

Calf Scours: Management & Prevention

What is scours?

“Scours” is a term for diarrhoea. While cattle of any age can develop diarrhoea, most cases of calf scours occur in calves 1 month of age and younger; and the major age bracket affected tends to be calves that are 3 to 14 days of age.

What causes scours?

There are a variety of causes of scours in baby calves. The three main categories are:

- Bacteria (such as E. coli)
- Viruses (such as rotavirus)
- Parasites (such as Coccidia)

Calf diarrhoea may be caused by more than one of these infectious agents working together. However, other causes can help contribute to scours developing in calves: environmental factors (overcrowding, a dirty environment, and mixing age groups of calves), and dietary factors (excess milk ingestion-more than the calf can digest).



Why worry about scours?

Scours causes dehydration in calves (loss of water and electrolytes). It also results in damage to the lining of the intestinal tract, which affects the calf's ability to absorb nutrients. In addition, certain strains of bacteria can release toxins that can spread to other organs in the body. If left untreated, calves can die.

How do calves become infected?

Baby calves often are infected by fecal-oral contact. The agents are shed by normal, healthy-appearing adult cattle in their feces. The feces contaminate the ground and any ground water, and baby calves then ingest these agents.

What are the common signs of scours?

- Watery and loose stool that can be yellow, grey, white, rust red, or even green in colour.
- Weak and depressed calves that do not nurse.
- Sunken-eyed and/or gaunt appearance due to dehydration.
- Calves that are recumbent (“flat”) or weak and stagger as they walk.

How do you treat scours?

Before talking about treatment, it is important to note that some of the infectious agents that make calves ill can also make humans sick. People handling scouring calves should follow proper hand hygiene and wash their hands before and after handling calves, their bedding, and feed. Wear waterproof boots that can be disinfected, and if possible, have a set of coveralls dedicated only for use with scouring calves. Immunocompromised people, pregnant women, and very young or old people should not come into contact with scouring calves.

- Sick calves and their dams should be isolated from healthy cows and calves.
- The mainstay of treatment is to keep calves hydrated by replacing the fluid lost in diarrhoea. This can be done in two ways: orally, or by intravenous infusion.
 - Oral fluids are the most appropriate option for calves that can still stand and follow their dams. Oral fluids can be administered by oesophageal feeders and “tubing” the calf. Various electrolyte powders are available on the market. These powders should be mixed with water only to properly rehydrate the calf. As a general rule of thumb, most average sized calves will require about 4 litres of electrolytes per day.
 - Intravenous fluids are the most appropriate option for calves that are too weak to stand and follow their dam or are “flat” in demeanour. These are administered by veterinary professionals and the electrolytes are carefully balanced. Fluids are administered by an intravenous catheter placed in the jugular vein.

- Provide nutritional support. Often, scouring calves will not want to nurse the first few days of being ill, so will often need to be tube fed milk or milk replacer.
- Provide thermal support. This can be achieved by deep bedding, shelter from the elements, and sometimes a heat source such as heat lamps.
- Giving scour boluses and administering antibiotics are useful additional treatments to prevent bacterial spread to other organs.
- Gastric protectants such as Kaopectate can help relieve nausea and firm up stools, and abdominal pain can be lessened by non-steroidal anti-inflammatories like Metacam.

How can you prevent scours?

- Maintain good pen hygiene, and if possible, turn cow-calf pairs out onto clean pasture as soon as possible.
- Avoid mixing calves of different age groups.
- Ensure calves are fed colostrum as soon as possible. A general rule of thumb is that calves need 2 litres within the first 4 hours of life, and another 2 litres 4 hours later.
- Vaccinating cows and heifers pre-breeding with scour vaccines (ScourBos, Scour Guard, Guardian) can help improve antibody production in colostrum, which can be passed on to calves during nursing.