



Trevor and Anne-Marie Mills with their children Andrew and Kelly inspect the GEA Mlone robotic system on their farm.

A reluctant innovator

ROBOTIC MILKING

KEY POINTS

- ✓ First Australian GEA Mlone customer
- ✓ Mastitis reduced due to milk meters
- ✓ Milking less physically demanding

GIPPSLAND, Victoria, dairy-farmer Trevor Mills doesn't really think of himself as an innovator, but circumstances led him down that path, becoming the first in Australia to invest in the GEA automatic milking system (AMS).

About 18 months ago, Mr Mills, and his wife, Anne-Marie, found themselves at a crossroad, with selling the 122-hectare farm a distinct possibility.

"Milking in a herringbone dairy for many years was taking its toll on me physically, and my health was starting to suffer," Mr Mills said.

"We did the sums on various options such as employing labour, sharefarming or leasing but none stacked up given the milk price and cost of labour.

"Robotic milking was the only way we could see ourselves staying in the industry. And when we did our research, the new GEA system — Mlone — had a lot of appeal over the alternatives; enough to make us decide to be the first in Australia to buy it."

The Mills AMS, which has been running since May 2014, consists of three milking boxes, placed end to end. They are collectively serviced by a single robotic milking arm that slides from one box to another.

"I really liked the design, which is conceptually a bit like a herringbone," he said. "It is very compact — we only needed a 12-metre by 12m shed — which helped contain costs. And the fact that we only needed to invest in a single robot also kept costs down."

Mr Mills liked the way one side of the milking units was designed for cows to move in and out of the milking unit, while the other side was designed for human access, with a pit so that he didn't have to bend down to access the udder.

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“This meant we could check the cows for mastitis in the boxes before drafting them to the vet yard for treatment; plus it is very convenient for training new cows into the system because we start off by attaching the cups manually for the first milking or two,” he said.

Mr Mills describes the first three months as very challenging and says it took six months to adjust to a new way of farming.

“Getting the hang of the robot was the easy bit,” Mr Mills said.

“The computer system controlling the robot is easy-to-use and it is useful being able to monitor and control what’s happening at the dairy and in the yards from within the dairy or remotely from anywhere there is internet access.”

The challenges were more to do with training the cows to the new dairy in the first few days and to allocating pasture to encourage cows to move voluntarily around the farm. Mr Mills said it also took some time to get his head around using the reports and information available from the computer system.

“These things are getting easier with experience; we just had to get through those first few months,” he said.

Despite the initial challenges, Mr Mills said he noticed the difference in the physical demands straight away.

“Although the initial period involved long hours, it was physically less tiring than milking in a conventional dairy and six months down the track the system was running smoothly enough for me to have some time off away from the farm,” he said.

One of the early benefits was improved mastitis management.

“The system monitors the conductivity of milk in each quarter, providing a list of any suspect cows,” he said. “I have it set up to automatically divert any high conductivity milk to the calf vat. A report generated daily allows me to check suspect cows and decide whether treatment is required. I’ve been interested to see how stress — such as cold, wet weather — can temporarily affect milk conductivity levels.”

In the first six months, the herd’s bulk milk cell count (BMCC) fell from an average of 250,000 (before AMS) to about 150,000.

More choice for farmers

FutureDairy project leader Dr Kendra Kerrisk said the availability of the GEA AMS in Australia meant more choice for dairy-farmers.

“Four companies now offer automatic milking solutions in Australia, each with slightly different designs and functionality,” she said. “This means farmers can choose the option which better matches their individual needs.

“The feedback we’ve had from AMS farmers is that their choice was influenced



Trevor Mills says the first three months after the introduction of the robotic system was challenging.

by cost, throughput potential and after-sales support through the local dealer.”

Brian Walker, from GEA Australia, said that although the Mills family was the first Australian’s to invest in the Mlone AMS, the technology had been used overseas for more than 20 years.

“The Australian system is identical to the one we sell in Europe,” he said. “It has been used for many years by dairy-farmers including those in Ireland and

the United Kingdom with grazing-based systems and voluntary cow movement. In that sense, we were confident the Mills family were receiving tested and proven technology.”

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