OCTOBER 2023: ON FEED

Dakotaland Feeds, LLC

A NEWSLETTER OF DAKOTALAND FEEDS

Anaplasmosis in Cattle

If you don't know about anaplasmosis, now is a good time to learn. While it is a very common disease in the southern part of the US, it has not been common in this part of the country. That is changing, though, as anaplasmosis has been identified in multiple herds in South Dakota in the past several weeks.

In a Nutshell:

- **Anaplasmosis has been identified in South Dakota**
- **It is a blood-borne disease spread by ticks and flies**
- **Animals infected get very anemic and weak**
- **Older animals are more impacted than young**
- **Signs show up 4-8 weeks after exposure**
- **Treatment and prevention require a veterinarian**
- **Mineral with chlortetracycline can help**
- **There is no vaccine for anaplasmosis**

Anaplasmosis is a blood-borne disease caused by a bacteria referred to as *Anaplasma marginale* that is primarily spread by ticks but can also be spread by horse flies and deer flies. This is why outbreaks more commonly occur during fly (or vector) season. It can be worse a couple of weeks after a rain event that causes a large fly hatch. It can also be spread by contaminated needles and dehorning equipment. In young cattle, the disease does not generally show symptoms. However, in older cattle, the disease can be severe and result in death. The disease attacks the red blood cells in the body and impacts their ability to carry oxygen. Animals can get severe anemia, making mucous membranes and skin appear yellow or jaundiced. Some cattle also get very aggressive and on-the-fight partially due to a lack of oxygen to the brain. Also, because of the lack of oxygen, animals become weak, lethargic, go off feed, and may run a fever and die. Active infection with anaplasmosis can have significant negative impacts on bull fertility and could potentially cause cows to abort if they are pregnant when infected.

Animals that have been exposed to anaplasmosis do not show signs of disease immediately after exposure. It could take anywhere from 4-8 weeks after exposure for an animal to get sick and show clinical symptoms. Older cattle typically take the disease much harder than younger animals. Because young, growing calves are still rapidly producing red blood cells, the impact is not as severe. When older cows are infected, their ability to produce new red blood cells is significantly slower than that of young calves, which means they are more likely to show signs.

Treatment for active anaplasmosis should always be discussed with your veterinarian. Prevention or control can be achieved by feeding chlortetracycline through the mineral with a VFD from your veterinarian. The targeted dose for chlortetracycline in the mineral is 0.5 mg/lb. of body weight. So, for a 1400 lb. cow, we want her to consume 700 mg of chlortetracycline. An AU5600 mineral will deliver 700 mg of tetracycline in 4oz of mineral. For animals under 700 lbs., the dose is 350 mg/hd/d.

After an animal has had anaplasmosis and recovered, they will not get anaplasmosis again. They will be a carrier of the disease though. What to do with carriers in our area is still up for discussion. By testing for it and culling for carriers, you can attempt to re-establish an anaplasmosis-free herd. Testing methods include a quick ELISA test that looks for antibodies to anaplasmosis, indicating that an animal was infected and built an immune response. Animals that have cleared the disease may still be positive on ELISA because the antibodies will continue to be present in the blood for several weeks after infection. The PCR test is more expensive but more reliable in that it looks for infective DNA, so if an animal does not have infective DNA, it has cleared the disease completely and should not be a reservoir of disease moving forward. It is not clear how anaplasmosis got here, and it could continue to be a problem, in which case culling the positives would not necessarily be a benefit. Carriers could serve as a reservoir for the disease in the herd.

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There are no vaccines currently licensed in the US for the prevention of anaplasmosis. It would be great if there were a vaccine, but as of yet, none have been tested and verified for efficacy.

This is not a completely new disease, but it is a new disease to us in this part of the country. We will have to adjust our thinking and management to handle this new twist in animal health management. Having a good relationship with a veterinarian will be essential to preventing the spread or controlling an outbreak.

Roxanne Knock, PhD

What do you need to be thinking about this time of year?

- **Order your Stress Care® for weaning** - planning ahead will help ensure you have it when you need it!
- Continue creep feed for your spring born calves or consider switching to Ration Manager or Accuration®
- Get your fall vaccination protocol or receiving protocol set with your veterinarian
- Clean water tanks prior to weaning, check pens, and perform maintenance
- Feed Altosid® to control horn fly populations until the first frost
- Get mineral out to the cattle since forages are deficient in many trace minerals
- Talk to your veterinarian about ultrasounding or pregnancy checking
- Inventory your projected feed resources and project your winter feed needs so you can plan accordingly

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