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**GI Disease in Stocker Calves**

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Gastrointestinal (GI) disease can be any number of problems that affect the stomach and / or intestinal tract of the animal. While respiratory disease represents the highest health cost in stocker operations, GI disease can be an important source of losses as well. GI problems may be associated with the nutritional program, various infectious agents, and internal parasites. Conditions such as bloat, coccidiosis, and heavy worm burdens are not unusual in many operations. Besides the “normal” cost of pulling and treating these animals, there may be greater losses associated with decreased gain and performance due to the damage done to the GI tract.

Bloat is not uncommon in newly received stocker calves or calves on lush pastures. There are two types of bloat found in cattle. The first results when the gas that is normally produced during digestion accumulates in the rumen. This free-gas bloat results any time that the calf is unable to expel (eructate) this gas. This may be caused when the esophagus is blocked by a foreign body or when the rumen is not contracting and mixing like it should.

The second type results when a stable “froth” forms that traps the gas so that it can’t be eructated. This “frothy” bloat may result from grain overload or grazing lush pastures with a high legume (alfalfa or clover) content. The signs associated with bloat can range from being very mild and slightly uncomfortable to extreme rumen distension on the animal’s left side that is life threatening. It is very important to track the incidence of this condition and how soon after arrival it occurs. That is the first step in deciding how to approach a preventative program.

Coccidiosis (or “cocci”) is an important cause of diarrhea in newly received calves. We commonly see this condition in calves that are stressed, overcrowded, and confined to a small area. However, it is not unusual to see “cocci” breaks in calves that have been out on pasture for several months. The organism is spread from one calf to another by fecal contamination of the feed and water. In the clinical cases, calves can show evidence of severe diarrhea that may have blood in it. These calves will require treatment and may take several weeks to recover. This disease is best prevented by including anti-coccidial agents in the feed or water immediately at arrival.

There are other losses associated with coccidiosis besides the calves that you pull as sick. There are many cases that go undiagnosed. These are referred to as “subclinical” infections, meaning that calf has a very mild form of the disease. In these cases, losses are associated with decreased average daily gain and feeding performance. These

calves may only have intermittent diarrhea and a rough hair coat, but will be more susceptible to other types of infections such as pneumonia. The severity of coccidiosis outbreaks are management driven. Providing a low stress receiving program, avoid feeding cattle on the ground, limit the amount of bedding placed in pens, and timely removal of manure and cleaning of waterers will do wonders against this organism.

Adequate parasite control is critical for profitable stocker operations in the southeastern United States. Our relatively mild winters, high levels of rainfall, and abundant forage, allow for internal parasites to survive on our pastures for much of the year. While we may get adequate worm kill on pasture during the summer months, the parasites are able to interrupt their life-cycle inside the stomach lining of the calf during this time. This enables them to survive in the calf and then resume egg laying when environmental conditions are better for their survival in the fall. The parasites are also harder to kill during the time that they spend “holed up” in the stomach lining.

Calves that are carrying heavy parasite loads will often look unthrifty. They have rough hair coats, poor body condition, diarrhea, depression, and in severe cases may be suffering from “bottle jaw”. They can be anemic due to blood loss and the damage done to the gut lining will decrease nutrient absorption and increase protein leakage back into the bowel. This can lead to slower muscle growth, decreased appetite, poor immune function, and ultimately poor performance. As with coccidiosis, most losses from internal parasites are caused by subclinical infestations that decrease animal performance.

Strategic deworming programs are designed to prevent these clinical signs and performance losses by providing an effective anthelmintic at the proper time in order to keep worm burdens low in the animal and on the pasture. These programs will vary depending upon available facilities, history of the calves, type of control needed (worms vs. lice vs. liver flukes), time of year, pen conditions, and location. In general, all calves should be dewormed at arrival. This may need to be repeated at the end of the receiving period prior to grass turnout. This ensures that the calves are parasite free when moved out on pasture. Then, as a general rule, stocker calves may need to be dewormed every 90 to 120 days after that, depending upon environmental conditions.

Much of our time and energy is spent managing respiratory outbreaks in stocker calves. However, we need to be conscious of diseases of the GI tract as well. Often times, disease conditions in both the respiratory and digestive system can be interrelated. Digestive upsets can stress calves to the point where we see an increase in pulls for pneumonia. It is also not unusual to see more bloats in groups of calves that have had a high treatment rate for respiratory disease. Necropsies should be performed on as many deads as possible, but especially on those that died before having been treated. When you couple necropsy findings with treatment history, you and your veterinarian increase the chances of building an effective preventative program. By combining careful monitoring of the feeding program, inclusion of anti-coccidial agents, and strategic deworming programs, most GI problems should be avoided.