

## LOWERING KETOSIS IN DAIRY HERDS

CanWest DHI testing helps discover factors that increase ketosis in cattle

Ketosis affects about 40 per cent of dairy cows during early lactation (incidence), with one-time measures (prevalence) finding 20 per cent ketotic in a typical herd.

Ketosis causes dairy cows to produce less milk, have a lower chance of getting pregnant and be more susceptible to disease. It occurs when cows burn too much of their back fat in order to sustain enough energy to produce high milk yields. That's why ketosis typically develops within the first couple weeks after calving.

Ketosis testing is used to determine factors that increase ketosis occurrences in producers' dairy herds. Researchers from the University of Guelph's department of population medicine, including Dr. Todd Duffield and PhD candidate Dr. Elise Tatone, are using CanWest's Ketoscreen DHI testing. The tool detects ketosis and helps researchers determine what factors increase occurrence to help producers lower ketosis in their herds.

The researchers obtained data from about 3,000 herds using the testing program. The best herds had nine per cent or fewer of their cows affected by ketosis. The worst had a 36 per cent disease rate.

"We've identified some interesting risk factors that should help manage and reduce prevalence levels," Duffield says. "Body condition score in relation to reproductive management might not have been something people thought about before."

Researchers found there were several factors associated with ketosis. Herds using



automatic milking systems had higher ketosis prevalence on average. This could potentially be due to differences in feeding management programs used on farms with automated milking systems. Herds also had lower ketosis averages from July to November.

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On an individual cow level, Jersey cows have a higher risk of developing ketosis than other dairy cattle breeds. Cows were also at a greater risk if they were older than 25 months during their first lactation. This can be avoided by focusing on reproductive and feeding programs in heifers to get their age at first calving at or below 24 months.

Researchers also found the longer the interval between births, the higher the chances of developing ketosis. This is due to cows having more time to accumulate fat, meaning there is more fat to burn and cause ketosis. In addition, cows with more fat also tend to eat less before and after calving.

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This research was completed in collaboration with Dr. Jessica Gordon, Dr. Stephen LeBlanc and professor Trevor Devries. The Grain Farmers of Ontario scholarship, CanWest DHI and Ontario Ministry of Agriculture, Food and Rural Affairs funded the project.



 **SPARK**

By Sydney Pearce, SPARK, as printed in the September 2016 issue of the Milk Producer Magazine.

### 2016 MANAGEMENT CENTRE: BRITISH COLUMBIA DHI HERDS (Based on 2016 Herd Averages)

MANAGEMENT CENTRE	PERCENTILES									
	90 <sup>TH</sup>	80 <sup>TH</sup>	70 <sup>TH</sup>	60 <sup>TH</sup>	50 <sup>TH</sup>	40 <sup>TH</sup>	30 <sup>TH</sup>	20 <sup>TH</sup>	10 <sup>TH</sup>	
<b>Milk Value:</b> Holstein: Average of Current 305 Day Lactations*	\$8,637	\$8,407	\$8,085	\$7,855	\$7,664	\$7,508	\$7,234	\$6,936	\$6,309	
<b>Milk Value:</b> Non-Holstein: Average of Current 305 Day Lactations*	\$7,687	\$7,377	\$7,008	\$6,817	\$6,535	\$6,183	\$5,939	\$5,497	\$4,545	
<b>Udder Health:</b> Herd Average Linear Score	1.8	1.9	2.1	2.2	2.3	2.4	2.5	2.7	2.9	
<b>Age at First Calving:</b> First Lactation (months)	23.8	24.3	24.6	25.0	25.4	25.8	26.3	27.0	28.9	
<b>Calving Interval:</b> Herd Average (months)	13.0	13.2	13.4	13.6	13.8	13.9	14.2	14.6	15.3	
<b>Longevity:</b> Annual Herd 3rd+ Lactations	46.0%	42.2%	39.0%	36.6%	34.6%	33.1%	31.7%	29.2%	26.1%	
<b>Herd Efficiency:</b> Average Herd in Milk	90.0%	88.8%	88.0%	87.5%	86.9%	86.3%	85.6%	85.0%	82.8%	

\*VALUE AFTER DEDUCTIONS/TRANSPORTATION. **HOW PERCENTILES WORK:** If all herds/animals were arranged in order from lowest to highest, the 75th percentile would be the value of the herd that is better than 75% of all the other herds. The 99th percentile value is that which is better than 99% of all the other herds.

For more information about how DHI can help you manage your herd for increased profitability, call us today at 1-800-549-4373.