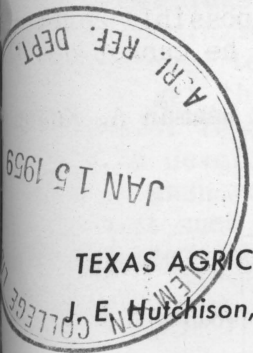
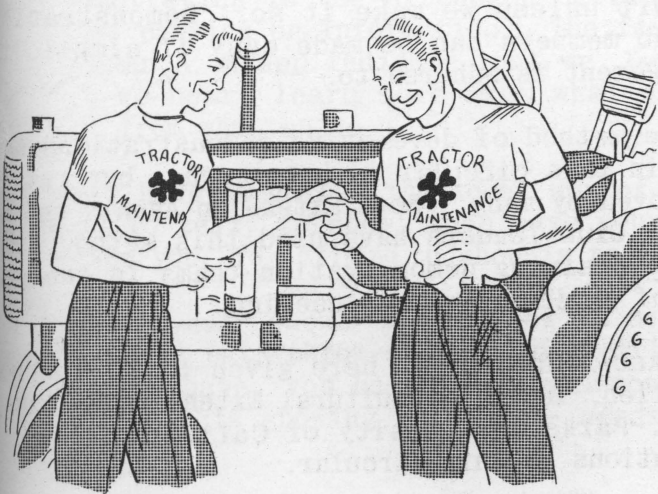


C2

Developing

THE METHOD DEMONSTRATIONS

in Agricultural Engineering



TEXAS AGRICULTURAL EXTENSION SERVICE

J. E. Hutchison, Director, College Station, Texas

FOREWORD

Method demonstrations provide an excellent method of training 4-H Club members in both leadership and subject matter. In addition, they provide a means of showing other groups what the members have learned through their 4-H Club work.

Training demonstration teams apparently is difficult unless we make it so. Demonstrations by 4-H Club members can be made easy if simplicity and encouragement is adhered to.

The method of developing demonstrations as presented in this circular is not unique, but rather has been proved by many. Both Extension Agents and voluntary 4-H Club leaders have used this method successfully in training demonstration teams in the various phases of Agricultural Engineering.

Acknowledgement is here given to E. H. Bush, W. S. Allen, Texas Agricultural Extension Service, and Ralph R. Parks, University of California, for their contributions to this circular.

“What a man hears, he may doubt
What he sees, he may possibly doubt
What he does himself, he cannot doubt”

---Dr. Seaman A. Knapp



DEVELOPING 4-H METHOD DEMONSTRATIONS IN AGRICULTURAL ENGINEERING

Willie L. Ulich, *Extension Agricultural Engineer*
Texas A. & M. College System

Why We Demonstrate

Demonstrating is the Extension Service and 4-H Club way of passing on information. The famous words of Dr. Seaman A. Knapp indicate that we learn little from what we hear, learn more from what we see and learn best from what we do.

Others have said that the ideal way of conveying an idea is to tell, to show; then have your listener tell and show you. To tell and to show is to demonstrate.

Have you ever shown someone how to milk a cow, hold a baseball bat, throw a curve, or patch an inner tube? If you have, you have given a demonstration! A demonstration is showing by doing - words put into action.

Club meetings provide good occasions for giving demonstrations. You, as the Extension agent or club leader, may need to give the first few demonstrations in order to get the 4-H Club members acquainted with this method of teaching. Giving these demonstrations helps you to develop the ability to pass on knowledge to others. When you give a demonstration on a worthwhile subject such as "How To Prevent Farm Accidents" you have helped others and also yourself.

Training 4-H Members For Demonstrations

Never put the demonstration ahead of the boy or girl. Your objective as a leader is to develop courage, mental growth and leadership in 4-H Club members. When you write a script for club members to memorize, you

have the "cart before the horse." In order to have a good demonstration, the demonstrator must be natural and perform according to his own personality. An effort to improve the demonstration is also an effort to improve the personality.

A television station director recently commented: "The worst thing we have to contend with is unnaturalness and stiff monotonous speeches with demonstrations. But we take 4-H demonstrations in spite of the Gettysburg, school-room type of speeches, not because of them."

Let a boy or girl show you how to tie a shoelace string---it's a demonstration. Later let the boy or girl show you how to fold a coat for packing in a bag for the trip to camp. Probably they can show you two ways and give an advantage for each---it's a demonstration.

Developing The Informal Demonstration

Demonstrations come easily if the leader starts with the members in the club meeting. He may ask, "Can you demonstrate how to use a screw driver? Show me you can - take this screw driver and begin." It then becomes a game with the listeners to see what they can remember and tell about the proper use of a screw driver. At the first opportunity they will tell you or another person something else about the use of this simple tool. This by itself is a demonstration for a beginner. When you add wrenches, hammers, saws and other tools that belong naturally in the members' workshop you can build a top notch demonstration. "Safety with Tool" or "My Home Work Shop" or whatever theme you wish to present to the audience.

A youngster can learn and demonstrate how to properly maintain electrical equipment by pulling an extension plug from a wall receptacle. It has appeal for its simplicity. The first demonstration can be just that. This simple lesson might be the beginning for a winning electrical team demonstration later.

Other club members who see the demonstration will ask questions and make suggestions when requested. The demonstration can always be improved. Perhaps it can get into state competition if handled properly. Someone might say it is too short and too simple. Then see what can be tied around this central idea of pulling the electrical plug from a wall receptacle to tell a better story and attract an audience. Care of extension cords and adjustment of equipment might be included. Even a brief comment on oiling motors might be in order.

Keep in mind, however, that these supplemental illustrations or comments should build on and not detract from the main demonstration. Trying to cover too much ground is a sure way to spoil a demonstration.

Organizing The Formal Demonstration

After the informal demonstrations have been given by the club members a more formal demonstration may be developed by those who have special interests. Here we must review our ultimate objective which is to move others to action. If the subject is tractor maintenance the ultimate objective of a demonstration might be to keep more money in the farmers' pocket by conserving machinery. If proper tractor carburetor adjustment is a good means of doing this job, then we have our subject. A catchy title is always an interest-getter. One 4-H demonstration team used "Cutting Your Tractor's Waste Line", as a title for this timely subject.

With the main point in mind we must seek supporting material to put over our point. A cut-away carburetor or other used parts from a local implement dealer may be ideal in putting over the point. The closer to the actual thing the better.

Charts, if used properly, can effectively build up to the main demonstration or "clinch" the points given. To help the audience remember how to properly

adjust a carburetor, for example, a one-two-three procedure might be added in chart form for a summary. Even a printed or mimeographed pick-up reference such as a tractor operators manual might be given --- anything to stir the audience to action in making use of newly acquired information when they return home.

After the club members have first worked out what they are going to do, then they must decide what they are going to say for each step. The talking is to explain what is being done, how it's being done and why.

In re-working the demonstration into final form the following basic principles in giving the demonstration may be followed:

1. Preparation: Break down the demonstration into the important steps. Have all equipment and material ready.
2. Background: Tell the audience what is to be done, why it is important, how often it should be done and other facts about the job.
3. Demonstration: Explain what is being done at each step and why. Proceed slowly and carefully.
4. Participation: Now have the audience try to perform the same demonstration. Help them as they work. Ask questions.

Remember the best demonstration is where, after the demonstration has been given, the listeners are able to give a demonstration back to the demonstrators. Remember also that it is a lot easier to teach than to learn.

Working With The Demonstration Team

Provide demonstrators with opportunity to practice

Encourage them to know their subject well enough to speak easily. Discourage memorizing the oral part of the demonstration. Memorized material rarely ever sounds convincing.

Have partners refer to each other by their given names. Show how the use of carefully selected and arranged equipment adds to the attractiveness and the skillful handling of materials. Make sure all work and demonstration devices can be easily seen by the audience.

Advise the demonstrators to wear suitable clothing, to maintain good posture, and to speak distinctly and clearly. (4-H T shirts or sweaters with the 4-H emblem on them add to the effectiveness of the demonstration).

Encourage the demonstrators and be generous with your praise. Assist demonstrators by providing audiences where the demonstration may be given. This gives them experience as well as confidence. It makes them realize that they are doing something worthwhile and of interest to many.

As demonstrators gain experience, more difficult subjects may be added to challenge the ability of the club member and to sustain interest in the work. Enthusiasm is essential to move an audience. Remember a little fire gives little heat, but a big one will stir men to action.

Demonstrations can develop easily. They are as natural as showing a new pocket knife or zipper on a dress. They spark the demonstrator as they enthuse the listener. A member's judgement is no better than his training. Learning by doing and demonstrating how it is done builds heart into 4-H Club activities.

DEMONSTRATION CHECK LIST

Introduction

Who are you and what are some interesting facts about you?

What is your subject and why did you select it?

Why should it be of interest to an audience?

Why should members of your audience want to do something about it?

Demonstration

What specific acts or steps should be included?

What should you say about each step?

What is the source of your information?

Is it approved by your state college of agriculture?

What equipment is needed?

What pieces of this equipment should be explained to the audience?

What charts or other material will help explain the demonstration?

If it is a team demonstration, how can the work be divided to best advantage?

Conclusion

What main points do you want the audience to remember?

How can these points be emphasized?

What suitable closing can be used in the demonstration?

If the above questions are answered satisfactorily by the demonstrators, the demonstration will rate high on anybody's score sheet.

Cooperative Extension Work in Agriculture and Home Economics, Texas A. & M. College System and United States Department of Agriculture cooperating. Distributed in furtherance of the Acts of Congress, May 8, 1914, as amended, and June 30, 1914.