

Why is my cow down?????

Last February I was at a meeting where Dr. Van Metre from Washington State gave a general discussion on the basics of down cows, like Down Cow 101. I thought I would go over his notes for this month's newsletter to refresh and maybe help you determine what is causing a cow to go down and what would be appropriate treatment.

Start with a clear understanding of the animal's lactation status. The first few questions I ask include: Is she a fresh cow? Did she have any problems calving? Has anyone been treating her for mastitis, pneumonia, etc? If not fresh was she recently in heat? Is she a lame cow?

Check her treatment records. Has she been recently treated for a common disease such as milk fever? If so, she could be down because of a relapse. In addition, low blood phosphate levels can occur in some cows with milk fever; particularly those that brightened up with calcium treatment but don't have enough strength to push themselves into a standing position.

Dr. Van Metre has five large categories for down cows. He calls them the 5 Ms of down cows. They are mastitis, metritis, musculoskeletal injuries, metabolic diseases and massive infection (i.e., pneumonia or peritonitis).

Mastitis—

Mastitis implies severe clinical mastitis that makes the cow so sick that she becomes septic, and then she gets weak and goes down. Coliform bacteria, some severe cases of *Staphylococcus aureus*, and environmental streptococci, typically cause such cases. During the physical exam, I check for edema and heat in the affected quarter; the milk typically appears watery, serum-like, or slightly blood tinged.

Metritis--

Yes, a bad metritis infection can cause a cow to go down. Cows that are down because of metritis usually have an enlarged uterus with malodorous, red-brown discharge. Signs of shock (dehydration, cool extremities) are usually present.

Metabolic disease—

Metabolic disease is a broad category that includes milk fever, hypophosphatemia, hypomagnesemia (grass tetany) and severe, often chronic cases of ketosis.

Most, but not all, milk fever cases occur within 48 hours before or after calving. Cool extremities, dullness, slow rumen sounds, and an inability to hold up their head for very long (if at all) are common signs. Further, if one performs a rectal examination of cows with milk fever, the characteristic constipation manifests as a rectum that is very full of retained feces.

Cows affected by phosphatemia are often those that are initially diagnosed with milk fever and treated with calcium. These animals often brighten and become alert after calcium treatment, but characteristically remain unable to rise. Instead, they may push themselves around the pen while on their chest, giving them the name "creeper cows". A good routine is to take a blood sample before treating her (put the blood in a red top blood tube and store in a refrigerator). If she responds to your treatment and does not

relapse, great, you can toss the blood sample and move on. If she does not respond and/or she relapses, take the blood sample to our office and ask to run a blood chemistry or just ask for a vet to come out and take a look at her for a second opinion.

Cows with grass tetany can be hyperexcitable, and have paddling convulsions with less severe cases, a cow with hypomagnesemia may walk stiffly, be hypersensitive to touch and frequently urinate.

Musculoskeletal disease—

Musculoskeletal disease is a broad category that includes fractures, joint dislocations, tears of large muscles, and ligament injuries to the stifle. Either a cow in heat gets ridden and falls, or a bully cow is pushing other cows around. This combined with slick surfaces, a weak cow and/or a lame cow can result in an injury. Affected cows are usually bright and alert. To detect these problems, careful examination of all limbs, including those held underneath the recumbent cow, must be performed.

Massive infection--

Massive infection is the least common condition on the list of the 5 Ms of down cows, but one that warrants prompt diagnosis due to the generally poor prognosis and concerns related to limiting the animal's suffering. Massive peritonitis is most often the sequel to a perforated abomasal ulcer, a rectal or uterine tear, or infection associated with a previous surgery. If severe enough, pneumonia can result in acute debilitation to the point that the cow becomes a downer.

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