

Data drives efficiencies at Carapook

Dairy farmer: Tindall Family

Region: Western Victoria

Topic: Heifer genomics

Lachie Tindall has plenty of heifer calves. He also has a lot of herd data – including milk metre readings, genomic information, health, nutrition and mating records.

One thing he doesn't have a lot of is time.

Efficiency is the key to making sense of all this data for his 650-700 cow herd. That's one of the reasons why the dairy farmer from Carapook in Western Victoria, started genomic testing his Holstein heifer calves.

Two years in, he suspects the importance of this DNA technology to his business will expand as he concentrates on increasing milk flow and components.

Now, genomics plays a critical role in identifying replacement heifers.

"We have reared anywhere from 280-300 heifers at a time, now it's more like 300-330 heifers a year," Lachie said.

"I only want about 230 heifers for replacements so excess stock is sold."

Ranking genomically tested heifers on their Balanced Performance Index (BPI) has been the first step in determining the best animals.

"I just go through and dump all the data into an Excel spread sheet and pull out the bottom 100 or 105, and then I go through them and draft accordingly," he said.

"If they have the right markings to go on an export order, they go that way, if they haven't, they go somewhere else domestically or I rear them out and try and get them in calf and put them on a different order."

DataGene's website, DataVat gives farmers easy access to their genomic and herd recording information where they can run reports about their herd or access individual animal information.

The first of the genotyped females have started to calve at the Tindall family farm, which includes his parents John and Glenys.



Lachie Tindall uses genomics to identify which heifers to keep and which to sell.



It's only early days but the physical changes in these animals have been reflected in the genomic data, according to Lachie.

"We used to have problems in the herd with really short teats, so about 10 years ago we started selecting bulls specifically on teat length – it was one of the things we looked at, it had to have good teat length otherwise we wouldn't buy it," he said.

"When we started doing genomics the data actually showed we are now quite positive for teat length. You can visually see it, but it was sort of nice – I guess – for it to be clarified that what we were doing was working. It's been the same with daughter fertility, we always picked bulls with high daughter fertility because we wanted to get our cows back in calf and I think our (genomic) average came back at 112, well above average."

Lachie makes no secret of his love of feeding cows but breeding them though – that's a different story.

However, the increasing amount of reliable data available on his herd, has helped sway his thinking.

"I tend to find when I have data, I've got stuff I can relate to and I know is right," he said. "It sort of makes it a bit easier, without it you are just flying blind and say 'I think I need cows that do this', or 'I don't like the look of her and this and that'."

Data has turned subjective breeding decisions into objective business measurables for the Tindall family.

As their herd expands, Lachie believes there will be an increasing amount of reliance on the "average" genomic numbers.

"You can't work on an individual cow when you have 700 cows, it is too hard," Lachie said. "We don't go and select a bull for every cow that's on heat every day, some days we will have 40 or 50 (cows on heat). I just pick bull of the day and I try and select sires that are all similar. Some on BPI, some on stature and daughter fertility. That's probably where we will change now, because we are improving our understanding of genetics through genomics, we will be able to increasingly select for different traits such as better components and improved litres. That's because we know where our traits sit, there's some – such as fertility - that can be sacrificed a little for us to chase production."



Lachie Tindall said data has turned subjective breeding decisions into objective business measurables.

Lachie also plans to share his genomic data with his breeding advisors so they have a thorough understanding of his current herd and where the Tindalls want it to go.

The Tindalls have just finished building a feed pad to give the farm business more options when it comes to feeding cows.

From mid-November until late May – or when it rains- the cows are fed a full total mixed ration diet. The rest of the year they graze pasture.

Milk production sits at an average of 8000 litres/cow/ lactation or about 600kg of milk solids. The herd weighs an average of 580kg.

Feed conversion efficiency will also become a focus as the family works towards their goal of producing 1.5 litres of milk for every kilogram of dry matter consumed over a cow's lactation.

This feed conversion information would add to the accumulation of data generated from milk metres in the dairy, genomics and cow collars.

Looking ahead, Lachie would like to see the dairy industry place more value of data outside the farmgate.

"What I'd really like is for the domestic and export market to start paying a premium if you have genomic data to back up what you are selling," he said.

"Having genomics and a BPI number would provide value for buyers."

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