

Survey of Management Practices to Control Johne's Disease on Michigan Dairy Farms

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Abstract:

At nine statewide Michigan State University Extension Dairy Meetings in the winter of 2006, dairy producers were surveyed regarding their practices related to Johne's disease management. While much progress has been made in producer education about Johne's disease, and more producers have initiated disease control programs, the survey shows that much work needs to be done. Over 150 surveys were completed by producers who came to the meetings. Over half of the participants reported that Johne's disease has not been diagnosed on their farm within the past five years, while local veterinarians on the program estimated that greater than 90% of dairy herds they work with have the disease. Even among this group, many producers continue to use practices that facilitate the spread of the bacteria that causes the disease, including the use of pooled waste milk to feed calves, feeding of feed refusals from cows to heifers and group calving pens. The results of this survey provide a new baseline of information and a group for which follow-up is possible to track the changes in practices over time.

Introduction:

Johne's disease education has been a part of Extension programming for several years. However, apart from individual farms, there has been a lack of good information on the perceptions, practices, and disease control programs of dairy producers concerning Johne's disease.

In January and February 2006, Michigan State University Extension (MSUE) conducted winter dairy meetings on the theme of "Animal Health" at nine locations throughout Michigan. Johne's disease education was a major part of these meetings.

Though this was not a random sampling of dairy producers, the information from them provides a good gauge of producer action rather than knowledge in this area.

Materials & Methods:

- Surveys consisted of 20 questions about Johne's disease and farm practices that impact its transmission.
- Surveys were distributed at winter dairy meeting registration.
- Survey results were compiled and reported for the site and cumulative for the state.
- Results were used as part of the Johne's disease session at each meeting.

Results:

- 162 surveys were completed and returned with the following farm size breakdown:
 - 31% from farms with < 100 cows
 - 33% from farms with 100-200 cows, and
 - 35% from farms with > 200 cows (26% with 200-500 cows, 6% with 500-1000 cows and 3% with >1000 cows).
- Selected results are reported in Tables 1-5

Table 1. Knowledge and perception of Johne's disease (JD) as a herd problem

	Has JD been diagnosed on your farm in past 5 years?		Do you consider JD a problem on your farm?		
	Yes	Do Not Know	No	Yes, small	Yes, significant
Herds < 100 cows	35%	25%	47%	20%	6%
Herds 100-200 cows	46	26	26	39	6
Herds > 200 cows	67	9	26	46	19
All herds	50	19	32	35	11

Table 2. Calving practices affecting transmission of Johne's disease (JD)

	Type of calving area			Are sick cows or JD suspect cows in calving pens?
	Individual pens – cleaned often	Individual pens – cleaned rarely	Group pen	Yes
Herds < 100 cows	27%	39%	26%	47%
Herds 100-200 cows	17	31	52	61
Herds > 200 cows	16	23	61	51
All herds	21	31	47	51

Table 3. Feeding practices affecting transmission of Johne's disease

	Milk source for calves?		Is feed refusal re-fed to heifers less than 16 months of age.
	Unpasteurized milk	Milk replacer	Yes
Herds < 100 cows	45%	63%	18%
Herds 100-200 cows	28	80	30
Herds > 200 cows	16	77	33
All herds	29	74	29

Table 4. Current Johne's disease (JD) control programs on farms

	Current JD Program		
	Doing nothing	Testing	Controlling transmission
Herds < 100 cows	51%	29%	31%
Herds 100-200 cows	43	35	37
Herds > 200 cows	26	51	58
Herds where JD has been diagnosed	14	62	65
Herds where JD has NOT been diagnosed	67	15	19
All Herds	40	38	43

Table 5. Sources of information on Johne's disease (JD)

Source of JD information	
Herd Veterinarian	80%
MSU Extension	54
Publications	32
Internet	18
MI Dept. of Ag/USDA	13
Other dairy producers	12

Discussion:

• Larger dairy herd owners/employees report a higher incidence of Johne's disease diagnosis, a greater perception of the importance of the disease in their herds, a higher rate of control programs being implemented and a lower rate of some practices that are conducive to the transmission of the disease.

• However, larger herds were more likely to calve cows in groups pens and to re-feed feed refusals to younger heifers.

• Even among an audience that was motivated to attend a herd health meeting, there was a significant number of producers using practices that are high risk for disease transmission including feeding unpasteurized milk (29%), re-feeding cow feed to heifers younger than 16 months (29%) and using group calving pens (47%).

• In spite of Johne's disease education from a variety of sources over several years, less than half (43%) of herds indicated they are working to control disease transmission.

• Even in herds where Johne's disease has been diagnosed within the past 5 years, a significant percentage of producers are not testing regularly (38%) or do not have a specific program of disease control (35%).

• In herds where the disease has not been diagnosed, low level of testing may only hide a current problem.

• Most Michigan dairy producers surveyed rely on their herd veterinarian and MSUE for information about Johne's disease.

• The data provide a baseline so that future measures of perceptions and practices can be compared.

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