

Robotic Dairy Barn Welcomes University of Guelph Research

Robotic milking presents unique issues for producers to manage and researchers to study. At this year's Canada's Outdoor Farm Show, those unique issues are addressed.

Kemptville Campus dairy behaviour specialist at the University of Guelph, Dr. Trevor DeVries, will spend a month studying dairy cattle behavioural patterns and their potential implication on udder health. All of this will take place in the Olympia Dairy Innovation Centre leading up to Canada's Outdoor Farm Show on September 14, 15 and 16, 2010, adding a new layer of activity to this one-of-a-kind dairy facility.



"I think it's a great opportunity as a researcher to interact with the companies that provide barn equipment," says DeVries. "There is still a lot we need to learn about robotic housing systems and how they affect cow behaviour."

DeVries and his team will monitor the dairy cattle at Canada's Outdoor Farm Show for their standing and lying behaviour patterns after they are milked by the robots. When cows lie down immediately after milking, the cow's teat orifice (opening) may not be fully closed, thus allowing bacterial penetration and infection. Encouraging cows to eat immediately after milking provides more time for the teat orifice to close – and less risk of infection. For the study, feed will be pushed up at different frequencies and automated activity sensors will monitor if this affects when the cows lie down after milking. Cows in robotic systems set their own schedules of when to eat, drink and be milked. The study will shed light on whether regularly pushing up feed encourages cows to eat and stand longer after milking.

DeVries will know how long and at what time cows lie down relative to milking by using automated ankle activity sensors provided by Scotland-based company, IceRobotics. Similar to pedometers used for heat detection, the sensors will accurately record whether a cow is standing, lying or moving – and for how long. This innovative technology sends real-time data wirelessly to farmers' computers showing their herd's movement as it happens.



In addition to the study and numerous other technologies on display from other industry partners, attendees at Canada's Outdoor Farm Show will see the Lely Astronaut A3 *Next* Milking System and DeLaval VMS Voluntary Milking System in full operation side-by-side on 70 cows. The Dairy Innovation Centre has become a unique place for dairy technology to be displayed and now studied.

The Dairy Innovation Centre is sponsored by Lely, DeLaval, Olympia Fabric Structures, Mycogen Seeds, Ontario Harvestore, Kubota, Supreme Mixer/Brodie Ag, OMAFRA, B-W Feed, Penner Farm Services, Norwell Dairy Services, Provision Solar, FX Coating, AGSourcing International, Stubbe's Precast, Agrilight, Arntjen North America, Promat, IceRobotics, Faromor, Ontario Dairy Farmer Magazine and Farm Credit Canada.

The Dairy Innovation Centre will be open for touring at Canada's Outdoor Farm Show on September 14, 15 and 16, 2010 in Woodstock ON. For more information visit: www.OutdoorFarmShow.com.