DataGene
Solutions for Herd Development

Building a beef market with genomics

Place family

Region: South-West Victoria

Topic: Genomic testing

Combing genomic data with sexed semen is helping one South-West Victorian dairy operation breed more heifers and diversify their business with beef.

Brothers Chris and Peter Place and Chris' wife Diana have genomic tested up to 95% of their registered Holstein herd.

Milking 400 cows, the Tesbury farmers use the genomic information – including Balanced Performance Index (BPI) rankings – to make breeding decisions.

"We use sexed semen to breed the maiden heifers and the higher value – higher BPI – younger cows," Chris said.

"Then the lower value BPI animals and third returns are joined to beef."

Some conventional dairy semen is still used in the older cows, but thanks to genomics and sexed semen, the Places are breeding replacements from their highest genetic merit animals and these heifers are arriving at the start of calving.

"With sexed semen we now have 150 heifer calves a year within six-to-seven weeks," Chris said.

"It's different from when we used to use conventional semen and get 80 heifer calves dragged-out over four months."

Chris Place has been breeding replacements from the top portion of their herd (based on BPI), resulting in improvement in the herd's production and fertility during the past three to four years.
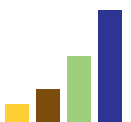
Breeding from the top portion of their herd, the Place family have witnessed improvements in their herd's production and fertility during the past three to four years.

Their herd is now ranked number 87 in Australia based on BPI – a sharp improvement from sitting at about 250 a few years ago.

For Chris, improving the herd is about "personal pride" but he admitted it was also nice to see average production of more than 550 kg of milk solids and improved joining submission rates.

Breeding a portion of their herd to beef has also created a new income stream for the Place family.

"We've got people knocking on the door for beef calves," Chris said. "But we are going to rear a big number for ourselves."

A long-time DataGene Ginfo herd, the Places have contributed their herd test, health records and any other relevant data to the industry to assist with creating Australian Breeding Values and improving the reliability of genomics.

It's this Ginfo involvement which first convinced Chris to genomic test – and he hasn't looked back.

He initially extracted his animal's DNA for genomic testing via tail hair samples, but during COVID-19 Ginfo team couldn't visit farms, so he opted to take tissue samples himself. Chris said taking ear notch tissue samples was simple and he now genomically tests calves himself when they are disbudded.

Receiving information about the BPI of each animal at a young age, thanks to genomics, means the Place family can make earlier management decisions.

While they've only exported a limited number of heifers, Chris said genomics enables them to select animals they don't want to rear earlier, saving both time and money.

Receiving genomic data early in a heifer's life has also enabled Chris, Diana, and Peter to correct any parentage record errors.

Chris said 2% of their recently genomic tested animals were recorded incorrectly and thanks to the data they were able to rectify this.

Using the data for breeding and culling decisions is a "natural progress" for the Place family business.

Diana has long kept "meticulous" records, according to Chris, and the genomic data will add to the information they can already access about their animals.

"Are we making better decisions with all this data? We have to be," Chris said.

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– Chris Place

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