

New Sustainability Index an extra tool for NSW breeder

Parrish family

Region: NSW

Topic: Sustainability Index

Trevor Parrish wasted no time examining Australian dairy's newest breeding index.

The NSW breeder was eager to check how his Illawambra Holstein herd measured up when it came to reducing emissions intensity.

He saw DataGene's new Sustainability Index as another breeding tool, one that would not only advise him on breeding decisions, but also send an important social licence message to the broader public on behalf of the industry.

Scrolling through his results, Trevor wasn't surprised.

"It is not the same as the other two indexes, there's more emphasis on production over a longer time," he said.

"I've been breeding for Feed Saved and Daughter Fertility – important parts of the Sustainability Index – but I've been focusing on kilograms of milk solids, whereas kilograms of

protein have the most effect (on the Sustainability Index). It's all about producing the most amount from the least amount of animals and cost – it's about the long term."

The Sustainability Index is designed to help dairy farmers use breeding to fast-track genetic progress for reducing emission intensity on their farm.

Armed with extra knowledge about breeding for emissions intensity, Trevor now has more to consider when it comes to bull selections.

"I'll be looking at high protein/milk production bulls that still do everything I want," he said. "That will have an effect on the Sustainability Index ranking."

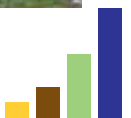
Trevor's daughter and son-in law Toni and Nathan Champion run a contracting business and help on the farm where the family milks 240 cows at Kangaroo Valley, NSW. Toni and Nathan plan to take over running the farm in February 2023.

The Parrishes' registered herd calves year-round. They sell bulls and more than 100 milking cows a year.

All animals are genomic tested as soon as possible.



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The herd currently averages more than 300 for Balanced Performance Index (BPI) and Health Weighted Index (HWI).

Their current Sustainability Index average of 500 will improve with bull selection, according to Trevor.

Trevor examines all DataGene and overseas indexes when making breeding decisions. He said taking note of all indexes had proven beneficial.

“Using all the information we can and do supply animals for different purposes,” Trevor said.

“We have customers looking for a variety of traits such as A2, red carrier, calving ease and polled animals, as well as those that rank well on Australian and overseas indexes.”

DataGene Stakeholder Relations Specialist Peter Thurn said reviewing multiple indexes for breeding was common.

“One of the reasons we provide lots of different breeding values and indices is because we don’t believe one size fits all when it comes to breeding solutions,” he said.

“It’s important farmers pick the right indexes and breeding values to suit their farming systems and goals and it can be a combination of a few.”

The Sustainability Index sends a good message to Australia’s dairy customers – both locally and globally – while also providing evidence to the broader agricultural sector of the industry’s work to decrease emissions, according to Trevor.

“It’s a longer-term thing, it’s about more efficient cows that are producing well for the amount they are eating, which means they are burping less,” Trevor said.

“For us, long term, it is about how many cows we want to milk, how many replacements we want and ensuring we keep improving our cattle – so they last longer – and exploring options such as dairy beef.”

What the Sustainability Index offers

The Sustainability Index is a standalone index. Breeding indices combine more than one trait at once, to make it easier to select animals. This index places greater emphasis on traits that contribute to reducing emissions, such as feed saved and survival, while also considering production, health, fertility, type, and workability traits.

The Sustainability Index is a relative ranking of animals expressed as a unit against a base of 0.

The higher the Sustainability Index value, the more efficient the animal is at producing milk per kilogram of greenhouse gas emissions.

The reliability – or confidence – in the Sustainability Index is similar to the reliability for the Balanced Performance Index (BPI).

To fast-track genetic gain for sustainability, breed replacements from animals that rank highly for Sustainability Index that also rank highly on ABVs for fertility, mastitis resistance and cell count (and udder depth for Jerseys).

Breeding is just one of many tools dairy farmers use to improve the sustainability of their systems. Here are some examples of sustainable practices used on Australian dairy farm.

- Managing herd life and number of replacements bred
- Sustainability breeding index
- Nutrition and additives
- Pasture management and utilisation
- Fertiliser strategies
- Irrigation and water use strategies (75% of dairy farmers recycle water)
- On-farm energy generation and energy savings including solar panels
- Animal health
- Silage plastic recycling

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