Cryptosporidium parvum

One of the most common parasites on dairies is *Cryptosporidium parvum.* It is a microscopic-sized protozoan parasite. At one stage in its life cycle it forms egg-like bodies called oocysts. These eggs are resistant to common cleaning chemicals and chlorine bleach. At the correct concentration and length of exposure a chlorine dioxide solution will kill this parasite.

Exposure: As few as 100 oocysts can infect a calf. Infected calves often produce 10 billion of these daily. The eggs or oocysts contaminate bedding, feed, and water. They get on boots, clothes and hands getting a free ride to other heifers. In addition, cows often carry them on their hair coats. And, they are found in adult cow manure, especially at calving time.

Control: Cryptosporidia can live for up to a year in cool moist conditions. If you can get dry conditions for your calves this will discourage exposure to crypto. Wet bedding is essentially a welcome mat for crypto. Any kind of "all-in, all-out" calf housing helps limit exposure.

Wash, wash and wash. Wash yourself, your clothing, feeding equipment and, when appropriate, housing. Rinse everything with lukewarm water before washing. Then, wash with a hot water solution containing a chlorinated detergent. At least this will minimize bacteria although it will not kill the cryptosporidia. Brushing or high pressure washing works well to remove crypto eggs. For more on chlorine dioxide use for on-farm sanitation, go to www.calffacts.com, scroll down to the chlorine dioxide entry.

Recovery: Young calves that received plenty of clean high-quality colostrum soon after birth will have higher resistance to this parasite than calves with poorly managed colostrum feeding. More importantly, high levels of colostrum-derived immunity will decrease the chances of infection from bacteria and viruses. Calves fed adequate amounts of milk/milk replacer may only show symptoms (loose and lighter-colored than normal feces) for 2 or 3 days.

People get sick, too: Remember that cryptosporidia infect humans as well as calves. The free-ride that oocysts get on boots, clothes and hands means that they can follow us as we greet others (handshakes for guests and hugs for little children).

The human symptoms are the same as for calves – self-limiting diarrhea 3 to 7 days after exposure. For most persons with a strong immune system treatment is simply to consume enough liquids to keep hydrated. For high risk persons (very young, very old, immune compromised) additional medical attention may be necessary. Be sure to tell the treating physician of potential cryptosporidia exposure.

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