

True to type and production

IMPROVING HERDS

Janine and Terry Clark
Nerrena, South Gippsland



Genetics Case Study

Terry and Janine Clark are combining good type and longevity with production in their herd of 255 Holsteins registered under their Harklaje prefix.

The Clarks business, at Nerrena, South Gippsland, 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.

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

The study found the top 25% of the Clarks' herd produced 622 more litres, 51 more kilograms of fat, and 37 more kilograms of protein per cow per year than the bottom 25% of the herd.

The extra milk production from the top cows resulted in an extra \$388/ cow/year in milk income after feed and herd costs compared with the bottom group.

Farm stats (August 2018)

HERD SIZE

255

BREED

Holstein

FARM SIZE

120 ha milking area, (144 ha owned and 65 ha leased)

CALVING PATTERN

Split: 1/3 Feb/March, 2/3 August/September

DAIRY

15 double up herringbone with auto drafting for heat detection

STAFF

Terry and Janine. Employed a casual for 30 hours/week in March this year

FEEDING SYSTEM

2 t/cow/year

HERD TESTING

Since 1982; bimonthly for past 5 years



The extra milk production from cows in the top 25% of the herd resulted in an extra \$388/ cow/year in milk income after feed and herd costs.

The Clarks use Easy Dairy and have herd tested for many years. Their comprehensive records include all cow pedigrees, every health treatment and long-term production figures.

Detailed farm records were a key factor for the Clarks' involvement in the ImProving Herds Project and are a driver for their herd being accepted into the Ginfo project, the dairy industry's genetic reference population.

"We've been concentrating on longevity and type because a lot of time and money is put into rearing replacements and we like them last a long time," Terry said.

"We really like being involved in on farm competitions because people get to see your cows and you get feedback. We had the champion cow in the sub-branch for two consecutive years."

"More recently we've put more emphasis on fertility, components, mastitis resistance and production per cow."

"Our approach has been to get a list, put in our parameters, then look at BPI and cost, with the aim to use a blend of bulls," Terry said.

The Clarks' son, Mitchell, works for Semex and has been a key player in drawing up a bull team for use on the family herd for the last couple of years.

Autodraft

The Clarks are committed to using 100% AI in the herd through natural cycles and this has meant a reasonably long joining period with a lot of heat detections.

In recent years they have eliminated the need for someone to constantly monitor cows for heat detection by using collars and auto drafting.

The collars record cow activity and rumination to determine which cows are on heat with these cows automatically drafted off as they leave the dairy.

"We have four readers in the dairy and a reader on the auto drafter, which drafts the cows into the yards so they can be inseminated straight after milking."

"The auto drafting program gives the cows a heat index and we can decide whether to AI her this milking or the next. It saves a lot of time," Terry said.

All cows are joined to conventional semen. If a cow fails to conceive to AI in one joining period she can be carried over to the next season if she has good production levels.





Heifers

Replacement heifers are synchronised for joining and have one round of AI with conventional semen before being run with a beef mop-up bull.

About 80-90 heifers are reared a year and all replacement heifers are genomically tested as two-year-olds to coincide with classification.

Nearly every animal in the Clark's herd has been genomically tested, which is a result of the Clarks' involvement in Ginfo and other industry projects.

"I'm particularly interested in the potential of the feed saved genomic ABV." Feed saved is an example of a new generation of ABVs made possible by advances in genomic technologies.



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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