

The Colostrum Counsel

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Presented by:



WE CAN FEED MORE WITHOUT SCOURS

Increasingly, operations are feeding more to meet the higher expectations we place on our calves in order to achieve higher rates of gain and shorter time to weaning. This feeding system may however come with its own complications and keeping the incidence of scours at bay is one challenge associated with feeding more.



Before increasing milk feeding rates know your current scours treatment rate. If it is 20 percent or more during the first 4 weeks of life take remedial measures to decrease your treatment rate before increasing feeding rates. Plan for success – put your dairy in the “Low Scours Rate” column before increasing your milk feeding rate.

Gold Standards I from the Dairy Calf and Heifer Association provide guidelines for mortality, morbidity and growth during the first six months of life suggest that scours treatment rates higher than twenty-five percent for the first six months of life are excessive. Counted as treatment is any intervention lasting over twenty-four hours. It is reasonable that treatment rates over twenty percent during the first four weeks of live are exceeding the threshold for profitable calf rearing.

What is the current rate of scours treatment?

This is not the easiest treatment to track. I used a 3” x 5” card for every day. Calves receiving electrolytes that day were noted. With about one-hundred calves on milk I was able to use a calendar for a month to summarize the treatments. I only tracked a month in the spring and again in the fall – historically on this farm the highest treatment times. I have seen record-keeping systems that used duct tape on calf pens with a black mark made on the tape each time electrolyte was fed. Anything that is easy to read and the calves cannot manage to eat will work.

What treatment rate is the right one for your dairy?

Ideally, we usually want our treatment rate this year to be lower than it was last year. That’s how I set my goals. Truthfully, I had some year-to-year backsliding. Yes, this year was worse than the year before. In the long term my management did get better and the treatment rate did go down – never to zero.

What can we do to achieve lower rates so we can successfully adopt more aggressive feeding rates?

During my consulting over the past ten years or so I have been keeping a list of practices that seem to consistently distinguish dairies that are successful in aggressive milk feeding without

high scours rates and dairies that just cannot feed more milk without wall-to-wall diarrhea.

There are 10 common differences between dairies that either do or do not have scours problems when feeding rates are increased.

1. Milks fresh cows as soon as possible after calving, nearly all of them within six hours post-calving.
2. Checks colostrum quality and uses highest quality for first feeding.
3. Feeds colostrum as soon as possible after birth, always within first four hours.
4. Feed 3.5-4 quarts colostrum within first 4 hours (large breed)
5. Checks colostrum cleanliness with regular culturing.
6. Checks for successful passive transfer of immunity on a regular basis.
7. Cleans colostrum and milk handling equipment after every use following an accepted cleaning protocol that is written and posted.
8. Checks milk or milk replacer cleanliness with regular culturing.
9. Feeds preweaned calves enough milk or milk replacer to support at least one pound a day gain all seasons of the year.
10. Keeps calf housing clean.

It is good to get into the frame of mind that scours are not “normal.” Yes, we do have challenges with parasites like cryptosporidia that seem to be everywhere. Yes, we do have challenges of getting everyone on board following best management practices.

But, the rewards of fewer scours treatments are really great. Fewer calves need treatment. We are able to spend more time providing quality care for all the calves. And, because we are now able to feed more milk to encourage improved growth, more of our calves are doubling their weight in the first sixty days of life.

ASK THE EXPERT

CALF RAISER SKILLS: HOW TO DIAGNOSE SCOURS

Observations prior to examining the sick calf:

- How old is the calf?
- What has the calf eaten in the past 24 hours?
- How well is the calf eating milk/starter grain?
- How well is the calf drinking water?
- What is this calf's history of diarrhea?
- What is the diarrhea experience of other nearby calves of similar age?

Physical observations:

For Calves up to 48 Hours Old

- Yellow, black, green, brown (you name the color) is normal for the first bowel movement. This material has accumulated in the large intestine during gestation. It will vary in consistency from very loose to very hard. Calves often have difficulty passing this slug of feces.
- While they are concentrating on getting rid of it they often will not eat, may be unwilling to stand and sometimes even appear desperately ill.

Calves Less than 1 Week Old

- Calves with severe bacteria enteritis (usually *E. coli* or clostridial bacteria) seldom pass abnormal feces prior to going down and dying.
- The time between onset of symptoms and death frequently is eight hours or less. In the hours before death, we often see the inability to absorb fluid through the gut, inability to stand, and, often, significant swelling of the abdomen.
- It is good to remember that very few cases of scours are caused by only one thing. Most cases have more than one cause.
- Toward the end of the first week calves with either viral or bacterial intestinal infections will pass loose, watery light yellow or even gray feces in large quantities.
- If a calf is being fed much more milk or milk replacer than she can digest; her feces may become more loose than normal without a significant change in color.
- As early as four days, some calves may break with a cryptosporidiosis infection. If not overlaid by either a viral or bacteria infection, this kind of infection will result in only lighter color and slightly looser feces.

Calves More Than One Week Old

- Calves less than two weeks old may very well have a

combination of viral, bacterial and parasitical scours. Other than the calves are passing loose feces, no other reliable description is possible.

- Cryptosporidiosis is very common in calves between 6 and 11 days of age. If this parasite is the only cause of diarrhea, the feces will just be a little lighter in color than normal and somewhat looser.
- **CAUTION:** It is possible for a sick calf to lose as much as two gallons of fluids a day due to diarrhea. Dehydration is a common cause of death among these calves.
- **CAUTION:** Stresses due to malnutrition and dehydration will suppress a calf's immune response to pathogens. Especially common in two-week old scouring calves is secondary pasteurized respiratory illness.
- At roughly two to three weeks of age calves may develop diarrhea where we see very loose feces. Often they are off-color, somewhat gray or white.

This condition is frequently related to a lapse in sanitation practices for feeding equipment. It results in very high levels of *E. coli* bacteria being fed to calves.

- If a calf is being fed much more milk or milk replacer than she can digest her feces may become more loose than usual while remaining normal color.
- Two to three week old calves being fed waste milk may develop diarrhea where loose gray feces are common. This condition is commonly caused by waste milk storage conditions that allow very high levels of *E. coli* bacteria to grow in the milk prior to feeding.
- Any time after three weeks of age we may see calves that are eating okay but not gaining weight at the rate we expect.

Careful examination of their feces may show that they are loose and gray containing flecks of blood. The calves may have feces smeared on their rumps due to the continual looseness of their feces.

Coccidiosis should be suspected as the cause. Microscopic examination of the feces can provide a definite diagnosis if the infection is severe.

- Salmonella may be introduced to a herd and cause calf diarrhea. These calves have sudden onset of scours. The feces are watery and off-color. The degree of dehydration is severe.

Usually many calves are infected at the same time. High proportions of the sick calves die. Get a veterinarian's help with diagnosis and treatment.



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1 June 2014 By Sam Leadley of Attica Veterinary Associates
2 See www.atticacows.com in Calving Ease

Have a question for one of our experts?

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