

Calving Ease

August 2013

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Coccidia

Our friend that just keeps giving

- A high percentage of dairy farms have heifers and cows infected with coccidia.
- The greater the severity of infection, the larger number of coccidia eggs or oocysts that are shed into the farm environment.
- The higher the concentration of coccidia oocysts in a calf's surroundings the more likely she will develop clinical coccidiosis.
- The two most effective ways to reduce coccidiosis are to reduce shedding and control growth after ingestion.

Less is better

Trying to achieve a zero oocyst level on a dairy farm is probably a useless exercise. Healthy adults normally shed them, at least in low numbers, all the time. Even sub-clinically infected calves and heifers can shed at very high rates. These oocysts have a tough outer coating or shell. They can survive in large numbers for over a year; a few will persist in dairy-farm environments for years.

Because the chances of infection go up with the number of oocysts that go into the mouths of heifers we know that less exposure to coccidia oocysts is better than more. How to cut exposure? Reduce shedding!

Tips for reducing shedding

Shedding is the process where an infected heifer passes eggs (sporulated oocysts) in her feces. Dr. Sheila McGuirk (University of Wisconsin School of Veterinary Medicine) in a recent presentation included a short list of management practices that have been shown effective in reducing shedding.

- Clean, well-bedded resting space for calves.
- Optimize ventilation in the barn and calf or heifer pens.
- Provide adequate feed space per animal.
- Minimize weight and age variation between animals in the group.
- Avoid feeding on the ground unless it is at a bunk.
- Provide 12" of linear water space per 10 animals.
- Treat infected animals.
- Maximize time between successive occupants of the same pen.

It's all a numbers game. Controlling shedding, even in a pen of heifers that seem "healthy," cuts exposure. Lower exposure levels mean better feed conversion rates.

Keys to lower infection rates

At any given level of exposure to oocysts there are management strategies that will reduce the severity of infections. These include:

- Reduce stress at weaning by using a “step-down” method of cutting back on milk rather than abruptly stopping milk feeding.
- Adopt heat abatement practices such as better use of natural ventilation and/or mechanical ventilation.
- When possible, avoid exposing calves and heifers to multiple stressors at the same time. Spread out over several weeks stressors like vaccinating, dehorning, ration changes, grouping changes, pen changes and loading animals on and off of trailers.
- Plan ahead to reduce crowding. Once cows are pregnant we know when calves are going to be born and it is easy to predict when we will have to take action to reduce crowding either as milk-fed calves or transition heifers.
- Provide a regular, daily source of medicine to control the growth of coccidia. Work with the herd veterinarian to identify the preferred medication and route of administration (blended into liquid ration, mixed with grain ration, mixed with TMR).
- Monitor supplies of coccidiostatic medications so that there are no lapses in treatment. And routinely check each delivery of milk replacer, medicated grain and mineral mix to confirm that the desired medication was included at the prescribed rate.
- Monitor calf and heifer care workers to be certain coccidiostatic medications are always provided every day – substitute workers are as well trained as those who provide daily care.

Reference: McGuirk, Sheila “Using a coccidiostat in my feed; why do I still have coccidiosis?” Proceedings of Dairy Calf and Heifer Conference, April 5, 2013, Lancaster, PA.

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