Top-Notch rearing

Large-scale calf-rearers Jonathan and Joanne Leigh.

Dairy farmers and calf-rearers Jonathan and Joanne Leigh have reared anywhere from 1400 up to 8000 calves every season for 14 years without any serious disease outbreak. They gave Sheryl Brown an insight into how to succeed at calf-rearing and why people need to love calves to do it well.

Key facts

- Farm owners: Jonathan and Joanne Leigh
- Location: Okoroire, Tirau
- Area: 63ha
- Cows: 200
- Production: Ranges from 43,000kg MS to 121,000kgMS depending on season and whether cows are sold in September or at the end of the season.
- Supplements: Meal is fed in-dairy, maize silage in paddock, amounts vary depending on the season.
- Farm Dairy: 24-aside herringbone, in-dairy feeding, covered feedpad is being constructed at present
- Crops: 5ha maize

Dairy farmers can have a she'll-be-right attitude to calf-rearing but farmers should be prepared with a plan and clear guidelines for staff to follow, farm consultant Joanne Leigh says.

Joanne and her husband Jonathan are dairy farmers and owners of Top-Notch Calves, a large-scale Waikato calf-rearing operation.

Joanne also works part time as a farm consultant helping farmers improve their calf-rearing operations.

Dairy farmers should approach calf-rearing as an integral part of their business and plan for it just like they do for mating or calving.

They are lucky because the entire process is under their control, she says.

"You have control over your whole process, what you feed your cow, where she calves, what happens with that calf, making sure it gets four litres of colostrum in the first 24 hours."

Farmers can make sure calf trailers are hosed out and cleaned daily; that they drive slowly with the calves on the back to prevent calves' umbilical cords being stood on, which causes a lot of navel infections, they can put calves in a clean, warm, dry pen and control colostrum intake.

At Top-Notch they get calves dropped off at four days old and can only hope those calves have had the right care, and soon see the result when they haven't.

"This autumn we blood-tested and found that one out of every six calves have not had enough colostrum.

"We quickly see which farms are doing a good job feeding colostrum. It's easy to see trends – when they haven't had enough colostrum it's absolutely apparent."

When the Waikato had cyclones this April for example they noticed some autumn calves being delivered to Top-Notch went downhill quickly because they were born in the rain and mud and probably hadn't had that first colostrum feed off their mother, Joanne says.

It's important to factor in conditions and tube-feed calves if they're born in bad weather, she says.

Farmers also need to ensure they separate their first milk colostrum at the farm dairy and feed that fresh milk to their newest calves.

"A new-born calf needs to be treated like a baby. It needs a warm bed and good colostrum."

Joanne and John bought their original 40ha calf-rearing block at Okoroire 14 years ago. They had been sharemilking and owned their own dairy farm at Otorohanga before selling up and moving to Mount Maunganui for two years. After their third child was born, the couple decided they wanted to find a place in the country to bring their children up.

"We had both grown up on dairy farms and we wanted our children to grow up in a rural environment."

They later bought part of the neighbour's farm with the farm dairy and started winter milking 200 cows. They replace their whole herd every year. When the milk price is low they sell cows on the spring market in September and rear more calves. If the payout is high they carry on milking through the season.

They buy empty cows each autumn for their replacements, get them in calf and graze them on their runoff, or off-farm.

As such their milk production fluctuates. In 2015/16 it was 54,048kg MS, 2016/17 43,800kg MS, while in 2013/14 in the high payout they produced 121,000kg MS.

Milking cows is a complement to their calf-rearing operation. It means they have older stock cleaning the pastures, Joanne says.

They also grow 5ha of maize on the milking platform and can spread the sawdust from the calf pens on the paddocks, while the effluent from the calf pens gets irrigated on to the milking platform.

Investing in calves

Many dairy farmers have expanded their business, buying the neighbouring farm, milking more cows and ultimately rearing more calves, all while making do with their original calf-rearing facilities.

Farmers need to ask themselves if they have enough room for all of their calves, Joanne says.

"I think 50% of farmers probably should do a review of their facilities. A lot of farms haven't changed or upgraded their calf pens for a long time and they might not have enough space."

If they don't have enough space there is the option of contract rearing some of their calves out to a calf-rearer.

It's often something farmers haven't considered, but it's a good option if they don't have capital available to upgrade their facilities, Joanne says.

"It's releasing some of that pressure off your own system. It can be a stressful six weeks in the peak of calving and it doesn't take much for that system to fall over."

Having adequate facilities is fundamental to rearing calves in a clean environment and preventing disease.

When the couple set up their rearing system they had an advantage of being able to start from scratch.

They bought and pulled down two second-hand calf sheds that they reassembled. They hired a trencher and put drainage in all the pens, along with waterlines for troughs and built all the pens themselves.

They've since built another shed, with a plastic roof that lets 30% light through. The pens are half under cover and half outside giving the calves plenty of room. There is room for 3000 calves to be housed.

It's important calf pens have good ventilation and to make sure there are no draughts at calf height, Joanne says.

Corrugated iron barriers between the pens prevent draughts and help prevent disease being spread between pens. Each has its own water trough which gets cleaned out every day.

John and Joanne made their own calf feeders using recycled 200l plastic drums and peach teats, which stay in the pens, custom-made their own vat to heat milk, installed a spa pump to heat the water and built all their own vat platforms with drainage.

Making their own gear and building most of their facilities has probably cost a fifth of what new equipment would have set them back, Joanne says.

"It's all about cost control. You just can't afford to spend a lot of money, the margins are just not huge."

Feeding regime

All calves delivered to Top-Notch are weighed on arrival and are fed the following morning, graded on drinking ability and sorted into pens of 22 calves. They don't have compartment feeders so any slow drinkers are put in a pen for slow drinkers. Calves are weighed again at three weeks and sorted into weight ranges.

Calves are fed 4l milk/calf once a day which is warmed in a vat.

They feed whole milk or milk powder or a mixture depending on what is available and most cost-effective.

Supply of product is one of the main risks to their business so they get in early to order bulk products.

"We have to be proactive to ensure there is enough milk powder, sawdust, vaccines available for us during the season."

They also buy milk from local farmers.

They've designed their own calf meal recipe which is 50% pellet, 50% whole grain. A calf is a pre-ruminant and can digest whole grains, which is their fibre rather than feeding hay or straw, Joanne says.

They feed meal adlib when the calves are young and once weaned and out on pasture up to 2kg/calf/day.

Calves are weaned at 75kg for Friesian calves. They are weaned over an eight-day period, gradually reducing milk, as a result their concentrate consumption increases.

They weigh calves 10 days after weaning. Any calves that have lost weight are brought back in and fed milk for another week or two before being weaned again.

Depending on space, calves will either stay in their pen until weaned, or put outside after two to four weeks if shed space is required for other calves.

They've turned an old farm dairy into

a custom-made milk feeding station for calves out in the paddocks to come in once a day for their milk.

They also have a weigh station at the old dairy where calves are dehorned, vaccinated and drafted.

Attention to detail

John and Joanne employ John van Gog who oversees the calf-rearing unit and dairy farm, with Richard Smith as dairy farm manager.

Their two main calf-rearers Samantha Palmer and Karyn James are employed on a 10-month fixed term contract, employing casual staff as required, working on one staff member to every 600 calves.

They run a six-on/two-off roster, try to keep jobs simple and clear and give employees specific roles, that they're interested in, whether feeding calves, treating sick calves, fixing water leaks or cleaning out pens.

With any calf-rearing operation, attention to detail is key and having good staff is vital and it's no different in their operation, Joanne says.

"We've never had a major outbreak of disease. We have a system in place, calves aren't moved, feeders are not used between pens, people are the only thing moving between pens and there is a good barrier between pens."

Any visitors or truck drivers don't go into calf pens and staff wash and disinfect boots and change gloves after being in hospital pens.

They never spray the main pens, but spray the isolated sick pens weekly. The main pens are water blasted at the start of the season and kept topped up regularly with sawdust.

Hygiene is critical and farmers should be able to prevent a disease outbreak if they have enough space and have a plan in place and guidelines for staff to follow, Joanne says.

When there is a disease outbreak on a farm there is always a reason why, whether it's the facilities, staff, or something happening in the herd that's been transferred to calves such as salmonella.

Joanne Leigh – Calf-rearing takes a lot of time and commitment and you really need to love calves to do it.

"There is always a trigger or something fundamentally wrong."

One of the most important things is to have designated hospital pens. At Top-Notch with their large numbers they have seven sick pens, a new pen for each day of the week.

Because calves are only fed once a day staff have one opportunity to spot them. Their policy is: if in doubt, take the calf out of the pen.

"We tried twice-a-day feeding but the calves aren't as hungry and don't always run out to get their milk so it's harder to spot a sick calf."

Staff will do a once-over check of the calf, including its navel, nose, breathing and only treat calves with antibiotics that genuinely need to be treated. The calf's number is written on a whiteboard along with feeding and treatment details for staff to follow.

If it's just nutritional scours they will feed electrolytes for two days. On day three and four they will get milk in the morning and electrolytes at night, then back on milk morning and night for two days then back on to once-a-day milk in a recovered hospital pen.

Electrolytes are key to keeping calves hydrated if they're scouring. John and Joanne make their own, mixed in a concrete mixer. They also use Trubond which is great for scours to bind calves up.

Using Kiwi ingenuity is key to cost control with calf rearing.

Contract rearing

As in any business, the emphasis is on making a profit. In a market where margins are small, Jonathan and Joanne say calf-rearers have to do their sums and watch their costs.

People can venture into calf-rearing because they see an easy way to make extra money, but the reality is after a few years a lot of people go broke or lose interest.

The main cost factors are the cost of the calves and cost of milk powder which can alter from year to year and people can become unstuck very quickly, John says.

John and Joanne used to buy their own calves and sell them on contract, but a few years ago switched to only doing rearing contracts. They now rear predominately dairy heifer replacements for other farmers.

The contracts are based on meeting weight targets with a ceiling death rate of 5%. Their worst ever death rate at Top-Notch was 9.6% when they reared a huge number of calves and were getting up to 700 calves dropped off in one day. Last year their death rate was 0.9%.

They are still learning every day on the job, John and Joanne say. This season they are rearing Wagyu-cross beef calves for the first time which have proved to be challenging and they've had to adjust their system.

"Calf-rearing takes a lot of time and commitment and you really need to love calves to do it," Joanne says.