

Calf Scours Information Leaflet



Giving your calves

The best start for your calves

The period from birth until weaning is critical to the development and future productive capabilities of calves in both beef and dairy enterprises. Diarrhoea or calf scours is the most common problem on a farm causing poor growth and mortality in these calves. As with all animal diseases prevention is better, but a treatment plan must be in place, as animals will become ill despite the best preparation.

For scouring calves, the treatment priority is to provide appropriate fluid therapy, ensure adequate pain relief, and treat with antibiotic therapy when necessary.

Preventing calf scours requires consideration for management processes around pre-calving, the calving period, and post-calving, with special consideration given to colostrum management.

An effective veterinary herd health plan for both prevention and treatment is essential for all dairy and beef herds to maintain health and prevent this costly group of diseases.



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Colostrum – Liquid Gold for Calves

Early drinking of colostrum, the very first milk from a cow after its calf is born, is critical for the health of calves. As well as being a wonderful source of nutrition, colostrum provides the calf with antibodies for optimum immune function in the first few weeks of life.

Antibodies are critical to the immune system of the calf because they recognise invaders or pathogens which may cause diseases, including diarrhoea, and target them for destruction. Colostrum is the most important source of these antibodies for the first few weeks of a calf's life.

Although colostrum will always remain a nutritious food, the absorption of antibodies from colostrum into the calf's own blood is only possible in the first 24 hours of life. For optimum results this should occur within the first 12 hours. If colostrum is not drunk by the calf within this short window, they are far more susceptible to disease in the first month of life, when calf scours occurs. It is therefore critical to discuss colostrum management with your veterinarian and develop a plan to monitor the quality of colostrum available, calves' access to colostrum, and the success of transfer of colostrum from cow to calf. Your veterinarian may advise to supplement calves if necessary.

Identifying calf scours

Calf scours is recognised often by staining with faecal material under the tail. There is also an increase in the frequency and quantity of faeces, which has a higher than normal water content. In some cases, blood and mucus may also be present. Scours can be classified into two types, nutritional and infectious.

Nutritional scours are usually caused by stress to the calf due to a breakdown in management routines. Infectious scours have many causes which include viruses, bacteria and protozoa. Your veterinarian can help you identify the cause(s) of diarrhoea on your farm, which is important to the management of calves.

Whatever the cause of scours, early symptoms may include some or all of the following:

- Skin remaining peaked or tented when lifted, indicating dehydration.
- Loose to watery faeces whose colour may vary.
- Depressed calves which are reluctant to feed or suck.
- Calf's eyes don't look 'just right' and may be sunken.
- Calf's movements are slow rather than bouncy.
- Collapse in severe cases.



Prevention

Before calving

The management of rearing calves begins well before the anticipated calving time.

- Maintaining appropriate condition of pregnant cows is important to good calf health.
- Colostrum is created by the cow in the 4-6 weeks prior to calving. Any health concerns during this period may affect the quality of the colostrum produced.
- Use of vaccinations against the common and important clostridial diseases and leptospirosis as well as parasite control in cows will minimize any impact these have on their calf's health.
- Vaccinations against calf scours may fortify or strengthen the colostrum against the common pathogenic causes of calf scours.
- Management of heifers separate to the older cows can improve monitoring and reduce competition and bullying.



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Around the time of calving

Vigilant monitoring during the calving period helps ensure successful outcomes.

- Assistance at calving if required for either the mother or her calf. Calving difficulties or any disease which prevents natural suckling requires correction.
- Adequate colostral transfer as discussed is critically important and should be monitored.

Caring for the calf after calving

It is important to meet calves' needs during their first weeks of life.

- Appropriate nutrition including milk for growth and supplements to develop the rumen.
- Fresh clean water.
- Comfortable environment which is warm, protected and dry.
- Clean environment where contamination is minimized or fenced off.
- Minimization of contamination between batches of calves.
- Calf rearer with positive attitude in intensive systems.
- Disinfection of equipment following contact with calves.
- Isolation of sick calves separate to healthy calves.

Considerations for batches of young calves

- Do not mix groups of animals of varying ages as mixing increases 'stress.'
- Watch out for other diseases which compromise the immune system.
- Avoid multiple procedures, including vaccinations, disbudding or marking at the same time.
- Do not overstock as this increases infection pressure.

In intensive systems

- Monitor environmental conditions at calf level to ensure they are comfortable.
- Minimize pathogen challenge by improving housing and ventilation.
- Keep bedding fresh and dry to help with air quality.



Treatment

Fluid therapy

Whatever the cause of the scour, the lining of the bowel is compromised, resulting in the loss of large amounts of body fluid into the gut. As a result, the calf dehydrates, electrolytes become unbalanced, and the calf may rapidly become clinically ill, making early intervention critical. The primary treatment of scours in calves should focus on replacing and then maintaining lost body fluids, correcting the electrolyte imbalance, and the supply of energy and nutrition.

All scouring calves require electrolytes. Less severely affected calves may respond to oral electrolytes alone. More severely dehydrated calves often need fluids administered intravenously by your veterinarian in order to recover.

Energy and nutrition, in the form of milk, is critical to the wellbeing of scouring calves. A short withdrawal from milk may be advised initially, however milk is a critical source of nutrition and should not be withheld for long periods unless advised by your veterinarian. Remember that milk and electrolytes may need to be administered separately.

It is essential to appreciate that fluid therapy is the most important part of a treatment plan. If we can keep a calf fully hydrated and rebalance lost electrolytes, our chance for recovery from scours, even without any other intervention, is good. If fluid therapy has not returned the calf's behaviour to normal within 48 hours consult with your veterinarian.



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Pain therapy

Scours can be a cause of pain and discomfort for calves. As well as being unpleasant for the calf, one common symptom of pain or stress is the loss of appetite. As proper nutrition is critical for a recovering calf, there is an incentive to treat pain in order for the animal to eat properly.

Antibiotics

The majority of treated calves should be back to normal after 48 hours of fluid therapy, while the remainder may require a veterinary examination or targeted medical therapy.

Your veterinarian may target antibiotic therapy to calves with diarrhoea because a bacterial pathogen is suspected or identified, or when there is concern the calf may develop bacteraemia (bacteria in the blood) such as when:

- The calf is severely or systemically ill and its defences are down.
- The calf is significantly dehydrated, compromising its immune system.
- The calf has been ill for some time (as this may alter the bacterial population in the intestinal tract increasing the risk of further damage).
- A colostrum transfer problem is present on your farm reducing the immunity of your young calves.
- There is blood in the scour indicating damage to the intestinal tract.

In cases where there is excessive infection pressure and / or poor immunity antibiotics may be routinely given to all cases of calf scours. This should only be performed under direct supervision of your veterinarian.

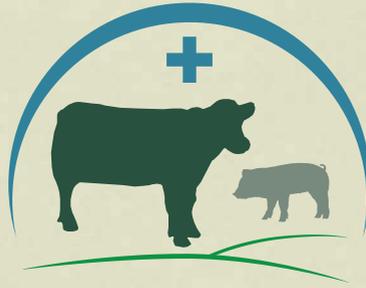
Ensure you identify and mark an animal treated with antibiotics clearly. The date of treatment should be recorded and the withholding period for any antibiotic obeyed.

The antibiotic you treat calf scours with should:

- Be absorbed quickly.
- Reach effective levels locally on the gastrointestinal tract and systemically throughout the body.
- Be effective against the common bacterial causes of calf diarrhoea.

Your veterinarian can advise you which antibiotic is most suited to your farm.





GROW WELL

Grow Well

Grow Well aims to develop tools for veterinarians and their clients which may be used in practical situations.

Your veterinarian is the trusted professional with local knowledge to best meet your farm's needs. Combining science with practical considerations, your veterinarian can tailor a preventative health plan to fit your situation, aiding you in optimizing your farm's productivity through management of colostrum and calves. We trust that the information contained within this leaflet will help you work with your vet to produce healthy calves on your farm.

REVIEW

Does your calf health plan consider:

Prevention:

- Colostrum.
- Cow health before calving.
- Calving.
- Comfortable, hygienic area for calves after calving.

Treatment:

- Fluid therapy.
- Pain Relief.
- Antibiotic therapy.

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