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RESULT DEMONSTRATION MANUAL

for Extension Workers



UNITED STATES
DEPARTMENT OF AGRICULTURE
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Agriculture Handbook 123



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RESULT DEMONSTRATION MANUAL FOR EXTENSION WORKERS

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PURPOSE OF MANUAL

This manual is prepared to help county extension agents, State specialists, and extension supervisors plan, conduct, and use result demonstrations more effectively. Examples and pictures of result demonstrations are included.

People are inclined to believe and to be influenced by what they see. They are readily convinced by results and performance, not by claims and suggestions. This accounts for the willingness of sponsors to pay thousands of dollars per minute to demonstrate the advantages of their products on national television programs.

It is now possible to show interested persons the results of the most convincing demonstrations on television. To qualify for television, demonstrations must be so planned that the results can be presented effectively through pictures and charts.

Television helped carry the results of a recent Minnesota corn demonstration, originally viewed by only 60 persons, to thousands of persons. Use of television has, therefore, been kept in mind throughout the preparation of this manual.

In recent years the trend has been toward fewer and better planned result demonstrations as more people have gained confidence in Extension. They are still needed to provide the local proof of the advantages of some farm and home practices, especially those that are based on recent research. Demonstrations are also helpful in gaining the confidence of new farmers and homemakers and others who have had little experience with Extension.

Many observers of extension methods in the most underdeveloped communities in this country and foreign countries credit the result demonstration with being the most effective method of convincing and persuading the least informed and most skeptical families to adopt improved practices.

EXTENSION SERVICE FOUNDED ON DEMONSTRATIONS

Farmers of the South faced a discouraging situation in 1903. Boll weevils were destroying their cotton and threatening to ruin the entire industry. In some Southern States the average cash farm income had dropped to \$150.

Most farmers lacked confidence in their best sources of help—the research and recommendations of the United States Department of Agriculture and the State agricultural colleges. Their lack of faith in what they called “book learning” made it almost impossible to persuade them to try new methods of farming.

New Teaching Method Launched

Dr. Seaman A. Knapp, one of the foremost agricultural teachers and writers of his day, was asked to represent the Department of Agriculture in meeting

this emergency. Because he knew that lectures, bulletins, and other ordinary teaching methods had failed to persuade many farmers to change to better methods of farming, he launched a new method of teaching. Instead of writing and talking he decided to stir farmers to action with visible proof. He planned to persuade a representative farmer in each of many communities to use a recommended system of farming for boll-weevil control and let the field results speak for themselves.

Dr. Knapp was invited to present his plan at a meeting of farmers and businessmen at Terrell, Tex. A local committee selected the Porter farm for a demonstration. Walter Porter, who lived near Terrell, agreed to farm 70 acres according to the agricultural practices that Dr. Knapp recommended.



Figure 1.—Left to right: G. G. Gibson, director of Texas Extension Service; Earl Cake, farmer Assistant Secretary, USDA; C. M. Ferguson, Administrator, Federal Extension Service, USDA; and descendants of Dr. Knapp. They stand beside the stone marker, unveiled at the Terrell Demonstration—50th Anniversary Celebration. The marker reads, in part, as follows: "Here the first FARM DEMONSTRATION was established jointly by Seaman A. Knapp, Mr. and Mrs. Walter C. Parter, the people of Terrell, February 26, 1903. This demonstration of scientific agriculture on the land was the beginning of the Agricultural Extension Service now known around the world." S-18050

The businessmen of Terrell raised \$900 to reimburse Porter for any losses he might have from using this new "scientific way." But instead of the expected loss, Porter's records showed the new way actually earned \$700 more on the 70 acres than the old. Neighboring farmers who saw the results were amazed.

News of this demonstration spread rapidly. Fifty years later a celebration was held, and a historical marker was placed on the Porter farm, as shown in figure 1.

By 1904 about 7,000 demonstrators and cooperators were following the new recommended practices for boll-weevil control. This was the first large-scale attempt to teach farmers through such object lessons. Dr. Knapp called them demonstrations.

Successful From Start

This method of teaching was successful from the start. It was convincing because farmers learned by seeing and doing. Dr. Knapp said, "What a man hears he may doubt; what he sees he may possibly doubt; but what he does himself he cannot doubt."

IMPORTANCE OF RESULT DEMONSTRATIONS IN EXTENSION TEACHING

People have more confidence in what extension agents teach if they are assured that their recommendations are practical and are based upon local demonstrations backed by adequate research. This confidence is essential to persuasive teaching.

Results obtained at experiment stations lead many people to try new methods. Others are more readily convinced by the experiences of successful farmers and homemakers in their community and by results

of local demonstrations, such as shown in figure 3.

Many observers of extension methods in the most underdeveloped communities in this country and foreign countries credit the result demonstration with being the most effective method of convincing and persuading the least informed and most skeptical families to adopt improved practices. Satisfying results build the confidence that paves the way for more effective use of other teaching methods.

These early *result demonstrations* sparked the founding of the Cooperative Extension Service. A result demonstration is a procedure carried on to prove the advantages of and gain confidence in a practice or combination of practices to be recommended. As a result of this early emphasis on farm demonstrations, cooperative extension work became known as farm and home demonstration work. In most of the States the women county extension workers are still called home demonstration agents, and their activities are known as home demonstration work.

Smith-Lever Act Specifies Demonstrations

The Smith-Lever Act of 1914, which provides for the establishment of the Cooperative Extension Service, states in part "that cooperative agricultural extension work shall consist of the giving of instruction and practical demonstrations in agriculture and home economics." This Smith-Lever Act is still the basis for all later legislation by Congress and the State legislatures in making appropriations for cooperative extension work.

Result Demonstrations Interest and Convince People

Result demonstrations provide indirect basic information used by extension agents in news articles, circular letters, radio talks, meetings, television, and other teaching methods. Demonstrations, like other visual presentations, stimulate much more interest than can ordinarily be developed through the printed page or by unillustrated talks. If "seeing is believing," well-staged demonstration results can be more convincing than dozens of printed pages or

hours of talk. A well-equipped and conveniently arranged demonstration kitchen is far more interesting and enlightening to any woman than a word description of how to plan her kitchen.

The result demonstrator, himself, learns by following the recommended practice, by observing, and by keeping a record of results. He becomes his own teacher as well as the teacher of his neighbors. After successfully proving the worth of a specific practice in the county, extension agents can speak and write more convincingly about it.

ESSENTIALS OF RESULT DEMONSTRATIONS

An extension result demonstration is a demonstration conducted by a farmer, homemaker, or other person under direct supervision of an extension worker, to prove the advantages of a recommended practice or combination of practices. It involves careful planning, a substantial period of time, adequate records, and comparisons of results. It is designed to teach others in addition to the person who conducts the demonstration.

To be effective, result demonstrations must be carried on systematically to prove that the recommended practice is definitely superior to the one it is to replace. Accurate records are essential—records of labor, materials, costs, and results. Result demon-

strations, therefore, must be carefully planned in advance. You cannot just go out and "find" a farmer using a recommended practice and call his experience a result demonstration.

Research Background Necessary

Proof from research or reports of successful experiences showing the advantages of a practice must precede a demonstration of it.

Result demonstrators do not discover new truths, but they show to what extent the research findings of the State experiment stations, the United States Department of Agriculture, and other agencies apply to local conditions.

TYPES OF DEMONSTRATIONS

A result demonstration may deal with a single practice such as the use of commercial fertilizer in growing a crop; or it may include a series of practices such as those involved in the management of a poultry flock, in saving time and energy in the kitchen, or in improved procedures for marketing a commodity.

Some demonstrations are completed in a short time. Others continue a year or more. For example, results of distributing poison bait to kill grasshoppers can be demonstrated in a few days. Tree-raising demonstrations require several years, as shown in figures 2A and 2B.



Figure 2.—A. Pine trees when first planted. A Mississippi farm woodlot demonstration. 216871



Figure 2.—B. The tree crop 9 years later, showing the same gate and other landmarks. 332925

The more complex the demonstration, the more difficult it is to evaluate the results of each of the practices involved. Simple, clear-cut demonstrations are preferable for use in teaching.

The checklist of methods used in planning, conducting, and publicizing result demonstrations given on page 25 can be applied to individual demonstrations or groups of demonstrations.

HOW RESULT DEMONSTRATIONS DIFFER FROM METHOD DEMONSTRATIONS

The method demonstration is concerned with showing how to do something in a better or easier way.

The differences between result and method demonstrations are indicated in the following outline.

Result Demonstrations Develop Proof

Conducted by: Farmer
Homemaker
4-H Club member

Designed to teach: Others in addition to person conducting it.

Where: On farm, in home, or in geographic unit.

Duration: Usually several weeks or months.

Purpose: To establish local visible proof of the advantages of one practice over another or of a new practice.

Steps in procedure:

1. Ascertain need and objectives.
2. Develop plan.
3. Select demonstrator.
4. Make specific plans with demonstrator.
5. Start demonstration.
6. Make supervisory visits.
7. Obtain records of results.
8. Make comparisons to show proof.
9. Publicize results.

Examples: A result demonstration planned *to prove* the advantages of pruning, spraying, and fertilizing fruit trees.

Method Demonstrations Teach Methods or Skills

Extension employee, trained project leader, or trained 4-H Club member.

Persons present.

At training meeting or on television.

Length of meeting only.

To teach a skill or method. To show step by step how to carry out a practice.

1. Ascertain need and objectives.
2. Plan procedure.
3. Select materials, equipment, time, place.
4. Give demonstration.
5. Have audience observe or perform each step as demonstrated.
6. Publicize what was taught.
7. Follow up to encourage and help people to use the practice.

A method demonstration *to show how* to prune and fertilize trees.



Figure 3.—In this result demonstration, the portion of the field at right, properly treated during growing season with poison dust mixture for control of insects, produced one bale of cotton per acre. Cotton on left, untreated, produced less than one-tenth bale per acre. PN 322

Figure 4.—In this method demonstration of sewing-machine repair, the specialist showed how, and the women worked on their own machines. Pons held the screws and parts removed while cleaning. (Maryland Extension Service.)



Among the highly developed method demonstration techniques are those used by extension specialists for conducting sewing-machine clinics. Those who attend bring their own machines. After the specialist demonstrates procedures, step by step, they clean, oil,

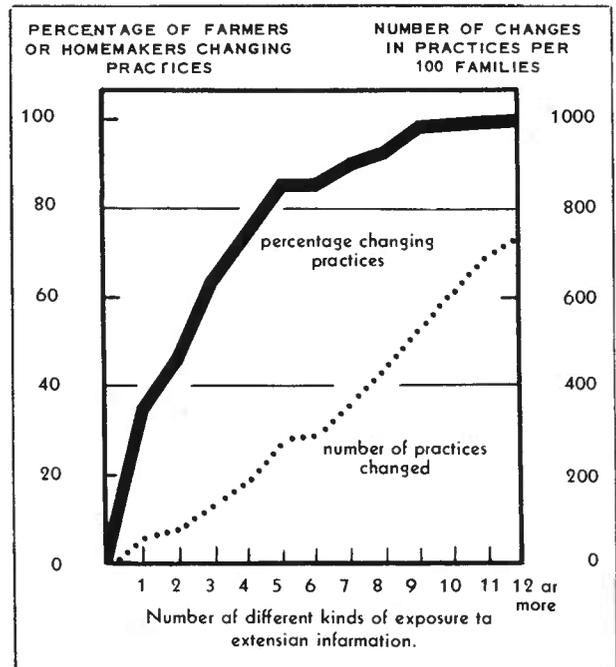
and adjust them. After individual help from the specialist and home demonstration agent, as indicated in figure 4, some women said, "My machine runs like new," although some machines were more than 40 years old.

THE PLACE OF RESULT DEMONSTRATION IN RELATION TO OTHER EXTENSION TEACHING METHODS

Studies show that the most effective extension work is done when several teaching methods are interrelated. Figure 5 shows that it takes a combination of at least five different methods to tell the same facts if extension workers are to obtain maximum adoption of a recommended practice. See the example of a combination of several methods used in teaching pasture improvement, beginning on page 27.

The result demonstration is a method that deals with people as individuals. Meetings or tours at result demonstrations are classified as group contacts. The results of demonstrations are publicized through mass media.

Figure 5.—Changes in behavior as affected by number of kinds of exposure to extension information (2,501 farmers, 869 homemakers).



TRENDS AND NUMBER OF RESULT DEMONSTRATIONS

The trend in recent years has been toward fewer, better planned, and more convincing result demonstrations. In 1956 the average number of result demonstrations per county reporting was 80 as compared with 104 in 1942. More than twice as many result demonstrations are reported in agriculture as in home economics work.

Wide Variation in Numbers

Great variations are reported in the average number of result demonstrations per county. In 1956 the 12

States reporting the fewest averaged 12 result demonstrations per county. The 12 States reporting the highest number averaged 170 per county.

The average number of effective result demonstrations carried on per county in each State is greatly influenced by the degree of emphasis the supervisors of county extension agents and State specialists give to establishing and using convincing demonstrations.

A convincing result demonstration must be well planned and carefully supervised.

Advantages and Limitations of Result Demonstrations

Result demonstrations have distinct advantages in that they:

1. Stimulate more interest than unillustrated pages or talks.
2. Increase the confidence of farmers and homemakers in the recommendations of their extension agents and specialists.
3. Help discover and develop local leaders.
4. Provide specific local proof about recommended farm and home practices for use in extension meetings, news articles, and otherwise.
5. Provide records of outstanding results that can be used as a tangible basis for calculating the benefits of extension work to farmers and homemakers.
6. Convince persons who have more confidence in the experience of their neighbors and in local demonstration results than they have in reports of research data.

Result demonstrations have disadvantages in that:

1. They require much time in planning, establishing, and supervising.
2. The direct cost per practice changed is high because few people actually see the result demonstrations. Moreover, few people see the field demonstrations or pictures of them at a stage when the results are most convincing.
3. It is sometimes difficult to find well-qualified persons who will keep the necessary records for some projects and practices.
4. It is difficult to develop specific proof of the advantages of some practices, such as using a better diet.

STEPS IN PLANNING AND CONDUCTING RESULT DEMONSTRATIONS

Decide What Practices Need To Be Demonstrated

An analysis chart can be prepared by listing in one column all projects in the county extension program. In another column list the most important practices to be taught in each project.

Check those practices which need more convincing local proof of their value. Determine what proof can best be developed through result demonstrations. Decide whether you want to use (a) direct comparison of results of using old and improved practices, (b) before-and-after comparisons, or (c) evidence based mainly upon photographs and other demonstration

records. Ideas not backed by research or local experience can be tested but not demonstrated.

People want local demonstration proof of the advantages of some of the late research ideas that they find reported in their newspapers and magazines.

Among these are the following:

- | | |
|---|--|
| Plant growth regulators. | New fungicides, insecticides, and weedkillers. |
| Hormone sprays. | Hormone feed supplements. |
| Antibiotics for animals. | Improved marketing procedures. |
| Disease and insect-resistant varieties. | |
| New vitamins for livestock. | |

Plan Result Demonstrations Systematically

The first essential for successful demonstrations is systematic planning. Begin with a definite purpose. What do you want the demonstration to accomplish? What do you want to prove?

State extension specialists in the subject matter involved are usually best qualified to help plan effective demonstrations. They know the results obtained at the experiment stations and the experience of farmers and homemakers throughout the State with the practice to be demonstrated. They also know the most effective methods of establishing and supervising the demonstrations, based on the experience of county extension agents in other counties and States.

States that are placing special emphasis on more systematic planning suggest that county extension agents develop specific written plans for their most important demonstrations. These plans usually contain the following information:

1. Project situation in county, demonstrations conducted in previous years, and kinds of demonstrations that are needed.
2. Proof or evidence to be developed for each practice.
3. Number, nature, and location of demonstrations.
4. How demonstrators are to be selected, kept interested, and satisfied.
5. Procedures for laying out and supervising demonstrations.
6. Materials to be used and records to be kept by demonstrating family.
7. Photographs to be taken before, during, and at end of demonstrations.
8. Methods to be used for measuring, summarizing, and publicizing results.
9. How results of demonstrations are to be used in planning the county program of work for the following year.

Outline for Complete Demonstration

The directors of extension work and experiment stations in the cotton-producing States appointed a joint committee to develop a systematic demonstration plan to include all the best practices in cotton production. Such complete demonstrations are urged by the National Cotton Council, the Cotton Research Congress, and other leaders in the cotton industry. They do not prove the advantages of any one practice but show that linking together the best practices in a complete demonstration produces maximum yields and profits.

A study of 409 records of demonstrators and cooperators who carried on complete cotton demonstrations in 1956 showed that they produced 238 more pounds per acre than the average produced by all cotton producers in the 9 States represented. The cost of production was 7 cents a pound less than the average. The increased net income, from larger yields and reduced costs of production, averaged \$122.43 per acre more than the average for these States.

Prove Advantages of Recommended Practices

A good plan provides for developing evidence that will bring out each major advantage of the recommended practice and meet every important objection to it. Planning a demonstration usually calls for an approach that will help people to become aware of the chief disadvantages of the practices now being used. For a demonstration to be most convincing it is often



Figure 6.—People want local demonstration proof.

Figure 9.—Response from spring top-dressing of fertilizer on permanent pasture demonstration in Henry County, Ind.: Left, 400 pounds 0-12-12 per acre; right, 400 pounds 12-12-12, applied March 31. (Indiana Agricultural Extension Service, 1955.)



basis of the average rate of gain per day and the average cost per pound of gain with each ration. In feeding carloads or truckloads of cattle the total weights at the beginning and end of the feeding period are usually compared. Convincing proof includes the number of pounds of feed required to produce 100 pounds of pork, beef, or poultry, and pounds of gain made from 100 pounds of digestible nutrients.

Home Demonstrations

Human nutrition demonstrations prove improvement in health and weight of individuals.

The advantages of home sewing are proved by records of reduced cash outlay compared with cost of buying garments having equal quality, appearance and workmanship.

Home management demonstrations furnish records of time or money saved through the use of recommended practices or evidence of greater convenience as observed in a modernized kitchen.

Areas in demonstration kitchen shown in figures 10 and 11 were planned by a Wisconsin family with the help of State extension specialists in home management and agricultural engineering.

Marketing Demonstrations

Result demonstrations in marketing farm products usually involve the development and use of improved steps or procedures in assembling, grading, processing and distributing. Through demonstrations it may be necessary to prove that the marketing procedures recommended will result in:

1. Increased net returns to producers.



Figure 10.—Mixing center showing some of adjustable storage shelves. Lopboard permits sitting while working. (Wisconsin Extension Service.) 170-C-1

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Figure 10.—Mixing center showing some of adjustable storage shelves. Lapboard permits sitting while working. (Wisconsin Extension Service.)

170-C-1



Figure 11.—In this cooking and serving center the upper revolving cabinet (Lazy Susan) holds everyday dishes; the lower holds pots and pans. Cabinets above and below the range hold utensils, dishes, and supplies used in cooking and serving food. (Wisconsin Extension Service.) 169-C-1

2. Greater uniformity in grade or improved quality of product to facilitate handling by buyers, wholesalers and retailers.
3. Reduction in handling and processing costs and reduced losses from deterioration in quality.
4. Stronger appeal to consumers through more attractive appearance and assurance of quality.
5. Increased demand and volume of sales at improved prices.

Improved methods of marketing have been demonstrated for many commodities including improved seed, grain and fiber crops, feeder calves, fresh fruits and vegetables, quality eggs and poultry. See example of egg-marketing demonstration on page 23.

Provide Simple, Adequate Records

State specialists and county extension agents should plan simple but adequate record forms that are easy to understand and to fill out. The record form should call only for facts needed to furnish local proof. Anticipating what proof you will want to present at meetings, in the press, on radio or television, will help you decide what records should be kept.

Recommendations for procedure in carrying on the

demonstration are sometimes given on the record form or on a separate card or sheet of instructions to be left with the demonstrator. Space is provided for recording observations made by the demonstrator. Records kept by the demonstrators may be used to explain why some demonstrations fail to bring the expected results.

Early Demonstration Stage

In the test or early demonstration stage relating to crop varieties, rather detailed records of yields and quality may be necessary to convince even the demonstrator that the new variety is superior to the common varieties. The next year it is usually advantageous to obtain and report the average results from several farms. On the other hand, when introducing a rather new forage crop, such as Ladino clover for pasture, it may be necessary to show only that this clover is easy to start, that it grows well, and the cows thrive on it. Still more convincing is the number of livestock a 20-acre pasture of Ladino clover will support for a given period of time.

Project Record Form

Some States have adopted a "project record form" showing the history of the demonstrations for each year and the present status of the project. The history should include a brief plan for demonstrations, records of results, and names of demonstrators, as suggested in the record form on next page.

Project records and, in many instances, photographs are necessary for reporting longtime demonstrations, as indicated in figure 13.

Demonstrations in farm and home development extend over several years.

If definite and fair comparisons in records and photographs cannot be made, local farmers are likely to discredit the results. It is, therefore, unwise to report only the most striking demonstration without mentioning and explaining the reasons for results



Figure 12.—It may be necessary to show only that Ladino clover is easy to start, that it grows well, and that cows thrive on it.

Wheat variety demonstrations, 195—

| Demonstrators | Name of improved variety | Name of old variety | Average yield per acre | | Total acres in demonstration | Comments of demonstrator on new variety |
|---------------|--------------------------|---------------------|------------------------|-------------|------------------------------|---|
| | | | New variety | Old variety | | |
| | | | | | | |



Figure 13.—The landscape specialist and county agent planned and anticipated the outcome of this demonstration. **A.** Farmstead before landscaping. **B.** Same farmstead 11 years later. (Indiana Agricultural Extension Service.)

that would lower the average of all such demonstrations in the county.

Plan Some Demonstrations Around Available Records

Time and work can be saved by planning some demonstrations that will make use of available records. Many of the 700,000 members of extension-sponsored livestock improvement associations in this country keep records similar to those kept by result demonstration cooperators. More of these members could be encouraged to keep the additional records and do the other essentials to carry on result demonstrations in cooperation with county agricultural agents in improving feeding rations, selecting and using improved breeding stock, and culling out unprofitable animals. Of course, membership in a herd-improvement or other livestock association does not in itself make a farmer a result demonstrator, nor does it provide all the essentials of a result demonstration. But with such herd records available, result demonstrations can be planned and carried on with little extra effort. One or more animals or the whole herd can be included.

Most “record of performance” flock cooperators and poultry producers who keep records with sponsoring feed dealers are following nearly all of the essentials of good result demonstrations. Keeping records in order to study methods of feeding, flock improvement, or increased egg production at a lower cost is not necessarily a result demonstration. But many of these cooperators could be persuaded to qualify as demonstrators.

Determine Number of Demonstrations Needed

Helpful suggestions for deciding the number and kinds of demonstrations needed and their locations are obtained from such groups as the county agricultural planning committee, the county or community program planning committee, the county agricultural, 4-H Club, or home demonstration council, project leaders, extension specialists, supervisors, and representatives of farm organizations.

Sometimes a new cropping practice is introduced with tests to determine whether local conditions give similar results to those obtained at the State experiment station.

Trials or test demonstrations are used, for example, first to determine and later to demonstrate the kinds and amounts of different fertilizer elements that will give the largest net return for a given crop and soil type. Such tests may require repetition over several years, owing to variation in rainfall and other factors that will affect the average. Figure 14 shows a typical test demonstration indicating effect on plant growth. Effect on yield in relation to cost is determined at harvesttime.

Tests are followed by the early demonstration stage when demonstrations are arranged on the farms of a few of the most interested, progressive farmers.

If results show large net returns for the money and work expended, the county agent may want to increase the number of demonstrations to one in each township in which conditions are the most favorable. This is known as the late demonstration stage. Demonstrations should be well distributed over the county, since most people have more interest and confidence in the experience of their friends and neighbors than in the experiences of strangers living in other parts of the county.

In some counties each home demonstration club aims to establish one result demonstration of a living room, one of a kitchen, one of a bedroom, and one of a dining room, each in a different home. Throughout the year each demonstrator makes progress reports, at club meetings, of improvements and costs.

Occasionally, meetings in and tours to these homes are held to observe demonstration results.

What Determines Number of Demonstrations?

The number of demonstrations needed depends on the following:

1. Profit or other benefits that can be expected from the practice.
2. Approximate number of families in county that would be benefited by adopting the practice.
3. Approximate number of farmers or families in county or community now using the practice successfully.
4. Percentage of farmers or families that will adopt the practice without additional demonstration proof.
5. How effectively necessary proof can be demonstrated.
6. Amount of extension work and number of demonstrations conducted in the county in previous years relating to the practice.
7. Additional proof needed in each community to build confidence in recommended practice.
8. Additional new evidence needed for use at meetings and in other extension channels to provide convincing reasons for adopting the practice.



Figure 14.—Samples of wheat taken in the spring from a county test demonstration, showing response to fertilization. Left to right: (1) Unfertilized; (2) 175 pounds 5-20-20; (3) 350 pounds 5-20-20; (4) some as (3) plus nitrogen in fall; (5) some as (3) plus nitrogen in spring; and (6) nitrogen in spring only. (Indiano Extension Service.)

It is desirable to have enough demonstrations to assure sufficient positive results in case some of the demonstrations fail. The number of result demonstrations carried on also depends upon the amount of the agent's time needed to establish, supervise, and check results on each demonstration.

Publicize Other Evidence

The anticipated number of demonstrations needed can be reduced by publicizing:

1. Results of research at experiment stations.
2. Demonstration results from previous years.
3. Results obtained by farm families practicing farm and home development.
4. Reports of interviews with rural people about their experiences with improved practices.

5. Reports based on records of results obtained by 4-H Club members in the use of recommended practices.
6. Reports of careful observations by county extension agents of results of using improved practices.
7. Exhibits of livestock or crops raised by 4-H Club members, as shown in figure 15.
8. Results of using good practices, obtained through—
 - (a) questionnaires using sampling method for example (by sending questionnaires to each 15th name on mailing list).
 - (b) crop and livestock contests, such as pasture or 5-acre cotton contests. Figure 16 shows a contest-winning pasture.



Figure 15.—Such prize-winning animals as these raised by 4-H Club members set standards of quality for animals to be raised in the community, county, and State. PN 321

Figure 16.—Contest-winning pastures like this, when seen or publicized, encourage other farmers to grow better pastures. 17394



Select Demonstrators Who Are Respected by Neighbors

Persons who have the ability to develop definite local evidence or proof of the value of a practice, and who are respected by their neighbors, are the most effective demonstrators. It is usually preferable to select a person whose entire farm operation, as well as the enterprise that will be involved in the demonstration, is profitable. A farmer who follows recommended feeding practices but who loses money because of sanitation problems would probably be a poor choice as a poultry demonstrator.

Demonstrators should be selected from communities in need of local proof of the desirability of the practice. The demonstrator should be typical of the community, not too prosperous, not too poor. His schooling should be at least equal to the average and, most important, he must have the confidence of his neighbors to be effective. Soil types, soil fertility, degree of erosion, drainage or irrigation needs; kinds, number, and quality of livestock, farm machinery, and equipment; upkeep and appearance of home, farm buildings, and fences should be considered when selecting farms for demonstrations.

Demonstrations for Low-Income Families

The selected demonstrator should have farm or home conditions that are similar to those of the farmers or homemakers to whom the demonstration is directed. Demonstrations directed at low-income families should be conducted on low-income farms where the cost of adopting the practice can be kept at a minimum. Demonstrations for part-time farmers should be conducted on part-time farms. In adapting low-cost demonstrations to low-income families the costs of improvements recommended vary a great deal between communities and families. Figures 17A and 17B show a kitchen improvement demonstration in a low-income community in Puerto Rico.

After deciding how many will be needed in each community, the county extension agent usually discusses the most desirable prospective demonstrators with local extension leaders. Demonstrators selected by the extension agent in cooperation with a local committee are likely to conduct the demonstrations successfully because of their feeling of responsibility to the community for results. The fact that the community looks to its most progressive families to help solve its farm and home problems can be used in persuading prospective demonstrators to serve.

Community and county leaders need to understand



Figure 17.—A. Typical kitchen in a Puerto Rican rural community. Storage space was limited and cramped before improvements were made. (Puerto Rico Extension Service.)
2080



Figure 17.—B. Improved U-shaped demonstration kitchen has water available from faucet in sink, and adequate storage, working, and eating space. (Puerto Rico Extension Service.)
2270

the qualifications for a good demonstrator. Likewise, they should understand the importance of the problem and what the demonstration is intended to prove or teach. A list of desirable qualifications is helpful in selecting demonstrators.

Desirable Qualifications for Demonstrators

Persons are selected who have as many of these and other desirable qualities as possible:

1. Dependable, honest, unbiased: have confidence of people of county and community.
2. Friendly: well liked and respected by neighbors.

3. **Public spirited:** willing to give necessary time and attention to demonstration and willing to carry the demonstration through to successful completion.
4. **Patient:** willing to keep necessary records and to provide proof or explain results to others.
5. **Cooperative:** able to plan and work well with others.
6. **Successful:** especially in the enterprise or activity in which he is to demonstrate.
7. **Good manager:** successful in personal affairs and finances.
8. **Progressive:** ready to try new methods of farming or homemaking.
9. **Energetic:** active and interested in community affairs without neglecting his farm or home work.
10. **Easy to reach:** located along a highway on a farm or in a home that has the necessary conditions for a successful demonstration.

Starting Demonstrations

Most prospective demonstrators will agree to serve when the purpose and plan for the demonstration, and the benefits, are explained to them. It may be necessary for the county agent or a local leader to visit prospective demonstrators to find out whether the farm or home has the conditions essential to the success of the demonstration. Steps in carrying on the demonstration, and the time and costs involved, need to be clearly stated. If the prospect agrees to serve, the plan for starting the demonstration is then outlined. Only the most important written instructions, information, circulars, and record forms should be furnished at this time.

Informal Agreement

A brief memorandum may be drawn up with the demonstrator and a copy given to him. It will remind both agent and demonstrator of the procedure they have agreed upon in order to complete the demonstration for teaching use. This informal agreement indicates why, how and when the work is to be done. In this way the demonstrator learns definitely what he is to demonstrate or prove. If the demonstration involves the use of some method or skill which needs to be taught to the demonstrator, the agent may arrange for a method demonstration meeting to teach the method to interested farmers or homemakers.

A demonstration placed near a main-traveled road will be seen by many more persons if a demonstration sign or "crop writing," as shown in figure 18, is used.



Figure 18.—Nitrogen fertilizer was applied to entire field. Superphosphate was applied only on the spaces outlined to form the letters "PHOS PAYS." This June photograph of field shows clearly the response of oat crop to phosphate fertilizer. (Nebraska Extension Service.)

Plan With Demonstrators

Demonstrators should be carefully instructed at the beginning about procedures to be used. If they are given the reasons for the procedures they will have a better understanding and be more likely to retain the information. Agents or State specialists generally need to help farmers plan the more complex demonstrations on farms, as shown in figure 19.



Figure 19.—County agent and farmer discussing plans and location for crop demonstration. S-18076

If several practices are included without check areas or comparisons, many farmers may discount the importance of some of the new practices. Pasture demonstrations may, therefore, require successive steps or comparisons on adjoining areas to prove the desirability of a recommended mixture of grass and legume seed, seedbed preparation, lime, fertilizers, and controlled or rotational grazing. Careful planning is necessary to avoid making such demonstrations too complex.

A Pasture Demonstration Layout

The example of laying out a pasture demonstration, shown in figure 20, suggests possible arrangements for complex field demonstrations.

Seeding and Grazing

1. Seedbed of whole pasture thoroughly prepared as for grain crop.
2. Entire area sown with recommended pasture grass mixture except check area on right sown to timothy and redtop.
3. Left half of pasture grazed continuously.
4. Controlled or rotational grazing on right half.

Demonstrations, duplicating to some extent the evidence developed at experiment stations, strengthen local proof. They also increase the interest in and application of practices backed by experiment station research.

Help Demonstrators Obtain Services and Materials

Extension agents usually help demonstrators to obtain the services and materials that are difficult to get. In some instances, agents make soil tests to learn the lime and fertilizer needs and give information about people who can be hired to do such work as blasting ditches or making terraces. In early demonstration work many businessmen furnished some demonstration supplies without charge. Although this aid has not been considered necessary in recent years, many manufacturers furnish samples of their products for tests and demonstrations.

Materials used may be indicated on clear, appropriate signboards that attract attention to significant aspects of field demonstrations, as shown in figure 21.

Supervise Demonstrations

As the demonstration progresses, visit the demonstrator to give specific suggestions. Furnish new information when needed, check progress, and see

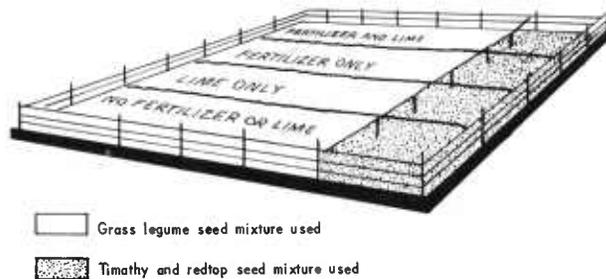


Figure 20.—Pasture demonstration plan.

that succeeding steps are performed as planned. Unless they are closely supervised, some result demonstrators become discouraged or lose interest and fail to complete the demonstrations. Some demonstrations require many visits and much supervision; others take but little of the agent's time. Timely information may be provided demonstrators periodically through circular letters.

In supervising demonstrations, help demonstrators obtain as many of the following benefits as possible.

Benefits Demonstrators Receive

1. More direct assistance from the county extension agents and more of their time. Result demonstrators are frequently the first in the community to get seed of new varieties, and to learn about improved building plans and new pesticides.
2. Better opportunities to meet and get assistance from State extension specialists and to obtain the latest experimental results on subjects demonstrated, including special information and instruction leaflets.



Figure 21.—Rye and vetch cover crop on poor soil. Observation of such contrasting demonstration results is as convincing as many pages of print and hours of talk. PN-320

3. Increased financial return from larger yields and lower cost of production; and better prices from sale of breeding stock and improved seed.
4. Satisfaction from helping to advance the agriculture and homes of the community and from winning commendation by neighbors.
5. Recognition given in county newspapers for their service to the community and county.
6. Early recognition as community or county extension leaders, if they are outstanding demonstrators.
7. Stimulation to "spruce up" their whole farmstead or their homes in anticipation of the field meetings or visits of neighbors.
8. Satisfaction of reporting at meetings or telling their neighbors individually about their results and how they were obtained.

Demonstrators Grow

Perhaps the most significant improvements from demonstrations are not in the crops, livestock, or homes, but in the demonstrators. They gain an increasingly high regard for research and become more and more eager to adopt new methods as they demonstrate a few and prove their merit. Since neighbors expect them to succeed, they hesitate to turn back to the old methods. Many demonstrators continue to adopt other improved practices until their entire farms or homes function as continuing demonstrations.

Complete the Demonstrations

A result demonstration is not completed until final results are carefully observed, measured, and recorded in a way that will make the evidence as convincing as possible. Even though the demonstrator understands the purpose and agrees to complete the demonstration, he may need special encouragement to keep him from harvesting a demonstration crop, for example, without having someone observe and vouch for the final results. Without this verification, the results reported will often seem too good to be true.

Leaders Help Evaluate Results

It is usually desirable for the agent to invite a project leader or one or two other leading farmers to accompany him when measuring or estimating demonstration yields or other progress. Methods of measuring results are suggested in examples of proving advantages of practices, page 9.

Some demonstration results are apparent without records. People are convinced of the advantages of a modernized home especially if they can see a picture of it before it was modernized and the modernized home or a picture of it for comparison.

Surveys and questionnaires can be used to learn the number of people who have seen the demonstration and the number of people who say they have been influenced to adopt the practices demonstrated. Some of this information is recorded and reported by the demonstrator.

Suggestions for Photographing Demonstration Results

Demonstration results should be photographed to make evidence available for use at meetings, in news articles, posters, exhibits, and on television. The following suggestions are given to help you take convincing photographs of demonstration results.

1. Decide what results you want the picture to show, plan the composition, and visualize the finished picture before making the exposure.
2. Leave irrelevant material out of the picture, but include some appropriate human interest objects. Avoid embarrassing backgrounds such as weeds or unpainted buildings, unless a later picture is to show improvement.
3. Make sure that photographs used to compare results of using old and improved methods are made under as identical conditions as possible. The objects should be the same distance from the camera, taken from the same point of view, with the same light condition.
4. Picture should show conclusive evidence of benefits obtained, with necessary information in the legend.
5. Place yardstick, foot rule, backboard, or other object where it will give viewers of the photograph a good basis for judging the size of plants or animals, as shown in figure 22.
6. Take picture from well-chosen point of view. Have some side lighting to bring out light and shade contrast.
7. When possible, use contrasting background color to bring out details that might otherwise be lost in the photograph.
8. To build confidence in the evidence, show one or more county or community extension leaders, or the demonstrator, definitely observing results, not merely having picture taken.



Figure 22.—This State extension agronomist helped stage this method of showing and photographing results of fertilizer on legume-grass hay crop. The backboard shows that plants on a fertilized area at right averaged about 6 inches taller than plants on check area. BN-644

SUMMARIZE, ANALYZE, AND INTERPRET RESULTS

A summary and analysis of records developed through result demonstrations, showing money saved, increased yields, or other advantages of using the recommended farm and home practices, will provide some of the most tangible local evidences of the value of cooperative extension work in each county. In a summary of results of demonstrations, increased yield or production should be presented in relation to increased or reduced cost of labor and materials per acre or unit.

In a summary and analysis of the results of several demonstrations of the same practice, the average, smallest, and largest increases are usually reported. Demonstrators should report clearly both the advantages and disadvantages of the demonstrated practice.

If, because of poor weather or other unfavorable conditions, demonstration results are not conclusive, it is best to report the results with a statement that more demonstrations will be planned. It is important, of course, that such plans are carried out.

HOLD MEETINGS AND TOURS AT DEMONSTRATIONS

Where significant benefits of demonstrations can be observed easily, meetings or tours should be held to show firsthand evidence of the advantages of the practice demonstrated. Attendance at field meetings and tours can often be increased by including a well-known and respected speaker and a picnic lunch on the program. Announcements should tell the day and hour when each farm or home is to be visited and what is to be observed at each stop. Red-arrow

road markers that point the way to demonstrations help increase attendance.

Audience Participates

Testimony by an enthusiastic demonstrator at a meeting is often more effective in getting neighbors to adopt the demonstrated practice than a technical talk. Interest can be stimulated by asking some of those present to estimate the difference in yield or

weight, for example. These estimates are then compared with the actual difference as reported by the demonstrator or by a committee. What interests people most depends upon their situation and point of view. For example, families with eroded fields or pastures are interested in seeing sod waterways or legume cover crop as shown in figure 23. Self-interest is paramount, and the interests of various extension audiences should be considered when planning and carrying out demonstrations. List names

and addresses of those who attend demonstration meetings or tours to provide mailing list of those most interested.

Striking facts are often needed to make people aware of the satisfaction that the recommended practice can bring them. Many families continue to believe that their herds, poultry flocks, crop acres, and farm practices are about as profitable as their neighbors' until they actually see the facts based on surveys and demonstrations.

PUBLICIZE DEMONSTRATION RESULTS TO GET DECISION AND ACTION

Result demonstrations have practical value and influence only to the extent that people see, hear, or read about the results. Facts from result demonstrations are brought to people's attention through circular letters, newspaper and magazine articles, radio, television, pictures, slides, charts, filmstrips, tape recordings, motion pictures, and exhibits. Throughout the demonstration period, interest is maintained by keeping people informed of progress. The final results are sometimes held for a complete feature news story in which photographs, charts, and graphs reinforce the text

In reports of demonstration results in news articles it is desirable to use the 5-W newswriting formula. Tell *what* the demonstrations proved, *who* were demonstrators, *when* demonstrations were started and

completed, *where* they were located, and *why* they were conducted. *How* the demonstrations were planned and conducted can help build confidence in the results.

Newspaper and magazine editors, farm radio and television directors, are more likely to publicize the results of a demonstration if they are invited to attend a tour or meeting to see it. Favorable endorsement by these leaders of opinion is of inestimable value.

Suggest Easy Ways To Adopt Practices

Since the influence of result demonstrations is measured by the number of people who are persuaded to try the practices, news articles and other methods of informing people should suggest easy and inexpensive ways of adopting the demonstrated practices.

Figure 23.—Well-staged picture of Negro farmers attending tour to observe demonstration of Austrian winter peas in rotation with cotton. Farmers are examining on abundance of nodules of nitrogen-bearing bacterium on roots resulting from inoculation of seed. (Texas Extension Service.)



Reminding people of the accuracy of experiment station research and the reliability of information contained in publications of the State college of agriculture and the United States Department of Agriculture builds confidence in extension recommendations that are based on these sources.

Successful demonstrations can become the basis for the kind of favorable testimony by satisfied users and observers that is widely used in advertising. And when carefully set forth in extension reports, demonstration data may serve as a guide for other extension workers planning similar demonstrations.

DEMONSTRATIONS STIR PEOPLE TO ACTION

People are motivated to take action because of satisfactions they want to gain or losses they want to avoid. The Smith-Lever Act provides for persuasive teaching. It is not enough to tell people, or even to convince them, that they should adopt certain practices. Convincing people too often leads them to good intentions but no action. People must, as Dr. Knapp said, be stirred to action.

People are stirred or motivated to action by appeals to basic human wants. Seeing what their neighbors have, how it was achieved, and how they can have similar benefits is one of the strongest forces for motivating farm families to make desirable changes.

Action can be quickened by demonstrating how profitable or desirable a plan or remedy is. It may be necessary to overcome objections by proving that the demonstrated remedy is easy to understand and adopt, convenient, low in cost, and satisfying.

Use Persuasive Teaching

Result demonstrations such as the following are not only convincing but they persuade families to adopt

practices that will bring similar results. Some of the most convincing results are found in comparisons of the carrying capacity of pastures sown to different mixtures. In many localities it is possible to show that 400 pounds of beef or 5,000 pounds of milk can be produced annually per acre of good pasture, such as shown in figure 24.

In South Carolina, for example, 425 pasture-improvement demonstrations were conducted in 1956. On these demonstrations, including 9,471 acres, 16,102 head of cattle were grazed. The feed value per acre of pasture averaged \$93.75, calculated on a feed replacement basis of alfalfa hay at \$25 a ton.

Persuasive Weight-Control Demonstrations

Demonstrations on weight reduction through diet have been carried out successfully in many States. The women meet in groups over a 12- to 16-week period and give moral support to each other in solving their common problem. Public health workers and



Figure 24.—Seeing such well-fed, high-producing cows in demonstration pastures causes neighbors to desire to have equally good pastures. SCS-Mass. 148.

physicians cooperate in the program. At the weekly meetings weights are recorded as shown in figure 25. Home demonstration agents or other qualified persons discuss nutrition, psychological and emotional reasons for becoming overweight, exercise, and other problems. The diets given are planned to give all the necessary nutrients as well as to be satisfying to the person so that weight is reduced gradually and safely.

A graphic record is kept to show the progress of each individual in the group. Pictures are often taken at the beginning and end of the period to show progress. During this period some women reduce from a size 18½ to 14. A loss of 25 or 30 pounds is not unusual. A certificate is given to each woman who loses at least 10 pounds in the period. One sentence on the certificate reads, “. . . and wants to live longer, look better, and have more pep.”

Records of garden demonstrations show that to buy at store prices, the quantity of vegetables, including potatoes, that is used by the average rural family of four from a good garden of their own, would require a cash outlay of more than \$200 a year. Using frozen vegetables from the store greatly increases the cash cost as compared with using home-canned or home-frozen supplies.

In Texas, for example, the advantages of an improved system of marketing eggs based on a price differential for quality and size was first demonstrated in one county in 1948. Satisfying results led to similar demonstrations in other counties. In 1956, 184 Texas counties sold more than 50 million dozen eggs under



Figure 25.—Enrollment and meetings begin with weighing in. (Virginia Extension Service and Bureau of Health Education, Alexandria, Va.)

this improved marketing system. Producers received a weighted average of approximately 5 cents more per dozen than current receipt prices, as shown in figure 26.

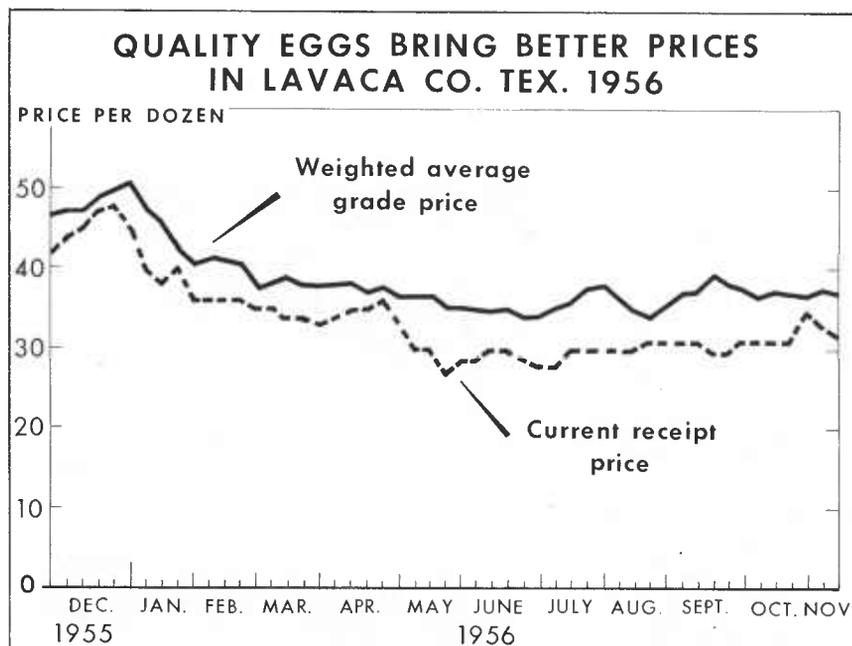


Figure 26.—The graph shows a comparison of monthly prices received for eggs in 1956 in Lavaca County, Tex. BN-4314.

Motivation by Fear of Losses

Another strong motivating influence for change is the desire to avoid losses, such as from plant and animal diseases and insect pests. Result demonstrations can point the way to avoiding such losses and may serve as the sparkplug of community action. They may also make farm families aware of losses heretofore unrecognized.

Demonstrations of erosion control persuade neigh-

boring farmers to save their own soil, as suggested in figures 27A and 27B.

People are likely to repeat the experiences or practices that satisfy them and to drop the practices that fail to satisfy. Therefore, extension workers should make certain that demonstrators and others who adopt demonstrated practices thoroughly understand how to apply the practices under their conditions. The results, in relation to cost and effort, must be satisfactory if farmers and homemakers are to continue to use a practice.



Figure 27A.—Gully ruining pasture,
Alamance County, N. C.
SCS-NC. 40021 A.



Figure 27B.—The same spot completely healed—planted 2 years later.
U. S. Department of Agriculture.
SCS-NC 40021 B.

CHECKLIST OF METHODS USED IN PLANNING, CONDUCTING, AND PUBLICIZING RESULT DEMONSTRATIONS ¹

Please check

I. HOW WAS RESULT DEMONSTRATION PLANNED?

- a. Was situation analyzed to ascertain whether local demonstrations of this practice or these practices were necessary?
 - 1. To provide local proof of the advantages of the practice or practices? . . . _____
 - 2. To show to what extent the local results of using the practice would vary from those at the experiment station? _____
- b. Did an extension worker prepare a written plan for the demonstration before it was established? _____
- c. Who helped to develop the plan?
 - 1. County extension agent _____
 - 2. State extension specialist _____
 - 3. State extension supervisor _____
 - 4. County extension planning committee _____
 - 5. The demonstrator _____
- d. Was there adequate research evidence to indicate the possibility of successful results? _____

II. HOW WAS DEMONSTRATOR SELECTED?

- a. By county extension agent? _____
- b. By extension planning committee? _____
- c. By local leader? _____
- d. By neighbors at meeting? _____
- e. Demonstrator volunteered? _____
- f. Other ways (specify) _____

III. HOW WAS DEMONSTRATION STARTED AND CONDUCTED?

- a. Was county extension agent present on farm or in the home when demonstration was started? _____
- b. Was demonstration conducted under conditions typical of neighboring farms or homes? _____
- c. Was sufficient time allotted to demonstrator to obtain the necessary evidence or proof? _____
- d. Were there check units or other definite bases for comparison? _____
- e. Were pictures taken at beginning of demonstration and later to compare results? _____
- f. Did county extension agent help demonstrator obtain materials and services for carrying on demonstration? _____

¹ This checklist can be used in planning and appraising result demonstrations. It includes the essentials. If you have 5-pasture improvement demonstrations, for example, check one as a fair sample or check each separately.

IV. HOW WAS DEMONSTRATION SUPERVISED?

Please check

- a. Through:
 - 1. Telephone calls by county extension agent _____
 - 2. Circular or other letters _____
 - 3. Office conferences with demonstrator _____
 - 4. Farm or home visits to observe progress and suggest procedure _____
- b. In your opinion was demonstration visited often enough to maintain the demonstrator's interest and to see that succeeding steps were performed as planned? _____

V. HOW WAS DEMONSTRATION FOLLOWED UP?

- a. Were demonstration results publicized through:
 - 1. Meetings _____
 - 2. Tours _____
 - 3. News articles _____
 - 4. Feature stories _____
 - 5. Circular letters _____
 - 6. Radio _____
 - 7. Television _____
 - 8. Exhibits _____
 - 9. Movies, slides, film-strips _____
 - 10. Pictures _____
 - 11. List other methods used (please specify) _____
- b. Did publicity mention name and location of demonstrator? _____
- c. Did demonstrator report at a meeting? _____
- d. In publicizing results was the appeal made on basis of:
 - 1. Satisfactions to be gained through:
 - (a) Reduced cost or increased profit _____
 - (b) Increased yield or production _____
 - (c) Saving of time and energy _____
 - (d) Increased efficiency _____
 - (e) Improved health _____
 - (f) Other (specify) _____
 - 2. Losses or annoyances avoided:
 - (a) Low crop yields _____
 - (b) Low livestock production _____
 - (c) Poor quality—low-priced products _____
 - (d) Other (specify) _____

VI. SUMMARY OF RESULTS OF ALL SUCH DEMONSTRATIONS OF THIS PRACTICE OR THESE PRACTICES IN COUNTY:

- a. How many similar demonstrations of this practice or these practices were conducted in county during year? _____
- b. On how many of these demonstrations were records kept and summarized? _____

| | Number |
|--|--------|
| c. How many of these demonstrations showed that the practices demonstrated had enough advantages over the old ones or those commonly used to justify their adoption? | _____ |
| d. Approximately how many people are known to have seen these demonstrations? | _____ |
| e. How many people have indicated that they plan to use the practice or practices demonstrated? | _____ |
| f. During how many years have similar demonstrations of this practice been conducted in county?—Total number conducted | _____ |
| g. How many similar demonstrations of this practice or these practices will be needed in county next year? | _____ |

APPENDIX

How Demonstrations Are Used in Teaching Pasture Improvement

Change of behavior is a gradual process. If a new practice is involved, people are usually influenced to adopt it by the accumulated impact of several reasons and influences. (Page 7.)

In his reply to an extension questionnaire a farmer may give all the credit for his adoption of a pasture-improvement plan to a circular letter or news article that finally motivated him to take action—in buying necessary lime, fertilizer, and improved seed for reseeding his pasture. He may not mention the result demonstrations seen in previous years that showed the advantages of these materials and methods. But without this proof that he had seen earlier, the letter or article might

have gone unheeded. To facilitate the learning process, extension workers must make the steps involved as easy as possible and constantly reinforce the teaching with effective motivation.

In column 1 below are examples of extension teaching methods used by a county agricultural agent to persuade dairy farmers to follow the recommendations given in a pasture-improvement program. Column 2 lists the responses of a typical dairy farmer (Farmer A). The reasons used by the county agent are based primarily on experiment station research, demonstration results, surveys, and observations. Farmer A finally responds to the cumulative influence of several extension methods. (Page 29.)

How Attention Was Drawn to Pasture Improvement

Extension methods used by county agent

Pasture demonstrations were started. Headline and pictures in feature news story—"Demonstration pastures resist devastating drought." August 1953.

Response by Farmer A

After reading article Farmer A became aware of poor stand of grass and large patches of weeds in his pasture.

Demonstration signs used each year read, "Pasture Improvement Demonstration—Cooperative Extension Service."

Well-lighted large pictures in county fair exhibit contrasted a demonstration pasture and a poor pasture. September 1954.

Read demonstration signs.

Studied exhibit but said that recommendations were not adapted to his conditions.

How Interest Was Stimulated

News article said that pastures of a few farmers in county continued to produce good stands of grass during drought. August 1954.

Agent described on radio the grasses that made demonstration pastures more drought resistant. September 1954.

Each year news articles reported progress in pasture improvement program and showed how pastures are the most neglected cropland in the county. Names of farmer demonstrators were listed. September 1954.

Farmer A and neighbor discussed article and radio talk. Both expressed concern about continued rapid summer drop in milk production of their herds and agreed to find out more about the better grasses.

Farmer A telephoned neighbor demonstrator to ask about his pasture. September 1954.

How Desire for Solution of Problem Was Increased

In early September 1954 county agent conducted a tour to study good and poor pastures. Best demonstration pastures were supporting about one cow per acre. Poor pastures contained almost no feed.

Dairymen having demonstration pastures said at meetings that their milk checks were about as large in August as in June. County agent quoted demonstration and experiment station results, showing that good pastures will support milk production of about 35 pounds daily without loss in daily weights of cows.

County agent again reported drought situation in pastures on radio. September 1955.

Farmer A went on tour; learned from State agronomy specialist and farmer demonstrators that the best pastures were produced by plowing up old pastures, clean cultivation, recommended grass seed, liming and fertilizing according to soil test, and controlled grazing.

Farmer A wanted increased milk check but objected to plowing up his old pasture. He explained that he, his father, and grandfather had always had good spring and fall pastures with their old timothy, redtop, and clover seed mixture; that the recommended plan demonstrated would not grow enough more feed to pay the extra cost.

How Farmer A Became Convinced

In February 1955, county agent sent circular letter to all dairymen who attended tour in 1954. Letter summarized pasture demonstration results based on records, questionnaire, and observations.

Farmer A read circular letter but said his soil was too sandy for such pasture grasses.

County Pasture Improvement Committee was selected February 1955. Local chamber of commerce offered free seed for each of the 8 demonstrators who would establish a demonstration of 10 or more acres of pasture. News article, February 1955, reported plans and progress.

Pasture Improvement Committee and county agent conducted tour of 8 pasture demonstrations and 5 of the other best pastures in county. More than 20 businessmen and 62 farmers attended tour. Prizes were given for 3 best demonstration pastures. Newspapers reported tour fully, September 1955.

In February 1956, county agent held a series of community meetings on pasture improvement, showed colored slides of good and poor pastures; charts giving per-acre costs of plowing, reseeding, and fertilizing demonstration pastures. Charts showed per-acre feed value and value of milk produced based on demonstration records and data calculated by agent with help of County Pasture Improvement Committee. This information was also sent in circular letter to all farmers who attended the 1955 tour and all members of dairy herd improvement association in the county.

Farmer A attended a meeting and read circular letter. He learned for first time that these improved pastures could be established and maintained the first year at a cost of about \$35 an acre; also learned that the cost could be recovered in milk checks the first and second years.

Farmer A read news story that summarized facts presented at meeting. All his objections to the pasture improvement plan had been met. He was convinced.

How Farmer A Decided To Adopt Pasture Improvement Plan

In the February 1956 circular letter, county agent offered to visit farms of dairymen who wished help in complete pasture renovation, to test soil for lime and fertilizer needs, to help in selecting pasture land and in deciding amount and kind of seed to use for each soil type.

During farm visit county agent showed Farmer A the seven-point pasture improvement plan and explained the special services to be given demonstrators.

County agent visited demonstrators in May 1956, urging limited grazing the first year.

Farmer A telephoned county agent requesting the help offered in circular letter.

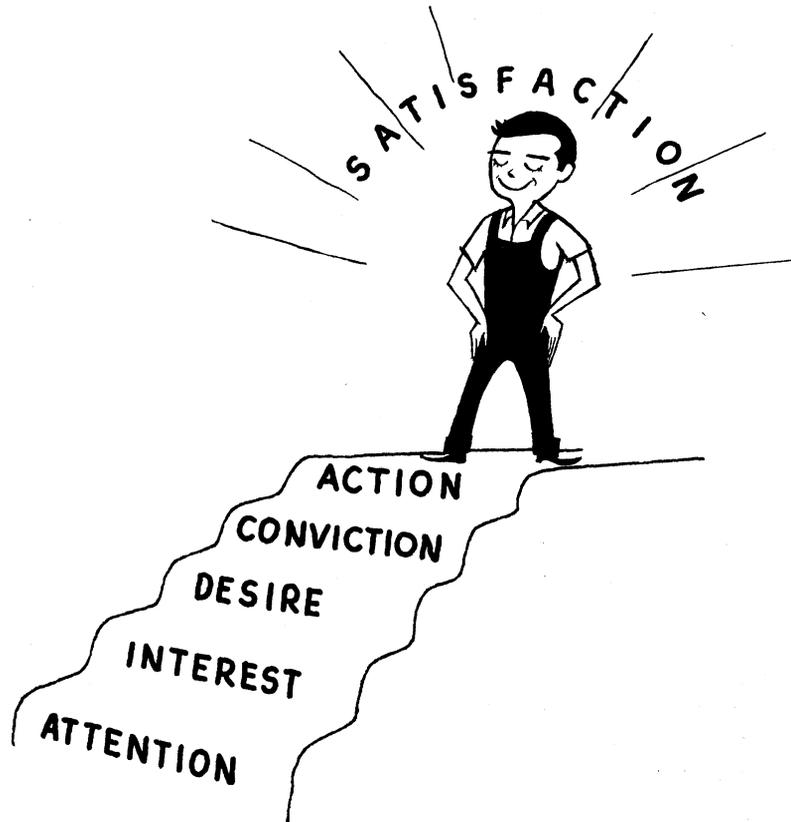
During agent's visit Farmer A learned that the 20 acres selected would become a good pasture if he would firm the seedbed with a roller or packer.

Farmer A agreed to follow the seven-point plan and signed agreement to demonstrate pasture plan on 20 acres to convince some of his skeptical neighbors.

How Testimony of Satisfied Users Helped Build Confidence in Practice

In early September 1956, county agent again received help of pasture committee in conducting pasture tour and in making motion pictures of visits to pastures and tape recordings of some of the testimonies by demonstrators. The data obtained showed that improved pastures produced as much as 5,000 pounds of milk per acre the second year under favorable soil and rainfall conditions.

During pasture tour Farmer A testified that milk produced the first year from his new pasture would more than pay for first year's cost of reseeding. He urged his neighbors to adopt the new plan. Testimony by other demonstrators gave him added confidence.



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