

WVS MILK QUALITY

Waupun Veterinary Services, LLC - Your Progressive Dairy Partner since 1958

Reducing Bimodal Milk Letdown

*Milk Production
will Increase when
Bimodal Letdown
is Reduced*

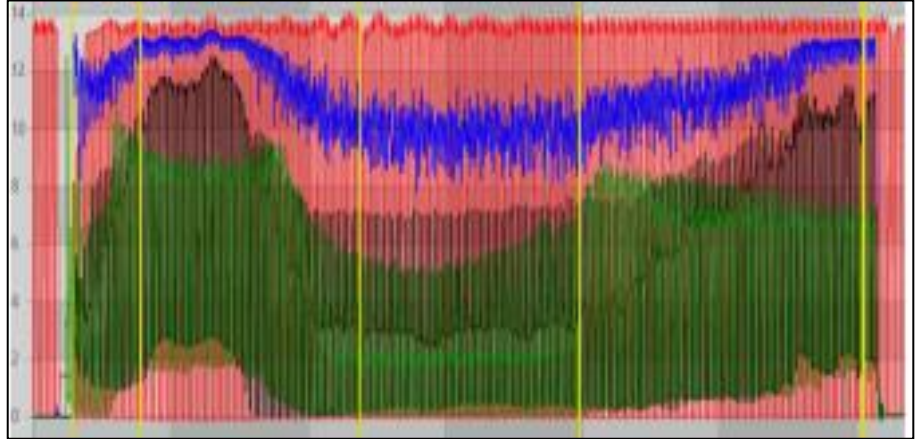
Bimodal milk letdown, also known as delayed milk letdown (DME) or bimodal milking, is a condition where milk flow is reduced or absent at the beginning of milking. In bimodal milking, the milk already in the gland cistern of the udder will empty into the claw after unit attachment. However, there is milk that has not been released by the alveoli of the udder. This creates a period of low milk flow until the effects of udder stimulation by liners causes an oxytocin release and then release of alveolar milk. When this happens, milk flow rapidly increases and proceeds as normal.

There is an inverse relationship between milk flow and teat end vacuum. With the use of vacuum recorders (VaDia) it is relatively easy to determine if a cow has bimodal milk letdown.

Causes and risk factors for bimodal milking are:

- Improper milking stimulation
- Insufficient lag time
- Stage of lactation
- Parity
- Stress/fear
- Other (lameness, shots)

Cows need 10-12 seconds of manual stimulation of the teats to get proper stimulation for proper letdown. Stripping of milk and cleaning the teats with a towel can provide the proper stimulation. When wiping the teats the final wipe should be on the teat ends which supplies the best stimulation. Research has shown that the lag time between stimulation and unit attachment should be between 90-150 seconds for proper letdown. Early lactation cows are at less risk for bimodal milking. Older



The graph above is of biomodal milk letdown from one of our VaDias.

cows are associated with more bimodal milking. Stress is also important in milk letdown. This can go back to how cows are brought up to the parlor. Cows should be brought to the parlor in a calm manner.

So, the question is why does DME matter? If the milk letdown was delayed by 60 seconds, daily milk production for the cow was reduced by 7 pounds. This is important because it means delayed milk ejection significantly decreases milk production and revenue on a farm (Erskine, 2019).

In a study by Michigan State University a herd was followed over 10 days. The herd was milked 3 times a day. If there were no bimodal milk letdown the cows gave 974.5 lbs of milk, if they had 1-10% DME they gave 938.7 lbs of milk, if they had 41-50% DME they gave 874.2 lbs, and if they had 100% DME they gave 728.4 lbs.

When milk letdown is delayed, delayed milk letdown results in significantly less milk. For herds with a significant percentage of cows exhibiting bimodal milk, a simple way to increase milk production and total revenue is to increase pre-milking stimulation time. Teat end health may also improve by reducing bimodal milking. With proper milk letdown cows should milk faster and more cows can be moved through the parlor. Testing for bimodal letdown is simple and can be done by monitoring one milking with a couple of VaDia recorders in most cases. If you would like your herd tested for DME, please contact the clinic.



Understanding Results from Milk Cultures

Sometimes when you send in a milk sample for cultures the lab reports back no growth.

One study found that 10 to 40% of cultures from clinical mastitis showed no growth following culturing.

Most of the times the cultures come back as no growth because the body's own immune system has cleared the bacterial infection. It would be unusual if every culture came back with some kind of growth.

On the other side of the spectrum are cultures that come back with multiple organisms. If there are a significant number of cultures coming back with multiple organisms sampling technique should be reviewed because this usually indicates sampling errors.

Mastitis Council Meeting

Dr. Mark and Dr. Molly attended the National Mastitis Council in North Carolina recently.

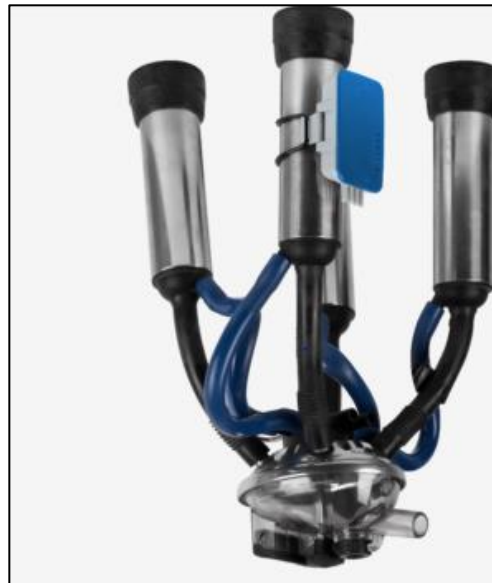


Clinic Purchases Two New VaDia Recorders

The clinic recently purchased another 2 VaDias for testing milking equipment. A VaDia is a small lightweight (85 grams) vacuum monitoring device that has 4 ports that can be strapped onto a teat cup.

The VaDia collects vacuum readings autonomously which allows us to pay more attention to the milkers and the cows in the parlor while we are in the parlor. The VaDia can be used for checking teat end vacuum, checking pulsators, mouthpiece chamber vacuum, detecting overmilking, analyzing restrictions, slug analysis during cleaning, and helping in fitting liners. The data can be analyzed during milking (connects to our phones via Bluetooth) or after milking on our computers.

The clinic now has 4 VaDias which allows multiple doctors to do milking equipment examinations at the same time.



The VaDia is pictured at left in blue attached to the teat cup. This recorder is used in milk quality services.

National Milk Quality Award Winners

Forty farms were awarded milk quality awards at the National Mastitis Council annual meeting in Charlotte, North Carolina.

Three of Waupun Veterinary Service farms were among the winners. Steve and Leo Goebel, Ben and John Pollack, and Eric and Dennis Mueller were among the winners.

Selection criteria include milk quality indicators like somatic cell count, as well as cow comfort, udder health monitoring, herd management strategies, and adherence to record keeping standards.

Congratulations to these 3 farms!