Virginia Cooperative Extension
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A Fine Line — Biosecurity: Part I

—Jeremy Daubert, Extension Agent, Rockingham County; jdaubert@vt.edu

Like most things in life there is a fine line between protecting your farm from biosecurity risks and letting people know what you do. Should you gate the entrance of your farm to keep everyone one out or do you invite the general public onto the farm on a regular basis? In addition to the daily grind of dairy farming, every producer needs to ponder the ramifications of these decisions.

I have always been an advocate for opening up the farm to the public. Every year we take calves and cows to fairs and schools so that people can see real animals and we answer any questions that they have. While this is a great start, there is simply no substitute for touring an operating dairy farm. First-hand experience can't be beat for a true understanding of the dairy farm and all that it entails.

While opening up the farm is a great way to learn about consumer concerns and for consumers to learn about dairy farming, it also has the potential to become a biosecurity risk. These risks include the spread of disease from another farm to yours or people passing viruses on to the animals. In addition, there is always a liability risk of people getting injured or getting sick from the animals.

The first priority on your dairy should always be the health and safety of your animals, but balancing this with informing the public of what you do is also important. The decision to not allow anyone on-farm is understandable, but other options do exist. The Virginia State Dairymen's Association has made available to dairy producers in the state some biosecurity signs to post at farm entrances. Although this may deter some people from entering the farm, it should be used primarily to make people stop and think before entering and also to provide a contact number in case they cannot find the farm owner. I would recommend using these signs and adhering to some type of protocol for farm visitors. Remind them that this is for their safety AND the safety and wellbeing of the animals.

When anyone enters your farm, you may require as little or as much as possible from them. Some industries actually require a log of any visitors to the farm. We always had a guestbook available to use as a log. This is a more welcome gesture for visitors and years down the road it may come in handy when you are trying to recall who visited your dairy farm. It is also important to have all visitors have sanitized boots or wear plastic boots while at your farm. This not only reduces the spread of disease, but also helps to keep dirt out of vehicles for those who may not want cow manure in their cars. Also, consider a viewing area on your farm where people can see what you are doing, but not have direct access to animals.

While it is important to protect your farm from biosecurity risks, it is equally important to allow some public access to your dairy farms. If you don't show what you are doing to protect the cows, people, and the environment someone else will be telling your story, and it may not be an accurate one.

Look for Biosecurity: Part 2 in our October issue.

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DAIRY SCIENCE

Upcoming Events

See VTDairy for details.

September 1, 2016
Summer Forage Tour
Planning for Drought
McCormick Farm
contact jdaubert@vt.edu

September 14-17, 2016
Franklin County Agricultural Fair—Pet & Livestock Shows (Dairy show on Saturday)
contact: cmartel@vt.edu

September 24, 2016
Virginia State Fair
Dairy Show

October 3 & 5, 2016
Franklin & Henry County Well Water Testing Clinic
Homeowners & Farms Encouraged. Contact cmartel@vt.edu

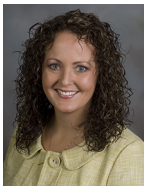
November 10, 2016
Manure & Nutrient Management Program
Contact cmartel@vt.edu

November 16-17, 2016
Southeast Quality Milk Initiative Annual Meeting
Tifton, GA

November 18-19, 2016
100th Anniversary of the Virginia Holstein Association Banquet and Annual Meeting

February 15-16, 2017
VSFA & Virginia Tech Cow College, Hotel Roanoke

If you are a person with a disability and require any auxiliary aids, services or other accommodations for any Extension event, please discuss your accommodation needs with the Extension staff at your local Extension office at least 1 week prior to the event.



Equipment function affects milk quality

—Christina Petersson-Wolfe, Extension Dairy Scientist, Milk Quality & Milking Management, cspw@vt.edu

Milking equipment function can have a profound negative impact on teat end health and overall milk quality. On the flip side, if we properly maintain equipment function we can positively impact the bottom line, udder and teat health, bulk tank somatic cell count and ultimately milk quality. It is important to remember that the goal of milking is to harvest as much milk as possible as efficiently as possible. However, this is a careful balancing act between efficiency and teat end health. Vacuum improperly set may have a negative effect on udder and teat health, but when properly balanced with pulsation, we can optimize milk harvest while minimizing the damage.

Vacuum level at the teat end may be considerably different from that at the pump. The difference is dependent on a variety of factors including restrictions in general from milk line sizes, milk tube sizes, milk flow sensors and volume of milk flow itself. Pump capacity and system airflow efficiency may also play a factor but the parameters mentioned above play the largest roles. Ultimately, it is the vacuum level at the cow and not system vacuum level that impact udder health. A vacuum level that is below optimal conditions will result in longer milk-out times, reduced harvest and poor parlor efficiency, and the potential for damaged teat tissue. Conversely, vacuum levels higher than optimal (which is more likely the case) have the ability to cause edema in the teat tissue and hyperkeratosis, poor milk out and in turn, an increase in the bulk tank somatic cell count and the potential for reduced udder health and milk quality. The optimal teat end vacuum level at peak milk flow will vary with inflation, but in general, will range from 10.5"-12.5" Hg. Your equipment dealer should provide the appropriate information for the particular liner in use on your operation.

Pulsators will easily become dirty and air inlets can become plugged. Also, the wear of various pulsator components may ultimately have a negative effect on performance. If not properly cleaned and maintained, this will impact the function of the pulsators. Improperly functioning pulsators can result in suboptimal massage and reduced teat and teat end health resulting in poor milk out and performance. The pulsator ratio should approximately be 60:40 to 65:35 and in some cases 70:30.

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A full parlor evaluation should be done twice yearly. This includes testing all pulsators, teat end vacuum at peak milk flow, system vacuum in several locations and air flow capacity. Any components not performing properly should be fixed or replaced. The efficiency of various components of a milking system should also be evaluated. As you may know, a large part of the Southeast Quality Milk Initiative was to evaluate milking equipment function on 96 dairies in VA. Although we have completed that portion of the study, if you have questions or are in need of help, please do not hesitate to contact us (milk@vt.edu; 540-231-4767).

For more information on Dairy Extension or to learn about current programs, visit us at VT Dairy—Home of the Dairy Extension Program on the web at: www.vtdairy.dasc.vt.edu.

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