Michigan Cow-Calf Short Course Evaluation

During the month of March, 1996, seven identical short courses were sponsored by Michigan State University-Extension at various locations around the state of Michigan. The short course was divided into two separate sessions that concentrated on different aspects of breeding, raising, and marketing cattle. The dates for session I were March 4-8 and 11-12 and for session II, March 18-22 and 25-26. The purpose of this short course was "to update producers on current breeding, nutrition, management, and marketing practices to improve profitability."

The following are a list of subjects that were offered during each session at seven locations.

Topics for session I:
- **Minimizing calving difficulty:**
  - heifer development;
  - measuring pelvic area;
  - genetic control of birth weight;
  - calving facilities;
  - calving season management.
- **Breeding systems to hit the market target:**
  - matching breed characteristics to market specifications;
  - breeding systems;
  - lessons from the swine industry and how they may relate to the beef industry;
  - the potential of niche markets.

Topics for session II:
- **Pre- and Post-weaning calf health and nutrition:**
  - disease prevention and treatment of the neonatal calf;
  - pros and cons of creep feeding;
  - mineral supplementation;
  - processing prior to weaning;
  - starting on feed;
  - post-weaning processing.
- **Optimizing forage resources for greater profitability:**
  - estimating your carrying capacity;
  - rotational grazing systems;
  - extending the grazing season;
  - forage budgeting.

At the completion of this two sessions short course, participants were asked to fill out a two-page evaluation. Questions on this evaluation contained both qualitative and quantitative information, and the

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1Taken from the 1996 Michigan Cow-Calf program brochure.
data collected were analyzed using the Statistical Package for Social Sciences (SPSS PC+) computer program. The open-ended questions were analyzed using qualitative methods. The purpose of this evaluation was to understand what was useful to participants and where changes may need to occur.

This report will give an overview of who participated in this course, an overall evaluation of the short course, a content evaluation of the two sessions, and describe the impact of this course on its participants. The information presented in this report will hopefully be used to improve future courses of this nature.

**Participants in the short course:**

Over 160 people participated in this two-day short course. The average age of participants was 44 years old with a standard deviation of 11 years. The oldest participant was 68 years old while the youngest was 13 years old. The following table illustrates characteristics of these participants including the average number of total acres farmed, number of cattle raised annually, and the years they have been raising cattle.

<table>
<thead>
<tr>
<th>Personal Information</th>
<th>Chelsea Mean (S.D.)</th>
<th>Lapeer Mean (S.D.)</th>
<th>PawPaw Mean (S.D.)</th>
<th>Bruce Crossing Mean (S.D.)</th>
<th>Escanaba Mean (S.D.)</th>
<th>Gaylord Mean (S.D.)</th>
<th>Reed City Mean (S.D.)</th>
<th>Overall Mean (S.D.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of acres</td>
<td>178.15 (172.5)</td>
<td>150.33 (95.7)</td>
<td>389.27 (406.02)</td>
<td>614.69 (764.88)</td>
<td>546.04 (476.12)</td>
<td>347.38 (419.29)</td>
<td>205.04 (220.7)</td>
<td>339.80 (428.8)</td>
</tr>
<tr>
<td>No. of cattle raised/yr</td>
<td>54.54 (54.77)</td>
<td>47.08 (33.98)</td>
<td>110.00 (157.39)</td>
<td>77.38 (61.34)</td>
<td>102.30 (103.31)</td>
<td>82.69 (123.15)</td>
<td>49.11 (51.57)</td>
<td>72.52 (90.61)</td>
</tr>
</tbody>
</table>

Table 1 illustrates that on the average, participants are farming about 340 acres of land. It should be noted that there is a large standard deviation value for farm size and the number of cattle raised. It could be due to the fact that some farmers have several hundred acres of land and heads of cattle while others have none. The participants from Lapeer have the most consistent data with a relatively low standard deviation in all categories compared to the other locations.

On an average, participants raise over 70 heads of cattle with over 15 years of experience in this domain. As illustrated by the table, participants at the Chelsea location have spent the most number of years raising cattle.
Overview of short course

This section of the report can be divided into three parts: usefulness of information provided for participants; evaluation of five statements concerning the organization of the short course; and to what degree were the participants' objectives met by participating in this short course. The following table illustrates participants' responses to the overall usefulness of information provided. They rated this category on a 5-point scale: 1 = poor; 2 = fair; 3 = good; 4 = very good; 5 = excellent.

Table 2: Usefulness of information provided

<table>
<thead>
<tr>
<th>Location</th>
<th>Count</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chelsea</td>
<td>15</td>
<td>4.00</td>
<td>.7559</td>
</tr>
<tr>
<td>Lapeer</td>
<td>24</td>
<td>4.00</td>
<td>.6594</td>
</tr>
<tr>
<td>Paw Paw</td>
<td>16</td>
<td>3.69</td>
<td>.7042</td>
</tr>
<tr>
<td>Bruce Crossing</td>
<td>16</td>
<td>3.75</td>
<td>.4472</td>
</tr>
<tr>
<td>Escanaba</td>
<td>25</td>
<td>3.92</td>
<td>.7594</td>
</tr>
<tr>
<td>Gaylord</td>
<td>27</td>
<td>4.11</td>
<td>.6980</td>
</tr>
<tr>
<td>Reed City</td>
<td>30</td>
<td>4.00</td>
<td>.6433</td>
</tr>
<tr>
<td>Total</td>
<td>153</td>
<td>3.95</td>
<td>.6766</td>
</tr>
</tbody>
</table>

Scale: 1 = poor; 5 = excellent

As shown in table 2, participants rated the overall course as “very good” with a mean overall score of 3.95 and standard deviation of .68. The highest mean score for usefulness of information provided was in Gaylord with a score of 4.11, and the lowest score was in Paw Paw with a score of 3.69. At the conclusion of this report there will be a list of recommendations, and these will hopefully give some insight into how this short course can be improved upon.

Following this question, the participants were asked to rate different aspects of the overall organization of the short course. Table 3 provides an overall summary of their responses, and the participants rated these five statements on a 5-point scale, i.e., 1 = strongly disagree; 2 = disagree; 3 = no opinion; 4 = agree; and 5 = strongly agree.
Table 3: Statements concerning short course

<table>
<thead>
<tr>
<th>Statements</th>
<th>Chelsea Mean (S.D.)</th>
<th>Lapeer Mean (S.D.)</th>
<th>PawPaw Mean (S.D.)</th>
<th>Bruce Crossing Mean (S.D.)</th>
<th>Escanab Mean (S.D.)</th>
<th>Gaylord Mean (S.D.)</th>
<th>Reed City Mean (S.D.)</th>
<th>Overall Mean (S.D.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives clearly stated</td>
<td>3.93 (.62)</td>
<td>4.26 (.62)</td>
<td>3.88 (.50)</td>
<td>3.63 (.81)</td>
<td>3.92 (.57)</td>
<td>3.84 (.94)</td>
<td>3.87 (.68)</td>
<td>3.91 (.71)</td>
</tr>
<tr>
<td>Relevancy of content</td>
<td>4.00 (.65)</td>
<td>4.25 (.53)</td>
<td>3.88 (.62)</td>
<td>3.69 (.60)</td>
<td>4.08 (.70)</td>
<td>4.15 (.83)</td>
<td>3.90 (.71)</td>
<td>4.01 (.69)</td>
</tr>
<tr>
<td>Understand technical content</td>
<td>3.80 (.56)</td>
<td>4.17 (.64)</td>
<td>3.87 (.62)</td>
<td>4.00 (.52)</td>
<td>4.08 (.64)</td>
<td>4.23 (.82)</td>
<td>4.17 (.53)</td>
<td>4.08 (.64)</td>
</tr>
<tr>
<td>Appropriate teaching methods</td>
<td>3.93 (.59)</td>
<td>4.22 (.74)</td>
<td>3.94 (.44)</td>
<td>3.87 (.62)</td>
<td>4.20 (.58)</td>
<td>4.19 (.85)</td>
<td>4.13 (.57)</td>
<td>4.09 (.65)</td>
</tr>
<tr>
<td>Duration</td>
<td>3.93 (.79)</td>
<td>4.00 (.88)</td>
<td>3.88 (.72)</td>
<td>3.50 (.97)</td>
<td>4.04 (.79)</td>
<td>3.88 (1.07)</td>
<td>3.83 (.65)</td>
<td>3.88 (.85)</td>
</tr>
</tbody>
</table>

Scale: 1 = strongly disagree; 5 = strongly agree.

Table 3 illustrates that the statement concerning the appropriate teaching methods received the highest score with a mean of 4.09 and standard deviation of .65. In the category of the clarity of objectives stated, relevancy of content/topics, and duration of session, the short course in Lapeer received the highest scores with 4.26, 4.25, and 4.00 and standard deviation of .62, .53, .88, respectively. Comprehension of the technical content received the highest score from the group in Gaylord with a score of 4.15.

The last question in this part of the report asked participants to rate to what degree their personal objectives for participating in the class were met. The participants rated this on a 5-point scale: 1 = not met; 2 = somewhat met; 3 = satisfactorily met; 4 = well met; 5 = extremely well met.

Table 4: Personal objectives met

<table>
<thead>
<tr>
<th>Location</th>
<th>Count</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chelsea</td>
<td>15</td>
<td>3.73</td>
<td>.96</td>
</tr>
<tr>
<td>Lapeer</td>
<td>24</td>
<td>3.75</td>
<td>.67</td>
</tr>
<tr>
<td>Paw Paw</td>
<td>16</td>
<td>3.38</td>
<td>.88</td>
</tr>
<tr>
<td>Bruce Crossing</td>
<td>15</td>
<td>3.07</td>
<td>.70</td>
</tr>
<tr>
<td>Escanaba</td>
<td>25</td>
<td>3.64</td>
<td>.81</td>
</tr>
<tr>
<td>Gaylord</td>
<td>27</td>
<td>3.70</td>
<td>.82</td>
</tr>
<tr>
<td>Reed City</td>
<td>30</td>
<td>3.60</td>
<td>.85</td>
</tr>
<tr>
<td>Total</td>
<td>152</td>
<td>3.59</td>
<td>.82</td>
</tr>
</tbody>
</table>

Scale: 1 = not met; 5 = extremely well met
Overall, the participants' objectives were satisfactorily met with a score of 3.59 and standard deviation of 0.83. The sessions in Lapeer had the highest score with a 3.75 and standard deviation of .68, and the sessions in Bruce Crossing had the lowest rating with a score of 3.07 and standard deviation of .70.

Content evaluation of short course, sessions I & II:

This part of the report is divided into two sections so that each session can be considered separately. The participants were asked if they attended both sessions and of the 163 participants, 151 attended both sessions, eleven only attended one session, and one participant did not respond. Each session was evaluated and the results are reported below.

Session I:

This part of the short course was held in seven locations and the subject matter was identical in all locations. The dates for this session were March 4-8 and 11-12, and were held in Bruce Crossing, Escanaba, Gaylord, Big Rapids, Chelsea, Paw Paw, and Lapeer. Participants were asked if certain topics should be included in upcoming sessions and the table below represents the responses from their evaluations. They rated each topic on a 5-point scale: 1 = definitely no; and 5 = definitely yes.

<table>
<thead>
<tr>
<th>Topics</th>
<th>Chelsea Mean (S.D.)</th>
<th>Lapeer Mean (S.D.)</th>
<th>PawPaw Mean (S.D.)</th>
<th>Bruce Crossing Mean (S.D.)</th>
<th>Escanaba Mean (S.D.)</th>
<th>Gaylord Mean (S.D.)</th>
<th>Reed City Mean (S.D.)</th>
<th>Overall Mean (S.D.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heifer dev.</td>
<td>4.47 (.80)</td>
<td>4.25 (.85)</td>
<td>4.21 (.80)</td>
<td>3.94 (.68)</td>
<td>4.21 (.93)</td>
<td>4.26 (.83)</td>
<td>4.22 (.79)</td>
<td>4.23 (.82)</td>
</tr>
<tr>
<td>Measuring pelvic area</td>
<td>3.88 (1.05)</td>
<td>3.48 (1.27)</td>
<td>3.36 (1.17)</td>
<td>3.53 (1.30)</td>
<td>3.79 (.88)</td>
<td>3.50 (1.14)</td>
<td>3.38 (.98)</td>
<td>3.55 (1.09)</td>
</tr>
<tr>
<td>Genetic control of birth weight</td>
<td>4.35 (.70)</td>
<td>4.00 (.88)</td>
<td>3.79 (.98)</td>
<td>3.73 (.88)</td>
<td>3.92 (.83)</td>
<td>3.96 (.92)</td>
<td>3.97 (.89)</td>
<td>3.97 (.87)</td>
</tr>
<tr>
<td>Calving facilities</td>
<td>4.29 (.85)</td>
<td>3.92 (.93)</td>
<td>4.31 (.85)</td>
<td>3.88 (.81)</td>
<td>3.71 (.99)</td>
<td>4.08 (1.06)</td>
<td>3.97 (.86)</td>
<td>3.99 (.92)</td>
</tr>
<tr>
<td>Calving season mgmt.</td>
<td>4.47 (.72)</td>
<td>3.96 (1.12)</td>
<td>4.36 (.74)</td>
<td>4.00 (.89)</td>
<td>4.08 (1.06)</td>
<td>4.04 (1.04)</td>
<td>4.16 (.88)</td>
<td>4.13 (.95)</td>
</tr>
</tbody>
</table>

Scale: 1 = definitely no; and 5 = definitely yes

The topic that received the highest score was heifer development with an overall, mean score of 4.23, and the one that received the lowest score was measuring pelvic area with an overall mean score of 3.55. Overall the participants rated all the topics as above average and all topics should be included in upcoming sessions.
The second half of the first session dealt with topics concerning breeding systems to hit the market target, and the results from the evaluations are illustrated in the table below. Again the participants were asked to rate each topic on a five-point scale if whether the topic should be included in upcoming sessions: 1 = definitely no; 5 = definitely yes.

### Table 6: Evaluation of topics on breeding system to hit the market target

<table>
<thead>
<tr>
<th>Topics</th>
<th>Chelsea Mean (S.D.)</th>
<th>Lapeer Mean (S.D.)</th>
<th>PawPaw Mean (S.D.)</th>
<th>Bruce Crossing Mean (S.D.)</th>
<th>Escanaba Mean (S.D.)</th>
<th>Gaylord Mean (S.D.)</th>
<th>Reed City Mean (S.D.)</th>
<th>Overall Mean (S.D.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matching breed charac. to market</td>
<td>4.00 (.61)</td>
<td>4.04 (.91)</td>
<td>3.80 (1.01)</td>
<td>3.73 (.10)</td>
<td>3.96 (.99)</td>
<td>4.25 (.74)</td>
<td>3.78 (1.04)</td>
<td>3.95 (.93)</td>
</tr>
<tr>
<td>Breeding systems</td>
<td>3.76 (1.09)</td>
<td>3.87 (.95)</td>
<td>3.67 (.82)</td>
<td>4.27 (.80)</td>
<td>3.88 (.94)</td>
<td>4.08 (.83)</td>
<td>3.72 (.96)</td>
<td>3.88 (.92)</td>
</tr>
<tr>
<td>Lessons from swine industry</td>
<td>2.88 (1.36)</td>
<td>2.63 (1.38)</td>
<td>2.67 (1.29)</td>
<td>1.87 (1.13)</td>
<td>2.48 (1.04)</td>
<td>3.61 (1.03)</td>
<td>2.84 (1.21)</td>
<td>2.76 (1.27)</td>
</tr>
<tr>
<td>Potential for niche market</td>
<td>3.65 (.86)</td>
<td>3.42 (1.14)</td>
<td>3.60 (1.29)</td>
<td>3.66 (.98)</td>
<td>3.38 (1.13)</td>
<td>4.25 (.737)</td>
<td>3.81 (1.17)</td>
<td>3.69 (1.08)</td>
</tr>
</tbody>
</table>

Scale: 1 = definitely no; and 5 = definitely yes

The topic in this section that received the highest scores was Matching breed characteristics to market with an overall mean of 3.95 and standard deviation of .93. The topic entitled Lessons from the swine industry received the lowest score with a 2.76 and a standard deviation of 1.27. When examining the means and standard deviations for some of these topics, we may want to reconsider some of this topic on whether to include in future sessions.

### Session II:

On subsequent dates, another session was held for this cow-calf short course. The topics for this short course differed tremendously from the initial session. This part of the report provides a summary evaluation of the participants' responses to the sessions' topics. The first general topic discussed was on Pre- and post-weaning calf health and nutrition, and Table 7 illustrates the mean and standard deviation for the responses of the participants in the seven locations. They were asked if the following topics should be recommended for upcoming sessions and they rated these topics on a five-point scale: 1 = definitely no; 5 = definitely yes.

### Table 7: Participants' responses to pre- and post-weaning calf health and nutrition

...
Overall the topics in this section of the short course were rated as above average. The topic that received the lowest score was *Pros and cons of creep feeding*, but all of the other topics seemed to receive above average ratings.

Table 8 represents the second half of session II of this short course. Again the participants responded by rating four topics on their usefulness and whether they should be included in upcoming training on a five-point scale: 1 = definitely no; 5 = definitely yes.

**Table 8: Responses to topics on optimizing forage resources for greater profitability**

<table>
<thead>
<tr>
<th>Topics</th>
<th>Chelsea Mean (S.D.)</th>
<th>Lapeer Mean (S.D.)</th>
<th>PawPaw Mean (S.D.)</th>
<th>Bruce Crossing Mean (S.D.)</th>
<th>Escanaba Mean (S.D.)</th>
<th>Gaylord Mean (S.D.)</th>
<th>Reed City Mean (S.D.)</th>
<th>Overall Mean (S.D.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disease prevention and treatment of calf</td>
<td>4.40 (.74)</td>
<td>4.65 (.49)</td>
<td>4.44 (.73)</td>
<td>4.25 (.93)</td>
<td>4.12 (.97)</td>
<td>4.33 (.73)</td>
<td>4.40 (.72)</td>
<td>4.37 (.77)</td>
</tr>
<tr>
<td>Pros and cons of creep feeding</td>
<td>4.27 (.70)</td>
<td>3.96 (1.04)</td>
<td>4.00 (.97)</td>
<td>3.31 (1.35)</td>
<td>3.60 (1.15)</td>
<td>4.00 (1.00)</td>
<td>3.70 (1.12)</td>
<td>3.82 (1.08)</td>
</tr>
<tr>
<td>Mineral supplementation</td>
<td>4.13 (.74)</td>
<td>4.50 (.72)</td>
<td>4.26 (.70)</td>
<td>4.56 (.63)</td>
<td>4.16 (.94)</td>
<td>4.29 (.67)</td>
<td>4.33 (.71)</td>
<td>4.32 (.74)</td>
</tr>
<tr>
<td>Processing prior to weaning</td>
<td>4.33 (.82)</td>
<td>4.09 (.95)</td>
<td>4.19 (1.05)</td>
<td>4.19 (.98)</td>
<td>4.12 (.93)</td>
<td>4.19 (.68)</td>
<td>4.20 (.81)</td>
<td>4.18 (.86)</td>
</tr>
<tr>
<td>Starting on feed</td>
<td>4.20 (.68)</td>
<td>4.09 (.79)</td>
<td>4.25 (.68)</td>
<td>3.81 (1.05)</td>
<td>4.00 (1.00)</td>
<td>3.96 (1.13)</td>
<td>3.90 (.99)</td>
<td>4.01 (.93)</td>
</tr>
<tr>
<td>Post-weaning processing</td>
<td>4.13 (.92)</td>
<td>4.04 (.77)</td>
<td>4.27 (.70)</td>
<td>4.00 (1.03)</td>
<td>3.96 (1.02)</td>
<td>4.04 (.82)</td>
<td>4.10 (.80)</td>
<td>4.07 (.88)</td>
</tr>
</tbody>
</table>

**Scale: 1 = definitely no; 5 = definitely yes**

As the preceding illustrates, all the topics in this portion of the short course were considered very useful with not one topics receiving a score below a 4.00.
Impact of short course:

This section of the report provides an evaluation of the impact of this short course on specific areas concerned with cow-calf breeding, raising, and marketing. On the evaluation, participants were asked to rate the impact on five different domains: general knowledge about cow-calf management; understanding about minimizing calving difficulty; confidence in breeding cattle to hit the market target; skills in pre- and post-weaning calf health and nutrition; and understanding about optimizing forage resources for greater profitability. Participants rated these areas on a five-point scale: 1 = no change; 3 = some improvement; 5 = greatly improved.

### Table 9: Participant's rating of impact indicators of cow-calf short course

<table>
<thead>
<tr>
<th>Impact indicators</th>
<th>Chelsea Mean (S.D.)</th>
<th>Lapeer Mean (S.D.)</th>
<th>PawPaw Mean (S.D.)</th>
<th>Bruce Crossing Mean (S.D.)</th>
<th>Escanaba Mean (S.D.)</th>
<th>Gaylord Mean (S.D.)</th>
<th>Reed City Mean (S.D.)</th>
<th>Overall Mean (S.D.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General knowledge about management</td>
<td>3.59 (.62)</td>
<td>3.67 (.76)</td>
<td>3.47 (.72)</td>
<td>3.31 (.60)</td>
<td>3.26 (1.02)</td>
<td>3.62 (.82)</td>
<td>3.61 (.89)</td>
<td>3.52 (.82)</td>
</tr>
<tr>
<td>Understanding about minimizing calving</td>
<td>3.82 (.88)</td>
<td>4.04 (.75)</td>
<td>3.50 (.89)</td>
<td>3.19 (.75)</td>
<td>3.15 (.99)</td>
<td>3.56 (1.01)</td>
<td>3.33 (1.05)</td>
<td>3.50 (.96)</td>
</tr>
<tr>
<td>Confidence in breeding cattle</td>
<td>3.47 (.72)</td>
<td>3.25 (.90)</td>
<td>3.06 (.85)</td>
<td>3.13 (.81)</td>
<td>2.96 (.93)</td>
<td>3.54 (.99)</td>
<td>3.06 (1.01)</td>
<td>3.21 (.92)</td>
</tr>
<tr>
<td>Skills in pre- and post-weaning calf health and nutrition</td>
<td>3.76 (.75)</td>
<td>3.92 (.78)</td>
<td>3.65 (.70)</td>
<td>3.69 (.60)</td>
<td>3.22 (.85)</td>
<td>3.76 (.87)</td>
<td>3.64 (.90)</td>
<td>3.65 (.82)</td>
</tr>
<tr>
<td>Understanding re: optimizing forage resources</td>
<td>3.53 (.74)</td>
<td>3.26 (.69)</td>
<td>3.65 (.93)</td>
<td>3.44 (.51)</td>
<td>3.26 (.86)</td>
<td>3.86 (.79)</td>
<td>2.85 (.91)</td>
<td>3.37 (.86)</td>
</tr>
</tbody>
</table>

Scale: 1 = no change; 5 = greatly improved

According to the ratings on the impact indicators, **skills in pre- and post-weaning calf health and nutrition** received the highest score with a 3.65 and standard deviation of .82. The indicator that received the lowest overall score was **confidence in breeding cattle to hit the market target** with a 3.21 and standard deviation of .92. Overall the impact of the short course was above average, and any improvements to be made can be demonstrated by the comments from participants. These comments are also divided into locations where short course was conducted.

**Chelsea:**
"Talk less about feedlot cattle and more about the cows/calves. It would really be more beneficial. I would've like to hear more about the cow's health before giving birth. How much to feed her, and what's best."

"You could leave out information on pig management."

"Excellent, enjoyed both sessions."

Lapeer:

"I need to go back to school."

"Very good speakers."

"The forage portion could be improved by going to slides, the overhead projector is distracting."

Paw Paw:

"More course content on forage."

Bruce Crossing:

"Less talk on hogs and more on beef - video."

"An experimental farm in this cold, deep snow would help to convince MSU of the difficulties we as beef producers in Bruce Crossing actually encounter."

Escanaba:

"Good handouts for reference. Calving video very good."

"Possibly not so long as there are many people traveling a great distance."

"Well done, presenters very knowledgeable."

"Hobby farming, simplicity of operation is more important to me than profitability."

Gaylord:

"Good program. Always something new."
"Keep the hog guy home."

"I am a seasonal dairy producer who practices M.I.G. I took this course to help me with my calving season and extend pasture season."

"Very interesting and informative. Should have left pig information out. Disagree with system being used."

Reed City:

"Much of the information positively reinforced prior knowledge obtained from our vet and trade magazines."

Overall participants found the information to be very informative. The one major critique was to omit the session on Lessons from the swine industry. As demonstrated by the comments, the participants found the information useful to their cow-calf enterprise.

Comments for Course Improvement:

At the conclusion of the evaluation, the participants were asked to comment about anything that might help improve this short course. This section of the report is divided by course location so the AOE teams are able to organize their future courses appropriately.

Chelsea:

"Talk more about heifer development than feeding feeder cattle!"

"The man speaking on hog industry was definitely not needed. boring and long-winded. Dr. Ritchie speaking on composite breeds not necessary for hobby farmers as are most farmers attending our session. Feedlot talk not necessary for cow calf person!"

Lapeer:

"Would appreciate outlines of speakers- easier for note taking and less page turning. I thought it was excellent even though it would behoove me to enroll in some cattle classes."

"More details and work sheets to work with at home."

"Don't talk about pigs when we expect to hear about cow-calf. Also, more time for questions after cow/calf video first sessions."

"Trace minerals - how they affect the Immune system, and the best methods for providing trace minerals."
"Not interested in swine management."

"More time taken on fewer aspects."

"Terrific program."

"I raised hogs and knew what the intent of the first session was, but it was too long, and strayed from the point."

"Lose the time spent on hog and composite breeding (composite breeding no benefit for Michigan)."

Paw Paw

"Very well done, health area was confusing but still useful."

"Most presentations should be shorter and allow more time for questions and discussions."

"Increase more on grazing systems. More on path/disease prevention."

"More information needed on how well certain management techniques worked on daily small-time operations."

Bruce Crossing

"More on disease prevention and mineral and processing prior to weaning."

"Leave hog below bridge."

"Tell Dallas to keep quiet."

"No smoking next time!!"

"Would like to know more about what influences flavor of beef."

"No smoking"

Escanaba

"Too late at night. 10:00 is pushing it. If really need to go until 10:00 PM be sure to quit at 10:00 PM."

"Would have liked more information on preventing calving difficulty."
Gaylord
"Drop the crossbreeding part."

"Enjoyed very much." [2 respondents]

"Have short course in Winter. Start a little earlier in the evening."

"Same contents spread over three courses would help. Mike your speakers, bigger room, water on each table."

"Need more information to the newcomers to the cattle business."

Reed City
"Leave out the part about pigs - first two hours go very slow- rest was great."

"Not enough time to digest all the material presented. Have one closer to home."

"Offer more often, give real basic information also, smaller groups maybe need a basic group and an advanced group."

"More information for small cow/calf beef operations to be profitable."

"Great material to small farmer's needs."

"More meat (hard information) into handouts, for example what is the MSU mineral mix?"

"Teaching content was directly comparable to speakers ability."

Again the participants suggested that the session on the swine industry be omitted. In the sessions in Gaylord, the participants recommended that there be no smoking. For the smaller farmers, they felt that some of the information did not pertain to them. Some participants suggested that there was too much information presented at one time and that in the future this session be divided into many separate sessions over a longer period of time.

Overall the participants found that the sessions were useful, and they offered relevant recommendations that would only hopefully improve the program for future sessions.