

Cow health starts before birth

A healthy calf which grows well to meet liveweight targets is the basis of a high-producing cow.

It costs about \$1200 to rear a heifer to her first lactation and, whether she is a high producer or not, it's important to make that investment count.

Good calf-rearing starts from before the calf is born, and needs to be well planned.

Ideally calves should be collected twice a day to ensure they consume one to two litres of colostrum during the first six hours of life. It's important that Friesian calves receive at least four to five litres of colostrum and Jersey calves two to three, in the first 24 hours after calving.

Colostrum is high in energy, growth promoters, vitamins, and immunoglobulins necessary for early immunity from disease until the calf starts to make its own from about six weeks of age.

When bringing calves from the paddock to the calf-rearing shed, they must be handled gently to minimise distress and avoid pain, injury or suffering.

Overcrowded and dirty trailers can lead to navel ill (navel infection) which, if severe, may affect joints resulting in joint ill (septic arthritis). Spraying the navel with iodine at pick-up and again on arrival in the shed helps prevent navel infections.

Calf housing must be clean, dry, and free of drafts or disease. The sheds also must be well-ventilated to prevent gas build-up such as ammonia – if you can smell



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ammonia, then the level is too high for good calf health.

Barns should be open one side and divided into pens holding no more than 20 calves. Good shed hygiene is vital to prevent the spread of infections such as rotavirus, coronavirus and bovine viral diarrhoea (BVD). This means thoroughly cleaning and disinfecting calf sheds between seasons and not re-using pens unless they have been thoroughly disinfected and the bedding has been replaced.

To help control disease, ensure that calf sheds are well away from the dairy and feeding pads, and that rodents, birds and dogs are controlled. There should be no contact with cow faeces, or access to effluent disposal systems, drains or swamps.

To limit introduction of infectious diseases, restrict access to the calf shed – general dairy staff, drivers and staff from bobby calf trucks should not go into calf pens. Pens, feeding utensils and calf

trailers need to be sprayed regularly (at least twice a week) with a virucidal spray, such as Virkon.

Having reared calves myself for the past 13 years, I give calf wellbeing high priority. It's important that the person who rears the calves wants to do the job, and has a good understanding of animal welfare requirements.

Farmers should refer to the Ministry of Agriculture and Forestry (MAF) Dairy Cattle Code of Welfare 2010, which is available from DairyNZ.

There are many ways to feed calves, from restricted milk (four to five litres/calf/day) to ad lib systems. I prefer once-a-day feeding of warm colostrum ad lib, as I work off-farm. Any calves which aren't drinking, or don't look well, are checked late afternoon and fed/treated appropriately.

Diarrhoea is the most common ailment and can be caused by nutritional factors (such as changes in milk volumes or diet such as cold milk), infectious agents, or environmental stress.

A calf with scours should be removed from the pens immediately and treated with electrolytes to ensure adequate hydration. Severe cases of scours require two to three feeds of electrolytes a day (up to 10 litres). This can be alternated with milk as the calf starts to respond to the electrolytes.

Where rotavirus is a problem on a farm, cows can be vaccinated with Rotavec before calving. This will result in higher levels of protective antibody in the colostrum – but protection still requires that the calf gets that early colostrum in their first day of life.

Vaccinating three weeks before calving starts will give nine weeks cover from planned start of calving. This has saved me a lot stress in the past.

It's important that calves have access to fresh water, clean straw, and high-quality calf meal or pellets, at least 12 megajoules of metabolisable energy (MJ ME)/kg dry matter (DM) and 18 percent crude protein (CP) to assist rumen development. Calves can be weaned once they are consuming 1kg of meal (about 70kg liveweight). Meal feeding must be continued at 1-2kg/day until the calf reaches 100kg liveweight.

For more information on calf rearing go to dairynz.co.nz.

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Colostrum gives calves the best possible start.