

Farm News May 2023

Calf Scour

Have you experienced calf scour in your herd before? We've got everything you need to know including causes and prevention tactics

Calf scour is one of the most common causes of death during the pre-weaning period costing approximately £ 60 per head in an outbreak. It can occur by both infectious and non-infectious reasons and it is common to find mixed infections on a farm. There are lots of different management options and diagnostic aids available.



Causes - Viruses

Rotavirus/Coronavirus – Calves are usually affected from 1 – 3 weeks of age. They usually present with lethargy, watery yellow/green scour and in severe cases sunken eyes. Infection usually comes from accommodation and can be passed by calves.

BVD – Signs usually include fever, lethargy and scour. There may be evidence of ulceration and erosions in the mouth and tongue. BVD can suppress the calves' immune system and make them more susceptible to secondary infections.

Causes - Bacteria

E. coli – Signs are usually seen in animals as young as 1 – 3 days of age. They become infected from the environment picking it up from other calves/cows passing it in their dung. It leads to release of a toxin in the system that cause scour, lethargy, dehydration and enterotoxaemia.

Salmonella – Usually seen in calves between 2 – 6 weeks of age. Similar to E. coli, there is a toxin released that can lead to septicaemia, fever and bloody scour. It can also cause joint ill and pneumonia. Salmonella can be passed by other cattle, rodents, birds, humans and water sources.

Clostridium perfringens - This is usually fatal due to enterotoxaemia, colic, bloody diarrhoea and collapse. It is associated with changes in feed or management practices.

Causes - Parasitic

Cryptosporidiosis – This is a zoonotic parasite that affects calves from 1 – 3 weeks of age. Animals present with bloody, mucous scour. A large number of eggs are commonly excreted by infected calves leading to a significant environmental burden. These eggs survive for several months in the environment.

Coccidiosis – this can be seen in calves from as young as 3 – 4 weeks of age. It can usually be seen in weaned calves that have recently been mixed. Contaminated water courses can also be a source of infections. Clinical signs include loss of appetite, dehydration, straining, rectal prolapse and stunted growth.

Nutritional - Nutritional scour occurs due to stress from management changes. This can be due to over feeding after a period of starvation or feeding milk replacer at the wrong temperature or concentration. It may make calves more susceptible to secondary infectious causes.

Necrotic Enteritis - Disease of unknown cause seen usually in spring-born suckled calves between 6 – 16 weeks of age. It presents with bloody, mucous diarrhoea, may develop ulcers on lips, gums and the tongue. Mortality can be more than 95% of cases. Others in the group may show mild scour. Response to treatment is poor. As the cause is unknown, there is no effective prevention.

TREATMENT

Fluid therapy is the mainstay of treatment for scour. This can be via oral electrolyte solutions or via a vein (venous) depending on the level of dehydration. Calves that are unable to stand and have loss of the suckle reflex benefit from venous sodium bicarbonate to treat metabolic acidosis.

Dehydration	Clinical Signs	Treatment
0 – 3%	Scouring, standing, no evidence of sunken eyes	Oral rehydration
4 - 7 5	Mildly delayed skin tent, lethargic	Oral rehydration, consider venous fluids
8 – 12%	Delayed skin tent, sunken eyes	Venous fluid therapy
> 13%	Fairly weak, collapsed, sunken eyes	Venous fluid therapy

Continue feeding normal milk or milk replacer to meet the calves' energy demands. If there is any evidence of hypothermia, then the use of a heat lamp or good thick bedding is beneficial to prevent further heat loss. Halofuginone is licenced for the treatment of Cryptosporidiosis. Antibiotics are rarely necessary.

DIAGNOSTICS

During an outbreak, ideally take scour samples from 5 calves to test for virology, bacterial culture and parasitology. Bloods/ear notch samples are needed for BVD.

If there are concerns of poor colostrum uptake, samples can be taken from calves less than a week old for ZST or total proteins. A refractometer can be used to measure the dam's colostrum to check adequate levels.

MANAGEMENT/PREVENTION

- Isolate, test and treat any calf showing clinical signs
- Make sure all calves ideally get 3 litres of colostrum within the first 6 hours of life. If in doubt, stomach tube

- Clean and disinfect the pen regularly. Leave to dry fully. If you have issues with cryptosporidiosis, specific disinfectants need to be used.
- Remove afterbirths as soon as possible
- Don't give mastitic milk or pooled colostrum
- Attend healthy calves before sick calves
- Clean feeder, feed/water troughs, passageways etc regularly. Clean and disinfect any equipment regularly
- Make sure milk replacer is fed at the correct concentration and/or temperature and are mixed properly
- Halofuginone is licenced to prevent cryptosporidiosis
- Toltazuril and Diclazuril are both licenced to prevent coccidiosis
- Vaccines are available for Rotavirus, Coronavirus, E. Coli, BVD and Salmonella – calves must receive adequate volumes of good quality colostrum for passive transfer of antibodies



FORTHCOMING EVENTS



Be our guest at this year's Show
 Come and visit us at the Show on Stand A7