

DAIRY VETERINARY NEWSLETTER

May 2018

Conference at Caine Dairy on New Technology in Dairy Farming - June 13, 2018

- Includes 3.5 Hours of CE Credit for Veterinarians

A new conference for veterinarians and others in the dairy industry is coming up at **USU's Caine Dairy on Wednesday June 13, 2018**. The agenda and registration information follows:

Robotic Milking, Drones and Other New Technology for Dairy Farming

Utah State University Caine Dairy Field Day

Wednesday, June 13, 2018



EXTENSION 
UtahStateUniversity.



- 9:30 - 10:00am** **Registration/Refreshments** (*Caine Dairy Classroom, south of old milk house*)
- 10:00 - 10:10am** **Welcome** (*Classroom*)
Dave Wilson, Utah State Dairy Extension Veterinarian
- 10:15 - 11:30am** **Drones and Other Technology for Monitoring Dairy Cattle Health**
JT Von Lunen, RMUS (*Asphalt area east of classroom*)
- 11:30am - 12:00pm** **Transition to Robotic Milking** (*New barn, red and silver*)
John Wallentine, Utah State University Caine Dairy
- 12:00 - 1:00pm** **Lunch** (*Classroom; afternoon program location*)
- 1:00 - 1:30pm** **Building Robotic Feeding Programs; What We Have Found Works**
Robert Bowles, Intermountain Farmers Association (IFA)
- 1:30 - 2:20pm** **Milk Diagnostic Laboratories are Adopting New Methods of Bacterial Identification - How much do the Results Agree?**
Dave Wilson
- 2:20 - 3:00pm** **Advances in Dairy Cattle Biosensors**
Kerry Rood, Utah State Extension Veterinarian
- 3:00pm** **Adjourn**



There is a \$10/person registration fee. Register at: <http://cainedairyfieldday.eventbrite.com>

Here are a few more details about the presentations:

- Drone surveillance (with permission of and/or with the drone flown by farm owners of course) includes **still, video, full color and thermal imaging** from drones that can be flown as low as 11 feet high above dairy cattle and calves. There will be a discussion, some **videos, and demonstration flying of drones** for animal surveillance, **including how to get cattle used to the drones.**
- Some **hand-held monitors for sensing body temperature of dairy cattle without the need for direct contact** will be demonstrated. These devices can be used without having to touch or be behind the cows. They can be used from the front, such as when cows are in lock-up feeders.
- Some of the lessons and **experiences of the transition to robotic milking at Caine Dairy** will be shared. There will also be a presentation - with attendees divided into smaller groups - of viewing robotic milking and the **data that can be monitored on the robotically milked cattle.**

- Some of the **differences in feeding cattle through robotic milking stalls** will be presented. Issues to be addressed will include: building successful feed tables, energy balance between the partial mixed ration and the automatic feeding system, pelletability of common feed ingredients, and pellets vs other feeds.
- The **comparison between results using 3 methods of identification of mastitis causing bacteria in milk samples** from a study here at USU will be presented. **MALDI-TOF** (matrix-assisted laser desorption ionization time of flight) automated bacterial ID (which has been in use for 2 years at the Utah Veterinary Diagnostic Laboratory, and has been adopted by many milk testing labs), **conventional bacterial culture methods**, and **16S rRNA partial genomic sequencing** results will be shown. There will be a discussion of these 3 tests and the **practical implications for the use of any and all** of them in mastitis diagnosis. The **question of whether any of these methods are “better or worse”** than the others will be addressed.
- The **cattle biosensors are implanted devices** that detect and transmit metrics including **body temperature, activity, location, and respiratory rate**.

I hope we will see many of our dairy veterinarians at this event on June 13.

Early Impressions of and Experiences with Robotic Milking at Utah State’s Caine Dairy

We have now had robotic milkers operating at the USU Caine Dairy for 3 months. I had considerable experience with robotic milkers from 1999 when they were introduced in North America until I moved from upstate New York to Utah in 2006. However, I have never spent much time on any one farm using them, and certainly not a farm that was only the fourth place to install them in the state, which is what we think is the case here in Utah. These are a few of my early impressions and experiences regarding the robotic milking:

- I had heard of this before, but I was amazed to see it firsthand. From the first day I saw the cows, two weeks after they were abruptly changed to robots, all of the cows, both Holsteins and Jerseys, were remarkably calm.
- When I went out to the freestalls, not a single cow got up, defecated or urinated. They were curious and came readily toward me, and if I walked down the alley, no cows were actively walking let alone running the other way.
- We all know how if one stands still for awhile, many cows will come within 3 feet or so to look at us. These cows would come up to lick at me, and I could pet most of them on the side of their cheek like a pet cow. I hope this does not come across as the reaction of someone who thinks all cows should run free and that conventional milking is “factory farming”, etc. I have written in this space several times about how in order to feed the nation and the world, I do not believe that. However, I have been around dairy cattle for 43 years and I never experienced anything like the calmness of these cows.
- There was considerable discussion among USU personnel regarding the above cow behavior during those first weeks. One thing that was frequently mentioned was that without people moving or sometimes becoming frustrated with cows during milking, and with no loud vocalizing around cows, they were quite contented.
- The amount of information monitored and displayed about all cows through the robotic milkers is amazing. We are still learning how to fully interpret and use it.
- The tolerance of the cows (I am told that approximately 20% of the herd could not adjust to robotic milking) for the teat cleaning brushes, teat cup attachment and the entire milking procedure is remarkable.
- Most cows are very enthusiastic, pushing at the access gate, about entering the milking stall to eat the grain dispensed while they are milked.

5600 Old Main Hill
Logan UT 84322-5600

I hope you have a great summer, and once again I hope you will register and come to the continuing education event at Caine Dairy on Wednesday June 13, 2018.

Please let us know your comments and suggestions for future topics. I can be reached at (435) 760-3731 (Cell), (435) 797-1899 M-Tues, (435) 797-7120 W-F or David.Wilson@usu.edu.

A handwritten signature in blue ink that reads "David J. Wilson".

David Wilson, DVM, Extension Veterinarian

"Utah State University is an affirmative action/equal opportunity institution."