

April 2017 Newsletter

With warmer (and apparently wetter) weather right around the corner, it is worth revisiting some key talking points regarding mastitis. As anyone who has ever owned a dairy cow knows, mastitis is a challenge that we seem to never completely bring under control – or at least right about the time we feel like we have it beat, it “flares up”. So in the time it takes you to read this, hopefully we can reaffirm some facts that don’t change when talking about mastitis.

Core antigen is Core antigen: Whether using J-5, J-Vac, Endovac, or something else, the concepts and products associated with environmental mastitis vaccines really are not different. We hear terms like “Core Antigen” used when talking about vaccines, but in reality they are all pretty much the same and in some cases even produced in the same lab, regardless of product. The only real difference tends to be in the amount of ENDOTOXIN in the vaccine, which is why some vaccines are more “reactive than others.

So bearing this in mind, it is important to use the products ACCORDING TO LABEL. There is case to be made for not simply vaccinating 3-4 times per year in favor of administering the vaccines prior to and during the first 2-4 weeks of each lactation, as most of the products are labeled, in order to insure proper immune levels. Without proper boosting, there is an increased chance that immunity has not been maximized during the highest period of risk for mastitis – early lactation.

Bacteriological vs clinical cure: There are two types of cures when talking about mastitis. Bacteriological cure, which we use to describe a point in time when no more bacteria can be grown from a milk sample and Clinical cure, which we use to describe when milk returns to a normal appearance. These are important to understand, because we really should NOT treat mastitis until a clinical cure is achieved.

In the case of environmental mastitis, 30% of animals have already achieved a bacteriological cure by the time abnormal milk can be seen, which means that administering tubes is not advised. I know the temptation is to treat, because abnormal milk is visible, but it is important to remember that abnormal milk is not necessarily cause by bacteria as much as it may be caused by inflammation.

Unless a bacterial presence can be established, animals are more likely to benefit from fluid therapy and anti-inflammatory treatments rather than tubes. This idea makes a strong case for culture based treatment. Culture-based treatment can be done on farm cheaply and can reduce the use of tubes significantly and mastitis may be treated much more effectively.



Longer is not always better: Using culturing as a segue into the next topic, once a bacterial presence has been established, treat only as long as the tube label recommends, NOT until clinical cures are observed. Once again, I know there is a temptation to treat mastitis until the milk is normal, but there are several major problems with this. 1) Some milk will never return to “normal” so we can’t expect to treat a cow indefinitely. 2) The longer a cow is treated, there is a drastically increased chance of introducing yeast and causing additional mastitis. 3) Extended therapy does not increase actual cures. In a recent review, the only thing that was shown to increase consistently with extended therapy was cost of treatment and days withholding milk from the tank.

Spend time where your cows spend their time: Where do your cows spend the most time? Unless you have very unusual cows, the answer to this is typically in their stalls and/or in the parlor. Which means we need to constantly pay attention to keeping those areas in top shape.

In most cases, when we troubleshoot a mastitis problem it comes down to changes in bedding, cleanliness, routine drift, equipment specs, pre and post-fresh stocking density or staff turn-over (frequently in some combination). Changes to any one of these factors can lead to increased mastitis at any time, which means when mastitis does flare up, we need to pose the right questions. Rather than asking “what is wrong with my cows?” or “why isn’t my vaccine working?” the first question that we MUST ask when mastitis rates increase is, “what has changed?” followed quickly by “what kind of mastitis am I dealing with”?

This may seem like an oversimplification, but the solution to mastitis is frequently found in the answer to these two questions.

Conclusions: In closing out this topic, please understand that we are not attempting to over-simplify the topic of mastitis. Instead let this newsletter serve as a starting point to trouble-shooting mastitis this summer. By sticking to the principles of mastitis causes, we can make decisions that can improve our ability to control mastitis and treat it wisely.

Sincerely,

John Borzillo, DVM