

Montana Producers Look at the Agricultural Experiment Station

In order to do a better job MAES sought information from agricultural opinion leaders about how station efforts are perceived. The results will be used to improve programs and communications.

by Douglas Bishop* and James R. Welsh**

For the Montana Agricultural Experiment Station (MAES) to be effective, its personnel must be able to view their programs the way agricultural producers and taxpayers do. An accurate perception of the station's image should lead to program improvements in both research and communications.

In order to gather more information, the MAES identified a group of Montana agricultural producers who are opinion leaders and gathered evaluative data about the station from them.

This report summarizes the data obtained from those opinion leaders.

Methods

An opinion leader producer was defined as, "An agricultural producer who has some degree of influence on other producers in an area to adopt agricultural innovations." The survey sought to answer four questions.

1. How familiar are opinion leaders with the material produced and the activities conducted by MAES?
2. How well do opinion leaders feel MAES is equipped to meet the research needs of the agricultural industry?

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Thresher is used by researchers.

3. How extensively are opinion leaders using MAES research results in an attempt to improve their economic status?

4. How frequently do opinion leaders feel they have an opportunity to assist in determining the future direction of MAES research activities?

A group of 415 agricultural leaders or "change agents" throughout Montana was used to identify Montana opinion leaders. A change agent is a professional agriculturist in a position to influence innovation-decisions in a direction that would be considered desirable in agriculture. Change agents were selected from among personnel associated with: county Extension services, Production Credit Associations, the Farm Home Administration, Agricultural Stabilization and Conservation Service, Soil Conservation Service, bank agricultural representatives, and vocational agriculture teachers.

In addition to naming the 10 persons who they considered to be producer opinion leaders, the change agents were asked to categorize these individuals by interest into one or more of 12 technical areas related to research activities carried on by MAES.

A list of 2,364 producer opinion leaders was developed from throughout Montana. The producers represented all segments of production and all types of farming and ranching operations. An addressed mail-back questionnaire was sent to

the opinion leaders. Each questionnaire was accompanied by a personal letter from the Director of the MAES.

The first mailing resulted in 530 responses. A follow-up using 500 randomly selected nonrespondents resulted in 170 additional returns. No significant difference existed in the two groups of responses so all data were pooled. Seven hundred respondents or 29.6 percent of the population returned the survey.

Familiarity with MAES Materials and Activities

MAES information was received during 1984 by 81.5 percent of the respondents. We assumed this information to be received either directly or through magazines, papers or the Cooperative Extension Service. Almost 90 percent felt that MAES information was available and easy to obtain.

Some producers indicated they did not know when the activities were held, but 51.4 percent indicated they had attended at least one MAES activity such as a field day or open house. Attendance at these activities was quite consistent during 1982 and 1983 with a small drop in 1984. About one-half of the respondents visited MAES

facilities more than 3 times during any year.

Several respondents commented on the benefits of attending MAES activities. There seemed to be a general feeling among producers that "seeing is believing" and some expressed skepticism about accepting research findings based upon published information without having an opportunity to observe the results under field conditions.

Meeting the Producers Research Needs

Producers were asked about their perceptions or general feeling regarding the components that make MAES research possible. (Fig. 1) The data show that 65.6 percent of the respondents felt the image presented by the MAES was "good" while 20.2 percent gave the MAES an "excellent" rating. Less than 2 percent felt the image presented was "poor."

The MAES staff was rated "excellent" by 29.9 percent of the producers while 61.1 percent gave them a "good" rating. Less than 10 percent of the respondents rated the staff in the "fair" to "poor" range.

Facilities were rated "good" by 60.7 percent and "excellent" by 15.1 percent of the respondents. A "fair" rating was given by 22.2 percent of the producers and 2.2 percent of the respondents said the facilities were "poor."

Overall, the MAES research equipment received a lower rating. The responses showed that 12.1 percent felt the equipment was "excellent," 55.7 percent "good," 28.7 percent "fair," and 3.5 percent said the equipment was "poor" in relationship to meeting research needs.

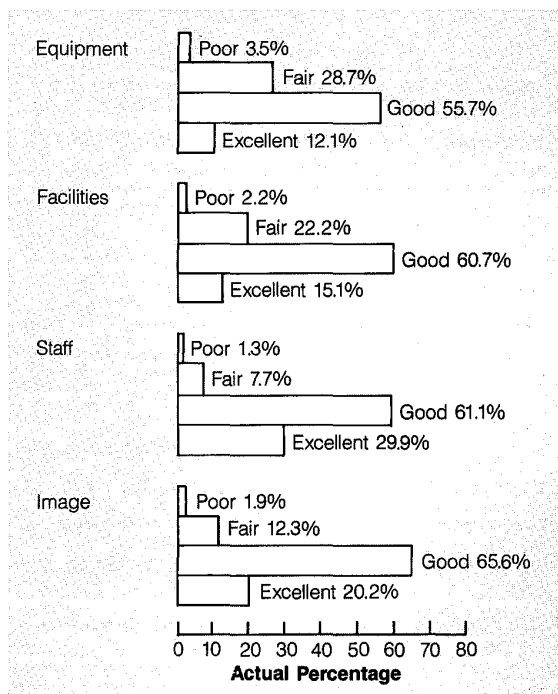
Dissemination of Information

A series of questions were asked to help determine the manner in which producers received and used information and the general impact of MAES research data on farming and ranching operations. Information available from the Cooperative Extension Service is being used by 71.1 percent of the producers reporting. (Figure 2) Sixty-nine percent of the producers reported obtaining information through bulletin-type publications. Forty-two percent said they receive a newsletter and 24.7 percent obtain information over the radio.

The most noticeable change producers would like to see relates to a newsletter. While 42 percent indicated they received a newsletter, 56.6 percent of the producers said they would like to receive information this way. There was also considerable interest in using various types of electronic media including video tapes, cassettes and microcomputers.

Respondents reported using television less as a source of MAES information. However, they said they would like to receive more information via TV.

FIGURE 1
Perceptions of
Opinion Leader Producers
of MAES Ability to Carry Out
Effective Research Programs



Several additional comments relating to dissemination of information indicated that many producers do not have a clear understanding of the relationship between information produced by the MAES and that distributed by the Cooperative Extension Service.

Use of MAES Information

The MAES was interested in learning how research information is put into practice. Knowing how producers are using MAES research

information should provide clues on how research should be designed and reported.

Among those producers reporting, 70.9 percent are "becoming aware of new ideas practices and products" through MAES research information. MAES publications were used by 58.6 percent of the producers to "collect specific information" and 58.3 percent of the respondents said the information was helpful in "evaluating the usefulness of new ideas." A smaller group (33.4) percent of the producers used MAES information to provide detailed information when "implementing new ideas or practices." Only 2.3 percent of the respondents said they didn't use MAES information.

Producers receive a large quantity of research information. The data show that 66.9 percent of the producers used MAES research information "occasionally" while 17.8 percent usually used the information. Of those responding, 8.7 percent said they "never" used MAES information and 5.9 percent of the producers said they "almost always" used MAES research information when making management decisions.

The producers were asked where they might obtain research information if MAES information were not available. Data in Table 1 show that 70.1 percent would rely on farm publications and 63 percent would call on the Cooperative Extension Service. Another 55.4 percent would call on agribusiness sales and service personnel and 42.4 percent would contact their neighbors for information.

Application of Research Information

The usefulness of MAES research to Montana producers was measured by asking them to consider the amount of information received compared to the information ultimately applied to their operation. Only 2.8 percent of the respondents said they did not use MAES information. The largest group, 37.3 percent, indicated they applied up to 10 percent of the MAES information received to their operations.

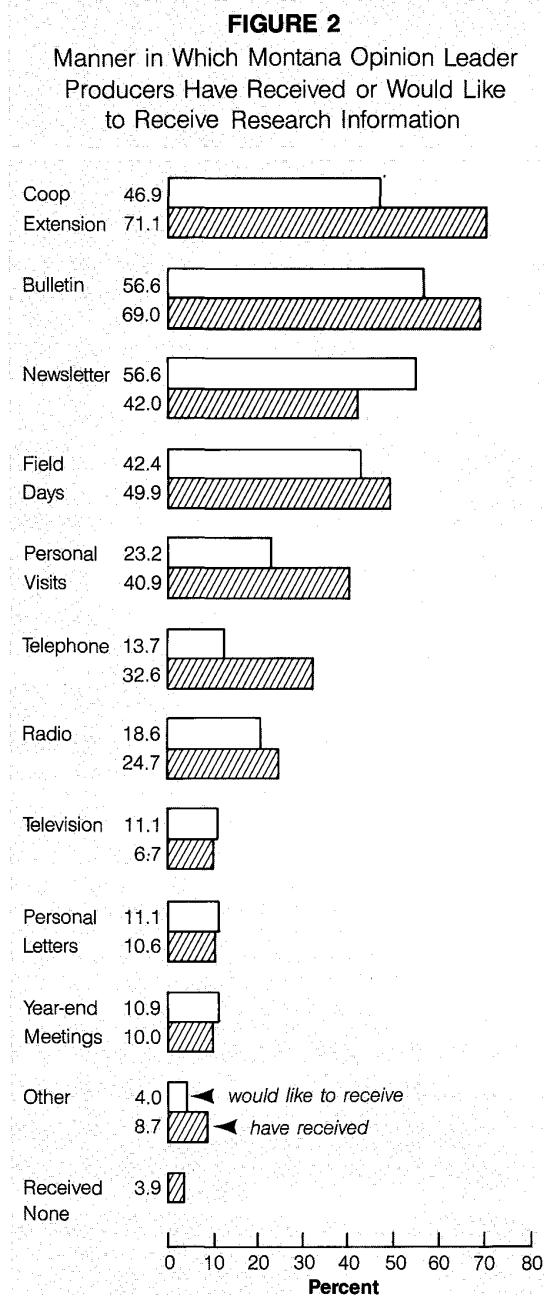


TABLE 1

Where would Montana opinion leader producers obtain research information if not available through the MAES?

Source	Number	%
Private farm/ranch management consultant	119	17.0
Agribusiness sales and service personnel	388	55.4
Friends and neighbors	293	41.9
Agricultural and financial advisors	132	18.9
Farm publications	491	70.1
Cooperative Extension Service	441	63.0
Daily news media	108	15.4
Other	26	3.7

Another 25.6 percent felt they applied between 10 and 20 percent of the information they received. The remaining group of producers, 28.7 percent, applied between 20 to 50 percent of the research information they obtained from MAES.

Usefulness of Information

Producers were asked to evaluate the usefulness of research information they receive from the MAES. Non-applicable, as it appears in Table 2, simply means the information did not apply to the operations of some of the respondents.

Many variables affect how a producer might evaluate various types of research information. The response in Table 2 does suggest to MAES research planners what information Montana producers really need and want.

An analysis of the data suggests caution when comparing the level of usefulness among categories. For example, of 556 producers responding to small grain, 36 percent rated the information as very useful, 43.6 percent useful while only 1 percent said it was of no value. Although this was the highest overall response received to commodities and categories, it might be attributed to the fact that variety selection, fertility recommendations and other such research in this area can result in rather quick, visible yield increases, something that many producers see as an ultimate goal.

The category "machinery and equipment" received the highest number of no value ratings

TABLE 2
Usefulness of Information*

Research Categories	Very Useful	Useful	Somewhat Useful	No Value
Cattle	24.0 %	43.6 %	28.4 %	3.7 %
Sheep	27.4	34.5	27.4	10.6
Swine	20.6	43.3	27.8	8.2
Small Grain	36.0	43.6	19.3	1.0
Pasture & Forage	22.4	43.7	30.8	2.8
Range	21.7	40.6	32.9	4.7
Horticulture	13.6	32.2	44.7	9.5
Soil & Water	18.6	41.7	35.7	3.9
Machinery & Equipment	4.4	21.7	49.6	24.1
Integrated Pest Mangement	21.0	32.6	34.4	12.0
Sugar Beets & Alternate Crops	15.7	29.5	35.8	18.9
Farm Management	7.0	30.0	49.6	13.3

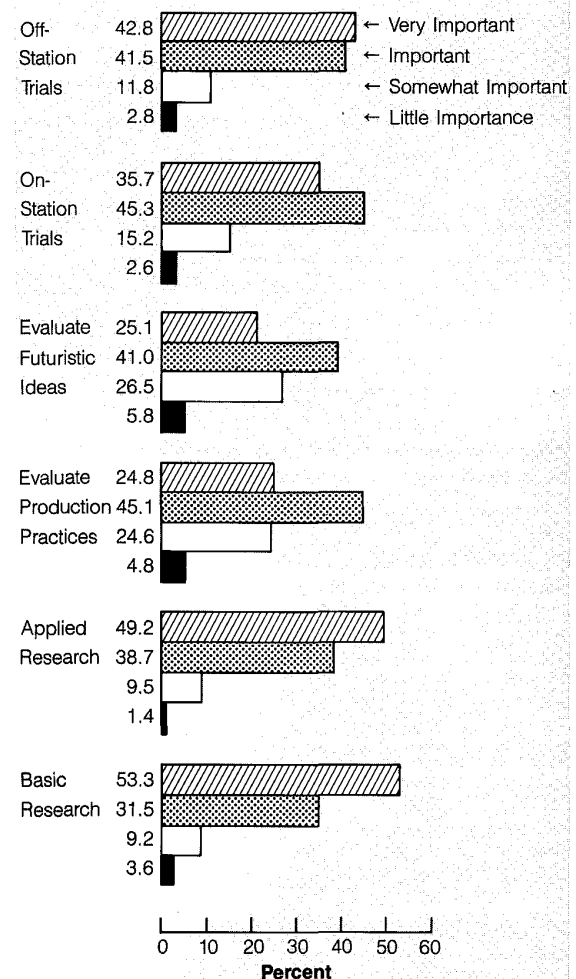
*Data based on responses from opinion leaders who said specific research area was applicable to their operation.

with 24.1 percent of the producers indicating MAES research information in this area was of no value. This result may be indicative of the fact that farm equipment companies are currently providing producers with a great deal of research data and help specific to their equipment needs. In other categories, the fact that only a limited amount of information is being published may have influenced the response.

Importance of MAES Activities

In order to determine what activities the producers felt were most appropriate for MAES, they were asked to rate the importance of conducting basic and applied research, evaluating production practices, evaluating futuristic ideas and conducting on and off-station trials. (Figure 3) As might be expected, over half of the

FIGURE 3
Perceived Importance
of Activities Conducted by MAES



respondents felt basic research as "highly important" and only 3.6 percent felt it was of "little importance." A slightly smaller group, 49.2 percent, felt applied research was highly important and a slightly larger group 38.7 percent felt applied research was important. No distinction was made between basic and applied research to guide the respondents in arriving at their rating.

The MAES is called upon to evaluate many production practices and 24.8 percent felt this activity was "highly important" while 45.1 percent rated it as "important." Evaluation of futuristic production management ideas was considered to be "important" by 25.1 percent of the producers, but 5.8 percent said such an activity was of "little importance." Generally opinion leader producers view the MAES as having a basic research function.

Producers seemed to feel off-station trials were somewhat more important than on-station trials. Perhaps there are those who feel that research trials conducted on the station site are affected by a more controlled environment and therefore less reliable.

Opportunity to Participate

MAES personnel have always felt it was important to seek producer input when designing research programs and activities. Producers were asked the question, "Do you feel, as a producer, you have adequate opportunity to share your ideas and concerns with researchers who plan and conduct MAES research programs?" The results are tabulated in Fig. 4.

Over 65.7 percent of the producers felt they had input "occasionally" or "always" while 33.6 percent felt they "seldom" or "never" had input into the research activities of the MAES. The additional comments given relative to this question indicated that several producers are

interested in very specific types of research and desire more opportunity for input in recommending research directions.

Conclusions

The results of the survey indicate that Montana producer opinion leaders have a good general knowledge of the research activities carried on by MAES. However, there was some evidence to support the fact that producers have a difficult time distinguishing between MAES and Cooperative Extension functions. MAES publications are readily available and even though only half of the respondents are taking advantage of field days and open houses, they feel such activities are valuable and should be continued.

The image portrayed by the MAES seems quite good. The researchers themselves are quite effective and are perceived to be carrying on effective research programs. Producers seem to be suggesting that both facilities and equipment should be upgraded.

Producers are frequently using MAES material to become aware of new ideas and practices and generally want visible evidence of the research. They seem particularly interested in those activities and materials that have a direct impact on their income producing capacity and are interested in receiving current information in a clear, concise manner.

In general, Montana opinion leader producers are concerned about the types of research carried on by MAES and are interested in being given an opportunity to provide input on a regular basis.

