

MILKING ROBOTS AND MOBILE SHADE SHEDS IN AUSTRALIA

Peter and Kathryn Costello run a dairy operation in Tongala, Victoria, Australia. We asked them to share their story on their journey to automation and robotic milking as well as the development of a new invention, the mobile shade shed.

Third generation dairy farmers

Peter and I are both third generation dairy farmers and together we run the operation today. It is still too early to know if any of our children are interested in taking over but they all get farming chores. We have five children, Lauren, Travis, Rachael, Nicole and Dale. We started with 120 cows on 60 ha.

2003 – Purchased 83 ha – block for dry cows, young stock and beef cattle

2005 – Purchased 36 ha – milking 170 cows

2008 – Completed laser grading to 100% of farm

2010 – Installed 3 DeLaval robots

2013 – Automated 1/3 of our farm's irrigation system

From Herringbone 2 x 14 parlour to 3 milking robots

Our 14 aside double up dairy with cup removers limited further increases in herd size. It took less than three months to come to the decision to purchase the [DeLaval VMS milking system](#).

To make the three-way grazing work we needed to add 300 metres of laneway. All of our laneways were also re-fenced.

We have three right hand entry units with [Somatic Cell Counters](#) and two out-of-parlour feeders adding a third a year later. Commissioning was on 15th November, 2010. Start up was during the first third of lactation and the start of joining. We started with batches of 30 cows on Monday morning introducing more cows night and morning. By Wednesday night all the cows were through the system. We became the first fully irrigated farm in Australia to adopt automated milking.

It took 4 visits to the robot for the cows to feel happy

By the fourth visit to the robot the cows were happy although it was a slow process getting them used to the 13 one-way gates and the 3 smart gates. By the fifth month the cows had settled into the system. Prior to using the [DelPro herd management software](#) we had not inputted herd information onto a computer before so it was a sharp learning curve for us. DelPro gives us easy and instant information on any cows animal health, feeding rations, monitoring of milk yield and conductivity of each milked quarter, weekly cell count and reproduction. I love how you can set the feed rations according to milk production level or stage of lactation. When freshly calved cows come into the milking herd I can set their feed to slowly increase from 3kgs to 7kgs, over 21 days. Peter finds drafting cows a breeze, 'just a couple of clicks with the mouse!', he says.



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We have a second vat with Glycol in it which we run through the [plate cooler](#) which does nearly all of the milk cooling. This works very well due to the low milk flow coming from the robots.

ABC Grazing Areas

A – 8pm to 5am

B – 5am to 1pm

C – 1pm to 8pm

We planted more perennial and lucerne in A and C. We have retained our old dairy beside the milking area so we have access to a pit for herd health treatments.

We start our day 2 hours later thanks to our milking robots

We are now milking 210 cows after 3 years in operation which has not cost us more labour time. It used to take Peter five and a half hours to milk 170 cows each day which included getting the cows in and putting up electric fences. He now enjoys starting his day two hours later at 7am, and seeing the kids before they leave for school. Our cow production is 7,500 Litres, 560kgs milk solids, and the average grain consumption is 6.5 kg/day. We calve 2/3 in spring and 1/3 in autumn. Our labour is FTE/150 cows which is higher as the average farm is 135 cows/FTE in Australia.

Our paddocks run east/west so trees planted on a fence line are of little value. We had a specially designed mobile shade shed made for us which is 12 x 8 metres that we can shift from paddock to paddock in Area B, to enable cows to stay in the shade and then continue grazing once it cools down. The feed pad is not used much as it hinders cow flow and we prefer to mainly consume pasture though it is used on the hot summer days for shade. Our hottest days can get to 45 degrees. The 3 way grazing means managing 3 paddocks a day rather than the 2 as in the past. Over allocating pastures slows down the voluntary movement of the cows. The key is having the right amount of feed allocated in each area.



Our mobile shade shed was our idea but it was designed by a local engineer. The shade shed, which is 12 x 8 metres, is shifted from paddock to paddock to enable cows to stay in the shade then continue grazing once it cools down.

AMS works on a fully irrigated pasture based system! It is a reliable system and I can manage the farm allowing Peter to get away for the day. It is a quiet environment promoting relaxed cows.

Local Dealer: G V Dairy Supplies, Shepparton



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Article supplied by DeLaval Australia. <http://blog.delaval.com/dairy-farm-feeding/milking-robot-in-australia/>