

## Key Points

1. Nutritional scours are related to stress, over feeding or a change in feed.
2. Early detection and treatment are important to minimize negative impact.
3. Problems are dehydration and acid imbalance
4. Take off milk for 24 hours and feed large volumes of electrolytes.
5. If calves are alert, leave electrolytes in a feeder in the pen between feeds.
6. If calves are unable to drink administer electrolytes with a tube feeder (below).



Factsheets published by On-Farm Research,  
[www.on-farmresearch.co.nz](http://www.on-farmresearch.co.nz)

While all due care has been taken in preparing these documents, people acting on this information do so at their own risk.

Calf Rearing Fact Sheet 2.3

## Introduction

- Calf scours (diarrhoea) is the single most important cause of death in milk-fed calves. Scours can be classified into two types: nutritional and infectious. Nutritional scours is usually caused by stress to the calf due to a change in management routines. Nutritional scours can progress to an infectious scour. Depending on the severity of the scours, rearers will see some or all of the following:
  - bright yellow or white faeces
  - depressed calves which are reluctant to feed or suck
  - lack of energy and lethargy
  - dry muzzle
  - wet under the tail
  - calves with sunken eyes and/or a temperature
  - dehydration

## Nutritional and stress scours

- The initial digestion of milk occurs in the abomasum (or fourth stomach) and then in the intestines.
- Nutritional scours is due to an inadequate milk digestion in the abomasum due to overfeeding, stress, too rapid change in diet or the milk not curdling. This means the milk leaves the abomasum too early and overloads the intestine with lactose. This results in a watery scour and the fluid loss results in a very dehydrated calf.
- Environmental stress can also cause scours - e.g. over-crowding, a sudden change in the weather or cold, damp, draughty or humid conditions inside calf sheds.
- Even changes in staff and hygiene can increase the likelihood of scours. The stress of transporting calves from the sale yards or from one farm to another may be sufficient to lead to scours if calves are offered milk on arrival. Newly arrived calves should be fed an electrolyte solution.

## Symptoms

- Scouring calves can lose up to 5 litres of fluid each day including minerals salts essential for normal body function. With most scours, it is the dehydration and acidosis, that kills the calf. With nutritional scours, a calf may still look healthy and have a good appetite so early detection is critical.

## Treatment

- Stop feeding milk to calves with nutritional or stress scours for 24 hours.
- Feed electrolytes instead of milk. The more dehydrated a calf is the more electrolytes it needs. For example if a 40 kg calf has lost 10% of its body weight it will need 4 litres of electrolytes to replace it. A dehydrated calf may need 6-10 litres.
- Feed at least three times a day. If a calf will not drink, feed electrolytes using a tube feeder.