Sustainable agriculture: Vision for the future

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Sustainable agriculture: Vision for the future

Abstract
Sustainable agriculture: Vision for the future was the focus of a one-day conference held January 8, 1993, at Northeast Iowa Community College in Calmar. A total of 131 persons attended, including farmers, agency personnel, students and interested others (23 were presenters).

Keywords
Human systems, demographics and beginning farmer programs

Disciplines
Agricultural Education | Agricultural Science

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Sustainable agriculture: Vision for the future

Background

_Sustainable agriculture: Vision for the future_ was the focus of a one-day conference held January 8, 1993, at Northeast Iowa Community College in Calmar. A total of 131 persons attended, including farmers, agency personnel, students and interested others (23 were presenters).

The conference provided an opportunity to transfer information to northeast Iowans about research that is currently being conducted in sustainable agriculture, including socioeconomic and environmental aspects of sustainable agriculture as they pertain to Iowa. Presenters included Leopold Center project investigators, ISU Extension personnel, ISU staff, and area farmers currently using sustainable agriculture techniques.

Farmer and former state legislator Paul Johnson opened the conference by describing how the Leopold Center was created. Frederick Kirshenmann, farmer and author from North Dakota, followed with a presentation entitled, "Is there a sustainable agriculture in our future?" In addition, 11 concurrent workshops were offered in various areas of sustainable agriculture, including livestock management, rotational (intensive) grazing, timber management, crop management, and conservation practices. Michael Duffy, associate director of the Leopold Center and ISU professor of economics, presented the general session, "Sustainable agriculture: vision for the future?" following the workshops.

According to other research, farmers appear to use three general learning techniques in considering farm practice changes:

1. informational learning through exposure to and gathering of information;
2. observational learning through examination of on-site farm practices; and
3. experiential learning through implementation, correcting mistakes, and additional practice.

The goals of this conference were to transfer sustainable agriculture information to farmers and to encourage them to try sustainable agricultural practices. The goals of the follow-up study were to determine the extent to which farmers, after attending a one-day conference, would try some of the practices presented, and if not, to identify the reasons.

Approach and methods

The follow-up study used as its subjects 47 farmers who attended the one-day sustainable agriculture conference in January 1993. Participants were asked at registration to indicate their occupation; all were engaged in farming (only one per household was interviewed). Table 1 provides a profile of the subjects, including their personal and farm characteristics. Travel distance to the conference site for the sample ranged from several miles to 180 miles; 90% traveled fewer than 50 miles.

A questionnaire was constructed and administered to gather data on the subjects' participation in the various workshops offered at the conference, their anticipated use of the information presented, their knowledge of the Leopold Center and its research in sustainable agriculture, their primary and secondary sources for receiving information on farming practices, and their interests in future agricul-
The questionnaire was completed by way of telephone surveys that were conducted in April 1993. The investigator attempted to contact 57 households; 7 did not answer after 4 attempts, and 3 responded "no" when asked whether they were still engaged in farming.

Findings

The frequency distribution and percent were computed for questions soliciting categorical data. Some questions required additional information; they are summarized accordingly.

Table 2 summarizes the distribution of the workshops attended by the subjects.

Intensive grazing management (workshop) had the highest frequency. The intensive grazing panel and sustainable pig production followed with frequencies of 45% and 40% respectively. Conservation tillage, timber improvement, and harvesting forage were equally attended, and switching to a sustainable system, integrated crop management (ICM), and manure spreader calibration had the least participation. The fact that the grazing workshops had high attendance is not surprising when one considers the publicity that grazing has recently received. The terrain of the farm land in the area and the number of farmers in the study who raise dairy or beef and have pasture would suggest that their interest in the grazing workshop was economically motivated. Low attendance at the ICM and manure spreader calibration workshops could be explained by the fact that Extension has been conducting programs in these areas for the past several years, and farmers may have felt they had sufficient information on these subjects.

Table 3 summarizes the percentage of attendees interviewed who are planning on trying practices, those already using practices, and those not trying practices during the 1993 crop year. People attending the intensive grazing management workshop and conservation tillage workshops had the highest interest in trying the practices presented. Again, ICM had the lowest response; 50% of those attending the ICM workshop are already trying the practices.

The investigator asked subjects "Why not?" when they indicated that they were not trying a practice. (The numbers responding with each of the following reasons appear in parentheses.) In the harvesting forage workshop, reasons included "the workshop was too technical" (7), "not interested now" (2), and "prac-
Table 3. Trying workshop practices in crop year 1993.

<table>
<thead>
<tr>
<th>Workshop</th>
<th>Planning to try practices</th>
<th>Already doing practices</th>
<th>Not planning to try practices</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>Intensive grazing workshop (N=37)</td>
<td>23</td>
<td>62</td>
<td>8</td>
</tr>
<tr>
<td>Conservation tillage (N=15)</td>
<td>11</td>
<td>74</td>
<td>3</td>
</tr>
<tr>
<td>Timber improvement (N=15)</td>
<td>5</td>
<td>33</td>
<td>4</td>
</tr>
<tr>
<td>ICM (N=6)</td>
<td>1</td>
<td>17</td>
<td>3</td>
</tr>
<tr>
<td>Harvesting forage (N=14)</td>
<td>3</td>
<td>21</td>
<td>1</td>
</tr>
<tr>
<td>Manure sprdr calibration (N=4)</td>
<td>1</td>
<td>25</td>
<td>1</td>
</tr>
<tr>
<td>Intensive grazing panel (N=21)</td>
<td>9</td>
<td>43</td>
<td>9</td>
</tr>
<tr>
<td>Sustainable pig prdctn (N=19)</td>
<td>9</td>
<td>47</td>
<td>3</td>
</tr>
<tr>
<td>Sustainable systems (N=10)</td>
<td>4</td>
<td>40</td>
<td>3</td>
</tr>
</tbody>
</table>

Participants were also asked about their familiarity with the Leopold Center and its research on sustainable agriculture. Of the 47 respondents, over two-thirds have heard or read about it and the remaining one-third had not.

Participants also ranked their primary and secondary sources of information on farming practices (see Fig. 1). The high number of farmers who listed "conferences" as their primary and secondary source of information may have been more inclined to give this answer because the conference organizer also served as the interviewer, or because they considered this particular conference to be of high quality.

When asked about follow-up programs they would consider coming to Calmar to attend, livestock management ranked highest (see Fig. 1).
Table 4). The "other" category including marketing (2), computer recordkeeping (3), and organic farming (2). Although participants' interest in grazing can be viewed as one indicator of grazing's popularity, it also likely reflects the importance of livestock operations in northeast Iowa.

Table 4. Participants' interest in follow-up programs. (N=47)

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Livestock management</td>
<td>36</td>
<td>77</td>
</tr>
<tr>
<td>Tillage</td>
<td>22</td>
<td>47</td>
</tr>
<tr>
<td>Grazing</td>
<td>37</td>
<td>79</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>15</td>
</tr>
</tbody>
</table>

Subjects indicated that an all-day program was most convenient to attend (72%); some preferred an afternoon (23%); 4% preferred an evening; none preferred a morning.

**Implications**

During recent years in Iowa, a shift toward sustainable agriculture has been apparent. The January 1993 conference held in Calmar was intended to provide farmers from northeast Iowa with findings from Leopold Center research and other sources. The overall attitude of these farmers was enthusiastic; survey forms contained numerous positive comments about the conference.

However, it cannot be inferred from these results that the farmers surveyed and interviewed represent the attitude of farmers in general. It should be noted that in the part of the state where the conference was held, terrain is hilly and well suited for dairy farming; in other words, the farming practices used by conference attendees may reflect the type of landscape they farm as much as their commitment to sustainable agriculture. Even so, the title of the conference ("Sustainable agriculture: Vision for the future") may have drawn farmers who would be inclined to seek new ideas on their own and who possess a willingness to try new techniques. Farmers who attend such a conference may already possess a higher awareness of sustainable agriculture.

Finally, the interviews were conducted by the conference coordinator. Because they knew this, they may have been more inclined to respond favorably to the survey questions.

While the number involved in the survey was not large enough to predict how many farmers would try practices after attending a one-day conference, it does support use of conferences for disseminating research information on sustainable agriculture.

The results of the survey indicate that those interviewed are very interested in learning more about sustainable agriculture and ways that they can transfer what is being researched into their farming operations. A critical need exists for education and information to assist in farming wisely with nature; this conference presented information to promote farming practices that are compatible with nature.

Cosponsors of the conference included ISU Extension and Northeast Area Community College. In addition to financial support, the Leopold Center provided technical support throughout the planning stages and follow-up. ISU Extension provided staff support in the planning stage and by providing presenters for several of the workshops. Other agencies that supported the conference by providing presenters included ISU, Resource Conservation and Development for Northeast Iowa, Northeast Iowa Demonstration Project, the Soil Conservation Service, and Practical Farmers of Iowa. Area farmers who are using sustainable agricultural practices on their farms served in an advisory capacity prior to the conference; they also served on several of the workshop panels the day of the conference.

Conference attendees expressed strong interest in follow-up programs focused on grazing. In fact, the second year of funding is covering costs involved with planning and implementing a conference on grazing on March 4, 1994.

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