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THE TWO 'C' DISEASES OF CALVES
Newsletter for July 2017

The primary killers of young animals, including humans, are diarrhea and pneumonia. Diarrhea, regardless of cause, damages the intestinal lining and usually results in poor absorption of nutrients. The damage to the gut is commonly reversible and the impact on the intestinal health of the animal can be minimal. However, diarrheal diseases in calves can be catastrophic if not managed properly and can lead to growth stunting, immunosuppression and high mortality and morbidity.

Two 'C' diseases of calves, coccidiosis and cryptosporidiosis (crypto, for short) occur on virtually 100% of our dairies and can account for major losses if not recognized and managed properly. Despite their similarities, these two diseases are quite different in their clinical presentation.

Crypto and coccidiosis are both protozoan parasites that live in the lining cells of the intestines. Because they are not bacteria, no effective antibiotic is available for treatment. They both are spread by invisible eggs or oocysts in the manure of infected animals or on contaminated pen surfaces. The oocysts are very hardy and can survive harsh environmental conditions.

With crypto, clinical signs peak at 3-5 days and last 4-17 days. Affected calves have significant diarrhea, usually without a fever, retain a fair appetite, are listless and depressed, respond well to aggressive fluid therapy and can have concurrent disease from other 'bugs'. Some farms just 'deal with it', knowing that nearly all calves go through a spell of mild diarrhea in a predictable window of time. They treat the worst ones with fluids and, when caught early, the long term impact on the calves is fairly minimal. Crypto is transmittable to humans (a zoonotic disease) so appropriate personal hygiene is important for public health and farm employee safety.

Cleanliness appears to be the best choice for reducing environmental oocyst loads. And I mean extraordinary cleanliness!! My best calf barns have someone nearly OCD in charge of keeping things clean. Good observation, rapid recognition and isolation of clinical animals are currently the best strategies for minimizing the spread of the disease.

In contrast, coccidiosis doesn't generally appear until 3-4 weeks of age and most commonly occurs in weaned calves. Sloppy diarrhea, sometimes bloody, crusty tails and

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butts, rough hair coats, dehydration, weight loss and mild depression are the hallmarks of coccidia infection. In severe outbreaks, mortality rates can be significant.

But the good news is that we see clinical outbreaks relatively infrequently because of the very effective prevention and treatment drugs available. Monensin, decoquinate, and lasalocid are used (separately) in milk replacer, calf grain and grower rations to control coccidiosis. Amprolium (Corid) is used to treat clinical cases but must be used early in the disease cycle to be most effective.

In recent months, I have been involved in some serious outbreaks of coccidiosis on well-managed farms that occurred from lapses in farm protocols. Inadequate bunk space for weaned calves, failure to feed therapeutic levels of coccidiostats, high stressors at weaning and poor observation of groups of calves have contributed to these outbreaks.

Like so many issues on your dairy, you can't let your guard down on these diseases. It comes down to basics: consistency, cleanliness, comfort, colostrum and adequate calories.

Prepared by Dr. Wadsworth