

Farmer/Scientist Focus Sessions: A How-To Guide

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What Are Farmer/Scientist Focus Sessions?

Farmer/scientist focus sessions are collaborative learning experiences in which farmers and scientists work together as peers to solve a problem. These focus sessions are an effective approach to dealing with especially complex or urgent questions facing the agricultural community.

Traditionally, scientists have communicated with farmers in two principal ways (see Figure 1). When scientists seek to transmit

information to farmers, they depend on lectures, publications, and demonstrations. The information provided is intended to increase farmers' knowledge and potentially influence their actions.

When scientists seek to gather information from farmers, they use methods such as surveys and focus groups. Scientists gather information either to answer a current question or to direct future research.

Farmer/scientist focus sessions, along with other activities such as jointly managed on-farm experiments, are a third and different style of communication between farmers and scientists.

Focus sessions take advantage of the creativity and synergism that occur when farmers and scientists listen carefully to each other and learn as a team. Because the focus session is a collaborative process of problem solving, it gives all participants the chance to influence the thinking and action of others and to discover promising new approaches for themselves.

The philosophy and techniques for collaborative problem solving described in

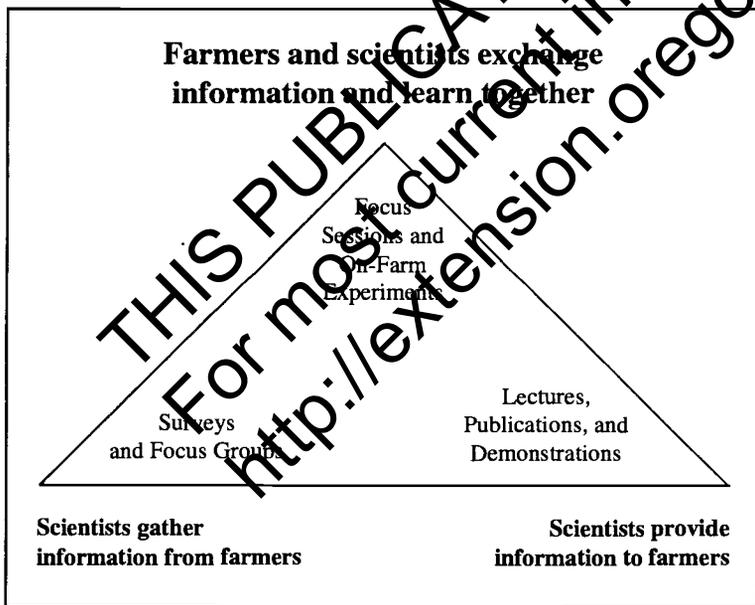


Figure 1.—Types of farmer/scientist communication.

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this publication apply to processes that range from a single session to many sessions over several years. In the following pages we describe how to use farmer/scientist focus sessions to address the following types of issues:

1. To investigate complex cropping- or livestock-system issues that require interdisciplinary examination (Case 1: disposal of large volumes of cull onions).

2. To design experiments that evaluate treatments on both a plot scale and a field scale (Case 2: how to control weeds in snap beans without Dinoseb).

3. To investigate messy, values-laden, and urgent issues on which research is incomplete (Case 3: food safety perceptions).

In the discussions that follow, please note that when we use the term “scientist” we are speaking broadly. Researchers *and* county agents *and* private consultants—including farmers—can play the role of scientist in a focus session.

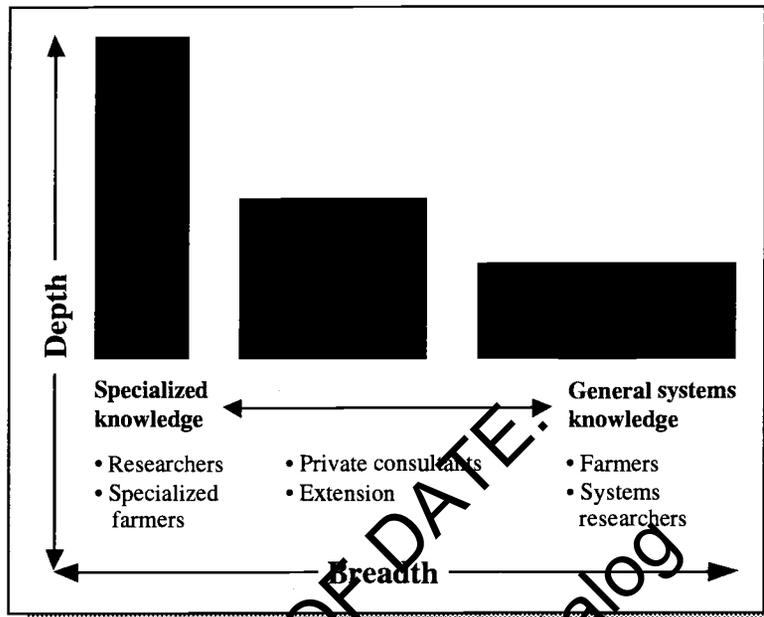


Figure 2.—Create a team that integrates depth and breadth of knowledge.

Who Should Participate?

Currently, the farming community participates only modestly in planning and carrying out most public research and extension activities. Advisory groups are asked to comment on and improve research plans but rarely get the opportunity to participate in creating them. Growers are not, however, idle in the area of technology development: they design and conduct research on their own farms and informally discuss the results with their peers. Focus sessions are opportunities to integrate these parallel but separate approaches to technology development and adoption.

Researchers, Extension personnel, industry representatives, and farmers all have valuable skills and knowledge to contribute to a farmer/scientist focus session. The type and distribution of that knowledge may be different among the participants and may not be restricted to their formal job descriptions. For example, many farmers conduct research; some scientists also farm. Figure 2 depicts

these differences as complementary relationships between each participant's depth and breadth of knowledge in certain areas. The volume and the value of each rectangle are the same. Each participant is a specialist in at least one aspect of the issue at hand, and many are broadly knowledgeable about a number of aspects. Clearly, all types of knowledge must come together to build a comprehensive solution.

Although there are no hard and fast rules, we find that farmer/scientist focus sessions work best when more than half of the participants are farmers and the total number of participants is between 8 and 20. It is useful to invite a diverse group of farmers who can contribute insights based on their individual production conditions and management strategies. Similarly, scientists who participate should be chosen based upon the skills and perspectives they bring to an issue. Depending on the issues treated, it may be important to have the participation of industry, consumer, special-interest, or other representatives.



How to Make Farmer/Scientist Focus Sessions Work

In this section we highlight the major components of a focus session:

- Developing a philosophy of co-learning
- Using team facilitation
- Setting goals and boundaries
- Starting out and getting people involved

- Encouraging creativity
- Recording the discussion
- Wrapping up the discussion
- Reviewing and reporting

See page 8 for a list of references about how to manage meetings, conflicts, and collaborative problem-solving processes.



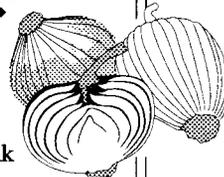
Case 1. How Can the Onion Industry Economically Dispose of Cull Onions?

Fifty years ago, small-scale farmers sorted, graded, and sold their own onions. They returned damaged cull onions to the fields or fed them to livestock. Today, central processing and marketing firms handle most of the onions, and they are desperately looking for cost-effective ways of disposing of thousands of tons of cull onions. One concern is, onion diseases spread from farm to farm when onions from several fields are mixed and redistributed on different onion fields. Another hurdle is that current label restrictions on pesticides for onion fields do not allow feeding cull onions to livestock.

The local Extension agent gathered a group of key onion growers, onion packers and brokers, and university representatives on two occasions to discuss the problem in depth. They reviewed the history of cull disposal and examined in detail the opportunities and constraints associated with alternative disposal strategies.

The focus sessions were intense, facilitated "think tanks." The group identified cost issues and new research questions and clarified them in a report that was widely circulated in the onion industry. The participants, especially the growers, expressed appreciation for the process that helped them sort out the complex factors affecting future research directions.

The group determined that further studies on feeding onions and onion/straw silage to cattle and sheep should be postponed until the onion industry resolves livestock feeding restrictions on certain pesticides. While it is a viable option to incorporate culls in fields that will be rotated to crops other than onions, the winter storage of culls remains an important problem since fields are too wet to enter during the winter. New technologies for chopping and field incorporation would have to be developed and tested before winter incorporation could be widely used, the group concluded.



Developing a Philosophy of Co-Learning

The most common methods of exchanging information between scientists and farmers (lectures, written materials, meetings, surveys, and traditional focus groups) are largely one-directional. Dialogue is restricted to a few questions and answers after a presentation. Focus sessions, in contrast, are not intended to transfer information from one group to another but rather to provide a means for groups to engage jointly in a discovery process. Both scientists and farmers may experience some discomfort as they adjust to nontraditional roles in a co-learning environment. Scientists may have to restrain themselves from dominating the discussion while farmers may need encouragement to speak. We find that giving "over-active" participants a role in running the meeting is a good way to help them develop better listening skills. Three cornerstones of co-learning are:

1. Everyone participates.
2. All ideas are treated with respect.
3. The creative process is clearly separated from the decision-making process.

Using Team Facilitation

For most people, it is easier to present a lecture than to hold a focus session. In a lecture, the lecturer controls both the content and the process. In focus sessions, although the session facilitator directs the meeting process, the group as a whole shares responsibility for the content.

In general, a farmer/scientist focus session works best when a team shares responsibility

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for managing the meeting. Although this makes these meetings more labor intensive, we find that the results justify the additional time invested.

Key roles in a focus session are:

- facilitator
- process observer
- recorder(s)

The facilitator role receives the most attention in discussions of how to manage meetings. From the vantage point of focus session participants, the facilitator controls the flow of the focus session. He or she listens carefully and provides feedback regularly to ensure that everyone has the same interpretation of what is being said. The facilitator keeps the dialogue going by tactfully holding back the talkers and by drawing out the quiet people. Throughout, the facilitator is careful not to offer personal opinions.

To help the group and the facilitator stay on track, we have found it valuable to have another person assist by quietly observing the group process. Since the group receives no benefit from a process observer who provides meeting management suggestions only *after* the meeting is over, an effective process observer must take an active role by providing nonverbal cues to the facilitator. When communication problems develop or the meeting is off-track, the primary facilitator is sometimes unaware of the difficulties. The process observer is authorized to call for a short break or to ask to trade roles. The focus session organizers meet during the break to discuss the problem and to develop a strategy for getting the meeting back on track. This is a very powerful meeting management system.

It's very important to record focus session discussions. If there are enough people, we find it useful to have two note takers: one person at the front taking notes or drawing a "discussion map," and a second person sitting and taking more detailed notes (see "Recording the Discussion" on page 6). When the discussion becomes exciting and fast-moving, the two note takers can capture the insights and inventions better than one person can.

Setting Goals and Boundaries

We have conducted focus sessions with three different types of goals, each with its own "boundary conditions" on how long the session(s) will run and how wide-ranging the discussion will be. These types are considered below, starting with the most tightly focused and proceeding to the most open-ended.

At the beginning of the focus session, it's important to outline the purpose and format of the session. That reduces misunderstandings and provides direction for the meeting. Although the coordinators have sent written information to participants or spoken with them by telephone, some participants still may have misconceptions.

Content Boundaries

If the goal of the meeting is to respond to a specific and urgent problem, as in Case 2, the discussion topic should be defined narrowly. The tight focus for this kind of

Case 2. How to Control Weeds in Snap Beans without Dinoseb

In 1987, the U.S. Environmental Protection Agency (EPA) suddenly withdrew the registration for the use of Dinoseb, a key herbicide in snap bean production. Scientist-managed small-plot trials evaluated the effectiveness of the remaining registered herbicides. It was found that two herbicides could be substituted for Dinoseb if they could be activated with water. Water activation was practical on a small scale but impractical on a farm scale because of labor shortages and unpredictable weather in the early spring.

Farmer/scientist focus sessions were held in the evenings in three farming communities. Farmers and weed control specialists suggested and debated alternative methods for activating the herbicides with and without water. The best ideas included various schemes for shallow incorporation of the herbicide after planting the snap beans. These ideas were summarized in a newsletter and sent to 600 farmers. The newsletter provided the community of farmers with a range of practical alternatives just prior to the planting season.

These sessions were unique and exciting because farmers and scientists worked together as co-learners to synthesize farm-scale management considerations and specialized information about herbicide chemistry. By operating as a team, the scientists and farmers were able to increase the efficiency and productivity of technology development and transfer.

session allows the group to analyze the topic in a wide-ranging discussion without losing track of the task. In our experience, tentative solutions can emerge from a 2- to 3-hour focus session with a long coffee break in the middle.

Time Boundaries

Many problems in today's agriculture are, like the problem of cull onion disposal, too complicated to solve in a single meeting. Instead, consider holding a series of two to three farmer/scientist focus sessions over several weeks during the off-season. This type of focus session can be structured to begin with a general discussion and become progressively more specific. This is accomplished by generating a list of themes, selecting the highest priority themes, and then focusing on them for specific periods of time. Good ideas often develop between meetings as people reflect, consider relevant information, and discover an improvement

No Established Boundaries

Some issues are neither tightly framed nor immediately pressing. In this type of session, the group may drift toward discussing the least familiar and controllable aspects of the issue. If not handled carefully, the "no established boundary" meeting can become a fruitless complaint session. When handled properly, however, it can help participants better understand diverse perspectives toward a given problem area. Case 3, the food safety focus session, fits in this category. That session provided direction to many subsequent activities.

Starting Out and Getting People Involved

It can be intimidating to organize a meeting without a detailed agenda of what is going to happen. The question often is raised, "What if no one asks a question and the discussion does not take off?" It is reassuring to remember that farmer/scientist focus sessions are conducted to examine important, intractable issues. If the issue is important enough, someone will have something to say.

As the discussion begins, the facilitator must have the confidence to allow the long pauses to occur. By listening attentively, the facilitator will demonstrate to the group members that they are in control. The silence

is a powerful demonstration of faith in the group process.

Different room arrangements are appropriate for different types of discussions. A circle of chairs allows the participants to look at one another while discussing the topic. This stimulates debate. A horseshoe-shaped arrangement with a chalk board in front helps to focus the discussion on the problem and not on the personalities of the participants. By contrast, the traditional classroom arrangement with its rows of chairs encourages passive listening instead of participation.



At the beginning of the meeting, announce that everyone will be expected to participate. Ask the group to assist in keeping strong personalities from dominating the conversation, and let them know that the facilitator will try to draw the quiet people into the discussion. If the facilitator is explicit about this, participants are more likely to be good-humored later on when the facilitator asks them either to speak up or to be quiet.

Next, take the time for participants to introduce themselves or each other. When people have spoken in a group, it becomes easier for them to speak again.

You can choose from a variety of techniques to further develop an environment of mutual learning. One way is to start by asking each participant to share her or his concerns about the issue under discussion. Or, ask the participants to write their highest priority concern on one side of a card and their best idea for addressing the concern on the other. The "snow card technique" is an extension of this approach in which the cards are grouped and posted on a wall. Techniques that require writing before talking generate many more ideas than would be raised through a simple open discussion because the intellectual skills of all the participants—not just of the talkers—are fully engaged from the start.

Encouraging Creativity While Moving Ahead

Creative problem solving works best when it proceeds through several distinct phases. The facilitator should avoid allowing the group to jump directly into a debate concerning the best solution. Instead, it's best to begin with a broader discussion because that provides a "rich picture" of the issue or problem.

In this phase, it is important to recall the rules of brainstorming. The group's first task is to develop a complete picture of the problem. Individual comments shouldn't be interrupted with analysis or judgments, because nothing shuts down the creative process faster than negative and judgmental comments. Analysis and decision making will take place later.

As the discussion continues, important themes will emerge. At a certain point, it will become obvious that the group is ready to move to the next phase. At that point, take a short break which will allow the participants to discuss the issues in small informal groupings. We refer to this as the coffee break effect.

After the break, order the identified themes by priority and discuss them in greater detail. The facilitator needs to make a clear break, letting the participants know that they are now moving toward defining the best course of action. At this stage, the group can proceed to brainstorm potential solutions. In a final phase, these solutions will be critically assessed and discussed.

Recording the Discussion

Maintaining a group record or "memory" of the discussion is an important element in transferring ownership of the ideas generated from individuals to the group as a whole. Writing down ideas and comments and posting the results lets people know that they have been heard. This also provides participants with an opportunity to clarify and correct how their ideas are being recorded. Often it is useful to record the group discussion in both a linear (note taking) and nonlinear (discussion map) format.

To make a discussion map, write the central issue, idea, or concern in a circle in the middle of a chalk board or paper. As related ideas are discussed, paraphrase them for brevity and add them to the diagram.



Case 3. Food Safety Concerns

A group of 15 people representing different points of view gathered around a horseshoe-shaped table for a 3-hour focus session on the subject of food safety—typical of the "messy," values-laden issues increasingly common in agriculture. As participants expressed their points of view and frustrations, a representation of the discussion grew on the chalk board like a strawberry plant (Figure 3). The process of drawing the discussion map gave individuals the opportunity to recognize how their own views fit within a more complex picture of the subject.

The group arrived at a constructive and bridge-building conclusion: it decided to abandon attempts to identify the "correct" point of view and to "educate the public." Instead, it established a new direction for future research and a new informal adult education program. Perhaps most important, the session engendered an atmosphere of mutual respect among the participants, an essential basis for any further work.

Soon your map will resemble a strawberry plant that's rapidly producing runner plants. The advantage of this method is that it shows the relationship between ideas. Also, as people see their point of view recorded, they relax, and they are better able to appreciate how their point of view fits into a more complete picture. At the conclusion of the session, use the main theme and subthemes in the map as visual aids when you summarize the discussion.

Although the discussion map is an effective technique for guiding a group process, a certain amount of detail is lost. It is often useful to have a second note taker sitting at a table taking notes in outline form.

Wrapping Up the Session

A successful farmer/scientist focus group is an intense learning experience for all participants. After 2 to 3 hours, the facilitator should move to bring the discussion to a satisfactory close. Experienced facilitators note the importance of providing verbal and visual cues to the participants that things are ready to wind down—for example, the facilitators change their tone of voice and gather up their papers.

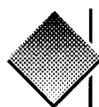
Often, it is effective to end by going around the circle and asking each participant for his or her closing thoughts. In addition, unstructured evaluation forms based on a ranking system (for example: 5 = very good, 3 = fair, 1 = very poor) of the meeting and a discussion of what was good and what should be changed can provide valuable feedback to the meeting organizers.

Reviewing and Reporting

After the meeting, the planning team should meet to discuss what happened.

Continue to take notes during this meeting because many useful insights are gained from this review period.

After the meeting, have the note takers work together to merge the information from the flip chart or discussion map and the detailed notes. Circulate the notes including the discussion maps to all participants. Set a deadline for participants to offer their corrections and additions. After everyone has had a chance to review the notes, develop the minutes into an Extension newsletter or document for special mailing to relevant commodity or grower groups.



The Measures of Success

Because farmers and scientists may be unfamiliar or even uncomfortable with the open format of a focus session, it is important to discuss with the group how it will define success. Success should be measured in terms of both long- and short-term results.

One important, often overlooked, long-term outcome is the development of new working relationships. Successful farmer/scientist focus sessions promote better

understanding between farmers and academic scientists. These relationships provide the potential for working on future problems and opportunities beyond the current topic of interest.

Successful focus sessions can result in:

- A better understanding of an issue or problem as viewed from a variety of perspectives.
- A written document that captures the

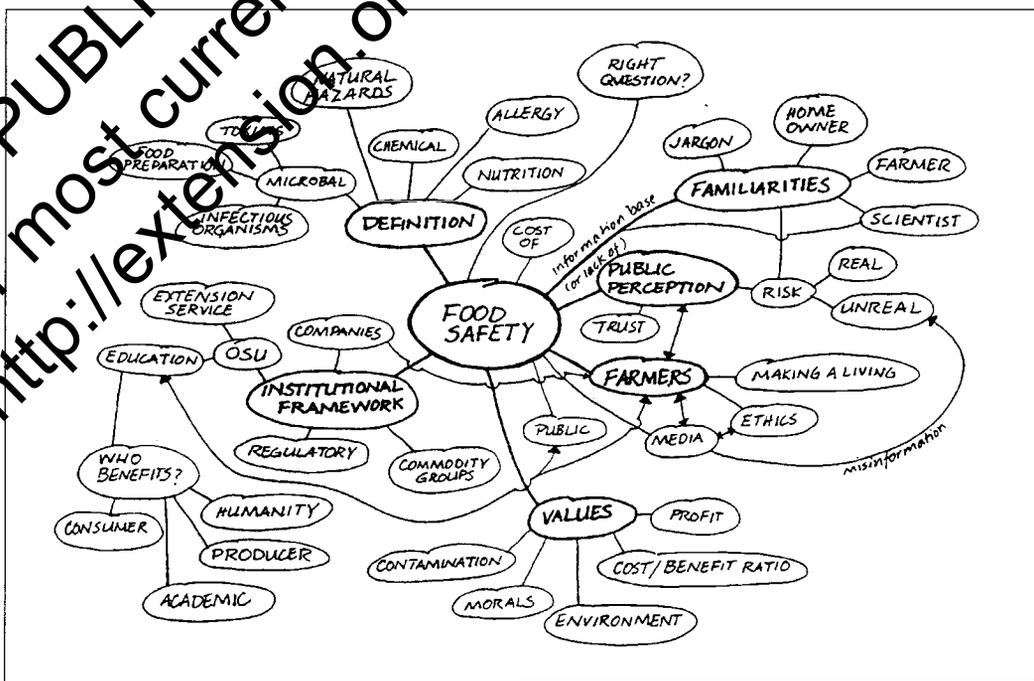


Figure 3.—A simplified version of a discussion map made in a focus session about food safety.

most complete picture of a given problem and the most comprehensive list of alternative strategies for solving that problem that are available at the time. Individuals can use this document in developing their own courses of action.

- Identification of important questions that need more research, and a framework for the research that considers the whole picture.
- An enhanced sense of teamwork between farmers and scientists.

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