October 2008

Industry
Professionals’ View—
2008 Michigan Dairy Industry Survey

Last winter the Michigan State University Extension Dairy Team conducted an industry-wide survey to obtain stakeholder input. The October issue of the Michigan Dairy Review reported on industry priorities and educational needs from the participating farmers’ points of view. This article outlines how allied industry professionals perceive industry priorities as well as farmers’ and their own educational needs.

Michigan dairy educators put together a list of allied industry professionals serving dairy farmers and the dairy industry in the state. Surveys were sent to 480 veterinarians, feed company employees (sales representatives and nutritionists), independent dairy nutritionists, agricultural lenders, milking equipment dealers, artificial insemination sales representatives, livestock auction employees, milk cooperative and processor field representatives, Michigan Department of Agriculture personnel (Dairy, Environmental Stewardship, and Animal Industry Divisions), and other professionals. 163 surveys were returned and 135 of those could be used for this analysis (28.1% of the surveyed population).

Overall, allied industry respondents were somewhat younger than the dairy farm owners and operators who participated. Still, 45.2% of the respondents were very experienced, having held their current positions over 20 years. The largest group of allied industry respondents consisted of veterinarians (38.7%). The second largest group consisted of nutritionists, herd management consultants, and feed company employees (34.8%). Table 1 shows the number of farms and cows with which the respondents work.

Industry Priorities and Concerns

Similar to dairy farm owners and operators, allied industry professionals were asked to rate 12 items according to the priority each topic should receive from the Michigan dairy industry. On a scale from 1 (very low priority) to 5 (very high priority), respondents gave the highest priority to two policy issues with median ratings of 5.

Communicate to consumers about safety of milk products and technologies used
Ensure continuation of Right to Farm program

Priority items with median ratings of 4 (high priority) were reached by nine issues.

Increase legislators’ knowledge of agriculture
Promote the value of the dairy industry in Michigan’s economy
Maintain adequate access to water resources for agriculture
Inform the public about current farming practices
Increase dairy product promotion activities and education, especially targeted to youth
Promote availability of career opportunities in agriculture
Develop more leaders within the dairy industry
Work with government to enhance plans to deal with potential foreign animal disease outbreaks
Work with legislators to fund dairy industry initiatives

The two very high priority items also received median ratings of 5 by farm owners and operators. A median rating of 5 signifies that at least 50% of the respondents rated this item as a very high priority. All items are ordered according to their average ratings, starting with the highest. Overall, the differences between the average ratings of dairy farm owners and operators and the ratings of allied industry professionals were minor. The top five items are the same for the two groups. One exception, “Ensure continuation of Cooperatives Working Together (CWT) program,” was rated significantly higher by farm owners and operators, but received a median rating of only 3 (medium priority) by allied industry professionals.

Allied industry professionals also were asked to rate the importance of 21 items to the viability of Michigan’s dairy industry. On a scale from 1 (not important) to 5 (very important), two items received median importance ratings of 4.5.

Dairy farmers demonstrating environmental stewardship
Improving public understanding of animal welfare

Additionally, 17 items received median ratings of 4.

Science-based environmental regulations
Dairy industry being proactive on environmental issues, including working actively with government agencies
Taking advantage of globalization by increasing dairy exports
Increasing legislators’ understanding of the tradeoff between the cost and benefits of complying with regulations
Consumer/public acceptance of scientific information
Dairy farmer involvement in the legislative process and representation in regulation development
Methods to process manure, including renewable fuel (e.g., methane digesters)
New dairy products to increase milk utilization
Greater effort and funding for food safety and inspection programs including imported foods
Improving production efficiencies
Methods to improve disease resistance
Traceability of agricultural products to their origin to improve food safety
Timely access to trained Comprehensive Nutrient Management Plan (CNMP) service providers
Assessment of dairy farming’s impact on environmental quality
Methods to reduce odor and air pollutants
Adopting alternative energy technologies
Legal advice on environmental and general agricultural regulations from lawyers specialized in agricultural law

As with the priority items, dairy farm owners and operators and allied industry professionals rated the industry viability items similarly. The item with the largest difference in average ratings was “Science-based environmental regulations,” rated significantly higher by allied industry respondents.

<p>| Table 1. Allied Industry Respondents by Farms and Number of Cows with Which They Worked. |
|-----------------------------------------------|-----------------------------------------------|</p>
<table>
<thead>
<tr>
<th>Number of Farms Worked with</th>
<th>Percentage of Respondents</th>
<th>Number of Cows Worked with</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 or less</td>
<td>11.1</td>
<td>1,000 or less</td>
<td>10.2</td>
</tr>
<tr>
<td>11-25</td>
<td>21.5</td>
<td>1,001-5,000</td>
<td>26.0</td>
</tr>
<tr>
<td>26-50</td>
<td>20.7</td>
<td>5,001-10,000</td>
<td>12.6</td>
</tr>
<tr>
<td>51-100</td>
<td>23.0</td>
<td>10,001-20,000</td>
<td>21.3</td>
</tr>
<tr>
<td>More than 100</td>
<td>23.7</td>
<td>More than 20,000</td>
<td>29.9</td>
</tr>
</tbody>
</table>
Allied industry professionals were then asked to rate their concerns for the dairy industry, on a scale from 1 (not a concern) to 5 (great concern). Overall, industry concern items were again rated similarly by farm owners and operators and allied industry professionals. Twelve out of thirteen industry concern items received median ratings of 4 by the industry professionals.

- **Public image of agriculture**
- **Food imports from less regulated countries**
- **Availability and market consumers’ acceptance of production technologies, e.g., rBST, antibiotics**
- **Consumer interpretation of dairy product label, e.g., hormone-free, antibiotic-free, rBST-free**
- **Availability of dairy veterinarians**
- **Farm transfer to the next generation**
- **Loss of farm land due to urban encroachment**
- **Successfully eradicating TB in Michigan**
- **Immigration legislation**
- **Farmers planning for and meeting changing state and federal environmental regulations**
- **Availability of farm labor**
- **Farm business growth to improve quality of life**

“Food imports from less regulated countries” was rated as less of a concern by allied industry professionals. On the other hand, “Immigration legislation” and “Availability of farm labor” were rated as higher concerns by the allied industry respondents compared to dairy farm owners and operators. One item, “Agro-terrorism and bio-terrorism,” received only a median rating of 3.5 by allied industry professionals, but the difference between the two groups is not significant.

### Education and Training Needs – Allied Industry Professionals

Allied industry professionals were asked to rate their knowledge, education, or training needs. On a scale from 1, indicating no need for education and training in that area, to 5, indicating a lot of need for education and training in that area, allied industry professionals rated most educational items with median ratings of 4 for themselves.

- **Nutrition**
- **Reproduction**
- **Herd records**
- **Animal health**
- **Business and financial management**
- **Udder health and milk quality**
- **Environmental regulation and management**

Human resource management and genetics received median ratings of 3.

### Education and Training Needs – Dairy Producers and Managers

Allied industry professionals also were asked to indicate their perception of knowledge, education, and training needs of dairy producers and managers on a scale from 1 (none) to 5 (a lot).

#### Herd Management Needs

Twenty-one of the 26 herd management items received median ratings of 4 by the industry professionals.

- **Fresh cow management**
- **Calf management**
- **Effective strategies for getting cows pregnant**
- **Foot health and lameness**
- **Troubleshooting mastitis and high somatic cell count**
- **Best management practices for vaccinations**
- **Cow comfort, stall and bedding systems**
- **Impact of stocking density and facility design on production, reproduction, and health**
- **Impact of heifer raising methods on performance**
- **Identify bottlenecks to improving herd performance**
- **Record analysis and monitoring production, health, and reproduction**
- **Reducing the use of antibiotics through best practices**
- **Quality, digestibility, and production of feeds**
- **Increasing cow longevity**
- **Dry cow management**
- **Farm biosecurity protocols for farm visitors and purchased animals**
- **Choosing alternative feeds based on feeding value and profitability**
- **Managing culling rates**
- **Lactating cow management**
- **Using bio-fuel byproduct feeds**
- **Feeding to reduce nutrients in manure**

With one exception (Lactating cow management), allied industry professionals rated the herd management knowledge, education, and training needs of dairy producers and managers higher than did the farm owners and operators. The highest differences in ratings occurred at “Farm biosecurity protocol for farm visitors and purchased animals,” “Impact of stocking density and facility design on production, reproduction, and health,” and “Record analysis and monitoring production,
health, and reproduction.” With the exception of biosecurity protocols, which was rated one of the bottom five items by farm owners and operators, the items receiving the lowest ratings were the same for both groups.

Environmental Management Needs. All six environmental management items received median ratings of 4 by the professionals, indicating a high perceived education need.

- Reducing the potential for manure runoff from fields, farm buildings, and lots
- Building good relations with non-farm neighbors
- Current regulations and environmental laws
- Using manure as a fertilizer (e.g., application rates)
- Michigan’s Agriculture Environmental Assurance Program (MAEAP)
- Handling dead animal carcasses, including composting

Farm owners and operators saw only medium needs for knowledge, education, and training for four of these six topics.

Farm Business Management and Finance Needs. Sixteen out of the 20 farm business management and finance items received median ratings of 4, signifying high educational needs of farm owners and operators as perceived by the allied industry respondents.

- Use of records to improve financial decisions
- Calculating cost of production
- Profit maximization strategies
- Financial management strategies for dairy farmers
- Planning and financing business transfer to the next generation
- Planning for business growth
- General farm business management
- Effectively working with the on-farm management team
- Use of financial ratios and benchmarks
- Contracting farm inputs
- Use of partial budgeting
- Evaluation of farm enterprises
- Milk marketing and price risk management
- Effectively working with consultants
- Leadership development and training
- Contractual agreements with service providers

The same five items were rated into the top five by both groups, albeit given more importance by the allied industry professionals than by the farm owners and operators.

Human Resource Management Needs. Allied industry professionals rated 15 items reflecting the human resource management knowledge, education, and training needs of dairy producers and managers.

- Communicating with employees
- Training employees
- Communicating with family members involved in the farm
- Motivating employees
- Communication training for employees
- Ensuring job satisfaction and retention of employees
- Managing Latino labor, cultural understanding
- General human resource management
- Hiring quality employees
- Developing effective incentives for employees
- Training materials in Spanish for employees
- Communicating dairy tasks in Spanish
- Developing wage/benefit package for employees
- Terminating employees and avoiding legal liability
- Immigration legislation and background

One item (English language skills for employees) was left out of their questionnaire. All items received median ratings of 4, signifying that respondents saw high needs for knowledge, education, and training for dairy producers and managers in this area. Both groups rated two communication items (“Communicating with family members involved in the farm,” “Communicating with employees”) and “Motivating employees” among the top four items. However, the human resource management field shows the largest rating differences between the two groups. This could be an indication that allied industry professional respondents are more likely to work with medium-sized and larger farms than with small farms that do not hire employees or only hire family members and as a result view human resource management as more important.

Conclusions

Despite a general tendency to rate industry priorities and concerns similarly, 20 out of 46 items were rated significantly different by allied industry professionals and dairy farm owners and operators. Items rated significantly higher and therefore viewed as more important by dairy farm owners and operators are the following:

- Ensure continuation of Right to Farm program
- Food imports from less regulated countries
- New dairy products to increase milk utilization
- Increase dairy promotion activities and education, especially targeted to youth
- Work with government to enhance plans to deal with potential foreign animal disease outbreaks
- Ensure continuation of Cooperatives Working Together (CWT) program

Items rated significantly higher by allied industry professionals are the following:
- Dairy farmers demonstrating environmental stewardship
- Science-based environmental regulations
- Public image of agriculture
- Dairy industry being proactive on environmental issues, including working actively with government agencies
- Consumer/public acceptance of scientific information
- Availability and market/consumers’ acceptance of production technologies
- Methods to process manure, including renewable fuel
- Promote availability of career opportunities in agriculture
- Immigration legislation
- Develop more leaders within the dairy industry
- Assessment of dairy farming’s impact on environmental quality
- Timely access to trained Comprehensive Nutrient Management Plan (CNMP) service providers
- Methods to reduce odor and air pollutants
- Availability of farm labor

With respect to dairy producers’ and managers’ knowledge, education and training needs, allied industry professionals rated most items higher than farm owners and operators. Both groups rated the herd management items most similar. For environmental management items, business management and finance items, and human resource management items the differences between both groups are increasingly larger. Allied industry professionals work with multiple farms with different management styles and needs and conclude overall that there is a high need for knowledge or training with respect to many aspects of dairy farming beyond herd management.

Some of the additional questions the industry survey sought to answer are how farmers and other industry participants would like to receive information and training and what role(s) MSU Extension should play in the industry. A future issue of MDR will report on these results.

**Acknowledgements**

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