Case Study



Sexed semen a game changer in elevating Holstein herd

Dickson family Region: Western Victoria Topic: Genetic progress

Using sexed semen to breed more heifers, and genomics to identify the best to retain as replacements, has helped a Western Victorian family breed Australia's best Holstein herd and the nation's second-best Jersey herd.

Bryan and Jo Dickson, with daughters Rachel, Jacque, Anna and Leah, were not striving for the highest ranked Balanced Performance Index (BPI) Holstein and second placed Jersey herd. They concentrated on breeding good cows and these recent accolades were the result.

For Bryan, the formula for fast tracking genetic progress was simple.

"We pick reasonably good bulls, genomic test all our cows, breed with sexed semen and sell off the bottom end of the herd," he said. "We breed 700 heifers a year and keep 200. These 200 are selected according to their Balanced Performance Index (BPI) and Type."

The Dickson family operate Emu Banks Holsteins and Jerseys at Terang in Western Victoria.

Registered Holsteins dominate their herd of up to 750 milkers, however, 60 Jerseys, a few Brown Swiss and some Illawarras ensure there's plenty of diversity in the dairy.

The Emu Banks herd hit number one in DataGene's August 2022 Australian Breeding Values (ABV) BPI rankings, with an average BPI of 296.

It was also top of DataGene's new Sustainability Index at 550.

Bryan said their widespread use of sexed semen during the past six years was a game changer as it enabled them to breed more heifers and place greater selection pressure on their herd.



Genetic boost: Bryan, Anna and Jo Dickson believe sexed semen has been a game changer for their Terang Holstein herd.



This also meant they were breeding their next generation from genetically superior animals.

All heifers are bred to two rounds of sexed semen, while many cows also receive this semen.

No animal is joined until she's been milking for 50 days to maximise sexed semen conception rates.

"In our breeding program, sexed semen is still used on cows that have a BPI of less than 250," Bryan said.

"We just use cheaper sexed semen on cows with lower BPIs."

Thanks to this increased use of sexed semen, the Dicksons now have ample heifers for livestock sales to the export market.

DataGene Stakeholder Relations Specialist Peter Thurn said reaching the top of the ABV BPI Holstein herd rankings with such a large herd was a fantastic achievement.

"To get to the top, you've really got to take a herd approach and that's what the Dicksons have done," he said.

"Everyone can have a few good cows, but it is a lot harder to have a whole herd of good cows." Peter said the Dicksons' "work and focus" should be commended as well as their unwavering commitment to using quality bulls and retaining their best females otherwise known as attacking genetic progress "from both ends".

Bryan and Jo have been concentrating on breeding cows with good function type, production, daughter fertility and low cell counts.

When selecting sires, they refer to the BPI list and then further refine their search according to their breeding goals.

This generally means they've used small amounts of semen from the top BPI bulls and purchase the bulk of their genetics from bulls with BPIs from 430 to 450.

"You've got to breed for something," Bryan said.

"We focus on having good BPI and Type, so when we cull, that's what we cull on, and these decisions have improved our herd."

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August 2022