

# Successful calf rearing begins with basics

Natalie Campbell

**C**alf rearing isn't about good luck or experience according to Oamaru veterinarian Simon Laming.

He spoke at a number of calf rearing seminars held around New Zealand, giving a veterinarian's perspective on calf rearing.

Laming told the gathering of about 50 calf rearers in Feilding that if they have reoccurring issues, there will be a reason for it. But he says to find out why they will need to ask tough questions of themselves.

During his address he referred to the disease triangle. He explained each factor and provided a list of issues rearers should examine when they have sick calves.

Starting with the host (calf) Laming told the crowd to ask themselves if they have a "gutsy" calf?

He recommends starting with calves that are at least 40kg LW then look at the quality and quantity of the diet. The age of the calf also has a role in disease resistance.

Laming recommends investigating for a concurrent disease. For example he says if rotavirus is diagnosed, cryptosporidia is also likely to be present. He reminded rearers that calf immunity is largely influenced by their colostrum intake.

"New Zealand calves do not get enough quality colostrum," says Laming.

Calves should ideally get two litres of colostrum in the first 2-4 hours of life, and four litres in the first 12 hours.

And Laming reinforced the definition of colostrum as "the first

secretions from the udder of the cow." At the first milking, the level of immune globulins in the milk is 48mg/ml. By the second milking this has reduced by half, and by the third milking to a third (15mg/ml).

Vaccine immunity was also touched on. The rotavirus vaccine can be administered to cows 4-10 weeks before calving. It can be a good move as Laming says half of all scours diagnosed in calves in New Zealand are caused by rotavirus.

Next on the disease triangle is the bug. Laming says calves can suffer from nutritional scours, which isn't caused by bugs, but by milk not curdling in the calf's stomach, and undigested milk spilling over into the intestines.

Rotavirus can be harmful, but more so when found with cryptosporidia. Coccidiosis is worse and can result in a watery scour with signs of fresh blood in it. Laming says if "clots" are present in the scour, these are often part of the gut lining and that means the calf will under perform for the rest of its life.

Salmonella is at the top of the pathogenic list for impact and is even more dangerous because it can be transferred to people. It can be the cause of very rapid deaths in calves.

Calves succumbing to health challenges can also be influenced by the number of bugs in the environment.

"One rotavirus infected calf is shedding enough virus to infect 20,000 calves," says Laming.

However he says bugs infectious to calves will be present in every dairy herd, but they are typically more

prolific during late winter and when stress is high. Dairy cows will be carrying and shedding rotavirus, and coronavirus.

Third on the disease triangle is the environment. Rearers need to consider where the calf is, where it has come from and where it is going.

"A poor environment will overcome good immunity every time," says Laming.

Firstly look at the stocking rate. Laming recommends allowing 1.5 square metres for each calf and no more than 30 calves in each group. Larger groups have higher death rates. They should be penned with litter such as sawdust about eight inches deep, drafts/ventilation should be above calf height and there should be plenty of drinking water available.

It is also vital to keep calves dry. Laming says Friesian calves shiver at a temperature of 3 degrees when dry, but when wet they start to shiver at 13 degrees. In comparison Jersey calves shiver at 8 degrees dry and 18 degrees when wet.

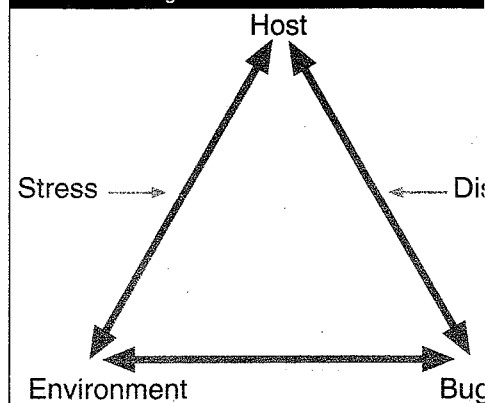
The calf pens should be kept clean and all calf rearers should have a hospital pen. A calf which has been successfully treated in a hospital pen should not be returned to its original pen because it will still be carrying and shedding bugs.

Next on the disease triangle is stress.

A change in calf rearer or introducing new calves can cause stress in calves.

"They come from a 38 degree spa bath totally protected in the uterus, then dropped on the ground where it is cold and wet. Then they are taken

the disease triangle



The disease triangle, with all the factors to consider when dealing calves.

off the cow and put in a trailer and moved to a pen. Their diet is changed and then they are thrown on the back of a slippery ute and taken to a pen of more calves. We can't stop all these stresses, but we can minimise them," says Laming.

He says rearers need to remember the bigger the change in milk the more stress caused and he reminds rearers that cows milk is made for cows calves.

The last issue on the triangle is disease.

Laming says navel ill can be identified if a navel is larger than a little finger after 3-4 days, usually indicating a problem. But this can be minimised by spraying with iodine. Transport calves in litter, not on slippery decks.

Nutritional scours are controllable issue. Nutritive are simply caused by milk curdling in the calf's stomach. Uncurded milk spills over the intestine Laming says it can be a food and the environment although there can be other problems.

Laming says women use the best calf rearers because of natural instinct. He says calves proven that rearing calves reduces deaths. This is why he says if someone to rear calves please should be put into their training.

"If you think training losing them is expensive training them and keeping

## THE ULTIMATE ENERGY DRENCH FOR STRESS FREE TRANSITION

- Consistent free flowing liquid
- Highly palatable
- Provides 46 g/L Calcium
- Provides immediately available energy sources 15mj/L
- Includes Soya Bean Oil - high in available energy
- Added benefits of Aloe Vera and Seaweed Meal
- Formulated to activate the metabolism in times of stress and dramatic changes i.e. calving and altered food intake
- Can be administered to young stock to supply vital minerals and elements, plus an added boost if showing signs of ill thrift

FOR MORE INFORMATION VISIT  
[www.overtmoon.co.nz](http://www.overtmoon.co.nz)

Available from Veterinary and  
Farm Merchandise outlets

THE MOON®



New Zealand calves are not fed enough quality colostrum before heading to the rearer.

# Boost Newborn Health