## **Case Study**



## Restoring the missing link in herd improvement

**Peter Fullerton** 

**Region: Western District, Victoria** 

**Topic: Herd records** 

With support from his local herd test centre, Western
District dairy farmer Peter Fullerton has recovered decades
of performance data and pedigree histories that had been
lost due to the incorrect transfer of purchased cows.

By correcting the transfers and restoring the valuable link between his herd test data, his breed society and the broader herd improvement network, Peter recovered the ABVs (Australian Breeding Values) of numerous individuals, solidifying their rankings within the top 2% of their breed, while bolstering his herd's position in the top 25 Holstein herds in Australia for BPI (Balanced Performance Index).

Peter runs a mixed dairy herd of 300 cows with his family at Nirranda South, just off the Great Ocean Road in south-west Victoria. For Peter, the continued genetic improvement of his herd is a priority, with his expanding portion of highperformance Holsteins registered under the Daybreaker Holsteins prefix.

The crossbred portion of the herd is being phased out, as Peter replaces them with elite Holstein pedigrees, investing in deep cow families with high genetic merit, including the Tiffany, Deonie, Alice, Melody and Bonnie cow families.

Peter genomically tests his registered heifers, using both the genomic data and herd performance data to identify his highest genetic merit females. A combination of IVF, embryo transfer and sexed semen is used to increase their genetic influence on his herd, with the low genetic merit animals and crossbreds used as recipients or bred to beef.

"This way I'm getting more heifer calves from the top end of my herd, but also, I'm not breeding replacements from my bottom cows," he said.





Peter relies heavily on his herd test reports and genomic results when deciding which cows to flush and which to use as recipients, emphasising the importance of having accurate data to support his breeding decisions.

"When you're spending so much time and money on genetics, you want to know you are getting the most value out of it," he said. "That information is supporting all my breeding decisions, so it needs to be reliable and not have any gaps."

In the past, Peter was frustrated by errors on his herd test reports, with cows showing incomplete histories, incorrect breed status, missing PIs (Performance Index) and lost breeding values.

"I'd bought in some really big production cows with big pedigrees," he said. "Their registration had been transferred, and I had entered their details onto my program, so I thought it was all done - but that information was not linking up."

What Peter didn't realise was that by adding the new cows onto his on-farm software without notifying his herd testing centre, he had unknowingly created duplicate records on the herd improvement database that were not linked to their previous genetic or performance histories.

Peter became aware of the issue after a conversation with fellow Holstein breeder Bryan Dickson (Emu Banks Holsteins). Brian had approached Peter about buying some embryos from one of his new cows. Unfortunately, her production records at Peter's were not appearing on her official Holstein pedigree.

"Then I looked her up on the database, and her breeding values didn't match up either," Peter said.

Peter contacted his local herd test centre, and they helped him identify the cow's original National ID. By taking the records linked to the original National ID and merging it with the duplicate record that Peter had accidently created, they reconnected more than 60 years of pedigree, production, and ABV histories for that cow, which was then updated directly to Peter's on-farm software.

Now supported by her complete data history, the cow, Gorbro Numero Tiffany, boasts a BPI+330 (April 2022), and sits in the top 2% of the breed, and has more than 10 direct daughters in Peter's herd with a BPI above +400.

Since then, Peter has corrected numerous records which has filled gaps in production histories, bolstered ABVs, and raised the eligibility for various production awards, and star brood cow points. Ensuring all bought-in cows are transferred correctly is now a priority for Peter, as he sees the accuracy and reliability of the genomic and performance data as critical for his breeding program.

"I put a lot of value on deep pedigrees with generations of productions records - particularly those that show regular calving intervals and high lifetime records," he says. He believes this demonstrates a cow's ability to "live up to expectation", while giving him assurance that the bloodline can pass on its superior traits to the next generation.

"I like generations of cows with high PIs and high components, low cell counts and have calved every year and it's important these sorts of pedigrees and histories are not lost," Peter said.

"It also links in with the genomics, and the reliability of bull proofs and cow ABVs. Breeders have spent decades herd testing and building pedigrees. Transferring records is an easy way to make sure that information chain continues."

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