

Powerful probiotics a game changer

DIANNA MALCOLM

WAIKATO dairy farmer Cole Townsend is so confident in the high-strength probiotics he is using, he has stopped vaccinating his cows against rotavirus.

Townsend and wife Josephine sharemilk about 200 cows on 60 hectares at Wardville near Matamata.

Townsend is big on tracking numbers and has the perfect herd size to note how his decisions impact on his cow and calf health.

They are getting a return on investment of \$2400 for every \$800 spent on the operation (calculated on a \$6/kilogram of milksolids). But more than that, he says he has never been in such a “sweet spot” when it comes to being on top of animal health in an impactful and natural way.

And while he is happy the numbers add up, he says there is a much bigger story in play here. He believes these probiotics have contributed to him recording his highest production through the drought, while making his day-to-day workload a revelation.

His decision to turn his back vaccinating for rotaviruses was one some wouldn't have made.

His rationale included that a mammal's lower gastrointestinal (GI) tract drives 70-80% of its immunity. So he knew if he was going to choose probiotics to bolster immunity, he needed them to be strong enough to reach the lower GI tract so his animals could fight infections on their own.

He first discovered Probiotic Revolution in 2018, while trawling for solutions online after a salmonella outbreak. He added the probiotic supplement Calf Xtreme to his calf milk during the crisis because the calves had struggled with the vaccination.

The results encouraged him to take the next step and replace his milking herd's in-feed antibiotic buffer with Bio Rumen DFM, a probiotic rumen stimulant, which



Cole Townsend with the next generation of his calves.

supports and promotes immunity.

In 2019, he also included a new lead feed, Super Start, for his dry cows two weeks out from calving, to set them up for their next season. The daily supplement was fed in the water trough.

Townsend credits the three decisions with setting him up for the best results of his career.

The crossbred herd was averaging more than 26 litres per cow in September, with 2.5kg MS/day – with protein running higher than last season at 4.0%.

Of the 177 cows to calve this season, he assisted just three, and four weeks out from mating he was noting four to five cows in season every day.

Adding Calf Xtreme to the calves' daily milk was initiated because of the salmonella – but Townsend continued with it because he was so impressed.

“To give you some perspective, our cow's average weight in the herd is 475kg. We look to wean calves at an average of 110-115kg – generally aged around 12 weeks. This year at that age, some were pushing 135kg,” he says.

Townsend says it was easy to note the change of health and energy in his calf shed.

“Generally, the calves now have a greater will to forage and they do it much younger,” he says.

“Every year, we are pushing the boundaries a little bit more. We are now feeding up to seven litres once-a-day (OAD) from the time they are 10 days old. We are able to do that safely because of Calf Xtreme.”

He says the decision to skip vaccinating the herd for rotaviruses before calving has been – so far – the right choice.

“The vets thought I was crazy. And to be fair, everyone's circumstances are different, I understand that. But I put my money into probiotics,” he says.

“Instead of spending \$2000 on a vaccine, I spent \$1500 on probiotics and I got so much more value than just the savings on the product.

“I also got better, happier calves and faster weight-gain.

“It's everything really. I even feed Calf Xtreme to the bobby calves, because that way I just don't have sick calves.”

The herd is fed nearly one tonne of meal/cow/year, which averages out at 3kg for 300 days of the year. The Townsends say using Bio Rumen DFM through the dairy adds up.



Animals on the Wardville farm, including this season's calves, have not been vaccinated for the rotavirus on account of probiotics.

“Being 50:50 sharemilkers, (when I could do it) really came down to the price,” Townsend says.

“I probably introduced it at the wrong time of the year at the start of 2020 through the drought. The cows were still doing 2kg MS and they held that right through January, they started dropping in February because we were struggling a bit for feed, and I dropped them back to OAD milking at that point.

“I had been using the Bio Rumen DFM throughout, but I dropped it in March. They immediately dropped 0.2kg MS, their manure changed to a bad consistency and their temperament also wasn't as good in the shed. So, I decided to put it back in for the finish of the season.

“You could definitely tell the difference, even though we were still struggling a bit for feed at that time, it definitely helped with feed conversion.

“When they were on OAD without the Bio Rumen, they dropped and were as low as 1.1kg to 1.2kg. When we added it back in, combined with some green grass in late March, we were able to put them back to twice-a-day (TAD) milking and lifted production back to 1.5kg MS/day.”

The Townsends finished last season with 87,000kg MS off 173 cows, just over 507kg MS/cow – their best season to date. They fed up to 4kg of meal/cow/day and supported the herd with 20 tonnes of maize silage when it was needed. They also have 15% of the farm planted in chicory.

“I've never achieved that production before and it was a tough year. I don't think the cows would have held at 2kg MS in January without Bio Rumen. They are usually doing 1.8-1.9kg MS at that stage,” he says.

“They also held their condition. I got

plenty of comments from the farm owner, neighbours and even my mates that the cows were in fantastic condition. That's why I didn't worry about putting them back to TAD.

“From what I heard in our area, I was doing 0.2kg-0.3kg more than everyone else on similar feeding systems.”

With the cows responding to the Bio Rumen, Townsend decided to focus on his lead feed, Super Start.

He assisted three calvings out of 177 this season, with three calf deaths. He usually milks the colostrum cows OAD until they get into stride.

“This year, they bounced back so quickly from calving that I just put them straight to TAD,” he says.

“They just seemed to hit the ground running. I found on day five or six after calving, they were almost ready to go to peak.

“I only had one case of mastitis this year and I'd usually get around eight by this stage. I had two or three cows that dried off with dry cow treatment because they had high somatic cell counts of four to six million with repeated clinical cases of mastitis.

“This season, those cows calved and the mastitis was completely gone. I haven't treated them. I honestly expected that I'd only be able to use their milk for the calves this year.

“In general, the cows' udders are softer and the SCC has been halved from about 120,000 last year to 60,000-70,000 this season.”

Milk flow is up 850 litres/day, the kilograms of MS are up 76kg, fat has so far peaked at 4.8% (4.6% last season) and protein is travelling at 4.0% (3.9% last season).

Allan Hain, the Australian pioneer of the probiotic conversation, sources high-

spec ingredients for Probiotic Revolution from Austria, Germany and North America.

He says the results all come down to having billions of colony forming units per gram (strength), viability (shelf life) and micro-encapsulation (protection), so they reach the lower GI tract where probiotics do their best work.

“Most people usually focus on single-strain yeasts. However, the probiotics and enzymes also have a synchronistic action in the rumen, and when they are formulated in the right combinations at the right strengths, they make an extremely powerful product which is what we're seeing here,” Hain says.

Townsend says the savings on antibiotics, along with the knowledge that his animals can fight most infections themselves has been empowering.

“I'm not constantly worrying about mastitis and if it does appear, most of the time she'll push through it herself without antibiotics because she is healthy enough in herself to fight the infection,” he says.

“And, I think that will be important for our industry going forward as vets get more stringent on dry cow antibiotics.

“From a cost perspective, our production so far this season is up 10% with the same amount of cows, the same amount of feed, and nothing else done differently outside of really putting the work in on the lead feed this year.

“And, we have another year under our belt building the entire herd's immune systems.”

Dianna Malcolm has returned to New Zealand after 20 years in Australia as the former co-owner of profile show herd, Bluechip Genetics and co-owner/editor of all breeds magazine CrazyCow In Print. She now operates her public relations business, Mud Media, in Canterbury.