



Everything research animals ate was carefully measured using feedbins and electronic identification technology.

lactating cows from Australia and a further 1000 from the United Kingdom and the Netherlands and determined which animals were most feed efficient.

This information was then linked with genetic marker information, allowing the research team to discover



The new ABV was developed by studying a small group of animals.

reliable genetic markers that predict feed efficiency.

### Use on farm

Producers can now use that relayed information in the form of the Feed Saved ABV, which is also incorporated into three new selection indexes from the Australian Dairy Herd Improvement Scheme (ADHIS) to help dairy-farmers enhance profitability across a range of factors (see page 68).

“Selecting for higher production we know leads to a decline in fertility, and that’s been well-documented all around the world; there’s a similar relationship but to a weaker extent between feed saved and fertility, so the best way to select for improvements in feed saved is to do so as part of a selection index,” Dr Pryce said.


Bulls that rate highly on the new ADHIS Balanced Performance Index (BPI), which replaces the Australian Profit Ranking, will have daughters that require 1% less feed on average, which leads to lower inputs and less land used for feed crops.

“By using that BPI you can actually see bulls that do a really good job in many different traits simultaneously,” Dr Pryce said. “There are bulls that can pull off the magic trick of being able to achieve better efficiency — that is, their daughters are more ef-

ficient, and are actually more fertile as well. So those bulls do exist and they’re in the population, and farmers can easily recognise them when they look at the listings and delve into the breeding values.”

Further research undertaken by the Dairy Futures CRC has helped to determine what makes some cows more efficient than others and provides more detailed information across a wider range of genomics. Research with the University of Melbourne suggests that less efficient cows lose more energy as heat and respond less well to stress challenges, but further work is needed to clarify the differences.

Ms Harney said: “The Gardiner Foundation invests strategically in projects which leave a legacy for the Victorian dairy industry. So it is important to validate research once it has been commercialised or transferred to farmers.

“Later this year we will invest in a project which will examine the on-farm outcomes of herd improvement practice change and the links to profitability, which includes the new research based breeding values.” 

**For an in depth explanation of the Feed Saved ABV, see page 68.**

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