



Pro Earth Animal Health



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The Symptoms and Treatments of Scours

Calf scours is a nightmare for every cattleman. As the number one cause of death in calves from the age of two days to one month old, it can be fatal, but there are ways to combat it once it has taken hold.

While it can be prevented for the most part, there will always be a few calves that fall victim to this Achilles heel of the beef and dairy industry. The range of signs and symptoms calves will display when they're suffering from scours is wide and varied. Understanding what to look for and how to treat it if it does rear its ugly head is a major step towards ensuring that losses from scours are minimized.

Symptoms of Calf Scours

Calf scours can present in many different ways, depending on the age of the calf, the severity of the infection and many other factors. Learning to recognize the symptoms is the first line of defense against this devastating condition.



There are a few very prominent signs and symptoms that make it obvious that a calf is suffering from scours. There are also a few subtle

signs that can alert to the possibility of this condition starting to take hold.

Calf Diarrhea

Calf diarrhea is the most obvious sign that something is amiss and scours may be present. When considering scours, the color, consistency and frequency of the diarrhea is also important to take into account. Because scours isn't a disease itself, but rather a symptom of a disease process, diarrhea can have different characteristics.

Cause	Symptoms	Typical Calf Age
Rotavirus	Loose/watery stool, brown or yellowish, possibly containing blood or mucus.	First month, but especially 3-21 days.
Coronavirus	Profuse watery diarrhea	Between 1-3 weeks.
Coccidia parasite (Coccidiosis)	Thin, watery diarrhea with blood and mucus in more severe cases.	After 3 weeks.
Cryptosporidium parasite (Cryptosporidiosis)	Loose/watery stool, brown or greenish, possibly containing blood, mucus, milk, or bile.	Between 1-4 weeks.
Salmonella bacteria (Salmonellosis)	Yellowish diarrhea, high fevers.	After 10 days.
E. Coli bacteria	Yellowish-white diarrhea	First week.

For instance, the consistency and color of stool in a calf with a bacterial enteritis, as compared to that of a viral infection will likely be different in appearance, as seen in the chart above. When battling diarrhea, it is not usually the infection itself that will prove fatal – it's dehydration and/or acidosis.

Dehydration



A result of calves losing too many fluids in a short period of time, dehydration is the greatest concern in the short-term survival of a calf suffering from scours. The signs of a dehydrated calf include lethargy, dry nose and/or mouth, sunken and “glassy” eyes, sudden weight loss, tachycardia (abnormally fast heart rate), bradycardia (very slow heart rate), weakness and cold extremities including legs and ears.

It may not always be easy to tell just exactly how dehydrated a calf is, but the “tenting test” is a good field assessment that doesn’t require lab equipment or other means of testing. A good resource for learning how to do a proper “tenting test” can be found at <https://tinyurl.com/jap8ndl>.

Scouring calves can experience different levels of dehydration – the table below is a good example of the demeanor and other factors that can help determine a calf’s dehydration status.

% Dehydration	Demeanor	Sunken Eye	Skin Tenting
<6%	Normal	None	None
6% - 8%	Depressed	2-4 mm	1-3 secs
8% - 10%	Depressed	4-6 mm	2-5 secs
10% - 12%	Comatose	6-8 mm	5-10 secs
>12%	Dead	8-12 mm	>10 secs

Demeanor

Spotting a calf suffering from scours isn’t difficult – especially if they are showing signs of lethargy, listlessness or weakness. A calf suffering from dehydration or low blood sugar will often be less

enthusiastic about nursing, or unable to stand long enough to do so. Being unable to consume an adequate amount of milk, in turn, can lead to acidosis as the rumen’s delicate bacterial balance is compromised. Watching a calf’s behavior can be a quick indicator of its health status.

Scours Treatments

Unfortunately, there is no one-size-fits-all treatment for scours. Because it can stem from both infectious and non-infectious causes, it’s important to be vigilant in preventing the precipitators to scours, such as stress, poor husbandry, inadequate feed for the cow, exposure to harsh elements, etc. Of course, as with any disease or group of diseases, it’s impossible to completely prevent it from occurring – even in the healthiest of herds.

Keeping a cow on a regular vaccine program and ensuring her health can only help boost a calf’s immunity in-utero and after its born. A calf receives much of its immunity from its mother through not only the mega-dose of antibodies in first colostrum, but also through regular milk.

In the case that a calf does develop scours, though, knowing how to treat it is necessary to give it the best chances for survival.

Antibiotics



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Antibiotic use has become more and more controversial, leading some to believe that they should be avoided at all costs. The prudent course

of action to follow is the recommendations of your herd veterinarian. Antibiotics are only useful against bacterial and some parasitic infections; they cannot treat viral infections, but in some instances may be the best treatment option for particularly sick, young or old animals. If medicating one or two calves can help prevent the entire herd from having to receive antibiotics, it might be worth the questioned risks.

If following this protocol, it's important to support a calf's digestive health, as antibiotics can take their toll on the beneficial gut flora that lives in the rumen and intestines.

Warm Environment



A calf with scours is already fighting for its life – exposing it to harsh elements will only draw down its limited reserves and perhaps create a fatal situation for the neonatal calf.

Providing a warm, sheltered environment is necessary to help ensure that a calf recovering from scours has the best chance possible. Wind, snow, rain and sleet can all contribute to the environmental stress of a calf, ultimately pushing it closer to acidosis.

Nutritional Intervention



Calves that are struck with scours can have a difficult time eating. They may also be hesitant to take a bottle, but it's vital for their survival that they not only eat regularly to protect their long-term health, but also to keep acidosis at bay. An empty rumen leads to the buildup of acid, making it doubly important that the calf be receiving supplemental support via specially formulated formulas for calves.

Calves can survive scours if they receive adequate treatment and soon enough into their disease process so that they haven't become too depleted. Knowing what to look for and how to counter it will allow any cattle rancher or feedlot manager to pull sick calves and nurse them back to health. The sooner they return to the herd, the more likely they are to start feeding and thriving.