

Data drives decisions around the world

O'Sullivan and Jones families

Region: Ireland and Canada

Topic: Genomic testing

Genomics is helping Irish dairy farmer John O'Sullivan breed one of his nation's best Holsteins herds. Over in Canada, genotyping Jersey calves ensures Kevin Jones only breeds replacements from his most profitable animals.

These dairy farmers might be in different countries, but they both use genomic data to underpin breeding decisions, maximise genetic gain and diversify their income.

And both wouldn't have it any other way.

John and Kevin shared their stories virtually with DataGene's Peter Thurn recently, inspiring Australian breeders and members of the herd improvement industry.

[Kevin Jones, Canada](#)

Kevin and his family, including brother Steve, milk 110 Jersey cows and grow 364 ha of field crops at Midland, Ontario north of Toronto in Canada.

Hamstrung with milk production quotas and a high Canadian dollar that stifles heifer exports, it's not economical for them to breed additional heifers. But they don't want dairy bull calves because they aren't worth any money.

To counteract this, they use genomic data to select the top 30% of their herd to join to sexed semen to breed their replacements. The rest of the milking herd are bred to beef semen.

Breeding their Jerseys to Angus has opened a new market for Kevin and his family.

"We have a waiting-list on beef animals," he said. "It's a good position to be in rather than having to deal with a waste."

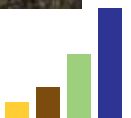
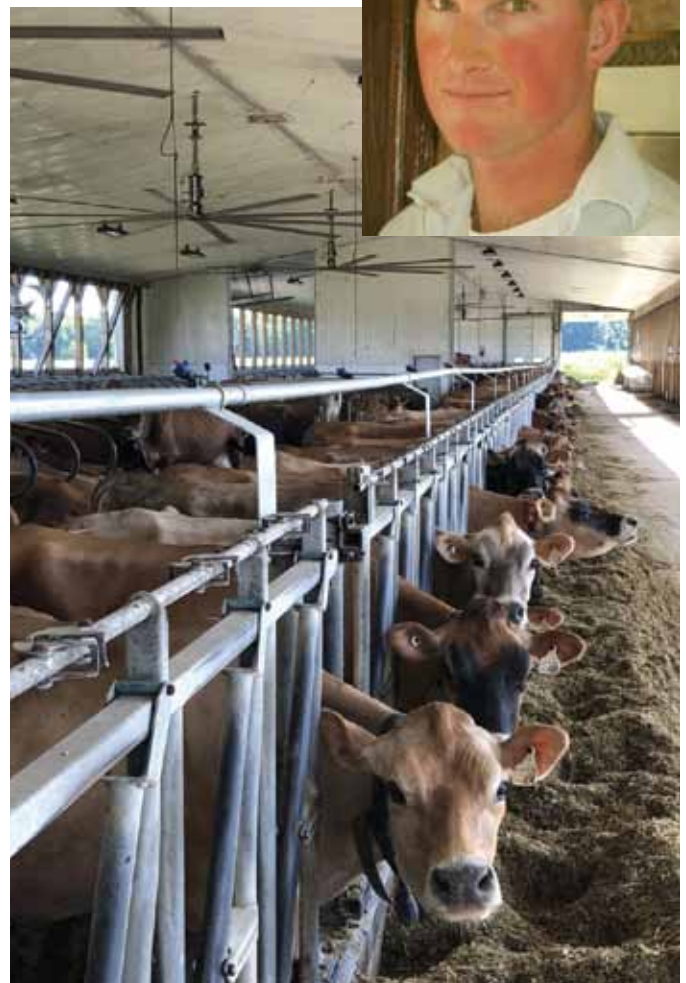
Kevin was initially skeptical about the cost of genotyping-genomics but soon realised it made economic sense and

helped him make more accurate breeding decisions.

"We are paying CA\$40 for each genotype on each heifer and then only CA\$10-15 on Angus (semen) if we are using conventional semen," he said.

"Then we are paying CA\$50-70 for Jersey sexed. The average cost of breeding program no different to what it was on conventional semen."

Kevin Jones uses genomic data to select the top 30% of his family's herd to join to sexed semen to breed their replacements. The rest of the milking herd are bred to beef semen.





The ability to sell surplus heifers has opened a substantial additional income stream for John O'Sullivan and his family.

John O'Sullivan, Ireland

In County Cork, John O'Sullivan, and his family milk 500 Holsteins across 283 ha.

During the past 30 years their business has evolved with the use of the latest technologies.

Their latest ambition is to elevate their herd into the top 10% of Irish dairy herds according to the country's Economic Breeding Index (EBI).

Currently, their herd sits within the top 25%, having moved from the bottom 10% thanks to using embryo transfer and a "ridiculous" amount of sexed semen.

John and his family use genomic data to determine their best cows and elite young females according to the EBI.

Those elite young females with a good EBI ranking, which are also backed by strong cow families, are the animals they retain.

The genetics of these animals are also developed through embryo transfer.

Any additional females in excess to replacement requirements are offered for sale as part of the business's annual cattle auctions.

Genomic data – especially the animals' EBI – helps determine which heifers are offered at auction.

The ability to sell surplus heifers has opened a substantial additional income stream for John and his family.

Last year, John said livestock sales represented 30% of his business income. The previous year, he said the percentage would have been higher.

The O'Sullivans also use genomics for a variety of other business decisions. John told the DataGene Genomics Discovery Day workshop in Melbourne that: "There is no point in genotyping your heifer calves if you are not going to make use of the information and there's a number of ways to make use of it."

He used the example of using genomics for selective mating – specifically mating a below-average fertility bull to a higher-fertility cow

John explained that using genomics in this way ensured he was able to capitalise on the other benefits of the bull without losing fertility. "Knowledge from genotyping the sire and dam side (gives) us confidence to use a bull that has a weakness (but) strength in every other area," he said.

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