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TECHNICAL INFORMATION FOR
TODAY'S FEED PROFESSIONAL

Turn That Dead Calf Into An Asset

It may seem a stretch to think of death loss as being a positive event in a calf operation. However, if you're not learning something beneficial from the death of a calf, you're losing both the calf and the chance to do something meaningful to prevent future losses.

Consider that the Dairy 2002 Report from USDA's National Animal Health Monitoring System revealed that 8.7% of live-born calves die before they are weaned. In addition, a large percentage of calves come into calf operations with low immunoglobulin levels. So it's no surprise that keeping calves alive can be a major task for the calf caretakers.

Naturally, quantifying death loss is certainly important. But the key question is not how many calves die each year, but rather **why** did these calves die?

All too often calf raisers (with their veterinarian's consent) follow a routine of submitting fecal samples from scouring calves to a diagnostic laboratory. This process can take anywhere from a few days to a few weeks. The results can be very helpful in identifying the important pathogens on any one dairy or calf operation.

However, by the time test results come back, the information is seldom of value for the sick calf that was the source of the samples. And if the calf has died, its body has usually been taken to an area on the farm for disposal or composting. The opportunity to zero in on the true cause of death is lost.

The above scenario plays out daily on calf operations across the United States. Yet what may be the most important step in solving of this diagnostic puzzle is missing – the post mortem of the dead calf.

We're not talking about a formal post mortem done by your vet that may cost \$200 or more. We are talking about a simple exam that can be done by most anyone who has ever butchered a steer or deer.

Performing a Post Mortem Examination

A basic post on a calf involves examining the following three tissues or organs.

First, look at the lungs. It can be difficult to know if your calves are dying from scours or pneumonia since calves sick with either often have loose stools, labored breathing and elevated temperature. Many cases of pneumonia go undiagnosed. It is pretty simple to open a dead calf's chest cavity and visually examine the lungs. Do they have a healthy tissue appearance? Or are there stringy attachments to the chest cavity or abscesses present in the lungs? If the lungs don't have a good clean appearance, there is a chance a respiratory pathogen may be present. If in doubt, take the tissues to your local vet for his opinion.

Second, inspect the umbilical cord. By the time a calf is 10 days old, the internal remnants of the umbilical vein and artery should be shrinking and not very evident. There are times when navel infections are internal and not easily detected in a live calf. Open the abdominal cavity and take a quick look at the internal parts of the navel. If these remnants are still large (about the size of the small finger) and firm, it's likely an infection is or was present. This will help determine if the calf suffered from septicemia, a bacterial infection that was spread throughout the body.

Third, check the kidney. The fat normally surrounding the kidney is called perirenal fat. This is one of the last reserves the body uses to meet the energy needs. If the kidney does not have any perirenal fat around it, you can be pretty sure that the calf was suffering from a low-energy situation when it died.



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However, do not jump to conclusions if you find a calf with little perirenal fat. There are many causes of this situation. But an assessment of perirenal fat will add one more clue to solving the puzzle.

Many producers may be apprehensive about doing their own calf post mortems, Further, producers should rightly be cautious about turning themselves into an “expert” on calf diseases via a post mortem.

A good way to begin this process is to discuss the idea with your veterinarian. Perhaps you can enlist your vet to help you with an initial post mortem, or at least explain exactly what you should be looking for before you begin. The local vet should be willing to look at tissues you may have questions about if they are included from the beginning.

Some items to consider before doing your own post mortems

1. The sooner a calf is posted after death, the better. Do not leave a calf in the hot sun for a few hours or more and expect to learn anything.
2. The veterinarian has been academically trained for many years and has more years of clinical experience. Their input on a post mortem is valuable. Be sure to work with the local vet to maximize this effort.
3. Keep accurate, thorough records. Develop a simple worksheet that includes the following information and fill it out consistently.
 - ID of animal
 - Serum protein or IgG levels (if known)
 - Age at death
 - Clinical signs
 - Findings at post mortem:
 - a. Lungs
 - b. Navel
 - c. Kidney fat level

Take pictures

Digital cameras make it easy and convenient to take pictures of key findings for later discussion with your vet, employees, maternity staff or others who may play a role in calf raising. These photos can be very useful for future training as well.

Comments

Producers that begin doing their own post mortems are often amazed to find out that calves may be suffering from diseases or management conditions they did not even know they had. This information can then lead to changes in protocols that can significantly improve calf performance in the future. That's when you've turned the death of a calf into an asset.