricultural information services in Latin America. The illustrations are drawn from Latin America; however, the basic information is applicable in many other areas and fields.

The opinions and judgments expressed are entirely those of the author. Other opinions and other judgments are possible. We are not seeking total acceptance nor total agreement. If this manual stimulates thinking and further study —through agreement or disagreement— then it is a success.

The reference readings are not all the materials available in the field. They have been chosen to present the basic information needed in a self-study program.

CHAPTER I

Developing Agricultural Productivity

A people who don't know can't do.
A people who can't do can't produce.
A people who can't produce can't progress.

This has been true since the beginning of time. The first aborigine who found how to shape his crooked stick a little better and to use it a little more efficiently as a plow, produced more grain than his neighbor. He and his family had more to eat, and perhaps eventually he had some to sell. Agricultural productivity had been born.

When the neighbor asked to see the improved stick and to be taught how to use it —the process of transmission of information to increase agricultural productivity had begun.

If the man with the improved stick did not speak the same language as the neighbor, he could not teach him how to use it. Certainly he could not send it to the other side of the mountain with written instructions as to how to make it and how to use it. So what might have been a big advance in agricultural productivity came to a halt— for lack of ability to transmit information.

This has been true throughout human history. The ability of a people or a nation to progress depended on the capacity to produce the agricultural commodities necessary for food and fibre to maintain their civilization. The ability to produce these materials has depended on the ability of the people to learn and put to use newer and better methods.

The Roman Empire ruled half the known world because the Romans knew how to produce, transport and store supplies of grain for the populace. The Incas controlled the South American cordillera and coast because they learned how to produce, freeze-dry and store potatoes for food. The Twentieth Century civilizations of Europe and North America are based on incredible productivity by an informed population.

When men land on distant planets, they will be there because science has learned to produce and prepare nutrients to keep them alive. There is no substitute for food. And there is no substitute for an informed people in the production of food.

There is no substitute for planned and efficient use of information methods in educating the population in agricultural productivity.

This need for use of efficient information techniques is more important today than ever before. The world of the Twentieth Century is in the midst of the greatest explosion of knowledge that man has ever seen.

Although this explosion of knowledge has been dramatized in the field of conquering space and use of heretofore inconceivable sources of power, it is equally spectacular and possibly even more important in areas of agricultural productivity. Agricultural experiment stations from Beltsville to Belem, from Mexico to Madras, from Los Baños to La Estanzuela are pouring forth new knowledge that can and should be used by farm populations as rapidly as possible. Worldwide, regional and national organizations are devoting uncounted hours and millions of dollars to the production and dissemination of this information.

But in the ultimate analysis, the effective use of this new knowledge and its application to boost agricultural productivity depends on organizations and individuals in each country, each local area concerned.

Information Can Unlock Files

Unless those organizations understand and use infor-

mation techniques, the new knowledge generated by science will remain locked in the files and valueless to increasse agriculture's ability to produce.

Proper use of the techniques of information depends on an understanding of their nature, limitations and advantages. The purpose of this manual is to discuss these factors in a manner that will stimulate further study.

Increasing agricultural production is not necessarily the same as developing agricultural productivity.

Increased production is often a relatively short-term process to boost the output of a single commodity or group of related agricultural commodities. For instance, an increase in production of crops, such as cereal grains, potatoes or corn, can be and often is achieved for a short time through intensive and directed efforts.

This increased production may be needed either to meet a demand for additional food supplies for local consumption or to take advantage of an opportunity for sale abroad.

Developing agricultural productivity, on the other hand, involves long-range goals of establishing a sound agronomic and economic capacity to produce, deliver and market those products of agriculture that can contribute to the long-range welfare of the country or area concerned.

Productivity Includes Many Things

Agricultural productivity development must concern itself with a wide variety of factors that touch on many phases of the problem.

A program of increased agricultural production can be carried out in many instances with almost emergency measures. Massive applications of fertilizer, rapid introduction of improved seeds or subsidized use of mechanical equipment can all or individually result in a sudden boost in total production.

These programs of increased production can be carried on by direction from above, by direct subsidization or by

demonstration of immediate economic advantage. Such programs often, but not always, do not take into account the long range effects on the soil, the markets or the living patterns of the people concerned. The goals can often be achieved through the efforts of a relatively few large producers.

Increased agricultural production can be obtained without the need for extensive educational programs. It can be achieved through dissemination of "cook-book" information —put in this and this, go through this process and you will take out this product.

Developing agricultural productivity, however, requires that the farmer not only raise levels of production but often that he change his type of farming and methods of marketing. Productivity development must concern itself, not only with the welfare of the crops but also with the welfare of the people who produce them.

The development of agricultural productivity concerns the establishment of a enduring economy that can provide the foods and fibers for local consumption, export (both foreign and internal) and a stable, satisfying level of living.

Development of agricultural productivity demands the existence or the development of an informed public —a public that includes producers, marketers and consumers.

Increasing agricultural production and productivity is a necessary part of a nation's development. One measure of a nation's development is the proportion of its population needed to produce just the basic necessities of food and fiber. The more of the population required for the production of subsistence needs, the smaller is the proportion free to produce additional goods and services for domestic or export use.

The Goal Determines The Means

Information programs and methods may be developed to help achieve both increased agricultural production and productivity. The programs and methods, however, may be quite different if the goal is (a) to achieve an immediate increase in production of one or several commodities or (b) to achieve a continuing increase in the productivity of the human

and other resources needed for a given or increasing level of agricultural production.

The types and kinds of information programs and organizations, however, differ if the goal is production or productivity.

In many areas where the potato is the staple item of diet, it is standard practice for farmers to use the small misshapen tubers for seed, reserving the best ones for food and market. This results in a process of natural selection that constantly reduces the quality and quantity of production.

An immediate and marked increase in potato production could be achieved, for example, by the massive and subsidized introduction of improved seed stock.

The information job in this case is simple. Farmers simply have to be told that the new stock is available, that it will give better yields and where they can get it. Reliance can be placed almost entirely on mass information methods.

If the job stopped there, however, it is almost certain that farmers would soon go back to their practice of keeping the least desirable potatoes for seed and the downward selection would begin again.

True development of agricultural productivity in such an area would demand that the introduction of new seed stock be accompanied by improved cultural practices, use of fertilizer, an understanding of the value of good seed and the formation of marketing cooperatives. The information task would need to extend to the consumer to explain the arrival of the new potato and how it is being produced.

In can easily be seen that, for development of lasting productivity, the information responsibility and challenge are much greater for there must be an educational program that involves changing practices, overcoming prejudices, showing long-range economic benefits and altering social patterns to permit establishment of marketing organizations.

In the example of potato productivity development, every tool in the information chest would need to be used —including not only the mass media already mentioned but planning for meetings, production of training aids, technical and popular publications, training programs for change agents in use of materials and continuing evaluation of results.

CHAPTER II

The Source of Information

To say that any successful program begins with "the source" may sound somewhat ridiculous. All too often, in educational information programs, the role of the source is overlooked or not understood and problems arise that make the entire effort less effective.

An educational program aimed at increasing agricultural productivity in a developing area or nation, has a wide variety of sources of information that can and should be used. Each of these sources has its limitations, and each plays its own role. These sources of information include, among others, local research scientists, local publications of scientific studies, research studies and reports of other nations, libraries, scientific publications, practical experiences of farmers, trial results or cumulative experiences of change agents, administrative and supervisory personnel.

Let us take a look at two important questions that are and always should be in the forefront of the thinking in any information program.

What can the source expect of the information specialist?

What can the information specialist expect of the source?

Whether the source of information is one or more persons, an organization or published material of one of these, it is the information specialist's obligation to (1) preserve the accuracy of the information handled, (2) transmit the infor-

mation in an appropriate manner for appropriate media, (3) give proper credit to the originator or source, (4) allow the source as much control as possible of the subject-matter content and (5) inform the source of the reception and impact, if known, of the material released.

In turn, the information specialist can expect of his source that (1) the information furnished is accurate and the most recent available, (2) the information is applicable to local conditions, (3) recommendations made can be carried out under prevailing social and economic conditions, (4) the source is willing to take the time and effort needed to make all the necessary checks for accuracy and (5) the source recognizes the responsibility of the information specialist in selecting means and methods of transmission. The information specialist has an obligation to the public to assure himself that the first three expectations are well founded. Especially if the information source is "outside" his own organization or country, the information specialist has a particular obligation to check with competent and knowledgeable sources within his own organization.

All this boils down into an oft-repeated axiom—"*What* is said is the responsibility of the source; *How* it is said is the responsibility of the information specialist." Acceptance of this statement by both source and specialist would avoid many of the jurisdictional problems that arise to confront and confound operation of educational information programs.

Accuracy Is Essential

The statement that a source has a right to expect that information it supplies be transmitted accurately should require little explanation. Accurate reporting of the facts is the first responsibility and key to success of any information specialist whether he be a newspaper reporter or a creator of educational exhibits.

Accuracy in transmitting applies, not only to preciseness in getting the correct figures in a chart of rates of fertilizer application, but also to the more difficult, but nonetheless exacting, job of telling the story of a community development.

The desire to over-emphasize for effect, the temptation to twist the facts a little for an interest getter, is a luxury that the educational information specialist cannot afford.

The selection of the media through which information is to be disseminated is a task of the information specialist. Actually, the selection is often predetermined for him by availability of media or the nature of the program. This is a factor which makes it vital for the information specialist to be in on the planning of all programs. His knowledge of media available and of their capabilities and preferences can avoid later misunderstandings and disappointments.

The source, however, has a right to expect that his material will be handled not only in an effective but in a dignified way that will not later subject him to disparaging remarks by colleagues or impair his professional dignity. Sometimes when a highly popularized treatment is necessary, a source would prefer that his name be omitted. This, however, is a matter of personal preference, and organization policy and must be carefully discussed in advance.

The problem of giving credit to a source for material used is one that often causes friction. It is also one that demands ingenuity and understanding on the part of all concerned.

To give the author proper credit for a technical bulletin is no problem because the format is fixed and the entire process is under control of the publishing organization. The same situation applies generally to popular publications, although care must be taken that an excessively long list of titles or authors does not "smother" the material itself.

The giving of proper credit in news releases for press and radio presents other problems. These media are anxious to credit the proper source with information being presented but are wary of lengthy titles that occupy valuable space or time and are of little actual value to the reader or listener. Titles of individuals and organizations should be kept to an absolute minimum in news releases.

Another problem of giving proper credit to the source arises in preparation and use of visual aids, particularly in the case of exhibits. A lengthy presentation at the beginning or end of a flip chart, motion picture, film strip or slide set will not only be valueless but often detract from the material

through loss of audience interest. Credit should be given, but as unobtrusively as possible.

Source Should Check Material

As subject-matter material is processed for transmission via the chosen media, every effort should be made to make certain that the source has an opportunity to check it at each stage. A slight change in wording, a particular kind of illustration, even use of a different kind of type may alter the message that given material relays to its audience. The source should approve the message in its various stages of development and certainly should give approval to the final product.

The ability to control the content varies with the type of transmission being used. With a published bulletin or visual materials, content remains completely within the control of the information specialist and the source. With news releases, however, the final preparation and presentation passes out of the hands of information specialist into those of the media.

This may cause friction between information specialists and technicians who are sources of material for publication. When a newspaper reporter changes the form of a news article at publication time, there is little that the information specialist can do about it except to try and cultivate personal relationships that will avoid such happenings in the future. If actual erroneous information has been given, then a protest is legitimate. But if it is only a matter of a name, a title, or a shift in emphasis, it is better to accept the situation than to endanger future relations.

Along with the obligation on the part of the information specialist to check materials constantly with the source, goes a responsibility of the source to allocate the time to do the checking job rapidly and thoroughly. Manuscripts or, even worse, printers proofs allowed to sit on a desk for days can cause not only irritation and delay but actual financial loss for the organization concerned.

Keep Source Informed Of Use

Information specialists often make the mistake of not keeping the source informed of the use of the material provided.

It takes little time and is productive of much future goodwill for the information specialist to personally deliver to the source the first copy of his publication, clippings of his news article on the day it appears, a photograph of the exhibit or visual aid in actual use or the time of a radio or television broadcast. The source can also be kept advised of the quantity of his materials being used and shown letters both, laudatory and critical, received from users.

The information specialist must accept that, aside from technical publications, most research workers are not greatly interested in popular dissemination of their material. The specialist must lean over backward to make it easy and rewarding for the research man to supply the material needed.

On the other hand, the research worker must realize that technical publication alone does not discharge his responsibility to the public nor does it stimulate the popular support needed to secure continued financing of his program.

One of the greatest temptations of any information worker is to be his or her own source of information or to be his or her own judge of the value and adaptability of material from a foreign source. This tendency is particularly prevalent in developing areas where trained personnel are scarce, personal contact facilities slow and unreliable and the need great.

It is a temptation that becomes greater when the information specialist is an agricultural graduate in his own right and feels he knows, or knows where to find and how to interpret, material on a particular subject. It is this temptation that is often at the root of the continuing debate as to whether it is better to take an agriculturist and teach him the techniques of information or take a trained information man and teach him enough about agriculture to do his job intelligently. The argument is not settled and probably never will be; there are topflight information specialists of both types all over the world.

Disaster Follows Failure to Check

But the temptation for the information worker to be his own source *must* be resisted. To yield to it can only lead to disappointment and unhappiness at the least, and disaster at the most. In one South American country, an extension information specialist, who was a graduate in agriculture, picked up from a neighboring country a publication on a method of drying and storing feed grain. The system looked good and the bulletin was republished and distributed without checking with the appropriate technical source man —located in the next building.

With several thousand copies printed and distribution started, one copy accidentally fell into the hands of the technical source. This technician arrived at the administration and information offices wild eyed and bushy tailed to inform all within hearing distance —and a large radius it was— that the recommendations had been abandoned by the originating country and were in direct contradiction to those being prepared for release by that research station.

A frantic bulletin retrieval program was started, embarrassing news releases were distributed, and the information specialist concerned is now working in a third country.

Close cooperation and mutual respect between the source and the information specialist is essential to any program.

Often, in the planning and preparation of an educational program, an information specialist is faced with the problem of choosing a source. This decision, should, if possible, always be made in consultation with administration personnel and is another argument for the inclusion of the information specialist at the top level in planning.

When it is necessary to weigh different sources of material the criteria of reliability, credibility and availability all must be taken into consideration and balanced one against the other.

Factors Affecting The Source

Reliability is probably the prime factor in this list of criteria, for on it is based the accuracy of the recommendations.

Recommendations of a research station, properly approved through departamental levels, rate at the top of the list on reliability. Information taken from scientific publications can also be counted as highly reliable once proper precautions have been taken to make sure it is applicable locally. Field trials by change agents and experiences of actual farmers require careful checking with informed sources before they can be judged as reliable and a basis for general recommendations.

It is possible for material to be reliable and yet not rate high in credibility. Credibility refers to the willingness of the public to accept the material from a source as reliable and practical. Credibility of a source is often related to previous experiences the public may have had with that or other associated sources.

A farm population, for instance, might place high credibility in the pronouncements of a well-known and successful farm operator in the area without too much attention to their reliability.

In one Latin American country an operator of large livestock enterprises had established a reputation for years as a leader in improved practices. This reputation had developed to the point where both farm people and technicians of the Ministry of Agriculture followed recommendations from his farm rather than those of their own agricultural experiment station. What was overlooked was that, with the passage of years, the gentleman concerned had fallen behind modern agricultural technology and had also passed much of the actual management of his farm to other persons. The credibility remained but the reliability was gone.

Availability of a source is important in the checking of material and frequent consultation on new phases of any problem.

Many times, when a reliable source is readily available and willing to cooperate in supplying information, it becomes a task of the information specialist to plan a definite campaign to make that source better known to the public and thus combine all three factors in one.

The sources of information useable in educational information programs, will vary with the type of information being transmitted and the objectives of the particular effort. These

factors may also affect actual final judgments of the reliability, credibility and availability of the sources, particularly the last two items.

A source who might have a high credibility rating for a series of articles or a publication aimed at change agents or technicians, could well drop down on the scale for popular campaign among a low literacy level farm population. A source credible for farmers may not be effective if used as the basis of a consumer education program.

The kind of messages being transmitted will also affect the source of material. Let us, then, take a look at the kinds of information used in educational programs.

CHAPTER III

Kinds of Messages

Any program of transmission of educational information to the public will use several different kinds of messages.

The kind of message used in an educational program varies not only with the subject matter concerned and the audience to which it is being sent, but is related to previous programs, desired results and the stage of development of the program.

This matter of the type of message has been called by various names. It is sometimes referred to as "treatment" or in a more popular idiomatic term, "slanting the story."

For the vast majority of programs concerned with development of agricultural productivity, the kinds of messages used include:

Promotional
Informative
Educational
Motivational
Experience Transmission
Restraint or Anti-frustration

A *promotional message* advances some particular cause, effort, product or practice. Promotional messages are the principal tool of the public relations or commercial sales program. Their over-use or even unethical use has resulted in a part of the prejudice against public relations and propaganda.

Promotional messages, however, do have an important place in the educational program of any organization dedicated to development.

If the organization itself is to survive, it must keep the public informed of its objectives, its program, its progress, its needs and its problems. If the organization is well founded in the needs of the public it serves, then this promotion, this building of public awareness can be legitimately and dignifiedly done. Promotion aimed at political advantage, personal advancement or inter-agency warfare degenerates into a propaganda dogfight and will ultimately react not only against the organization itself but be detrimental to the entire development process.

Any organization, public or private, is entitled to have its public relations department —although it may have to be called by another name. This public relations department operates as a part of the top administrative office and tells the story of the organization not only to the public but to the employees of the organization.

The office of public relations and the office of educational or technical information, however, should be kept separate and distinct in organizations dedicated to development programs —such as Ministries of Agriculture, agencies of agrarian reform and other public-service groups.

Organization Program Needs Promotion

Promotional messages used as a part of an educational program, however, play a somewhat different role than the straight "selling job" of public relations.

Let us take for instance the adoption by a government of program of agrarian reform and the creation of an agency to handle the work. The public in general is doubtless aware of the questions of too large and too small land holdings, it is aware that something must be done but it does not know what or how.

One of the first jobs of the information service of this new agrarian reform agency is to sell the agency itself to the public as an entity created in response to the need, capable

of helping overcome the problem, and sincerely and honestly interested. These are promotional messages.

The addition of a new, trained scientist to the staff of a research station, a man unknown to the producers of the crop on which he is capable of giving help, demands that he be "introduced" and "developed" as a credible source.

Promotional messages may be news or radio releases, carefully planned introductions at meetings, exhibits at fairs, simple publications or even of tours or a series of personal visits.

Informative messages, in an educational information program, explain to the public what is happening. This is the message that tells a farm population that use of fertilizer will increase crop yields, that improved seed will produce higher quality vegetables, that cleanliness improves health or that a meeting will be held to discuss certain topics.

Informative messages present facts —and nothing more. Much of the scientific or technical material published falls into this category. Informative material is widely used in such media as press and radio where space and time will not permit transmission of details. The reader or listener is informed, but referred elsewhere for further details.

Informative information might be summarized in the words of one famous North American TV detective who often said, "Give me the facts, ma'am just the facts."

Educational Messages Teach How

Where informative information tells only the facts, educational information tells the audience how to use them.

Educational messages are the backbone of productivity development programs, for their function is to teach. Where informative material gives only the facts, educational messages help the audience understand, interpret and use those facts.

It does a farmer little good to know that fertilizer will increase his yields if he does not know what kind of fertilizer, how much and how to apply it. This is the job of educational messages.

Educational messages inform, but also involve the mean-

ing and applicational of facts, the explanation of details, the giving of step-by-step instructions.

They are exact and precise and, like many educational processes, must be repeated again and again to be most effective. Educational material must be studied and available for reference if it is to be of real value.

Educational messages in most development programs are best transmitted by person-to-person contact, by bulletins or by carefully planned demonstrations. They do not lend themselves well to the mass media of press, radio and television.

But the mere promotion of an idea, the passing on of facts and even explanation of how to do, is not enough in increasing productivity. When the audience knows what is to be done and has been told how to do it, then comes the crucial step of getting them to actually do something about it —this is the motivational message.

Motivational messages involve the ability to combine the what and the how and to present them in such a way that the audience will take action. It is in this area that the modern information specialist has made great advances —with the help of the sciences of anthropology, human psychology and sociology.

If we roast a cow, hide and all, throw in some unwashed potatoes and a few whole heads of lettuce we have the elements for a good meal. But how many people will eat it with the same relish as a T-bone steak with french-fried potatoes and a Caesear salad. But neither meal would be very effective served to the national convention of vegetarians.

This is somewhat like the elements of the motivational message —what is to be presented, how much is to be presented, how it is to be presented, to whom it is to be presented and when it is to be presented.

This is very much of an over-simplification, for here we enter into the whole realm of sociology and anthropology, into leadership, legitimation, the world of experience and all the other factors that affect communication. Some of these are touched on in other chapters but are not primarily within the scope of this manual.

Motivational messages use all channels and methods of transmission, for they actually infiltrate into all the other types.

Recounting Experiences Is Valuable

Experience transmission is an area of considerably lesser scope than the previous four kinds of messages. It may be used to achieve the objectives of the others but has some special usages and characteristics that make it advisable to consider it a type of its own.

Experience transmission involves the careful gathering of data about the results of following a particular practice, the elements of a certain problem or the feelings of the public towards a certain issue and making them available to other interested persons. Tours, farm visits and result demonstrations are all forms of experience transmission. Many of the most successful radio and television shows are based on use of experiences. Certainly experience transmission provides the material for many feature stories in agricultural pages or articles in farm magazines.

Restraint or anti-frustration messages and their use is a responsibility sometimes overlooked by information services who become carried away by the promotional and motivational aspects of their work.

The qualified communicator today knows that one unsatisfactory experience will prejudice an audience against trying other similar changes in the future. A sudden increase in the production of a particular crop before handling and marketing facilities are available can well result in waste and economic losses for producers.

Agricultural producers are entitled to know of new developments in cultural practices, breeding, fertilization, etc., but care should always be taken to point out when these are not yet available to farmers of a particular country or area.

Restraint messages become particularly important in the inauguration of large-scale, long-time, programs such as nationwide efforts in agrarian reform. Attendant publicity about the formation of the organization and its objectives are bound to raise hopes in many persons. Large numbers of them will be looking forward to an immediate improvement in their economic and social position.

An alert and responsible information service for such a program will need to inaugurate a campaign of restraint mes-

sages as one of its first efforts to point out the time factors involved; that all cannot be solved immediately but to assure those concerned that their needs and desires are being considered.

It is obvious that there are areas of overlapping among all these kinds of messages. Perhaps they may be summed up in one paragraph as follows:

> "*Promotional messages* create an image. *Informative messages* tell what the image is. *Educational messages* explain how the image works and how to use it. *Motivational messages* create a desire to use the image. *Experience transmission* tells you what your neighbor does with his image. *Restraint messages* warn you against buying an image you can not afford.

CHAPTER IV

Know Your Audience

Every information program has the same objective —to produce an impact on a certain audience.

The scope of the program may vary from selling the political philosophy of a nation to teaching how to make artificial flowers. The size of the audience may vary from millions to half a dozen. But the objective remains the same —to reach an audience with a message that will bring about change.

All too often, however, the messages are chosen, the goals are fixed, and the campaign is planned based on the opinions of the administrators, the information specialists and the sources concerned without giving enough attention to the most important factor —the audience.

It is somewhat like a man buying an excellent rifle, studying its mechanical operation, loading it with the best bullets and then going out and firing wildly in the air without looking at the target.

Putting his message bullets into the target audience is the real aim of the information marksman.

But unfortunately, audience targets are not as clearly defined as rifle targets. They are not marked off in neat black-and-white circles, with a bull's-eye at the center. They are indistinct, constantly changing masses of humanity —but nonetheless capable of analysis and definition.

The subject of audience analysis is the basis of almost innumerable scientific studies and resulting papers, articles and

books. It is, in fact, the basis of the Twentieth Century industry of public opinion polls and consumer preference studies —all of which are, in essence, audience analysis.

Political and commercial interests have seen the importance of proper audience analysis in the success or failure of their enterprises. Public information programs aimed at increasing productivity must and can strengthen their efforts in the same line..

Most public and a high proportion of the private organizations working in the area of agricultural productivity cannot afford the cost of professional audience analysis or opinion surveys. The planning for the development of an information service, however, should include the training of one person in audience analysis. This does not mean that the organization should do nothing until such a person is available. Commonsense, application of experience and self study can go a long way toward developing the abilities to get and use the information needed from a practical standpoint.

The most valuable single concept in successful transmission of information to an audience is the realization and acceptance that the important meanings, beliefs, prejudices, attitudes and desires are those of the audience —not those of the source or the information specialist.

Once this concept is thought through and accepted from the top administrative level to the most remote field worker of an organization, the job of transmission of information is easier and more effective.

Although this concept has been belabored by modern sociological studies, and much worthwhile material produced, there is really nothing basically new in it. Today we talk about "the meaning of meaning," "culture bound concepts" and "low comprehension levels." Are these terms fundamentally any different from the older expressions "start with people where they are," "a man is what his background makes him," or "don't talk over the head of your audience?"

This is in no way meant to be a criticism of the modern science of communications. Rather it is intended to emphasize the importance of that science, while pointing out that it is nothing mysterious but within the ability and obligation of every information specialist and every administrator to use.

An organization, faced with the responsibility of transmitting the various types of information needed to advance agricultural productivity, finds itself facing a wide variety of audiences. It is important that these audiences be recognized and that messages be tailored to the demands of each.

A generalized listing of some of these audiences will help an organization in making the detailed breakdowns that only it can make on the basis of local situations.

Rural

This audience includes the people living outside the major population and industrial centers whose economic welfare is directly related to agriculture. Immediately we can see the need for a futher breakdown into rural farm and rural nonfarm —those who actually live on and till the land and those who live in communities serving and dependent on the farm population.

Urban

These are the residents of the larger cities, who are still dependent on agricultural productivity not only for their food supplies, but also for a great deal of their economic welfare. Some of them are engaged in businesses directly related to agriculture, others in industrial pursuits and others in the various professions. The support of the private enterprise business community is essential to any productivity program.

Suburban

Suburban living is often thought of as a phenomenon of the more highly developed countries such as North America and Europe. It is rapidly increasing in less developed areas of the world, however. San José, Costa Rica, one of the smaller capitals of Latin America, has a definite suburban development in its Escazu and Curridabat areas. Suburban residents

generally work in the nearby city but live on the outskirts for reasons of desire for space and freedom.

Consumer

The consumer audience is not classified by where it lives but by what it does. It buys. For agricultural development programs, one of the most numerous and important consumer audiences is the housewife or her buying representative, a maid or other employee. Their interest is chiefly in availability, quality and price of food products.

Governmental or Political

This audience deserves seperate classification because any public organization that does not have adequate and continuing political support will not long endure the "jungle warfare" for budgets and approval of plans. High governmental officials, legislators, heads of local governmental subdivisions and influential political leaders all make up this audience.

These are a few of the broad classifications of audiences to be reached. There are many more and an almost limitless number of subdivisions.

When any particular program is being developed the target audience must be defined. An audience may be defined on the basis of geographical location, common economic interests, related areas of production, cultural factors, language limitations and other factors.

Once an audience has been defined the job of analyzing it and using the results of that analysis in information programs begins.

There are as many factors or categories that can be used in audience analysis as there are in defining the audience. Some of the factors that must be carefully studied include:

Economic Levels

The economic ability of an audience to put into effect the changes proposed in any development program is a prime factor in its success or failure. Existing financial resources, availability of credit and ability to use the credit wisely are all factors. There is no use explaining the advantages of a Diesel tractor to a man who does not have the money to buy a burro. Promotion of development programs beyond the ability of the audience to finance often results not in frustration but also in actual resentment, discontent and disorder.

World of Experience

The world of experience of any of us is that area in which we possess knowledge, interest and competence. The world of experience, whether of an individual or a group, may be thought of as mythical balloon of knowledge surrounding the individual or group as the center. This world of experience touches other similar "balloons," and it is only in the overlapping or common areas that communication can take place.

The world of experience of a university trained technician is vastly larger than the world of a farmer with virtually no formal education. There are few overlapping areas — but some exist. It is the job of audience analysis to understand thoroughly the world of experience of the audience and to identify the overlapping or common grounds in which communication may be established.

Language

It is obvious that transmission of materials must take place in the language that the audience understands. No one would make the mistake of publishing a farm magazine for Latin America in anything but Spanish, unless, of course, he lived in Brazil.

It is equally important that, in planning national and local campaigns, transmission take place in what may be called

"the language of confidence" . . . the language that the audience uses daily and by preference in the home and on the farm.

Radio programs in Paraguay are more effective in Guaraní than Spanish; in the northern altiplano of Peru, in Quechua than Spanish, and in the area around Lake Titicaca, in Aymará.

It is also important that transmission be in the local dialect of the audience to be reached. Where we would give market information on the price of "frijoles" in Mexico, we need to refer to the same crop as "porotos" in Uruguay, production of "piña" is important in Central America but you speak of the consumption of "anana" in the Southern Cone of South America.

This use of the language most easily understood by the audience does not mean that the source nor the information specialist is "talking down" to the listener, rather he is "talking with" him. Neither is it ever an excuse for bad grammar or poor construction.

Cultural and Social Patterns

The way in which an audience lives from day to day has a considerable effect on the way in which its members can be reached with various types of messages. Family structure, interrelationships, religious beliefs and practices, organizations (both formal and informal), customary meeting places, racial background, all must be taken into account.

Educational Level

The educational level of the audience to be reached not only affects the method of transmission but also is a factor in determining the extent of its world of experience.

Points-of-Contact

There is another type of information that needs to be known about the intended audience of a particular program.

This might be called the points of contact of the audience. These are the avenues through which the audience is accustomed to receive information.

Points of contact of essential importance in an information program include, among many others:

What newspapers circulate in the area?
What radio stations do members of the audience receive?
What magazines are read?
What are the days of the local fairs and markets?
What are the principal means and routes of transportation used?
What television stations are available?
How reliable is the local mail service? What alternatives are available such as police or military stations?

All these things fit together to make the picture of the audience at which messages are to be aimed.

CHAPTER V

Channels of Transmission

There are in existence today more methods or channels for transmitting information than ever before. Some of the oldest, such as person-to-person conversation, are still among the most effective. Some of the newest such as television are still not available to all and many things about their effective use are not completely understood.

One thing is certain —any effective educational information program will use a number of channels of transmitting information to achieve the greatest impact on the audience. Research studies have shown that there is an increase in effectiveness when an audience receives information in a number of different ways.

It is our purpose here to "pass in review" the principal channels or methods used in an educational information program. We will not attempt to discuss the techniques of using each but rather will look at how when and where each may be used. The list is not complete, for there are infinite variations and combinations.

MASS TRANSMISSION

Mass transmission of information messages includes those methods which reach large numbers of persons at a single time but in which the information specialist must appeal first to an intermediary and does not have control of the final audience.

This method has the advantage of reaching a large audience rapidly. It has the disadvantage of lack of permanency and limitations of giving detailed information.

Mass transmission is best suited for promotional and informative messages. It can be used for motivational or restraint messages but is seldom adaptable as a primary channel for educational material.

The first task of the information specialist in using mass transmission is to make the proper appeal to the person who actually controls the presentation of the material —the newspaper or magazine editor, the radio or television station manager. If these arbiters of what appears and what does not appear do not find the information as submitted to them suitable for their use, the entire effort is lost. The message dies before it ever reaches the audience.

An information specialist must know and understand all the mass media outlets that serve the audiences he is trying to reach. He should study their style of writing, their likes and dislikes, and their ways of handling various types of stories. The specialist should become personally acquainted with the key men in the various outlets. He must understand their problems as well as informing them of his.

One of the gravest errors that an information specialist can make is to fight with the mass media outlets over the way that particular stories are presented in news columns or on news programs.

If a story is changed in a way to make it obviously wrong or misleading, then the matter should be discussed with the editor concerned, but it is not within the prerogative of the information specialist to question the captions used, the location of the story in the paper or program, or the length of the material. The only way to secure the desired treatment is through personal relationships, mutual confidence and respect.

Each of the various outlets composing the mass media have certain individual characteristics that should be examined carefully.

Newspapers

This is probably the oldest and still one of the most widely used methods of transmitting information to the public in general. In almost all areas of the world, it is a primary method of reaching the urban, suburban, consumer and governmental-political audiences.

The use of newspapers to reach the various rural audiences will depend on the availability of a rural press, which in many instances seems to be directly related to the literacy level and transportation facilities available to the rural population. Uruguay, for example, with a population of 2,700,000 million, a land area of 72,000 square miles all easily accessible and a literacy level of 91 per cent, has six metropolitan dailies and 89 newspapers outside the capital city. Bolivia, on the other hand, with a population of 4,200,000, a land area of 424,000 square miles of difficult terrain and a literacy level of 32 per cent, has a total of 14 newspapers.

Newspapers are concerned primarily with the business of printing stories in which their paying subscribers are interested. They want to keep their readership as high as possible as a basis for the sale of commercial advertising, from which they receive the bulk of their income. After all, most newspapers, unless they are heavily subsidized by special interests, are business enterprises operated for the purpose of making a legitimate profit.

Articles submitted to newspapers must attract the attention of the editor as something of interest to his readers, be in the style and form in which they can readily be used, and be submitted at the proper time to meet the printing schedule.

Particular attention should be paid to special pages and special editions of newspapers. An agricultural page, a women's page, a section devoted to a particular area or crop gives an opportunity to supply the paper material it needs and also to reach a desired audience.

Newspapers offer the advantage of reaching a large audience rapidly with short, factual messages on a specific subject. The newspaper has the disadvantage of having low reference value. Not many readers maintain files of newspapers or even take the trouble to clip out and save articles

of particular value, even though they may intend to do so at the time. The impact of the newspaper article is *now*, the information given must hit hard enough to stay in the memory of the reader until it can be supplemented by some of the more lasting methods of presentation.

Magazines

All that has been said about relationships with editors and about submission of material to newspapers applies to magazines.

A magazine differs from a newspaper, however, in several ways. The magazine generally is published at longer intervals (monthly instead of daily, or twice a month instead of weekly, for example). It is published to appeal to a more limited audience (farm magazines, women's magazines, etc.), and it can use longer articles containing considerably more detail.

Generally, a magazine can be depended on to have more reference value than a newspaper since people have a tendency to save magazines for a longer time.

Since a magazine appeals to a particular audience, it should be used to carry material of interest to that audience and not to the public at large. This means, that articles must be written with even greater care to make sure they carry information of interest and are written in a style that will appeal to the special audience.

Technical and scientific magazines are even more demanding. These magazines are dedicated to a very specialized audience and generally do not depend on the sale of commercial advertising space for a major portion of their revenue.

In the technical magazine, the technician or scientist is writing for other technicians and scientists and not for the general public. He, therefore, uses the language in which they communicate most effectively. It would just as ridiculous for an article in a technical journal to be written in highly popular style as it would for a newspaper article to appear in scientific terms.

The rules and format for writing for technical and scientific magazines are firmly fixed and rigid in application. They should be carefully studied before articles are prepared and submitted.

Radio

The use and importance of radio in educational information programs has increased greatly in recent years because of one thing —the tiny, low cost transistor.

Where agricultural radio programs a few years ago were limited to hours when farmers would be in their homes, or gathered in village centers to listen, such presentations can now be made at almost any hour of the day because the transistor radio is an almost constant companion. There are radios pinned to panchos and serapes, there are radios hung on the horns of oxen and the windshields of tractors, and the radio is a fixture of most homes.

This increase in the use of radio makes it even more important than before that programs be well-planned and well-presented. People listen to radio for entertainment. The agricultural radio program must offer its information in a way that will get attention and not create resentment at interference with entertainment programs.

Radio is primarily an information giver and an attention getter.

You can inform people about a meeting and stimulate their desire to attend by proper use of radio, but you cannot teach detailed processes. You can give quick market summaries and general price quotations, you can announce the availability of a new product, you can warn of changing weather conditions, you can advise of coming events, but you cannot give complicated directions such as formulas.

Radio has no reference value. Once the program is finished, there is no way that the listener can recreate it to check on a detail or a fact that he has missed. This can and is often overcome by making available printed copies of directions —but here we are using radio as the attention getter and printed materials to teach.

One of the most common errors that amateurs make in presenting a radio program is to "go on the air" with the firm conviction that they are speaking to an audience of thousands. This leads to lectures instead of radio programs. Actually on radio you are only speaking to one person at a time. There may be thousands of persons with their radios on, but you succeed only as you speak to and "reach" each one individually. This concept makes for much more informal and effective presentations.

Radio has another advantage over any form of written communication in developing areas in that it can leap the literacy barrier and bring information to audiences who are illiterate or who can read only with difficulty.

Radio also has a great advantage for use in areas where indigenous languages are spoken by a majority of the people. Agricultural development efforts in the altiplano of South America demand that extensive use be made of radio in the Quechua and Aymará tongues.

Television

Television is the newest and potentially one of the most effective methods available for the transmission of information. Television combines the oral presentation of radio with the ability to use visual aids.

However, the limitation on range of the TV signal, the cost of transmitting programs, and the cost and size of receivers has limited its use in developing areas.

Television offers a method almost made-to-order for reaching the urban, suburban and governmental-political audiences with transmission of promotional, informative and motivational messages. Television, however, can be used to a much greater extent than radio for educational messages since it allows the use of the highly effective demonstration method of teaching. Remember, however, that television, like radio, has no reference value; once the program is finished the listener can not check back on the points covered.

Educational television has suffered from lack of proper use of its abilities and requirements. All too often, an educa-

tional show has either been a glorified radio interview with technicians comfortably seated in easy chairs discoursing on their favorite topic or an overwhelming display of gadgetry where the message got lost somewhere between the puppets and the flip charts.

An organization planning to use television as a part of its information program needs to devote considerable time to studying the most effective visual presentations, camera capabilities and limitations, participant dress, make-up and other factors that affect the show.

We must always remember that television is seen to a considerable extent by families in the home and that subjects and presentations should be appropriate. The best-done show in the world on the ravages of hoof-and-mouth disease is not likely to be well received if it comes on the TV screen just as the family is sitting down to eat a hard-earned beef stew.

The time of presentation of TV shows is also a problem. The good viewing hours when most of the family can see the show are limited and are justifiably pre-empted by the station for sale to paying customers. Careful discussion of this question with TV station managers can help solve it.

The present trend in many developing countries toward the establishment of relay TV stations greatly increases the audience in the rural areas. Argentina, for instance, recently saw a rash of local TV stations spring up throughout the country using both retransmission of programs and coaxial cables. The stations were sponsored by manufacturers of TV receivers to increase their market area. The information staff of INTA was quick to take advantage of the hunger of these stations for local programs, held special training courses for extension agents and reaped a considerable benefit in increased effectiveness of their information program.

Other information services are effectively using a system of making short, low cost motion pictures with an accompanying tape-recorded explanation. These units can be left with TV stations for use when time is available. Ideal time is not always secured, but the film-tape units can be shifted from station to station and also used as part of programs at meetings or in mobile units.

DIRECT TRANSMISSION

In direct transmission the organization controls the message up to the point where it reaches a particular audience and the exact timing of the presentation. There are, to be sure, degrees of determining the audience as between the mailing of a newsletter to a selected list and the use of a sound truck, mobile unit or exhibit. But even in these last cases, physical location determines who sees or hears the message.

Most organizations engaged in advancing agricultural productivity use direct transmission methods as the backbone of their educational programs. Some of the more important of these methods include:

Publications

The writing, editing, illustrating, printing and distribution of publications covers such a wide field that it, in itself, is the subject of whole library shelves of books. It involves the whole field of information art and communications science plus the allied areas of layout, design, typography, grammatical construction and other techniques.

Probably the largest share of information budgets, both of time and money, in both developing and developed areas is used for preparation and distribution of publications. This is true in countries with low as well as high literacy levels.

The possible over-use of publications in low literacy areas has been a point of concern. However, the importance of effective publications, both technical and popular, in the long range development of agricultural productivity programs is so great that they will probably always be the basis of the programs.

The effective publication gives the educating organization a way of placing detailed instructions directly in the hands of the audience that needs them; a means which is equaled by no other method of transmitting information.

The publication has an almost 100 per cent reference value. Properly prepared in size, format, attractiveness and value, the publication virtually asks its receiver to keep it for

future reference. And if lost, it can be replaced by another exact copy.

Practical experience of organizations concerned with development, has shown that, while in many areas of high illiteracy, a majority of the population cannot read, there is someone in every village, in every hamlet, at almost every crossroads settlement who can and will read effectively written and printed material to those who want and need to know its content. The publication, then, serves as a local advisor, on the job 24 hours a day, 365 days a year, something that no organization can ever hope to equal in actual personnel.

The temptation to issue publications in what is termed a written form of a language that over centuries of use has failed to ever develop such a written form is a fallacy. It is impossible to publish written material in Quechua, Aymará or Guarani, for example, for these languages have no written form. They are purely oral and have always been oral. What is being done is publishing in an adaptation to another language, this case Spanish, of approximations of the sounds of the original. And when the publication is completed, it is necessary to teach the people concerned to read it. So why not teach them to read the modern language, with its broad field of knowledge available in the first place?

Preparation of some basic materials in this written approximation for use by instructors in reading may have some value, but it would be better if they learn the language itself.

We should note here that this is in no way an argument for the disappearance of these beautiful and descriptive indigenous languages. They should be preserved but preserved in the oral form in which they exist. Modern technological development makes this possible.

The matter of determining what publications an organization is to issue, in what order of priority and in what format is one that constantly arises.

Someone has to make a decision so production can go ahead. The decision can be made by top-level administration but it takes time better used elsewhere. It can be made by

the information specialist or editor but this results in constant irritations and conflicts of interest. The naming of a Publications Committee representative of the various divisions of the organization such as research, extension, administration and information is the best solution yet devised. The Committee should meet regularly, have authority to make decisions and, in addition to approving publication plans and priorities, should develop and enforce a definite publications policy.

The publications policy of an organization should establish the kind of publications that are going to be issued, designate series in which they will be published, establish fundamental rules of style and format, and provide specific procedures for approval of the content of the publications.

Newsletters

The newsletter or circular letter offers a quick, low-cost and effective way of calling attention to a particular event, problem or fact. Such a letter can be written specifically for and delivered to a particular audience.

Newsletters have been and are being effectively used by change agents in rural areas to carry specific information to the audience desired. They can also be used as a means of informing the personnel within an organization of new policies, programs and matters of general interest as a means of building morale and esprit de corps. They can be effectively used to carry promotional and informative messages to urban and governmental-political audiences.

The effective newsletter must be brief, concise and attractively presented. It should generally deal with a single theme, although when used as an information bulletin several related topics can be covered. Drawings may be used to attract interest or emphasize a point but they must be well done.

Distribution is often a problem in rural areas where mail services are lacking or unreliable. Delivery through other existing channels or by special messenger, where possible, can help to overcome this difficulty.

Posters

Posters are used to call attention to one specific fact or drive home one particular message. They can be produced in quantity and distributed easily in places where people pass often or congregate.

Poster production requires the availability of a competent art staff capable of producing the drawings needed, making easily readable lettering and conversant with the values of different color combinations as attention getters.

Posters can be produced by letter-press or offset printing or very effectively through the use of the silk-screen process where available.

Care must be taken that the poster tells the story it was designed to tell. Use of symbolic or allegorical drawings should be avoided. Often a drawing can offset the message of the printed words. Recently in Peru a poster was produced and widely distributed urging the public to take advantage of a reward offered by the government for poachers of vicuña. The wording was clear but the attendant drawing somehow had a tendency to arouse sympathy for the poor poacher who was about to be grabbed by a fierce looking policeman rather than for the dying vicuña in the background.

Exhibits

Displays and exhibits can be used effectively to visualize or dramatize some particular part of an educational program. They are particularly effective in demonstrating the results of desirable practices or showing before-and-after or good-vs.-bad. They can also be used effectively to teach identification of desired things or objects such as good seed potatoes or symptoms of disease. A properly prepared and attended exhibit can also do a great deal to explain to the public the objectives, organization and manner of functioning of an organization.

Exhibits and displays are too often thought of only as large rather elaborate affairs placed at major expositions or meetings. Actually some of the most efficient exhibits, in terms of numbers of people seeing and really studying them,

are small, portable ones that can be quickly set up at a meeting as a training aid or left in places where the target audience congregates such as cooperatives, banks and similar areas.

The first requisite of an exhibit is that it must have the ability to stop the passerby and make him look a it. This is often done through the use of a striking photograph, an arresting splash of color or probably most effectively by an interesting area of movement. The old trick of an endless stream of water pouring out of a faucet apparently suspended in mid air by a fine wire has stopped hundreds of thousands of people in front of an exhibit. There are almost limitless variations that can be worked out.

An exhibit or display that has a lesson to teach should always be accompanied by a simple folder type of publication which recounts the same facts or enlarges upon them. These folders are given to interested persons as reference material.

Mobile Units

Mobile units are really not methods of transmission of messages in themselves but rather a means of transporting the methods of transmission to the desired audience.

A well-equipped mobile unit is an expensive operation, and poor one is not worth putting to work. The unit must be contained in a vehicle capable of negotiating the often-difficult roads necessary to reach the rural population desired. This means not only high initial cost but continued maintenance.

A basic mobile unit should include a public address system, a motion picture projector, a slide and film strip projector, an electrical generating plant and adequate storage for films and publications. Other pieces of equipment such as displays, recording facilities, etc., may be added as budget and need dictate. If destined for particularly remote areas, a mobile unit should contain simple living quarters for the operator.

Ideally a mobile unit will work in cooperation and under the immediate control of the local extension agent or other technician, who will serve as the source for presenting programs and answering questions. The operator of the unit in this case must be a reasonably good automobile mechanic and

also understand the operation and maintenance of all equipment. Nothing is probably more ridiculous than a $15,000 mobile unit, set up in a remote mountain village with a crowd of earnest farmers in attendance and the whole thing dark for want of a fuse or a spare projection bulb.

In many instances the mobile unit will be called upon to make presentations when technician can not be present. This requires an even better trained operator who knows where to refer people for answers to their questions and who above all is intelligent enough not to try to answer questions beyond his ability.

We normally think of, and have spoken here of, mobile units as operating primarily in remote areas. This is the job usually assigned them. We sometimes overlook the possibility of a much simpler type of mobile unit which could very effectively operate in rural towns or even suburban areas where an ordinary automobile could be used for transport and self generation of electricity would not be necessary.

PERSONAL TRANSMISSION

Information services normally deal primarily with the areas of Mass and Direct transmission of messages. The field of Personal Transmission is the domain of the technician, but the information specialist can be of great help in making the message more effective.

Personal transmission of a message permits face-to-face contact, with the source controlling his audience and the content of the information. It has the distinction of being the only type of transmission in which the audience can immediately ask questions and receive answers on points on which they are not clear.

Personal transmission is basically a form of oral communication and therefore does not in itself have reference value for the audience. This is easily overcome, however, by the use of bulletins or folders containing summaries of the basic information.

Some of the most used and highly effective methods of personal transmission include:

Meetings

Meetings at which information in given to a particular audience may be those especially called for one purpose or those in which the technician is part of a program covering a variety of subjects.

In either instance the information specialist can help the technician in such matters as size, shape and facilities of the room; seating arrangement of the audience; placing of visual materials such as screens, blackboards and flannelgraphs; availability of printed materials; positioning of supplementary exhibits and displays; and preparation of teaching aids. This does not take into account the advance job of promotion of attendance and the preparation of press and radio news stories after the meeting to further spread the message.

The information specialist should always remember that the meeting actually belongs to the technician in charge, his wants are paramount and his decision is final. The role of the information specialist is in support, and he should remain as far in the background as possible. Any gadgetry that distracts the attention of the audience from the lesson being taught is out of place and should be eliminated.

Field Days and Tours

Field days and tours are actually only meetings generally held out-of-doors to permit the use of result demonstrations as a teaching device. For field days, the audience is brought to a central point where the demonstration is located. In tours, the demonstrations are scattered and the audience must be taken from place to place to see them.

The role of the information specialist in these functions is much the same as in any meeting, with certain changes made necessary by the conditions encountered. He can help the technician through making sure adequate public address systems are available and in working order, that plots or similar areas are properly marked, that roads are marked or caravan routes published and known and many other functions. And again the job of advance promotion and follow-up reporting of results is vitally important.

TRAINING AIDS

The field of training aids has often been treated as an area unto itself, and a virtual cult of the design, making and use of the so called audiovisuals has developed. The true function of all these aids is to reinforce the learning process in the transmission of messages.

Any so-called training aid that through gadgetry in its operation, distracts the attention of the audience from the basic message should be eliminated. An audience that is wondering how a certain tricky device works is not giving its attention to the facts being presented. Such a device might be extremely valuable as an attention getter in an exhibit, but it has no place in an educational meeting.

A list of training aids could fill pages and pages, because there are almost infinite varieties of each developed for a particular task or a particular person. A list of a few of the "staples" in this area will include:

Blackboard

One of the oldest and still one of the most effective teaching aids is the blackboard. Low in cost, easy to use and adaptable to almost an infinite variety of purposes and variation of presentations, the blackboard should be our first consideration in planning visual strengthening of training programs.

The blackboard is actually so versatile that, in the town of Villa Cura Bochero in the Province of Córdoba in Argentina, Carlos Tomas Bustos has converted almost the entire front of his house into a large blackboard on which he publishes a "daily newspaper" complete with paid advertising. Every day Bustos gathers the village events and at the appointed hour letters them onto his blackboard newspaper.

Location of the blackboard so it is visible to the entire audience without light reflections, use of various colors of chalk, careful cleaning between uses and planning for the material to be presented in the space available are all precau-

tions that should be taken to make the presentation most effective.

Homemade and portable blackboards can be prepared on a variety of surfaces, either for fixed or portable use, with either commercially prepared or home mixed paint.

The two principal precautions in the use of the blackboard are simple: Write large enough, and write plainly enough that the audience can read it. Technicians using a blackboard have an obligation as part of their professional preparation to develop either script or printed writing that is legible. For a person who is engaged in teaching to say, "my handwriting is simply not legible, and I cannot print," is an evasion not an excuse. Make it legible through desire and practice.

Flipcharts

The flipchart is simply an alternative method of presentation to a blackboard with its own limitations and advantages. A flip chart is a group of large pages (sheets of newsprint are excellent and low cost) bound together like an oversized tablet and displayed in front of the audience on an easel or similar device that permits the pages to be turned one at a time.

The flip chart may either be used with the pages blank for writing at the time with a felt-point pen or crayon or have previously prepared lettering and line drawings which may be displayed as desired. Material must be legible and large enough to be easily read.

One of the biggest advantages of the flip chart is that it permits advance preparation of legible messages and of illustrative material by those whose abilities are limited in these lines. It also has the advantage of being able to display all or part of the message at one time without having to turn away from the audience and write on the blackboard.

Using a flip chart in combination with a blackboard increases the variety of presentations available for additional learning impact.

Flannelgraph

The flannelgraph is a sophisticated version of the blackboard used to add versatility to the teaching process. The flannelgraph is an expanse of woolen cloth, felted or with a raised nap, on which previously cut-out messages and illustrations backed with similar material or sandpaper are placed to adhere by friction.

The flannelgraph has the advantage of using previously prepared lettering and illustrations. The message can be built up part by part as desired and pieces moved about more easily than on a blackboard or flipchart.

While permanently placed flannelgraphs are available in many classrooms, the device is easily portable, and even a rough finished woolen blanket can be used. The only precaution is that the base material must be fairly tightly stretched if the pieces are to adhere to the surface.

Trial operation is an essential since pieces that insist on falling off, or lack of proper judgment of space, detract from the learning process.

A variation of the flannelgraph is the magnet board. In the magnet board a sheet of light-gauge iron or tin is used as a base, and small magnets are fixed to the pieces to be placed on it. The magnets can be removed and used again.

Slide Sets and Filmstrips

The taking of 35mm or 2" x 2" colored photographs is almost a universal hobby. This hobby may be turned to a valuable teaching aid through the use of colored slides to complement a lecture or visual presentation. Use of slide sets permits the teachers to bring reality into the meeting room and recreate material that might otherwise necessitate a field day or tour. It also permits the use of this material at any time of the year.

The principal limitation on the use of slide sets is the necessity for electricity and a darkened room or one of the modern "dark boxes." Kerosene and gasoline illuminated

projectors are available but have not generally proven satisfactory.

If slides are to be used as a teaching aid, they must be carefully selected for that purpose and not for entertainment value or mere beauty. Often, more effective results may be obtained by a combination of colored slides of actual objects or scenes and explanatory drawings.

Slide sets are probably most effectively used by the person who took the pictures and thoroughly understands them. However, standard sets of slides may be prepared and distributed for use with careful planning..

Filmstrips in effect, are, nothing but a slide set that has been fixed in sequence and prepared on a role of continuous film. Filmstrips have the advantage of ease of transportation and use and the disadvantage that the sequence of presentation cannot be changed.

When either fixed slide sets or filmstrips are prepared for general distribution from a central office to field agents, they should be accompanied by a guide for use in presentation. This guide should contain in outline form the material to be presented as well as notes on successful use.

Another variation of the slide set or film strip is the "transparency panel." In this method the selected photos or drawings are prepared in the form of transparencies that can be lighted from behind and mounted as an exhibit or display. This is another teaching aid that can be prepared in a central office and distributed to field agents for use.

Motion Pictures

The motion picture is a valuable teaching device, particularly when the process being taught involves moving functions as an integral part. The motion picture is also a valuable attention getter and is often announced as an attraction to get the desired audience to attend a meeting.

Entertainment motion pictures are almost a standard item in the kit of the mobile unit to attract an audience for the informational or educational material to be presented in other forms later.

The locally made motion picture, however, is an expensive item to produce from the standpoint of special equipment and specially trained personnel. The educational film must be of acceptable quality to an audience accustomed to seeing commercially made films, which includes almost everyone. The film must be well planned, well taken and well presented if it is to be worth the time and effort put into making it.

Many information services are having considerable success in making simple black and white motion pictures of basic agricultural processes which can be used not only at meetings but on TV. However, careful attention must always be paid as to whether or not the costs of making the picture might not have been more effectively used elsewhere.

All too often, an enthusiast sees a commercially made promotion film about the activities of a certain company or organization and immediately wants to make a similar film about his activity without realizing the planning and thousands of dollars that went into the production.

Descriptive Folders

Blackboard presentations, flipcharts, flannelgraphs and the various uses of slides and filmstrips all have a common disadvantage in the lack of reference value.

This disadvantage can be offset by the preparation and use of simple descriptive folders for distribution to those attending the presentation. With flipcharts, slides and filmstrips this preparation is simple and relatively inexpensive. The same drawings or photographs are merely reduced in size and printed in the same sequence with captions giving the salient facts. The same technique can be used where a presentation is made using a blackboard or flannelgraph aid.

These descriptive folders are meant primarily for use as "memory aids" for participants but they can also be valuable in individual or small group conferences where the more formal presentation can not be made.

We have listed only a few of the major training aids. There are many more and new ones are being prepared every

day by resourceful trainers. It is important to remember that it is not necessary to have a vast amount of expensive equipment to give emphasis to your presentations. Local materials are available —if there is desire and ingenuity.

All available methods of transmitting information must be used if the story of the need for and ways to increase agricultural productivity is to be told.

CHAPTER VI

Evaluation

Evaluation is something we do every day.

Was the coffee strong enough for breakfast? Did that letter we wrote yesterday get results? How many farmers actually planted a new variety of beans? The answers to such questions all involve evaluation.

Evaluation is simply checking on what we did to see if it produced the results we intended. It is a positive approach to doing a better job whether we are concerned about our day-to-day tasks or the outcome of an entire program.

Before we can evaluate, there are certain things that we need to know:

Why did we do what we did? What was our objective?

How, when and where did we do it? What process did we follow?

What was the result?

And, always our real concern —How can we do it better?

Let's go back to that breakfast cup of coffee. What we wanted to do was to make a good-tasting cup of coffee. We put in so much of a certain kind of coffee, we added so much water at such a temperature. We put in sugar and cream, and we drank it. We did not like it. Why?

To answer that "why" we need to know several things: How much of what kind of coffee did we put in? How much and how hot was the water? Was the sugar clean? Was the cream fresh? What experience had we had with making coffee before?

Now we know what went into the making of our coffee and why we got the result we did.

The evaluation that we constantly carry on in our work follows the same pattern as the checking we did on the results of making the cup of coffee. Unlike the coffee, however, we do not always wait until the final product has been prepared, or the job completely done, before we evaluate.

Evaluation of a completed project is desirable. Constant checking of our work as we do it, however, enables us to correct small errors before they become big ones.

This might be compared to a carpenter building a house. As each board is cut and put in place, he checks to see that it is square. As the walls are erected, he constantly uses a plumb line to see that they are perpendicular. All these constant checks do not show in the completed house, but they make the final result good.

The constant checking of our work is the square and plumb line which enable us to be sure the final result is what we want.

When an editor begins to prepare a publication, he goes over it carefully to see that the language is suitable for the intended audience. He studies the available photographs and drawings to select the ones that most adequately tell the story. He chooses a type that will be easy to read and, at the same time, allows the material to fit into the space available.

We go through a similar process with the preparation of a radio program, a television show, an exhibit, a poster, a set of slides or any of the other transmission methods.

Constant and repeated evaluation is necessary to produce a top quality product.

Evaluation of an Entire Program

Evaluation of an entire program is no different than the checking of its individual parts except that it is done on a larger scale and therefore calls for more extensive methods.

As we plan an educational information program, we evaluate each step as we go along. Do we have the correct

analysis of our audience? Are our transmission materials properly prepared to reach that audience?

We pretest our publications on a small group to be sure the materials are readable and carry the message desired. We talk with individual members of the audience to secure their reaction to the materials presented. We discuss our plans with others who have had experiences in the same type of programs.

Thus far we have been talking about individual evaluation. This is what we do ourselves to make our own work as effective as possible.

As any program moves forward, we begin to use group evaluation of larger segments where various efforts have to be coordinated. Monthly staff conferences of leaders of the various sections of an information service help to evaluate the progress being made and tie together activities for more effective work. It takes practice and experience to make such conferences successful, for each participant must feel free to express and defend his ideas if a real evaluation is to be achieved and plans made for putting it to use.

There comes a time in the development of any information service when it needs to have a more formal evaluation of its efforts by someone not an integral part of the group. We all tend to become too close to our job, too convinced of its importance because it is our job, to see some of the mistakes we are making or to realize how we might do our work better.

An expert in the operation of information programs may be called in to study the entire functioning of the service in light of its objectives and to examine the day-to-day details for efficiency. The results enable the service to operate more efficiently in the future.

The planned formal study of the results of an entire educational information program is probably what is most commonly thought of when the word "evaluation" is used. The basic reason for such a formal evaluation, however, is just the same as the step-by-step checking by individuals or groups —to see if the program is giving the desired results and find ways to improve it.

Program Determines Needs

The type and extent of evaluation we need to give us the answer we want varies with the kind and complexity of the program. If the objective is simply to increase the production of a particular crop for market, about all we need to do is check the sales records to see if our work was a success or a failure. If the program involved changes in attitudes and patterns of living, such as in family planning or shifts in dietary habits, we need a much deeper probing to find out if the end was actually achieved, and, if not, why not.

If the evaluation shows we achieved our stated objectives, then we know the program was a success and we may use the methods again under similar circumstances. If we did not achieve our objectives, we need to know where we went wrong, what could we have done to overcome the barriers that caused the failure.

This is where we need the services of a trained evaluator —a person who knows how to prepare the questions that will bring out the answers fairly and honestly. The evaluator also knows how to secure the proper sample of the audience to be sure we have an unbiased group. It is his job to understand how to tabulate the results and prepare them so they are understandable and can be used as a basis for improving future programs.

The results of an evaluation should always be written down to insure their effective use. This notation of results will vary from a few words on the margin of a news story to a multi-page report on the study of an entire program. The important thing is that they are available for reference in deciding how to improve that project or how to plan a future program.

Since evaluation is a continuous process, its results are also in constant use. The day-to-day evaluations that we make of our own work are continually being fed back into that work to make it more effective. The step-by-step evaluation of an on-going information program is constantly being used to change methods of presentation, alter content of materials or make changes in emphasis on various phases. For instance, if we find that the information we are transmitting is being

received but that the audience is not motivated to action, we may need to delay moving forward to the next stage and reinforce what we have already done with additional materials.

Provision for evaluation, whether individual, group or formal, should be built into the plans for every educational information program. The persons responsible for the more formal evaluations of an entire program can do a much better job if they have participated in the original planning to insure that objectives are stated in terms that can be measured and also to understand the practical problems involved and the results desired.

The Purpose of Evaluation

Evaluation is not done for the purpose of evaluating. Evaluation is done to obtain more effective results.

Let's go back to that cup of coffee. Evaluation ended when we found out exactly what we had done and why we got the results we did. Evaluation told us where we went wrong. We then had to decide how to alter our process and ingredients to improve the next cup.

The person or persons responsible for the success or failure of a project or program must decide how they can best use the results of evaluation to render that project or future programs more effective.

In the day-to-day checks on individual projects, each person must both evaluate and decide what changes are to be made. In the step-by-step evaluation of an educational campaign, the evaluation is done by those in charge of its various phases in consultation with each other. The Working Committee will decide how the campaign may be changed to improve its efficiency.

The final decision as to how to use the results of the evaluation of an entire educational information campaign to render future efforts more effective must be made by the administration of the organization responsible. Practical considerations such as budget, personnel available and the needs of other programs all enter into a decision at this level.

The important thing is that the results of evaluation be

used and not filed and forgotten. Evaluation may reveal things about our organization our methods and our techniques that are hard to accept. Pride, prejudice and our own resistance to change lead us to want to continue doing things in our own way. We tend to bury unfavorable or critical reports and send the good ones on to the "boss."

Constant evaluation and use of the results is one of the best ways of insuring the effectiveness of educational information programs.

CHAPTER VII

Educational Campaigns

Research and experience tell us that there are many things that influence the effectiveness of an educational information program. The more of these we can use efficiently the greater will be the impact on our audience.

This manual is dedicated to a discussion of these factors as a guide to that effective use. We may list some of the more important factors as:

Using every available method to tell the story.

Being certain that all concerned are telling the same story.

Telling the story in a way the audience can understand and will accept.

Having information materials available when and where they are needed.

The importance of bringing together these factors has resulted in the development of the coordinated use of information methods in the Educational Campaign.

The use of the word "campaign" may be misleading because it is thought of as an intensive, short term drive to achieve a limited goal. The Educational Campaign, of which we speak here, however, is a long term, planned effort to contribute directly to increased agricultural productivity.

The effective use of educational campaigns as the basis of the information program of a developing country is told in the story of OTIA of Peru later in this chapter. We recommend its careful study and analysis. Here we will only sum-

marize the essentials in planning and executing such a campaign.

The first step in planning an educational campaign is to determine the area to be covered —it may be national, provincial or limited to one region. What we are actually doing is delineating our audience as to geographical boundaries.

It is possible, and often highly desirable, to plan and present a campaign on some particular subject such as development of cooperatives, use of supermarkets by consumers, protection of a particular resource or increasing production of a designated crop. What we are discussing here, however, is the overall educational campaign with the objective of raising the agricultural productivity of an entire section, such as a state or province, and deals with all the factors concerned.

With the campaign decided upon, the organization responsible for its execution, should determine all other groups that have or should have an interest in the presentation. This list will be a long one if the job is thoroughly done. A few of the entities that will be included in most campaigns includes all activities of the Ministry of Agriculture, commercial companies, civic and religious organizations and groups, military and police units and many others.

Every effort should be made to draw all of these groups into the planning stage and secure their active participation. Generally it will be impossible from a practical standpoint to bring all such groups into one meeting or to form a committee made up of representatives of each. A Working Committee in charge of the campaign presentation should be formed of representatives of those organizations most directly concerned, but with consideration given to the needs and contributions of others.

Analyze Situation Carefully

The situation of the chosen area, its problems, its needs and its capabilities must be carefully analyzed and priorities determined. This is *not* a job for an information service, but the representatives of the service should take part in the work

not only as advisors but so that they may have a proper perspective of the work of the future.

There are always more problems than can be undertaken at any one time. The more important ones need to be tackled first. A campaign that undertakes too many objectives results in a flow of multiple messages which will confuse the audience. The audience can only receive so many messages in any given time.

At the same time that the barriers to increased productivity are being studied, there should be a careful audience analysis to learn how they may best be reached, what methods of transmission can be used and what types of messages will be needed.

One of the objectives of the campaign and one of the prerequisites for its success is that all organizations taking part use the same recommendations and the same materials in making these recommendations. Many information efforts have failed in the past through conflicting recommendations being sent to farmers. In the Cusco area of Perú, for example, one study showed 14 different groups teaching farmers how to produce more and better potatoes and with recommendations that varied widely.

Production of Materials Planned

With the area determined, the goals and objectives established, the audience known and a basis of interagency cooperation fully in effect, the actual production of materials can begin. It is one of the secrets of success of the campaign presentation to have the all materials that are going to be used prepared and ready before the effort actually gets underway. Naturally this cannot apply to all local news stories and radio presentations, but it can and should apply to all major publications, and training aids.

The various materials to be produced should be selected by the Working Committee, and a definite priority list and timetable of preparation made and followed.

It is advisable to prepare a campaign kit of all materials in a large heavy duty envelope. This kit should also contain

a campaign guide giving the background of the selection of the goals, the facts about the audience and data about the area. A copy of this kit should be made available to every representative of every organization taking part.

The last step before the launching of the campaign, is the training of the field personnel. This step is vital to success. Careful plans should be made for a meeting, or series of meetings, in which personnel are brought together, the kit of materials is reviewed and specific instruction given in the effective ways of using the training aids.

Built into the campaign at all stages should be the necessary evaluation procedures to insure that materials and methods are as efficient as possible and to correct errors that may arise. This should include pre-testing of materials whenever possible. Provision should also be made for as complete and formal an evaluation of the campaign at its close as possible. This is essential, not only as a guide for further development in the area, but also for the planning and presentation of future campaigns.

If adequately trained personnel are not available within the sponsoring organization for such a formal evaluation, help may often be obtained from local universities or various international organizations interested in this type of work. They should, however, be brought into the picture in the early planning process so that they thoroughly understand what is being done and can effectively analyze the results.

No one has any illusions that a one-year or even a five-year campaign in a given area is going to permanently solve its agricultural development problems. One campaign may follow directly on the heels of another. The objective is to focus all the efforts and all the resources available on the most pressing problems rather than scattering them over a wide field.

Here is the story of the use of educational campaigns by OTIA of Perú as a case study of this effective method of operation.

Use of Coordinated Campaigns in Presenting Information

OTIA of Peru

The Oficina Técnica de Información Agraria (Office of Technical Agricultural Information) serves the entire Ministry of Agriculture of Peru in the production and distribution of educational materials and in training agents [1] in their use.

The OTIA has developed to an advanced degree the coordinated use of educational informational materials in the form of "campaigns" based on geographical, political or production areas.

The use of the word "campaign" for the coordinated informational efforts as used in Peru must not be confused with intensive, short-term publicity or promotional efforts. These campaigns may last for as long as three or four years and are designed to promote coordinated production and use of educational informational materials by all agencies concerned with the development of agricultural productivity in the area. They are based on careful previous study and analysis of area problems and needs and the use of all available informational materials to stimulate solutions.

A brief look at the demographic, geographic and agricultural panorama of Peru will help in understanding the operation of this program.

Stretched down the Pacific Coast of South America, Peru has a total land area of 1,285,215.6 Km^2 divided rather definitely into coastal arid and semiarid lands, rough and flatland jungles and high-altitude mountain country often referred to as the altiplano. [2]

Of Peru's land area, only 10.6% or 135,949.37 Km^2 lies in the coastal area; 30.1% or 393,320.33 Km^2 is in the altiplano and 59.3% or 755.945.88 Km^2 is in the jungle areas that form one of the principal headwaters of the Amazon.

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1 The terms "agents" or "change agents" are used to indicate personnel of governmental agencies and private individuals concerned with agricultural deve'opment.

2 All figures used in this section are taken from the 1965 Agricultural Census of Peru published by the Ministry of Agriculture and the National Agricultural University at La Molina.

Altiplano Area Important

Despite this great expanse of tropical jungle, however, it is from the altiplano that much of Peru's agricultural production must come; of the 2,813,940 hectareas of tillable land, 63.3% or 1,782,250 hects. lies in these high altitude plains and valleys. The jungle areas account for only 11.8% of the total cultivable land and the coastal area for 24.9%. The coastal area, however, produces high value crops and where irrigation is available is an important factor in Peru's development.

The population of the country reflects, in its distribution, this disposition of cultivable land for food production, if certain modifying factors are taken into account. Of the total 11,750,400 inhabitants of the country, some 2,062,000 live in the Lima-Callao metropolitan complex.

Even with this concentration in one area, however, 51% of the total population lives in the altiplano, 39.7% in the coastal area and only 9.3% in the jungle sector.

The rural population of Peru is 5,969,600, just slightly over half the total number of inhabitants. Of this rural population, 16.3% or 975,400 live in the coastal area; 12.5% or 743,000 in the jungle and 71.2% or 4,521,200 in the altiplano.

This rural population of Peru, particularly in the altiplano, is largely of Indian origin and in many instances, prefers to speak Quechua or Aymara rather than the official Spanish language. Their educational level is low, estimates of illiteracy run as high as 80% in rural areas, and the people are reserved and often suspicious of strangers or new innovations.

The country has a total of only 3,343 kilometers of roads, and many rural areas are served by roads so bad as to make modern travel almost impossible. There are 153 radio stations (29 in Lima), 23 television stations (7 in Lima) and some 30 newspapers (12 in Lima).

Corn, potatoes, cotton, sugar and coffee are among the more important field crops although quantities of vegetables, fruits and other products are grown. Beef cattle, poultry, pork, sheep, and llamas and alpacas are included in the livestock production. Peru annually imports large quantities of wheat, meat, dairy products, vegetable oils and rice.

These were a few of the factors that faced Peruvian planners in looking towards the development of an agricultural information service to assist in boosting productivity.

Experience in Information

Information services had been formed by a number of Peruvian agricultural entities over many years —for editing of technical publications, preparation and publication of reports and publicity and public relations. Since this is a study of OTIA and its "campaigns," however, it serves our purpose here to begin with the history that leads in a direct line to its establishment and methods of operation.

The OTIA was formed by governmental decree in July 1964 and recognized by law in the budget of the following year. It came into being after a period of some four years of intensive study and trial in the combination of several previously existing information services in agencies of the Ministry of Agriculture.

OTIA included within its structure, personnel with experience in other services under the leadership of a dynamic young Ingeniero Agrónomo, Carlos Prato Blume, and with the technical advice of the American International Association.

Even before the official recognition of OTIA, this group was studying methods by which information programs might be more effectively used in promoting agricultural productivity.

These studies lead to the conclusions that effective use of mass information methods in developing agricultural productivity must meet the following requirements:

1. Information prepared and presented specifically for the area concerned.

2. Information prepared and presented for specified audiences in a form that the audience could understand.

3. Coordinated use of the same basic information by all agencies concerned.

4. Use of the repetitive principle of learning, by determining problems and focusing several methods of transmitting information on each.

5. Production of sufficient supplies of materials for effective use.

6. Emphasis on oral and visual methods in areas of low literacy levels.

7. Training for field personnel (extension agents, inspectors, school teachers, rural police, clerics and others) in the proper use of information materials produced.

Recognition of these requirements lead to the adoption of the so-called "campaign" approach. It was decided that the first campaigns should be developed on a department (state) level, —realizing that later larger or smaller units might be desirable.

A Working Committee was formed which included representatives of all agencies of the Ministry of Agriculture under the chairmanship of the head of OTIA. This Committee was charged with the responsibility of planning the original campaigns, securing cooperation of personnel of all agencies, coordinating their activities and directing the actual presentation of the campaign program.

For the development of the campaigns the following broad outline of procedure was developed:

I. Analysis of the Situation. This involves a detailed study of the selected area including governmental division, population data, agencies of the government working in the area, exisiting communication channels, principal agricultural and industrial activities, transportation facilities, materials already existing, agricultural problems, facilities available and facilities lacking.

II. Audience Analysis. This includes as detailed a study as possible of the population, educational levels, cultural patterns, history, cultural values, religion, prejudices, living patterns and levels and other factors.

III. Sources of Information. Locating within the government or in other sectors, public or private, sources of the subject matter needed for the educational materials.

IV. Cooperating Personnel. Identification of technical and resource personnel at national, regional and local levels who could assist in the presentation of the campaign. This included not only all agencies of government but private organizations as well. For instance, transportation and delivery of materials in many cases could be handled efficiently by the police or the military if properly contacted; religious personnel and organizations were valuable opinion leaders and personnel of international organizations often supplied technical support.

V. Administration. One person, generally from the staff of OTIA was designated to serve as coordinator and administrator of all the campaign details.

VI. Production of Materials. This involved deciding upon and listing of all technical bulletins, popular folders, press and radio releases, posters, filmstrips, slide sets, flip charts, motion picture films and all other training aids intended for general distribution or for the use of change agents in various contacts with the public concerned.

VII. Budget. A detailed budget was prepared, showing costs of all information materials, training aids, training courses, distribution, travel and other factors.

VIII. Plan of Execution or Plan of Work. This involved the preparation in detail of a plan of work, including schedules for publication of written materials and preparation of training aids, scheduling of training courses, distribution of materials.

IX. Evaluation. This involved plans for the continuing evaluation of materials being produced as to their suitability for use as well as surveys and studies to evaluate the partial and final results of each campaign as a guide to future efforts.

When this had been completed, all materials were gathered into a cardboard folder with a pocket at the back. The folder contained, in mimeographed form, the complete outline of the campaign. Publications and various training aids were stowed in the pocket so that the resulting guide represented a complete package.

These guides were produced in quantities sufficient to be distributed to all the persons who were to have the function of presenting the information to the farm families. Effort was made to present these folders to the change agents in scheduled meetings, or short-term training courses, where the contents could be carefully reviewed and the most effective use of the various materials explained.

At the same time, quantity production of the various written and visual training aids was started. Distribution represented another serious problem because distances were large and mails unreliable. In many instances packets of materials traveled by plane, truck, jeep, burro and boat before reaching their final destination. Special packaging had to be developed to insure that dampness and rough handling did not render materials useless.

In addition to the traditional technical bulletins for use by change agents, popular folders, posters, radio programs, news releases and some other methods, not entirely new but effectively adapted were used that are worthy of special note:

Slide Sets: Sets of 35 mm slides, generally in black and white because of budget limitations, were produced by using either drawings or photographs, or both, to illustrate desired agricultural practices. These sets were limited to 10 or 12 slides. They were mounted in a cardboard folder for safekeeping. This folder was large enough to provide a set of pockets for the slides in the center and down each edge, an accompanying legend that the agent could use in the presentation.

At the same time, reproductions of the slides with an accompanying simplified version of the explanation were printed in a simple pamphlet. This pamphlet served several purposes. It could be distributed at a meeting where the slides were used as a take-home reminder for the farmers. Often

projectors, electricity, or both, were not available or it was impossible to hold meetings at night for projection. The agent then had the folder to pass out and put across the desired points. These folders could also be used for individual discussion or in groups of a few farmers where projection was not feasible.

FLIP CHARTS: A series of flip charts was also prepared and produced in quantity for agent use. An accompanying folder similar to that for the slide sets was produced. Reproductions of the flip chart pages in reduced size provided a guide for memory or use individually.

TRANSPARENCY PANELS: In some instances, photographs or drawings were enlarged as transparencies, mounted in series in heavy cardboard with accompanying legends and used as small displays. These were effective in windows or banks or agencies where farmers gathered, particularly in market centers.

The Working Committee selected the Department of Loreto, one of Peru's largest and most sparsely settled, 478,336.15 Km^2 and 471,900 population, as the trial area for the first campaign. Loreto is in the jungle area of Peru. Transportation problems were terrific. The population consisted to a considerable degree of colonies of immigrant families, many from other countries, and had a relatively high educational level.

The Committee thought that, if they could overcome the problems in Loreto and present a successful campaign there, they would be in a good position to demonstrate the worth of this coordinated approach before administrators and possible sponsors in seeking support for future programs. That, since that Loreto campaign was presented, similar efforts have been or are under way in six other Departments, one Province and eleven special-interest areas, is proof of the success.

In several instances, the Working Committee has taken the initiative of doing the preliminary studies and preparing the campaign guide before administrative interest in or financial support for the actual presentation was available. Publications and training materials were actually produced in limited

quantity, both as to editions and numbers, and included in the guide.

This enabled a presentation to a possible interested sponsor in a form readily understood and demonstrable to administrators and budget makers. This system has enabled the OTIA to secure sponsorship and financial support from both national and international organizations.

The OTIA has other responsibilities in its function of service to the Ministry of Agriculture in addition to leadership in campaign preparation. These include editing, publication and distribution of technical bulletins, preparation and presentation of a radio program, training of personnel and assistance in special projects. It does not, however, have any responsibility in the field of general public relations including press releases on Ministry activities. These fields are handled by a separate office of Public Relations.

The organization pattern of OTIA has been designed to coordinate its internal activities with a focus of all sections on production and use of materials.

Since OTIA is designated in the organizational structure of the Ministry of Agriculture of Peru as a "Program," its internal administrative organization includes five subprograms:

Administration: budgets, personnel, purchasing and operations.

Communication: publications, visual aids, illustration, composition and reproduction.

Training: including both in-service training of its own personnel and training courses for Change Agents and personnel of other divisions of government.

Investigation: evaluation and preparation of background information.

Radio: presentation of radio programs and preparation of program guides.

Each subprogram has a designated program leader or administrative head. Various divisions within the subprograms also have persons in charge.

Subprogram leaders report directly to the director of OTIA. Close coordination is maintained through a series of

fixed weekly meetings between each program leader and the director and a monthly staff conference where the program leaders and the director devote an entire day to review of activities of the month past and making detailed plans for the coming month. A "priorities" sheet for the month is prepared at this monthly staff conference and copies are made available to each subprogram so that each knows what the other is doing and the relationship of one project to another.

The director of OTIA is responsible directly to the Minister of Agriculture.

In addition to the administrative structure based on programs, the OTIA operates with a series of five basic projects on which each program focuses its activity. These projects include the educational campaigns, agricultural publications, training, research and evaluation, and the publication of an international communications journal *Comuniquémonos.*

CHAPTER VIII

Organization and Administration

Any effective public information program is, of necessity, the product of a well-organized and smooth-working information service.

Such an organization does not spontaneously spring into being. It is the result of planning and effort by top-level administrators. Such an organization is not necessarily a large one, but it is always a well planned one.

The basic principles of organization and administration of an information service are no different from these fundamentals in any other type of group.

A successful information service must have its purposes and objectives clearly set-down, its lines of administrative authority and responsibility established, its functions delineated, its personnel policies fixed and provisions made for the preparation and administration of budgets.

Lines of Administrative Authority and Responsibility

It is essential in any organization that each person not only know the exact scope and field of his authority over others but that he also understands to whom and for what he is responsible.

From our previous look at the functions of an information service, it is obvious that such a program must operate as close to the top level of administration as possible. The

director of an information service should be high enough in the hierarchy of the parent organization to permit him to sit in on planning councils of all types. This does not mean that he should exercise control over functions outside his own field, but it does mean that he should not have to pass through too many levels of organization to obtain decisions.

In a Ministry of Agriculture, for example, the head of the information service should report directly to the chief administrative officer (secretary general) and not be assigned to some subordinate part of the organization.

This not only insures the Ministry of competent information advice in planning of programs, but also makes it possible for the information service to serve the entire Ministry, instead of having several small and generally inadequate services such as one for extension, one for research, one for agrarian reform, and so on. This same example applies to universities and to semi-autonomous organizations.

Within the information service itself, each person should know clearly his or her responsibility and authority; this applies from the director of the service to the chauffeurs and boys who do the packaging in the mailing room. The best way to achieve this is through carefully prepared and written "job descriptions."

These job descriptions should state in detail the title of the position, the salary level, the details of the work expected, to whom the holder is responsible and over what personnel and equipment he has authority. A complete file of these descriptions should be maintained in the administrative office. A copy should be given each new employee, read and signed by him.

Purposes and Objectives

Failure to clearly establish and set down in written form the purposes and objectives of an information service is one of the principal causes for development of misunderstandings, frictions and discontent.

When an information service is established its role should be thoroughly determined in such areas as:

Is it to handle only educational information, or does it have responsibilities in the area of public relations?

Is it only a production agency, or does it have responsibility for originating programs of its own?

Does it have responsibilities in the training of organization personnel in the most effective use of information materials?

Delineation of Functions

The functions of an information service deal with its methods of operation to achieve the results set out in its purposes and objectives. To draw a definite line between purposes and functions is sometimes difficult, but generally speaking the functions are more specific phases of the operation.

In the establishment of an information service, these functions must also be clearly defined to insure effective operation. Some of the questions relating to function that must be answered include:

What is its authority in designating materials for publication and determining priorities for production?

What is its responsibility for distribution of materials?

How is its budget determined and administered? For instance, is the entire budget for printed publications allocated to the information service or to the various source departments?

What control does it have over its personnel?

Who finally approves a publication, an educational aid or other material for production and distribution?

We have spoken of defining and establishing the structure of an information service at the time it is established. This does not mean that an organization now having such a service operating cannot improve and strengthen it by following the same procedures. Certain established procedures might have to be changed, but the resulting improvement in efficiency would make it worthwhile.

It is impossible to set out a series of ideal recommendations for the organization and operation of an information service, just as it is impossible to establish the size of such a

program. The information service is meant to "serve" and to carry forward the basic objectives of the organization of which it is a part and must be tailor-made to fit the needs.

Any information service really serving an organization interested in developing agricultural productivity must contain within itself the abilities to carry on the following functions:

Mass Communications
Production of Materials
Distribution of Materials
Training of Personnel
Audience Analysis and Evaluation
Administration of Personnel and Budget

If the information service consists of one man and a secretary (the minimum of which we can conceive) these functions are going to be performed in one way or another. If the service consists of an extensive organization, these functions may well serve to designate the sub-divisions each with its own leader and staff. Whether these sub-divisions are called departments, division, offices, sub-programs or sections is immaterial and depends on the administrative structure of the parent organization.

Mass Communications refers to the preparation of materials for press, radio and television; editing of all types of publications, planning of visual aids such as posters, wall newspapers, slide sets and all the array of such materials necessary.

Production of Materials involves the operation of a printing shop, art shop and photographic laboratory or maintaining contact and relations with commercial establishments where this work can be done.

Distribution of Materials is an area that is sometimes overlooked or left to rather haphazard operation. It is faulty organization to expend time, effort and money in the production of high quality information materials but stop short of obtaining efficient distribution. This phase becomes partic-

ularly important in developing areas where transportation and mails are unreliable.

It is also a failure of organization to print, for example, 5000 copies of a bulletin with recommendations for the cultivation of a certain crop when there are only 2000 producers in the entire country. And even worse to give country-wide distribution to the publication when the producers are concentrated in one area.

The function of distribution is not just wrapping and mailing packages. The distribution division should develop and maintain mailing lists, be aware of all available transportation systems and maintain information for classification of mailing lists by types of production, geographic areas or other categories. It should be able to advise on quantities to be printed, time needed for materials to reach their destination and numbers of special audiences.

Training of Personnel concerns itself not only with the training of the personnel of the information service itself, but also with developing and presentation of training opportunities for all staff members of the organization in effective use of communications methods and materials. Development of training aids also can well come under this division.

Audience Analysis and Evaluation is a function that exists as a division within few information services in developing countries, but it is one that is nevertheless constantly being performed consciously or unconsciously.

Every time an information specialist writes a lead for a news story, plans a poster or edits a publication, he is in effect analyzing the audience. This field has grown greatly in recent years and trained personnel are now becoming available. They will make programs much more effective.

Evaluation refers, not only to formal studies that may be made at the end of a particular program, but also to the continuing checking on effectiveness that bring changes and modification during presentation.

Administration of Personnel and Budget is self-explanatory but is a necessary and vital function including procurement of supplies and materials as they are needed.

The Second Man

One of the pressing problems in the formation and operation of an information service, particularly in developing areas is that of "the second man." This problem becomes increasingly evident after the first years of operation. Early recognition of the problem and action to overcome it can make it less difficult.

Most information services in developing areas are built around one man or, at best, a small nucleus of men with the training, ability, dedication and willingness to work to make the program a success. As the program matures, these leaders have a tendency to disappear to other jobs or for other reasons.

In at least five South American countries today, information programs of major agricultural productivity development agencies are dependent on one individual for whom no obvious replacement is available. Four countries have never recovered from the removal of their information chief through resignation to take a job with an international organization or death.

The problem is not only with the director or head of the information service, but right through the organization from the section leaders to key men in the production division. It is sufficiently important that administrators from the very beginning should pay particular attention to securing personnel for "second level" positions who have the capacity to replace their superiors and making certain they receive the training necessary.

Unfortunately and all too often, the "second man" is not hired and trained because the person immediately above him fears he may be pushed out of his job. Personnel policies should be clear enough and firm enough to remove this fear. More administrators should realize the truth in the statement of one veteran head of an organization who, when asked how it was that he could be head of a team made up of men with doctor's degrees when he himself was only a university graduate, said "I was smart enough to hire them and put them to work, wasn't I?"

Centralized vs. Regionalized Operation

The question of whether to establish a strong central office of information in the national capital in most developing areas, or a series of regional offices is one that every organization must face.

As for the exact administrative structure of the information service, it is impossible to give a definite answer which will apply in all cases. The type of program, the geographical make-up of the area, the availability of transportation, the types of production and, probably above all, the availability of personnel and budget will determine the answer in each case.

Either kind of an operation can be successful. The Oficina Técnica de Información Agraria (OTIA) of the Ministry of Agriculture of Peru is an example of a successful centralized program without regional centers. The Extension Information program of the Instituto Nacional de Tecnología Agropecuaria (INTA) of Argentina operates with a small central office supported by regional information personnel in each zone of the country. The "CAR" system of Brazil, in itself a federation of semi-autonomous state agencies, has a strong central information office that works in cooperation with almost equally strong state services.

A strong central office has the advantage of concentrating information personnel close to sources, of being able to use expensive equipment most efficiently, of making the best possible use of limited personnel, of maintaining close contact with administrative heads and the attraction for personnel of living in a capital city with its attendant advantages.

Regional offices can prepare programs with more local application, maintain closer day-to-day contact with the audience and avoid the "ivory tower" capital city complex; they also provide more flexibility of operation since personnel and equipment are available at various points.

Experience in a regional office is a good proving ground for the "second men" who may later move up to the national scale of operations.

It is quite probable that most organizations will need to

begin their operations with one central office of information. This should not be allowed to become frozen into a permanent pattern, however, without careful consideration of the possibilities of regional subcenters.

Some organizations have found a midway solution to their problem through the designation of what may be called "Flying Squadrons." Certain key personnel, for example an editor, a radio specialist and a visuals man, are hired with the understanding that they may at any time, and on short notice be required to transfer for indefinite periods to any given region to plan, prepare and present information campaigns locally.

Physical Equipment

Little is gained by the establishment of an information service and the training of personnel if they do not have the equipment and machines to produce the materials needed. On the other hand, it is equally disastrous to secure quantities of expensive and modern equipment without personnel capable of operating them efficiently and effectively.

It would seem incredible for an organization to establish an information service, send personnel for extensive and expensive training and then on return be unable to supply them with even desks and chairs not to mention typewriters. Yet this actually happened in one South American country.

In this same South America, however, in three other locations, thousands of dollars worth of information production and presentation equipment is lying idle or being used far below capacity because of lack of personnel and political complications.

The equipment and machinery needed for the effective operation of an information service will depend on its aims and objectives.

One of the first questions that always arises is whether or not the information service of a public agency should install and operate its own printing shop. The operation of such a shop has the distinct advantage of allowing more complete control of quantity and quality of production, ability to es-

tablish and maintain deadlines and change them to meet emergencies, and retaining complete control of the entire process. Such operation has the disadvantages of requiring additional personnel with the attendant administrative problems, providing adequate space facilities (including proper storage), the need for constantly securing supplies (such as paper, ink and allied materials), repair and maintenance of equipment and establishment of budget provisions for replacement of wornout or outmoded equipment. This last item is often critical when it is impossible to carry-over funds from one year to the next.

Before establishing its own printing shop, any organization should make a realistic and careful investigation of all existing local facilities for having work done commercially. Commercial contracting has the advantage of leaving the information office free of mechanical production problems, being able to use several shops at the same time for rush jobs, normally having available a greater ranger of facilities (such as printing methods, typefaces and equipment), availability of experienced technical advice on production problems and fewer worries about material procurement, repairs or replacements.

The bare minimum of equipment for beginning an information service might be said to include: adequate office space, desks and chairs, typewriters, at least one tape recorder and an electric mimeograph.

To this will need to be added, as program demands dictate (but not necessarily in this order of preference), a radio recording studio, Multilith or offset printing machines with attendant plate-making equipment and cameras; addressing equipment for mailing, an art workshop and a photographic laboratory separate from the facilities required for offset printing. All will require special provisions for housing and use.

All the organization plans possible, and the best equipment available, however, are only developed and secured to enable the information specialist to effectively transmit messages.

CHAPTER IX

Personnel Training

One of the most difficult problems in the establishment of an effective information service in a developing nation is the procurement of qualified personnel. We use the term qualified personnel advisedly because it is virtually impossible to secure fully trained personnel.

The job of training personnel, constantly increasing their ability to do a better job, is one that every organization must face and one to which it must give continuing attention.

As we mentioned earlier, organizations concerned with developing agricultural productivity face a problem at the very beginning in securing personnel for their information programs. Should they choose personnel who are graduates in agriculture and attempt to train them in the theories and techniques of information, or should they select personnel with education and experience in journalism and allied fields and attempt to teach them the rudiments of what is needed in an agricultural education program?

We also might mention that this problem is even more difficult in the field of home economics, where there are very few women trained in either field available.

In many instances qualified personnel may be found among younger agricultural graduates who have a liking for information work and have secured experience on agricultural pages of newspapers or in similar ventures. Newspaper trained personnel who have a genuine interest in agriculture are an excellent source of information specialists. Administrators

must recognize their information staff members as professionals who are entitled to consideration at that level.

In any event, there is a need for and an obligation for considerable and continued training to develop a staff to its full capacity.

Training of personnel in the theories, methods and techniques needed for a successful information program may be secured in several ways. Among these are formal education at the graduate and undergraduate levels in national or foreign universities, short course training in specialized areas, in-service training and on-the-job training. Each of these has its place, its advantages and its drawbacks.

Formal University Training

This type of training almost always requires that the individual secure an extensive scholarship to pay expenses and that he be gone from his job for an extended period. It creates problems for the organization to maintain a position vacant for at least a year or two and also personal problems where the individual has a family to support.

Certainly for the development of communications specialists, who know completely the modern theories and are qualified to conduct adequately the audience analysis and evaluation studies needed, there is no substitute for graduate training. Since graduate schools in communications are virtually nonexistent in developing areas, this means study abroad.

Often the person selected for this type of training is sent for his graduate study before actually entering his job. This is sometimes necessary, but it would be advisable for him to have a period of actual experience before branching out too far into theory so that he may have application always in mind.

Undergraduate training can be secured in some areas of information work —such as journalism and radio— at national universities. Organizations should make every effort to encourage members of their information staffs to take advantage of night courses and similar studies. An organization

can well afford to give a staff member a few hours free a week to take part in such training.

Short-Course Training

Many international development organizations such as the Instituto Interamericano de Ciencias Agrícolas, CIESPAL, FAO, and the OAS give short courses from time to time —ranging from 10 days to 6 months in various phases of information work.

Organizations should maintain contact with these programs and take advantage of every possible opportunity to send personnel. Many times such courses are offered for one country or in a particular line of activity, such as agrarian reform, but if proper contact is made, personnel from other areas will be received.

The problem of per-diem expenses and travel costs is often a bar to the attendance of personnel at these courses. Developing countries and organizations concerned with national development, however, must realize that trained personnel are one of their greatest assets and set aside a part of their own budgets for such purposes. As a matter of fact, an organization that pays out of its own "pocket" for the training of personnel is considerably more inclined to insist that the training be taken seriously and used efficiently than if the entire costs are financed by an outside source.

National organizations of similar fields of interests can often work together in securing short course training locally for personnel of similar interests and needs. Personnel working in agricultural productivity development, public health, education and resource conservation information services, for example, have much the same needs. National courses reduce per diem and travel costs to a minimum, and by combining their resources and needs, organizations can plan and present their own training programs.

It is entirely possible, for example, to put on a short-course training program where personnel devote half of the day to study and the other half to carrying on their regular duties. This makes it possible to maintain at least the essential

work while increasing ability for future jobs. This type of training course has been very successfully presented by several Latin American countries.

Short courses should be planned to cover a definite area of subject matter, with as much time as possible devoted to practical application and related directly to the work of the participants.

No course will be any better than its instructors. Every effort should be made to get the best qualified instructors possible —even if costs have to be trimmed elsewhere in the budget.

In-Service Training

In-service training is training not received in a formally organized course but through actually working and observing under the supervision of an expert. For In-Service training, the trainee is sent away from his regular place of work to a place which offers opportunity to increase his knowledge and ability.

In-Service training is used largely to develop specific skills and techniques rather than general knowledge and theory. In-Service training is particularly effective in increasing the ability of those who operate specialized equipment, laboratories, or technicians in specialized areas such as publications editing, where they can go and actually work in a program under the supervision of a recognized authority in the field.

In-Service training may vary from a few days to several months, depending on the availability of personnel and the complexity of the material to be learned. In-Service training may involve sending personnel to other countries, or it may mean making use of local facilities such as commercial shops, to train personnel in use of machinery and equipment.

Organizations often overlook opportunities to train personnel in local facilities such as print shops, recording studios, commercial art shops and similar locations. This type of training is inexpensive and gives almost immediate results.

Neighboring countries, with similar problems, may ben-

efit greatly by interchange of personnel for in-service training at relatively low cost. The training agreement between the Instituto Colombiano de Reforma Agraria (INCORA) and the Oficina Técnica de Información Agraria (OTIA) of Peru with the cooperation of the American International Association (AIA), is an example of such a program of in-service training that gave good results.

The Information Services of INCORA and OTIA exchanged two persons each for two months each year. Salaries and per diem were paid by the home country, with AIA providing international travel only. The trainees actually worked on programs in the host country and had an opportunity to increase not only specific skills but broaden their whole outlook on information programs.

On-The-Job Training

In On-The-Job Training the trainee stays in his own office and works on his own projects and the trainer comes to him and helps him through observation and supervision.

On-The-Job Training can be used in the same fields as In-Service training to develop skills and techniques but it is also effective in administrative, evaluation, and general supervision programs.

On-The-Job Training has the advantage that work is done in the atmosphere and with the materials that the trainee is accustomed to. It has the disadvantage that it does not afford opportunity to see new things and new places and provide the stimulus this brings.

On-The-Job training is normally carried on by a consultant who should be able to provide this type of training to several persons at different levels in an organization at the same time.

Training of personnel is an absolute essential to the continued progress and effective operation of any information service. It is the best answer to the "Second Man" problem.

When an organization starts on a training program however, it is producing a valuable commodity considerably

in demand in the markets of the world. Every effort should be made to insure that trained personnel have the proper inducements and sense of obligation to return to their parent organization rather than succumbing to temptations to go elsewhere once they are professionally competent.

Thus far we have spoken principally of training of personel of the information service to do a better job.

The information service itself has an obligation to provide continous training for other professional and technical personnel of the organization in the proper use of information methods. Field agents, for example, may not need to know all the techniques of preparation of information materials, but they should certainly know how, when and where to use them.

A regular series of intra-organizational training courses should be maintained aimed at constantly increasing the effectiveness of personnel in use of information methods. The increased effectiveness of the entire program will justify the time spent away from day-to-day work and the effort needed.

CHAPTER X

Public Relations

We have spoken of the need for separating the Office of Educational Information and the Office of Public Relations of an organization. From a functional and operational standpoint, this is desirable.

Actually it is impossible to separate public relations from information just as it is impossible to separate public relations from any other part of an organization.

Public relations is not something that is carried on by one office to the exclusion of the rest of the organization.

Public relationships are the total image that the public has of an organization. And that image is built up by the acts of every member of the organization —from the elevator operator and the telephone girl through the research scientist to the top administrator.

That image is being formed 24 hours a day, 365 days a year. Every act that we do, helps someone form or change their image of us, and every image they have of us is a part of the total image they have of the organization for which we work.

We once heard the head of an international organization dedicated to development of agricultural productivity make a comment that illustrates this point effectively —call him Dr. Juan Fulano. Someone asked Dr. Fulano to write him a letter and sign it "personally not as Director of your organization." His reply was, "I can not do that. Dr. Juan Fulano is Director of this organization, and the director of the organization is

Dr. Juan Fulano, and every time I sign Juan Fulano to anything, anywhere, I am signing the name of the Director."

An Office of Public Relations takes care of the official and formal contacts of the organization. It is an arm of the administration and tells the story of that administration to the public through all the formal methods we have reviewed. Perhaps we would avoid misunderstanding if we called these programs Offices of Official Relations or Offices of Public Contact.

Unfortunately it is all too often the senior technicians, the research scientists —the men who are the vital heart of an organization of development— that adopt the attitude, "public relations is no concern of mine, let the administration worry about that."

The administration does worry about it, but the administration alone can not create the entire image in the minds of the public. Every time the receptionist answers the telephone, every time a letter is answered or not answered, every time an official car is parked on the street, every time a thoughtful or unthoughtful act is performed, a little more is added to the public relations image of the organization.

It is said that public relations is actually a function of administration. That the job of public relations is the work of a specialized office. These statements are true.

Administration and the public relations office may, through hard work build the skeleton and the muscles of the public relations image of the organization, but it is the day to day work of everyone that puts on the outward clothing that the public sees.

Public relations is the responsibility of everyone all the time.

CHAPTER XI

Information and Communications

An organization interested in establishing a system and a structure for transmission of facts and ideas to the publics it serves runs almost at once into confusion over the words to be used to describe what it is trying to do.

We hear tossed about the expressions "Communication," "Information," "Public Relations," "Propaganda," and "Divulgation." And, as if this was not confusing enough we get into the modifications of "mass communications," "educational or technical information," "editorial services," and "diffusion programs" and so on, ad infinitum.

All this confusion has its roots in the rapid development and complex and changing nature of our modern day society. It is based on the explosion of knowledge and the sky-rocketing of means and methods of contacting people in large numbers rapidly and effectively.

Some 50 years ago most organizations interested in contacting the public had their established "public relations departments," and nobody thought the worse of them. Then public relations went commercial and became associated with high-pressure selling of either products or philosophies, and the word acquired a bad odor when related to public supported efforts.

For a time it was possible to use the term propaganda, but then "propaganda" became associated in the public mind with the work of "public relations," and the same bad smell rubbed off on it.

Actually, of course, the profession of public relations and the use of propaganda for legitimate purposes are entirely honest and respectable enterprises, but a fickle public has rejected them as untouchables.

In groping about for something to call the process of informing and educating the public, organizations hit upon the title of "information programs" put into effect by "information services."

Meanwhile, another revolution had been more or less quietly taking place. Psychologists, anthropologists, archaeologists and all kinds of other "ologists" had been studying the human animal to discover what makes him tick. They were sincerely and worthwhilely interested in knowing how that "ticking" might be turned on or off, accelerated or decelerated. They were interested in determining patterns and reactions and eventually in reaction patterns.

As a result of all this, they came up with findings that one of the things to which man reacts most effectively is —man. They also found that masses of men because of their interaction with each other, did not always react the same as individual men.

Sociology Studies Man's Actions

So there developed the beginnings of a science devoted to the study of masses of men. Perhaps the first to forge out into this new and fascinating area of study were those who called themselves "social psychologists," but soon the whole area of sociology emerged to stand on its own.

Sociology is defined by the Fairchild *Dictionary of Sociology* as "the scientific study of the phenomena that are produced by group relations between human beings."

Continued study soon brought out the understanding that one of the factors that most affected these "phenomena" was the information that the "human beings" had and exchanged in their "group relations." What information did they have? How did they get it? How did they use it? What affected that use?

And all these factors were grouped together and a new science was born; that of "communications."

In the scramble to get on the new bandwagon, "Information Services" became "Departments of Communications Arts," editors became "communicators," and a stampede began into research into methods often at the expenses of techniques of production.

"Information," argue the sociological communicators, is merely a noun and refers only to the body of knowledge being passed on. The important thing is the process of passing on knowledge, and that process is called communications.

Unfortunately both words, "information" and "communications," have other established meanings. Information does mean any body of knowledge or any piece of knowledge. Communications has been used for years to mean the physical means of transmitting information such as telephone, telegraph, mails and even highways, railroads and airlines.

Thus arose confusion in the minds of persons charged with the responsibility of informing and educating a public in the things they need to know to increase their productive ability.

Defining Communication

As time has passed, however, two generally accepted, but by no means specific, meanings have been attached to the words, which can be used to help clarify our thinking:

COMMUNICATIONS is the science of determining the most effective ways of presenting facts and ideas to a given audience or audiences to induce them to action and outlining means of making that presentation.

INFORMATION is the art of preparing messages to be presented in all the various methods available and supervising that presentation.

Another way of saying the same thing would be that Communications deals with processes and that Information deals with methods and techniques. In any case, it is obvious

that both are part of one effort and that they depend on each other for effective results.

Whether we speak of an "Information Service" or a "Communications Program," whether we call the persons engaged in that effort "editors," "specialists," or "communicators" is relatively unimportant as long as we understand their responsibilities and as long as they get the job done.

The basic responsibility of an information service is to provide support for the action programs of the organization of which it is a part. In one sense, an information service does not have a program of its own —it does not set out of itself to provide facts and ideas and to induce change in its audiences simply to be doing these things.

Information Is A Support Function

The role of information is always in support of the basic program of the parent organization. Certainly any well organized information service has its plans and calendars of work, its methods and schedules of action, but its real program is to support that of its parent group.

Information, however, cannot fulfill its support function effectively if it is not an integral part of program building. Many people see an information service as a group called in after a program has been developed and told to get out the press releases, publish the materials and prepare the educational aids necessary to carry it out. This is too late.

The effective role of information, and even more of the trained "communications specialist," begins in the planning stage. There he can participate in analysis of the problem, advise on obstacles to diffusion of knowledge, help plan evaluation, provide data on the feasibility of production schedules and all the other things that will later make the program a success or a failure.

If this role is to be successfully filled, information must sit very close to administration in the councils of the organization. This does not mean that information should have a hand in the administrative functions per se but only as they

affect the transmission of programs and the public image of the organization.

Because of this necessarily close link between administration and information, constant care must be taken that there is no confusion about the roles of each.

Someone once said: "The three biggest sins of an information man are wine, women and a tendency to meddle in administrative affairs —of which the latter is the worst."

Both information personnel themselves and their administrators must be constantly alert to avoid this "mortal sin" while at the same time maintaining the close relationships essential to successful operation.

CHAPTER XII

References for Further Study

Since the purpose of this Manual is to stimulate, the list of suggested reference readings for further study has been kept to a minimum. These are references that can be used for individual study or as guides in preparing basic training courses.

Those interested in a more exhaustive listing of materials in the various areas of information may obtain them from Colleges of Communication Arts or Journalism in almost any U. S. University. Two particularly complete lists which are available are "Bibliography of Communications In Agricultural Development," by Delbert T. Myren, Rockefeller Foundation, 40 Londres, Mexico 6, D. F. Mexico; and, "Communications Bibliography" International Training Programs, Audio Visual Center, Indiana University, Bloomington, Indiana. The Federal Extension Service of the U. S. Department of Agriculture, Washington, D. C. has available a listing of information materials used by various Land-Grant Universities in their educational programs.

Chapter I — Developing Productivity

"Mass Media and National Development," - Wilbur Schramm, Stanford University Press, Stanford, California.

"The Communications Process in Rural Development," - Paul Leagans, Cornell International Development Bulletin I, Cornell University, Ithaca, New York.

"Transforming Traditional Agriculture," - Theodore W. Schultz, Yale University Press.
"Development of Emerging Countries," - The Brookings Institute, Washington D. C.
"Getting Agriculture Moving," - Arthur T. Mosher, Agricultural Development Council.
"Report of First Inter-American Research Symposium On The Role of Communications In Agricultural Development," - The Rockefeller Foundation, Mexico City.

Chapter II — Sources of Information

"Educational Objectives and Role of Mass Media in Adult Education," - Harold Swanson and Willie Strain, Institute of Agriculture, University of Minnesota.
"The Author and the Public Problems of Communication," - C. V. Wedgewood, Hutchinson of England, London.
"The Production and Distribution of Knowledge in the United States," - Princeton University Press.
"Where Farmers Get Information," - Su Ann Thomas and J. F. Evans, University of Illinois.

Chapter III — Kinds of Messages

"The Process and Effects of Mass Communications," - Wilbur Schramm, University of Illinois Press.
"Getting Information to Farm Families," - Hadley Read, University of Illinois Press.
"Diffusion of Innovations," - Everett Rogers, The Free Press, Glencoe, Illinois.

Chapter IV — The Audience

"Your Audience - What's It Like," - Rex Campbell and John Bennett, University of Missouri Agricultural Experiment Station Bulletin 771.
"People, Society and Mass Communications," - Dexter and White, The Free Press, Glencoe, Illinois.

"Adoption of New Ideas and Practices," - Herbert Lionberger, Iowa State University Press, Ames, Iowa.
"Innovation - The Basis of Cultural Change," - H. G. Barnett, McGraw-Hill New York.
"First Interamerican Research Symposium On The Role of Communications in Agricultural Development," - Rockefeller Foundation, Mexico City.

Chapter V — Channels

"Reporting Agriculture," - William B. Ward, Cornell University Press.
"Audio-Visual Materials, Their Nature and Use," - W. A. Wittich and C. F. Schuller, Harper and Row, New York.
"Television and Radio," - Garrison Chester, Appleton-Century-Crofts.
"Simplified Techniques for Preparing Visual Instructional Materials," - Ed Minor, McGraw-Hill.
"Lettering," - Gertrude Power, Federal Extension Service, U. S. Department of Agriculture.
"Agricultural News Writing," - Burnett Clarion and Others, William C. Brown Book Co., Dubuque, Iowa.
"AV Materials Handbook," - Audio-Visual Center, Indiana University, Bloomington, Indiana.
"American Association of Agricultural College Editors Communications Handbook."
"Manual of Style," - University of Chicago Press.

Chapter VI — Evaluation

"Evaluation in Extension," - Fred P. Frutchey, Federal Extension Service, U. S. Department of Agriculture.
"Extension Teaching Methods," - Meredith C. Wilson and Gladys Gallup, Federal Extension Service, U. S. Department of Agriculture.
"Extension Evaluation in a Foreign Culture," - N. Mason Beers, Federal Extension Service, U. S. Departmentt of Agriculture.
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