Case Study



Genomic tool boosts herd data

Jodi and Brett Loughridge

Region: Gippsland, Victoria

Topic: Genomic testing, Genomics in Action discussion group

After decades of careful and considered breeding, the last thing Jodi and Brett Loughridge wanted to do was sell their genetically superior animals to the export market.

But with the way they were selecting females for sale, this was a possibility.

"The animals are visually assessed, and the heifers with obvious faults are chosen for export," Jodi said.

"But if we had more data on the heifers, anything that's a standout – with the extra genetic information – we can make a more informed decision about whether to keep or export."

"We've worked hard for more than 45 years to select good bulls that are appropriate to breed our cows and our herd has improved over that time. We want to keep our best heifers." Jodi and Brett farm with Brett's parents Bill and Faye, milking 650-cows at Poowong North, Victoria.

The family has recently started genomic testing some of their animals including the calves born in 2021 and 2022 along with the spring calving 2021 first lactation heifers.

This new genomic data will be added to their extensive herd production and health records and initially used to inform culling decisions.

Primarily encouraged to genomic test as part of the industry Calf Vitality Project, Jodi saw value in the additional data and how it predicted the performance of important traits.

"It was the bigger picture for me," Jodi said.

"There's two parts to looking at an animal, there's looking at her phenotype – how she looks and presents herself – but then there's the other side, her genetics.

"We keep hearing about certain genetic links, and it would be good to know what we are starting with – female genotypes – when we are selecting our bulls.



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Jodi Loughridge



Jodi has discovered there are lots of different reasons farmers pursue genomic testing, but they all value the additional data it generates.

"For example, some of the genetic traits of great interest to us are fertility, mastitis resistance and heat tolerance."

New to genomics, Jodi joined 'Genomics in Action', an online discussion group run by Dairy Australia and DataGene to improve her knowledge of DNA testing and analysing the data.

Only a few sessions in, Jodi has discovered there are lots of different reasons farmers pursue genomic testing, but they all value the additional data it generates.

The Loughridges' data will also contribute to Australia's national reference herd as the family recently joined DataGene's Ginfo project.

Ginfo is a large-scale genotyping project that provides genetic and performance information to increase the reliability of Australian Breeding Values and Indices.

Initial testing

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Through the Ginfo project, Jodi and her family took tail hair samples to genotype their first-lactation heifers.

The rest of their genomic testing was done by taking a tissue sample from the ear using a Tissue Sampling Unit (TSU).

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Jodi said the results from the genotyping reflected their bull selection and their herd's improving genetic base.

"From what I'm seeing, and its only early days, they aren't

"We have the range of animals that we should have, not

Index - some of the figures for the young stock were really

too many on the lower side, and when I looked at them

on DataVat - focusing on their Balanced Performance

The Loughridges already individually breed their herd -

"It is a tool," she said. "It is not the only thing we will

information we have here in Australia."

look at but it will help us make decisions based on the

selecting bulls to enhance the positive or reduce the less

desirable traits of the cow - and Jodi said genomics adds

too bad," Jodi said.

extra information for this.

surprising."

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