To assist or not

Researcher is finding best calving management practices for optimal cow and calf health and behaviour

Calving is a critical event in your cow’s lactation cycle. The food, housing and management systems you provide pre- and during calving may affect the health and behaviour of your cows and new calves. A University of Guelph researcher is examining how these factors can influence your cow’s post-partum health and lactation to determine the best on-farm calving management practices.

Department of population medicine graduate student Marianne Villettaz Robichaud is interested in discovering how housing systems and assistance during calving affect dairy cows’ rest and activity levels. She is also interested in knowing if these practices reduce milk production, influence metritis and reproduction abilities.

“There is a lot of debate surrounding calving management,” says Villettaz. “Some farmers promote giving assistance during calving, while others do not. The goal of this research is to determine whether certain practices can enhance the calving process and promote optimal post-partum health and behaviour.”

Villettaz conducted two studies. First, she examined whether assistance during calving—when cows should not technically need it—causes problems for cows and their calves post-partum. Cows that presented with normal labour either proceeded to calve on their own, or were assisted by Villettaz who helped pull the calves out with chains attached to their two front legs, a technique commonly performed by producers and veterinarians during difficult calvings.

The cows were monitored for health problems during 60 days following delivery. Villettaz also monitored metritis, inflammation of the uterine wall, reproduction and reduced milk production in the cows, as well as signs of any health problems.

She also took vigor scores to analyze the stress of calving on the calf, and analyzed resting behaviour to determine whether assistance might have strained the calves’ legs.

Preliminary findings indicate assistance during calving does not put a cow at increased risk of metritis when the cow is carrying a single calf presenting in normal forward position, and has a sufficiently dilated cervix. Villettaz assisted each calving and followed very high standards of hygiene and assistance protocol during the study.

In the second study, she examined housing type effects on calving. Cows were split between loose pens and ties-talls. Half the cows were switched from their original pen type to the other for their calving to examine the effects of housing type during calving.

Similar to the first study, Villettaz recorded the same health and behavioural measures. The addition of cameras and pedometers allowed her to more precisely evaluate movement within the calving environments.

Villettaz also conducted a survey of current on-farm calving management practices. Producers in Alberta, Ontario and Quebec were asked about their calving management practices to gauge the association of key practices with the welfare and longevity of dairy cows. She found nearly 30 per cent of the producers assist all their cows at some point during calving.

“Calving is one of the most important events in a cow’s lactation,” says Villettaz. “If cows experience problems at calving they may not make it to their next lactation. We need to find the best calving management practices to ensure that doesn’t happen.”

Anna Wassermann is a student writer for the University of Guelph’s office of research. Funding for this project is provided by OMAFRA, NSERC, Valacta Inc., the OVC fellowship fund and the Dairy Research Cluster. Also involved in this research are University of Guelph professors Derek Haley, David Pearl and Stephen LeBlanc, University of Minnesota professor Sandra Godden, and University of British Columbia professor Jeffrey Rushen and the Dairy Research Cluster team.