

Figures break through Glass ceiling for productivity

IMPROVING
HERDS

Patrick and Kerry Glass
Gundowring, North-East Victoria



Genetics Case Study

When Patrick and Kerrie Glass (Kerrick Park) first began dairying, they used to record details about cows on a wall chart. Much has changed since those early days, including the transition from share farmer to owner, but their attention to detail in terms of recording cows has never waned.

The couple, who run 500 registered Holsteins on a farm at Gundowring, in north-east Victoria, with their son Brendan and his wife Sarah, has always been keen to embrace the latest ways of measuring the performance of the herd.

The latest – to be involved in the ImProving Herds project – was a natural progression.

The Glass family farm 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) 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 herd produced \$427 more income after feed and herd costs than the bottom 25%, a figure that surprised even Patrick's figure-hungry mind.

"It wasn't really the difference in income that surprised us but more that the costs associated with the higher-producing cows still didn't take away from their overall ability to generate greater profit," Pat said.

Farm stats (September 2018)

HERD SIZE

500 cows

BREED

Holstein

FARM SIZE

Milking area 280 ha, total 528 ha

CALVING PATTERN

Autumn

DAIRY

50-unit rotary

STAFF

Four full-time, two casuals

FEEDING SYSTEM

Pasture

HERD TESTING

Since 1983



"You are feeding these higher-producing cows more and they may have higher vet bills, but they are still making you the most and that was really good to understand."

Patrick Glass, North-East Victoria

“You are feeding these higher-producing cows more and they may have higher vet bills, but they are still making you the most and that was really good to understand.

“We are able to individually feed those higher producing cows, which typically get 5-7 kg/day of grain compared to 2-5 kg/day of grain for the lower producing cows, but they are still producing more income for us after feed and herd costs. It shows you should not always just look at raw production figures.”

Recording foundations

Pat and Kerrie started off their careers in dairying as wage earners, or as Pat said, “we started with nothing”.

“It means you have to dot every ‘I’ and cross ever ‘T’ to make sure that you are making money,” he said. “It was clear from the start that you need good records – if you are not recording it and not measuring it, you can’t fix it.

“When we started out, we decided that business analysis was one of the key skills we should have.

“An example was looking back then at something simple like fertility – our level in the herd was 30% not in calf when the

industry average was 12% so immediately we knew what we needed to work on.”

That initial recording was done on a chart on a wall, and has gradually progressed to the computerised system now in place in their dairy.

That record keeping is in use every day, and is involved in making key decisions for the herd.

A cow that came in with a sore hoof about three or four years ago was noted by Pat’s son Brendan, who recollected that the cow’s mother had also had sore feet. A quick check of their records on Easy Dairy showed that not only had the mother had sore feet but also the grandmother. Both the mother and the grandmother had just one calf before breaking down, only producing three to four months milk.

“We immediately culled that family line from our herd,” Pat said. “That’s the power of recording keeping.”

Genomics

The Glass operation has always been an early adopter of breeding advances and started to use genomic testing about

Patrick and Brendan Glass



nine years ago. They were one of the first herds to be tested with Holstein Australia.

Tail hair samples are taken at eight weeks old, with 200 heifers tested last year.

The genomic BPIs are assessed to help make decisions about which heifers are going to be retained in the herd and which will be grown out to be sold.

“The genomic evaluation and the genomic BPI are very good ways to rank the heifers,” Pat said. But Pat is a stickler for type, and will use the physical attributes of the heifers as his primary decision maker, followed by the parentage and then the genomics before making a final selection decision.

“It is still critical to look at the animals – they need to be sound to be profitable,” he said.

Pat said high returns for growing out heifers meant that the eight-week wait for the genomics results was not an issue, but a shorter turn around to help with earlier selection would be welcome.

“By eight weeks, you have really spent a lot of your rearing costs, so it would be better if these tests could come back

quicker and the industry is working on that,” he said.

The immense amount of information on the Glass’s herd has also been able to be used to verify some of the genomics information, making it a two-way street for the industry.

As a Ginfo herd, the genomics results from the Glass herd as well as from many other well recorded herds have been used to develop and adjust genomic equations, Pat said. Ginfo is Australia’s national reference herd for genetic information. Managed by DataGene, Ginfo includes more than 100 commercial herds with excellent records.

“We always need to make sure the industry information is relevant,” he said.

Sexed semen

The Glasses use sexed semen, with the goal to have an even drop of heifers early in the calving season. This then flows on to having a group of heifers that is 24 months old when they first calve rather than a more spread out age group if they were relying on non-sexed semen, when heifers could be as young as 20 months when they calf.





Patrick and Brendan Glass use their detailed herd records for breeding and business decisions.

They use sexed semen over about 50% of their heifers, to make the most of what Pat said should be the best genetics in his herd. They also use it over specially selected cows, with an overall use of about 25% of the herd.

“We think it is worth it, because we try to get heifers big and strong at 24 months old when they calve in autumn each year,” Pat said.

Genetic progress

There is no doubt the use of genomics and the analysis provided in the ImProving herds project has only added to all already highly productive and highly monitored herd.

Pat has used artificial insemination (AI) in his herd since the mid-1970s so needed no convincing about the importance of using semen with high genetic merit.

“It (AI) was always part of our improvement process,” he said.

Bulls are selected to produce profitable daughters and Pat uses the BPI to do this, which offers a balance of the traits Pat is looking for including production, fertility, longevity and mastitis resistance.

Pat said the ImProving Herds project looking at genetics was the industry’s way of putting a dollar value on the value of the genetics that were being used.

“Many people already really knew that using higher genetic merit bulls made your herd more profitable but this was a red-hot go at putting some figures around this,” he said.

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.*

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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

 (03) 9032 7191



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