

Dairy – Managing a Calf Scours Outbreak



Most cases of calf scours in New Zealand are “nutritional”, ie they are caused by aspects of the feeding regime (consistency, quality and temperature of milk, frequency of feeds, weather conditions etc).

This sort of scour does not normally last long, but may suddenly affect a large number of calves at one time, but does not spread from calf to calf. It is quickly and easily rectified by feeding with a “cheap and cheerful” electrolyte solution for a short period of time, and then returning to more consistent milk feeding.

Infectious scours (caused by microbes), on the other hand, can be a nightmare to manage. Most commonly they are caused by rotavirus, salmonella, or coccidia. Large numbers of calves are progressively affected, and they require significant nursing care to prevent deaths.

The biggest hassle is the amount of time taken to manage all of these sick calves, and this should not be underestimated. It may even necessitate employing an extra labour-unit to get through the crisis.

Managing the outbreak has three major components:

1) Protect new born calves – Optimise their resistance to disease

- Any new-born calves should be put into a previously unused shed. This may need to be off your property (beg, borrow or lease!).
- At the very least, use the calf pen that has been vacant longest, thoroughly disinfected several times, and had clean bedding installed.
- The trailer for calf collection should be cleanable, and disinfected regularly. There should be no more than six calves carried at a time on a standard quad-bike trailer.
- All new-born calves must receive adequate first-milking colostrum. This means collecting first milking colostrum separately from later colostrum, and stomach tubing every calf with 1-2l when it first gets to the shed, and again 12 hours later.
- After the first day of life, colostrum from milkings 2-8 can be fed. For the first week, the diet should be mostly colostrum.
- Feed warm colostrum, twice a day.
- Calf sheds must be clean, dry and draught-free. They should have clean, soft, deep, well-draining (or highly absorbent) bedding.
- Newborn calves require 2m² of pen space each. Over-crowding will exacerbate problems.
- Water and hay should be freely available, from the first day of life.
- Calves should remain in the same pen, with the same group of pen-mates for the duration of the calf-rearing period.

2) Treat sick calves – Correct dehydration

- Isolate sick calves in a hospital area, away from the main calf shed.
- Do not return recovered calves to their pen mates, they will still be shedding the bugs that cause the scours, and remain infectious to other calves.
- Dehydration is the main cause of calf death. It occurs because of all the water lost from the body in the scour.
- Sick calves require a high quality electrolyte replacer (eg Revive).
- A sick 40kg calf will require 6-8l of electrolytes per day, in at least three separate feeds.
- On the second day, alternate milk and electrolyte feeds, on the third day feed mostly milk.
- In most instances, antibiotics will achieve nothing.
- Binders will prevent the body eliminating the organisms causing the scour (ie they are meant to poo them out!)
- Calves that are scouring, but still active and drinking, require free access to electrolytes, in addition to their normal milk feeds.
- A less sophisticated product (eg Dexolyte) or even a home-made recipe may be adequate. Making it up 200l at a time in a tow-along calf feeder, and leaving this in the middle of the calf area works well.
- Remove the feeder for two hours before the milk feeds.

3) Minimise cross-contamination

- Deal with healthy calves in clean pens first.
- Use separate feeders and other gear for the two areas (clean and infected)
- Have separate overalls to wear in the infected area – put them on before entering, and leave them there when finished.
- Wear disposable gloves in the infected pens, and leave them there when finished.
- Use footbaths for gumboots when leaving the infected area – hose off all the visible muck first, then stand in the foot bath for 30 seconds, making sure all of the boots are disinfected. A 20l drum lying on its side, with the side removed, makes a good footbath.
- Mix up a high quality (virus- and bacteria-killing) disinfectant at the strength suggested on the label. Change this daily.
- Remove the top layer of dirty bedding as often as possible, or at the least, spread clean fresh bedding on top daily.
- Spray all surfaces of all calf pens at least daily.
- Maintaining hygiene around the pens will also help to prevent you and your staff from becoming infected. Staff should not eat or smoke around the calves, and wash hands frequently with disinfectant for the same reason.