

Assessing the Fresh-cow Factors: Complete Evaluation Produces the Most Accurate Diagnosis

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What was recently a new dairy management practice is now a standard operating procedure on most large dairies. In the past five years, intensive fresh-cow monitoring programs have grown tremendously in popularity across the country.

Once dairies start routine fresh-cow monitoring, they virtually never abandon the procedure, because the payoffs are so readily apparent. Among those rewards are: (1) early detection of potentially serious or even deadly diseases; (2) protection of cows as they enter their most productive and profitable stage of lactation; (3) prevention of future reproductive problems; (4) fewer secondary diseases like displaced abomasums (DAs) and ketosis because cows are identified and treated before they go off feed; and (5) reduced culling and death loss in the first 60 days of lactation.

Making the Most of Temping Time

While there are variations in the fresh-cow protocols that veterinarians recommend, the fundamental practice essential to a successful program is taking the rectal temperatures of every fresh cow for the first 10 days postpartum. Skipping this step or cutting the number of temping days short will result in missed fevers and less-than-optimal results from the program.

The 20 seconds invested in temping every cow can be put to productive use making other health assessments that should be performed anyway. While the thermometer is in the cow, the technician can do the following:

- Assess breathing and respiratory rate, to determine if the cow is breathing more rapidly than herdmates. If so, follow-up examination of lung sounds with a stethoscope may be warranted.
- Look over the cow's back from the rear view to



assess rumen fill. If the rumen does not meet the last rib and the cow appears gaunt or hunched up, she may be off feed and/or have a DA.

- Check for vaginal/vulvar discharge and protruding fetal membranes. Cows with retained fetal membranes are candidates for hormonal therapy. Normal vaginal discharge in fresh cows is relatively thick with no unpleasant odor, and can range from bright red to chocolate brown. Abnormal discharge, signaling a metritis infection, is reddish, watery and has a foul, fetid odor.

- Examine the udder for asymmetrical quarters that could indicate a mastitis infection. If one or more quarters appears enlarged, check the quarters for abnormal secretions (flakes, clots or watery milk) indicating mastitis. Many fresh-cow protocols also suggest running a California Mastitis Test (CMT) on all quarters.

- Walk in front of the cow to see if she is eating. On many dairies, another worker completes this step by walking down an entire line of cows in lock-ups and using a clothes-pin or other method to mark the stalls of cows that are not eating.

By the time an electronic thermometer registers a cow's temperature, the rest of a fresh cow's diagnostic work-up usually can be completed. The thermometer's reading, coupled with the other information gathered, will point to the final diagnosis and course of therapy necessary for that animal or a need for a closer examination of that animal.

Diagnostic Decisions

The best possible outcome is a normal temperature with no other physical symptoms. Those cows require no treatment and are allowed to remain with the fresh group for daily evaluation until their 10 days have passed.

Ideally, temperatures should be taken early in the day before hot environmental temperatures cause an increase in the rectal temperature of even normal, healthy cows. But a temperature of 103 to 103.5 F or above signals fever, in which case other factors need to be considered to make an accurate diagnosis.

Milk fever (hypocalcemia) usually can be ruled out in cases of feverish cows. While cows with milk fever are obviously sick, they typically exhibit normal or lower-than-normal body temperature, because they lose ability to regulate temperature. In the early stages of milk fever, cows may shiver, shift their weight, and appear weak and droopy. Recommended courses of therapy for milk fever vary, but they include some form of calcium. These cows do not need

antibiotics.

So the presence of a fever almost always points to one of the other three primary fresh-cow diseases: pneumonia, mastitis or metritis.

Pneumonia usually is diagnosed as a result of fever; rapid, shallow breathing; and abnormal lung sounds. Antibiotic therapy is necessary, and Excenel® RTU Sterile Suspension (ceftiofur hydrochloride) is a highly efficacious, safe and economical choice to effectively treat bovine pneumonia.

A diagnosis of mastitis - based on fever plus abnormal mammary appearance and/or secretions- needs treatment based on protocols for mastitis developed for the dairy.

Metritis as the Culprit

If pneumonia and mastitis are ruled out in a cow with an elevated body temperature, the infection causing the fever is almost always metritis. A cow in the early stages of metritis may appear healthy and show no clinical signs except for a fever, yet still have an infection raging in her uterus. That is why daily temping in the first 10 postpartum days is so critical.

In cases where there are no obvious indications of an abnormal uterine discharge, the character of uterine discharge can be determined by doing a rectal exam and milking uterine fluid out of the vagina or using a vaginal speculum to examine the vagina for abnormal uterine fluid.

The postpartum uterus is a mixed bag of bacterial organisms that are present following calving. While a laboratory culture of postpartum uterine fluid may sound like a more precise means of diagnosing metritis, it has been proven to not be reliable because of the heavy uterine bacterial loads in every fresh cow, even the healthiest ones.

Once the diagnosis of metritis has been made, Excenel RTU is again an excellent therapeutic choice. It has repeatedly been shown to very effectively treat metritis-causing bacteria, while allowing cow to produce salable milk because it has no required milk discard when used according to label. As with all drugs, Excenel RTU should not be used in animals found to be hypersensitive to the product. Some veterinarians also may prescribe uterine contractors in addition to Excenel RTU for metritis therapy.

Author Bio: Jerry D. Olson, DVM, MS, DACT is a senior technical services veterinarian for Pfizer Animal Health. Prior to starting this position in 1998, he

worked as a veterinary school faculty member and Extension veterinarian at the University of Minnesota for nine years, and Colorado State University for 13 years. Olson is a Diplomate in the American College of Theriogenology and specializes in bovine reproduction.