CEDAR GROVE VETERINARY SERVICE NEWSLETTER

OCTOBER 2018

COMMON MYTHS ABOUT MILK QUALITY AND MILKING PROCEDURES

Dairy farming is a challenging profession that requires a farmer to wear many hats. As a result, we are all often guilty of spending enormous amounts of time talking about reproduction, nutrition, lameness, building design, etc. In all of this, we often simply forget to consider one simple fact: How is milking going?

To address this, we thought it would be best to review some myths about milk quality, mastitis, and milking procedures on dairy farms. Hopefully this inspires more conversations to be had about milking.

Myth #1: A low bulk tank somatic cell count means that your farm does not have a clinical mastitis problem. It is common for a farmer or veterinarian to refer to the bulk tank somatic cell count (SCC) when asked about the farm's mastitis situation. However, it should be noted that the bulk tank SCC, while being a good measure of milk quality, it is a crude measure of clinical mastitis cases in the herd. This can be true for many reasons. 30-35% of the bulk tank SCC can usually be attributed to only 2-3% of the herd. Therefore, drastic changes in those 2-3% can change the bulk tank SCC but does nothing to really change the new infection rate in the herd. Additionally, there also can be a dilution issue if a herd has a larger proportion of 1st lactation cattle. In these herds, the clinical mastitis rate can be high, but the large population of young cows is masking this truth in the bulk tank SCC. In a study out of Michigan, they found that farms with an average bulk tank SCC of 100,000 can have a mastitis new infection rate ranging from 2-17%. The important concept to take away from this myth is that both clinical mastitis infection rates and bulk tank SCC need to be monitored to really have a good idea of the milk quality and health on a dairy farm.

Myth #2; The biggest cost of a clinical case of mastitis is the discarded milk during treatment and the withhold period. The most recent estimate for the cost of a clinical case of mastitis in the first 30 days in milk is $444. The truth is that only $128 of that $444 cost comes from direct losses which include treatment/labor costs and

TEST YOUR DAIRY FARMING KNOWLEDGE

1) Last year, the US supplied 75% of Mexico's cheese imports. What was the value of all these cheese shipments?
   a) $250 million
   b) $306 million
   c) $391 million
   d) $427 million

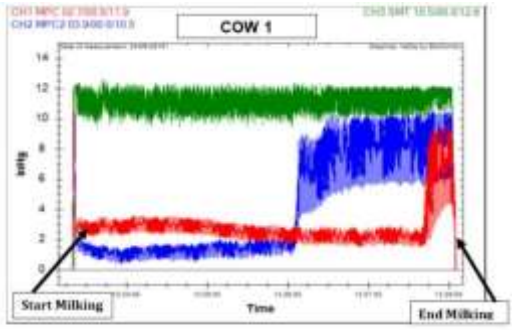
2) Research has shown that calves bedded on sand at too early of an age will have thinner soles leading to more foot problems later in life. At what age should calves be first housed on sand bedding?
   a) 7 months
   b) 13 months
   c) 19 months
   d) 21 months

3) How many Wisconsin dairy farms have decided to quit farming the first 7 months of 2018?
   a) 25
   b) 185
   c) 243
   d) 382

Answers on back

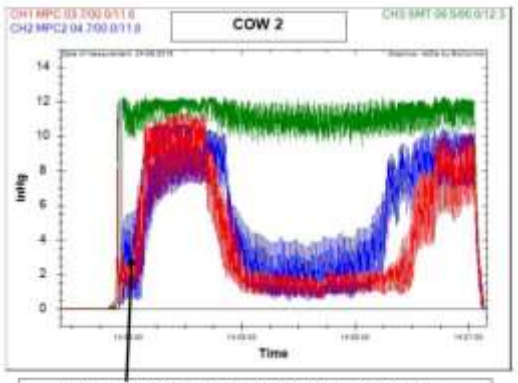
dumped milk. The remaining $316 dollars come from indirect costs such as loss of milk production in the lactation and the increased risk of being culled.

Myth #3: Every milking protocol is good if it is consistently followed by the milkers. While there will never be one milking protocol that fits all farms and all situations, there are key parts of the protocol that must be met to achieve maximum milking efficiency. The one that is most often recognized is the latency period or the period from teat stimulation to milking unit attachment. The latency period should consistently be 60-120secs (with 90 seconds being the ideal goal). The latency period is necessary since milk letdown is a product of oxytocin release by the cow. This requires time for the hormone to be released and for its effects to occur. In a perfect world, the second the unit is attached, milk flow should occur in all four quarters immediately. Something that is less commonly known is the amount of time that is required in teat stimulation for a good oxytocin release to occur. The teats need to receive at least 10 seconds of stimulation total (which could be fore-stripping, wiping with a towel, or using a teat scrubbing system). Teat stimulation that occurs for less that 10 seconds can lead to inadequate milk flow at time of unit attachment. This can be visualized through special monitoring systems. As seen, cow 1 had good stimulation and started milking right away.



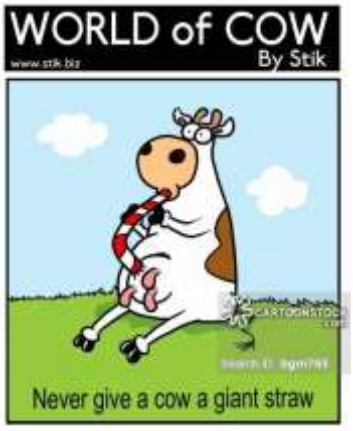
Vacuum (red line - rear teat; blue line – front teat) in liner mouthpiece drops to low level immediately after unit is attached. Cow was ready to milk!!!

Cow 2 did not receive adequate stimulation in her milking protocol and milking was delayed leading to what researchers call a bi-modal milking graph. The impact of delayed milking is that for every minute of delay in time to milk flow from unit attachment, a farmer is at risk for losing 7lbs of milk per milking in which that occurs. Another risk is that if milk flow is not occurring, the teat ends are subject to high vacuum and this can result in teat damage. Teat damage can ultimately lead to increased mastitis risk and risk of being culled from the herd.



Vacuum decreases, increases and then decreases again... Bimodal milking indicating poor milk letdown

Myth #4: Mlikers don't want to learn more about the why's and how's of their job. It is true that there will always be some employees who just want to show up each day, do their job and go home. However, surveys conducted on many large farms indicate that many employees do want more from their jobs. One such survey asked 174 employees on 14 dairy farms how they would rate their interest in learning more about the dairy and their job on a scale from 1 (not interested) to 5 (very interested). The average of the responses was 4.73 indicating there are many employees that want to know more. Problems arise on many farms because training may be done through shadowing another employee or simply learning on the job. Many indicate that managers don't play a key role in initial training or any follow-up. Since milking routine is linked to milk quality and milk quality is related to milk production/economics, it seems that many farms may have opportunities in training to really work on improving their milk quality.



Dairy Knowledge Answers

1) C 2) B 3) D