# Case Study



# **Data dive leads to discovery**

Dairy farmer: Telford family Region: South Australia

**Topic: DataVat** 

Imagine discovering that a portion of your milking herd earned at least \$850 a lactation more than some of your other cows.

That's the figure that was recently identified at Mundoolun Dairying in South Australia, thanks to the DataGene's Genetic Futures Report.

The Telford family at Mt Schank, south of Mt Gambier, now monitor their 2,750 cows plus their offspring through the report, which is available on DataVat, the dairy industry's herd improvement web portal that provides herd reports based on a farmer's own data.

The Telfords were introduced to DataVat by their breeding adviser, Matt Aikenhead, ABS technical and genetic services manager. He uses the program to demonstrate the value of genetics and identify areas of improvement.

"We ranked the herd based on BPI (Balanced Performance Index) and discovered the difference in total solids

production – fat and protein – between the top 25% of the herd and the bottom 25% was 140 kg milk solids per cow per lactation," he said.

Working on the state five-year average milk price of \$6/kg milk solids, that equates to an extra milk income of \$850 per cow per lactation.

Closing the gap between the top and bottom of the herd is a priority for Matt.

The BPI is one of the indexes the Telfords use to select bulls for joining.

Health is the highest breeding priority, followed by milk solid production and then functional type – including feet, legs, and udders.

As part of Matt's breeding recommendations, he sets a minimum BPI to short list the top 20% of DataGene's *Good Bulls Guide*. For genomic bulls, this was 325 BPI in April; for proven bulls it was about 300. Within this group, he looks for bulls that excel in specific traits. For example, he looks for bulls more than 112 for survival and daughter fertility.

It is early days in the Telfords' journey with the BPI index,



Breed adviser, Matt Aikenhead (right) used the Genetic Futures Report to show Travis Telford how much more income high BPI cows contribute to the business. Photograph: Trevor Telford

but Matt said the direct correlation with profit - and the ability to demonstrate this with the Genetic Futures Report - has helped validate breeding decisions.

"I can speak with some customers about breeding values of bulls and I can see them starting to glaze over," he said. "But if I can say 'this is showing your top BPI animals in your herd versus your bottom BPI' - that's validation.

"To me, that's an upside because we've told our customers that the BPI works and they've taken my advice at face value but now it's validated within their herd. The high BPI animals are outperforming the low BPI animals.

"They (customers) have faith that the BPI makes more milk, and this can make more money and they see it in their own herd. They say 'that's my herd', not some sort of research study.

"It really hits home when you can talk to a customer about their own herd and their own results as opposed to industry averages."

The Genetic Futures Report also highlighted the need to place further emphasis on daughter fertility within the Mundoolun herd, Matt said.

#### **Genomics**

Mundoolun Dairying has also started genomically testing young stock to build their genetic dataset.

They recently completed tests for 350 autumn calves, All those animals will have a full set of genomic results and it will go into DataVat where the Telfords can look them up at any time, Matt said.

"These values are 'live' (updated from herd test and other records) and they aren't a static report based on the genomic value of when a heifer was born," he said.

"The Telfords use the genomics to make decisions about heifer exports but now they can go back and look at what the BPI is on any given day."

Matt expects this data would also be used to better target the use of sexed semen and beef straws.

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ABS technical and genetic services manager Matt Aikenhead

Currently, sexed semen is used selectively on the cows - for example those that are more than 55 days in milk at joining and those that are on their first or second lactation. Sexed semen is also targeted at up to 20% of the higher genetic merit cows in the herd. The rest are joined to conventional semen with beef used for the last three weeks of joining.

Heifers are joined to two rounds of sexed semen then run with beef paddock bulls.

Matt was given permission to access the Mundoolun herd information on DataVat by the Telford family.

Travis Telford, who runs the business with his family, said additional and easy to access herd information helped onfarm decision making.

"With genomics, we know a heifer's expected performance well before she's in the herd," he said.

"It costs a lot of money to get a heifer into the herd, so if we know - say at six months - we don't want to milk her, we can look at other avenues for her."

The Mundoolun business is busy and multifaceted; on top of milking cows there's cropping and hay production.

That's why they describe their ideal cow as a "ghost".

"When we are breeding a cow, we are aiming for a cow that we don't notice, a ghost cow: she calves in well; we mate her again and she gets pregnant ... she doesn't get mastitis and doesn't get lame. She may not be a 15,000 litre cow, but because she's a ghost cow and doesn't get sick or lame, she is making us money every day."

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