

Records bolstered by genomics for passionate breeders

Dairy farmer: Margaret and John Cockerell

Region: Northern Victoria

Topic: Ginfo

When it comes to making breeding decisions, Margaret and John Cockerell have the best toolkit any farmer could ask for.

The couple, who milk registered Jerseys at Waaia in northern Victoria, have a lifetime of breeding records, thanks to meticulous herd recording.

This valuable dataset is about to be topped-up with genomic (DNA) information as the couple start working with DataGene as part of the Ginfo program.

“At the moment we work from pedigrees and production – from the herd recording – but genomics gives us another tool to look at when making breeding decisions,” John said.

“We will be able use both these records and work from there,” Margaret added.

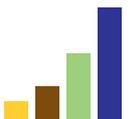
Ginfo is a group of herds with exceptional records which are used as the dairy industry’s reference database for genomic information.

Margaret and John operate Warrain Jerseys milking up to 330 in a split-calving system. The couple who grew up on dairy farms, have milked for 45 years and are passionate breeders.



Margaret Cockerell uses herd records (pedigree, classification and production) for breeding decisions and is about to add genomic results to her toolkit.

Photograph: Alana Christensen, Dairy News Australia



Data has played a pivotal role in their farm management. Monthly herd recording and somatic cell count testing has recently been bolstered by pregnancy testing using milk samples.

“That works quite well to help us manage who’s in calf and who’s not in calf,” Margaret said. “We also have collars on the cows for heat detection as well.”

The software program Easy Dairy is used to record herd information.

Margaret has been especially interested in the heritability of somatic cell count problems.

“I’ve just noticed the odd cow and her daughter here and there; if the cow has a high SCC, so does the daughter,” she said. “Mastitis can cost you a lot of money and it is something you need to keep looking at.”

For the Cockerells, dry conditions in recent years have highlighted the importance of managing mastitis.

Margaret said mastitis was something they were alert to as the risk had increased due to hand-feeding cows because there’s limited “nice fresh green paddocks”.

Cows with “chronically high” cell counts are the first to be culled as Margaret said they are costly animals. Another reason why herd recording is vital, according to Margaret.

DataGene extension officer Peter Williams said great records helped all dairy businesses.

“You can’t improve something you don’t measure, if you want to improve something you need to know where you stand,” he said.

“The Cockerells have a lifetime of herd data and it puts them in a good position to fulfil their breeding goals.”

Chasing production and conformation, Margaret and John have a clear vision of what their ideal cow would look like.

“We are quite happy to have cows that are very dairy,” John said.

“Our herd is averaging over 7,400 litres a lactation; they are high producing Jerseys so we have to look after them and we are quite happy to do that.”

“Conformation is the key to deep-bodied cows, and we like cows with flat-bones – that aren’t too frail, they have a bit of strength – especially now we are chasing milk flow,” Margaret said. “Good udders are important.”

Breeding for quality udders is where Margaret hopes genomic testing can really pay dividends.

“Hopefully it will help us increase production without cows falling apart,” Margaret said. “We will know more about their udders and ligaments and the traits we want.”

“Genomics will also help us find out the good genetic animals and it will enable us to put a dollar value on them,” John said. “That’s the key to a saleable item.”

Warrain Jerseys has always produced excess heifers and these are sold to local farmers. The stud also sells bulls.

Margaret and John want to use genomic testing to identify the genetically superior heifers to retain and which bulls to rear.

This practice has become increasingly important with the dry weather and high irrigation water costs.

The herd has traditionally been milked across 90ha but this has come down to 40ha due to the dry weather.

The Jerseys are fed about 8kg of dry matter/day on the feedpad and receive 5kg/cow/day of grain mix.

Some cows in the Warrain herd have exceeded 10,000 litres during their lactation. Margaret and John attribute this extra production to genetics.

“The only way to improve your herd is through genetics,” John said.

“Good cow families and good bulls which throw the traits you want.”

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