

# Herd gets top Billing after genetics analysis

IMPROVING HERDS

Mark Billing and Sam Simpson  
Larpent, South-West Victoria



## Genetics Case Study

Seeing a genetic snapshot of their herd has led to rapid improvements has led to rapid improvements in an already productive herd for Larpent dairy farmers Mark Billing and Sam Simpson.

The fourth-generation farmers, who run about 420 cows near Colac, have wholeheartedly embraced the information they received as part of genetic analysis of their herd and made breeding decisions based on it.

While they knew they had variation in their herd, the analysis made them even more determined to raise the bar when it came to their herd's performance and to change management accordingly.

The herd was one of 27 dairy farms across Australia that recently underwent detailed analysis by the ImProving Herds project to investigate the contribution of genetics to dairy businesses.

The study identified the top and bottom 25% of each herd, ranked on Balanced Performance Index (BPI), the genetic index for profit used by the Australian dairy industry, and compared their performance in terms of production, longevity and financial contribution to the farm business.

Ten years of historical performance data, plus recent farm financial data from the herd records were analysed to look at the difference in contribution to the farm business between the top and bottom BPI groups.

The study found the top 25% of the 420-cow herd produced 1431 more litres of milk, 77 more kilograms of fat, and 59 more kilograms of protein per cow per year than the bottom 25% of the herd.

## Farm stats (September 2018)

### HERD SIZE

420 cows

### BREED

Holstein

### FARM SIZE

220 ha milking area and 85ha heifer block

### CALVING PATTERN

May - June

### DAIRY

44-unit rotary dairy

### STAFF

2 full-time and 3 part-time

### FEEDING SYSTEM

Pasture/grain

### HERD TESTING

Monthly



*"The genetic analysis made us focus on the things that we needed to work on."*

Sam Simpson and Mark Billing,  
South-West Victoria



Sam Simpson uses genomic results to split the herd into groups for selective matings, based on Balanced Performance Index.

“It’s about doing the one to two percenters better which will make a difference to our performance.”

While the couple had always been keen to have a high-quality herd, the genetic testing has given their strategies a lift.

“The genetic analysis made us focus on the things that we needed to work on,” Mark said.

“Sam has been able to use the information to make great genetic selections and the rise of the performance of our herd is the result.”

## ImProving Herds pays dividends

IMPROVING  
HERDS

*ImProving Herds was a three-year project that studied the contribution of herd improvement to Australian dairy businesses.*

*At the heart of the project were 34 inspiring Focus Farmers who agreed to put their farm, herd and financial records under the spotlight. Seven were Herd Test Focus Farmers and 27 were Genetics Focus Farmers. This is one of a series of case studies about their experiences as ImProving Herds Focus Farmers.*

*ImProving Herds has shown that:*

- *The daughters of High Balanced Performance Index (BPI) bulls perform better under Australian conditions, across dairying regions and feeding systems.*
- *Cows in the top 25% for BPI in a herd outperform cows in the bottom 25% for production, fertility, longevity and contributed on average an extra \$300 income over feed and herd costs.*
- *The benefits of using genomic breeding values to guide heifer selection decisions were demonstrated on the Focus Farms, where the performance of genotyped heifers aligned with their genomic breeding values.*
- *Information from herd testing gave Focus Farmers confidence to make data-driven decisions for routine management and to respond to high pressure events.*

*Funded by the Gardiner Dairy Foundation, the project was a collaboration of Dairy Australia, Agriculture Victoria, DataGene, Holstein Australia and the National Herd Improvement Association of Australia (NHIA).*

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