Jersey herd driven by passion and data

Sarah Chant
Warrion, Western Victoria

IMPROVING HERDS

Genetics Case Study

Sarah Chant is passionate about Jerseys and production at her family's Warrion farm, 20 minutes north of Colac in Western Victoria.

The Chant 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), 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 Chant's 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 Chant herd produced 15 more kilograms of fat and 24 more kilograms of protein per cow per year and lasted 6 months longer than the bottom 25%. The extra milk production from the top cows resulted in an extra income after feed and herd costs of $161 cow/year compared with the bottom group.

"Milk in the vat is the key driver of our business. So it was great to be involved in the ImProving Herds project," Sarah said.

The Warrion farm and herd were started by Sarah's parents, Steven and Roslyn. Sarah took over the farm when her father passed away two years ago.

"My family have always been passionate Jersey breeders and started their herd 40 years ago with cows from dad's parents. Most of our genetics came from Edi when they dispersed – they are really nice cows."

Farm stats (July 2018)

HERD SIZE
240 cows

BREED
Jersey

FARM SIZE
160 ha home farm 40 ha run-off block

CALVING PATTERN
Split 90% autumn and 10% spring

DAIRY
30-unit herringbone

STAFF
Sarah and 1 employee

FEEDING SYSTEM
7 kg of Ridley pellets/head/day

HERD TESTING
Monthly

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The herd of 240 registered Jerseys, under the Warrion prefix, split calves with 90% calving in autumn and 10% in spring.

The home farm is 160 ha, of which 60% is irrigated with a travelling irrigator and spray lines. The farm also incorporates a 40 ha run off block that is 50% irrigated.

Breeding

Production, fertility and type are the drivers of the Chant breeding program.

"I show cattle so type and conformation have always been very important, but we are now also pushing for genetic gain in fertility and production," Sarah said.

"I send our breeding objectives to Amy Wright of World Wide Sires who does our mating program and she will send me a list of 10 bulls from which I'll pick six or seven.

"Some of the main things for me are that the bulls are positive for fertility, while holding production and not losing too much type."

The ImProving Herds analysis of the Chant herd showed that Jersey bulls used in the herd over the past 10 years had produced cows with genetic trends that have increased profit, production, overall type, longevity, mastitis resistance and fertility.

"I want big strong cows that get in calf and produce. The herd has a low cell count so the reasons most cows get culled are type and fertility."

Mature cows are AI joined for two cycles then run with mop up bulls for a total joining period of 12 weeks.

A tight calving period is important to make the best use of farm labour and there is a focus on ensuring every cow is cycling before joining by monitoring heats before the AI program starts.

“We aim to grow our heifers out really well and keep 65 for joining and sell 20 each year,” Sarah said

“We run the replacement heifers on our runoff block, so they are synchronised using PG for joining then have one round of AI followed by a mop up bull.

“At preg testing we identify the late calvers – which are in calf to the bull – and sell a portion of them so we end up with about 60 heifers going into the herd each year.”

The heifer AI program is run two weeks before the cow AI program – the extra two weeks gives the heifers a longer recovery time after calving before they are rejoined as part of the cow herd

Having heifers calve a fortnight earlier also allows the heifers to have lead feeding in the dairy before calving and then come through the milking shed and settle before the cows come in. Last season every two-year-old heifer got back in calf.

“This year we had a great conception rate so when I need to get rid of around 15 cows this spring I will be able to cull on production.

Production

Sarah keeps all her herd records on MistroFarm and DataGene’s HerdData phone app so they are easily accessible when she’s not in the office.

ImProving Herds pays dividends

"We've herd tested monthly my whole life and I love looking at the data on the cows and have the HerdData app on my phone," she said.

"It's great when you can see the changes in performance and watch the changes in cow production per year."

The Genetic Progress Report produced by DataGene for the herd show the steady improvements in the herd average BPI, survival, mastitis resistance, fat and protein.

"I haven't used sexed semen at this stage and haven't started genomic testing because I've been conscious of our cash flow but they are both technologies I'd like to use in the future. Genomic testing would let me identify the better heifers at an earlier age," Sarah said.

"I've been keeping bull calves out of our best calves to use on farm and to sell to other district farmers as a mop up bull. Genomic testing the bull would give us figures for the ones we use in the herd and for the Jersey bulls we sell as mop up bulls."

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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