# **Attica Veterinary Associates**

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You may have a special addition in with your statement this month- Attica Elementary STEAM classes took time to write "thank yous" to farmers. We are doing our best to pass along this kind gesture to you!

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## ALL ABOUT.....the Parasite: Cryptosporidium parvum

We've seen some Crypto this winter and figured this was a good reminder. 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.

<u>Wash, wash and wash.</u> 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.

### **Disinfecting Calf Feeding Equipment and Premises using Chlorine Dioxide**

Aqua Tab 20g(chlorine dioxide) is a great disinfectant that is effective against cryptosporidium, Johne's, mycoplasma and other common disease causing organisms. It may be used daily in the face of a cryptosporidia problem in calves or weekly as a control measure. This new product can be used on feeding equipment as well as housing such as hutches.

Below you will find some directions for using this product:

- Dissolve the solid tablet in room temperature water. One tablet makes 5 gallons of 100ppm solution appropriate for disinfecting calf equipment and premises.
- For small objects (bottles, tube feeders, pails) after thorough washing submerge them in the solution for 1 full minute in order to destroy live organisms.
- For larger objects after thorough washing fill them with the solution and let it soak for a minimum of one minute.
- After premises are cleaned to remove as much organic material as possible the solution can be sprayed on surfaces until they are soaked and the solution runs freely.
- It is not necessary to rinse after disinfecting.
- Tablets are available individually (just under \$5 each) or you can get in packs of 20.

For more information about this product stop into the clinic or speak to your veterinarian.

#### **Vaccinations Subject to Cold Stress**

Winter cold stress needs to be considered when timing heifer vaccinations. Cold stress for month-old calves begins when outdoor temperatures fall below freezing. Remember also, the colder the temperatures below freezing, the more likely that calves may become immuno-compromised due to insufficient energy intake.

These guidelines may increase the effectiveness of your investment in vaccines:

- 1. When possible, schedule vaccines during the warmest part of the day.
- 2. Consider postponing vaccinations 1-2 days if temperatures are below 10°F. Check weather reports regularly to plan for more hospitable weather, both for you and the calves.
- 3. Avoid additional stresses around the time of vaccinations, including the days before and after. Potential stressors include changes in feed or housing, transportation, weaning, dehorning, sickness, or prior to treatment for parasites.

4. Postpone vaccinating sick calves until they have fully recovered.

#### **Winter Vaccine Handling Tips:**

- 1. Never let vaccine freeze, especially when a dose has been pulled into the syringe.
- 2. Protect vaccines from direct sunlight, even in winter.
- 3. If carrying several bottles, an insulated cooler is a great tool to carry supplies and protect the unused bottled. If the weather is severely cold, a warm pack can be added to prevent freezing without raising the vaccine temperature too high.

#### **Spring vaccinations:**

Spring is just around the corner and it will soon be time again for spring vaccines and deworming. Remember, if it is the first time the animal has ever been vaccinated, they must receive a booster 2-4 weeks after the initial vaccination. Also, some animals may have an acute anaphylactic reaction to the vaccine components, so be sure to keep Epinephrine on hand just in case. If you have any questions or would like us to design specific protocols for your herds talk with your veterinarian.

Everyone's busy these days, if vaccinating your herd just isn't something you have time to do, we would be happy to do it for you.