Preventing Scour In New Born Calves

Scour and gut infections are the leading cause of death in suckler calves under one month old, accounting for 32% of cases in Irish regional veterinary labs. However, simple management practices can significantly reduce the risk.

Causes of Scour

Pathogen	Typical age at onset (days)	Cause	Symptoms	Treatment/ Vaccination
E coli	1 – 5	Bacteria	Severe watery diarrhoea, dehydration weakness	Vaccination and antibiotic
Rotavirus	5 -14	Viral infection	Watery yellow/while diarrhoea, often with mucus	Vaccination No specific antiviral treatment
Coronavirus	7 -21	Viral infection	Watery diarrhoea, often more severe than rotavirus	Vaccination No specific antiviral treatment
Salmonella	Any age usually after 14 days	Bacteria	Grey pasty faeces, fresh blood and mucus present, older claves foul smelling diarrhoea, fever	Vaccination and Antibiotics
Cryptosporidiosis	7-28	Parasite	Watery diarrhoea, dehydration	Vaccination and halocur
Coccidiosis	21 days +	Parasite	Dark bloody diarrhoea and straining	Anti-Coccidial Drugs: Toltrazuril (e.g., Baycox) or diclazuril.

Vaccination

Pre-calving vaccines are available for rotavirus, coronavirus, E. coli, and for the first time in 2024 for cryptosporidium. Always consult with your vet. Give the vaccine in time and according to the manufacturer's recommendations:

- **Rotavirus, Coronavirus & E Coli**
  - One shot programme
  - Administer 12 – 4 weeks pre calving, (closer to 4 weeks for peak effect)

- **Cryptosporidium:**
  - Initial vaccination programme Two-shot program
  - 1st shot: 7 weeks pre-calving
  - 2nd shot: 3 weeks pre-calving
  - Annual booster: 3 weeks pre-calving
- Both vaccines can be given together

- **Salmonella – less common**
  - Initial vaccination programme two-shot program
  - 1st shot: 6 weeks pre-calving
  - 2nd shot: 3 weeks pre-calving
  - Annual booster: 3 – 4 weeks pre-calving.

Top Tip: Do not mix salmonella vaccines with others; administer separately

Prevention

Colostrum Management

The antibodies are in the milk – this must get to the calf.

- Feed immediately: Provide 2–3 litres of colostrum within 2 hours of birth.
- Check quality: Use a brix refractometer; >22% indicates good quality.
- Technique: If calves fail to suckle, hand-feed or use a stomach tube (if trained)

Top Tips:

1. Test your silages, feed a silage >12% in crude protein to sucklers
2. Label and freeze surplus high-quality colostrum for emergencies.
3. Train staff in stomach tubing if necessary.

Hygiene

Before calving:

- Power-wash calving pens and housing.
- Disinfect with products effective against rotavirus and cryptosporidium.
- Allow surfaces to dry thoroughly.

During calving:

- Trim cows' tails and flanks to reduce contamination.
- Provide deep, clean straw bedding in calving pens.

Feeding equipment:

- Clean and disinfect bottles, teats, and stomach tubes after every use.

Isolation:

- Separate sick calves immediately to reduce spread.

Top Tip: Use footbaths at shed entrances and designated calving clothes to maintain hygiene standards.

Treating scour in affected calves

Recognising Scour

Key signs include:

- Diarrhea, lethargy, and dehydration (e.g., sunken eyes).
- Weak or absent suck reflex reflex indicates severe dehydration or acidosis
- Fever >39.5°C (indicates possible bacterial infection and may require antibiotics).
- Test your scour for more effective treatment. It is always better to treat sooner rather than later to get the best result.

Fluids:

- Scouring calves get high level of acid in stomach and blood (acidosis) – leaving them dopey
- Good ingredients to combat this are: Sodium bicarbonate, propionate, citrate or acetate contained in electrolytes.
    - Propionate/citrate/acetate are better than sodium bicarbonate for suckler calves because they do not interfere with milk digestion
- Energy sources glucose
- If slight scour 2 x 3L feeds/day, as severity increases, so should the number of feeds
- Severely dehydrated calves may need intravenous fluids from a vet.
- Anti-inflammatories administered under veterinary advice, these reduce pain and inflammation, encouraging calves to drink.
- Antibiotics: only use when there is a confirmed bacterial infection or the calf has a fever

Home Electrolyte Recipe

2 Litres of warm water

1/2 teaspoon of salt

1 tablespoon of bread soda

2- 3 tablespoons of glucose

Feed by bucket or nipple feeder, alternate with milk feeds

General advice

- Keep feeding milk, alternate with electrolytes.
- Try not to stomach tube milk, especially in older calves – rumen is developing, can go into wrong stomach and sicken them
- Give a drip earlier vs. later for best results
- Avoid oral antibiotics as these affect the bugs in the stomach and therefore delay recovery
- Probiotics can be included in treatments but will not be sufficient by themselves
- Stay away from things you can mix in with milk
- Clean sheds well when possible & give max. time to dry out over summer

By addressing these areas, you can reduce the risk of scour and improve calf survival and health outcomes.