## Case Study



## **Genomics help deliver step-change for SA family's business**

Dairy farmer: Pearson family Region: Mount Gambier, SA

**Topic: Balanced Performance Index** 

Huge genetic gains are just the icing on the cake for a South Australian dairy business that has undergone an extensive transformation in recent years.

The rewards are paying dividends on the its balance sheet as well as delivering a better work-life balance.

Ray and Marg Pearson, sons Adrian and Shaun, and Adrian's wife Shannon have increased their herd by 50% to 900 cows, replaced an old dairy with a new rotary, and now their Holstein herd is within the top 200 in Australia according to its genetic merit.

The family, from near Mount Gambier, have improved the Balanced Performance Index (BPI) of their Burrungule Dairy herd by 161%, moving from an average BPI of 67

to 175 in four years. This represents a shift in the herd's overall ranking to 137 in Australia from 576 in 2020.

Underpinning this significant rise has been the family's focus on breeding with top bulls on DataGene's BPI and genomic testing.

"We started with genomics because we wanted to get better quality animals through the herd and see where our calves were at," Shaun said.

"It also helped out with choosing our export heifers too; it made sure that when we were selling groups of heifers those groups never included any of our best ones," Adrian added.

Now, the genomic information for each heifer determines which ones are retained – generally those 250 BPI or above – and which cows are bred to sexed semen.

Long-term breeding adviser Genetics Australia's Graham Heaver helps the Pearsons choose bulls to fit their breeding goals.



Shaun (left) and Adrian Pearson (right) have improved the Balanced Performance Index (BPI) of their Burrungule Dairy herd at Mt Gambier, South Australia by 161%, moving from an average BPI of 67 to 175 in four years.

He said a bull's BPI is the most important consideration for selection and then they focus on improving any issues within the herd.

"If there are traits showing up, we tend to work on that," Graham said. "For example, if there are more lame cows, that would become a focus. But if a bull has a serious problem, he's not going to be a high BPI bull, a high BPI bull generally has all the traits you want."

It is tough for the Pearsons to determine the true production gain from their breeding approach, because there have been so many changes within their business in the past five years.

For example, they've seen a production increase of 5-6 litres per cow/day to an average of 9,500 litres per cow per lactation in the new rotary dairy, where each cow is fed in the bail, according to its production. Previously, in their old herringbone dairy, the herd was blanket fed.

Better genetics are making a mark in their heifers. Shaun explained that all heifers enter the dairy "at a consistent size", which makes them easier to manage and break into the dairy. They are also more comparable to the cows in the herd - both in size and production.

Pulling up one heifer's record on the dairy office computer, he points out the production capacity within the young group.



In the Pearsons' new rotary dairy, where each cow is fed in the bail, according to its production.



Shaun Pearson: "We started with genomics because we wanted to get better quality animals through the herd and see where our calves were at."

"Here's one heifer, she's 48 days in milk and doing 31.9 litres on 9.7 kg (of wheat, canola and minerals)," he explained. "As an average, the heifer group probably does around 29 litres, which is about 80% of the average cow production."

Choosing high BPI bulls has also improved calving ease within the Pearsons' herd. The brothers are grateful for the time this has given them back for other things.

"I think one of the best things happening with calving ease, we are not pulling many calves at night," Adrian said. "Years ago, we'd be driving around the cows every night checking them."

"Now once the last person drives out the gate, they (springers) are in the paddock until the next morning," Shaun added.

It is a similar story with other health traits. For example, less mastitis saves time and money, delivering more milk in the vat consistently.

The family doesn't want to lift herd numbers to more than 1,000 cows, instead concentrating on improving their genetic merit to lift production, health and profitability.

They will continue to focus on breeding with high BPI sires but start to investigate traits such as feed efficiency and heat tolerance.

## CONTACT US ABN: 78 613 579 614

DataGene Limited, AgriBio, 5 Ring Road, La Trobe University, Bundoora Victoria 3083



email: enquiries@datagene.com.au



www.datagene.com.au



T 1800 841 848



Disclaimer: DataGene is an independent and industry-owned organisation responsible for driving genetic gain and herd improvement in the Australian dairy industry and is an initiative of Dairy Australia and industry. This report is published for your information only. It is published with due care and attention to accuracy, but DataGene accepts no liability, if, for any reason, the information is inaccurate, incomplete or out of date whether negligent or otherwise. Copyright @ DataGene Ltd. All Rights Reserved.