



## On farm innovation

**Gary & Karen Wenzel dairy on a dryland dairy farm at Roadvale in south-east Queensland. They milk 150 predominantly Friesian cows, year-round producing 8500 litres per cow per year. The cows are fed a silage based partial mixed diet in summer and a total mixed ration during the winter months.**

Being a family farm, Gary and Karen shoulder the majority of the farm labour and time is always a limited resource. Like many Queensland dairy businesses, there are always challenges regarding fertility issues.

A cow monitoring collar system sparked Gary's curiosity promising to assist with monitoring cow reproduction, activity and rumination and give farmers more time to do other things. With an eye on costs and good referrals from a number of other dairy peers, Gary came up with a plan to make the technology affordable and still get the benefits on farm. Rather than buying collars for every cow on the farm, Gary and Karen purchased the monitoring system with 50 collars. These collars would be used for the fresh cows and then removed to the next batch once the cows

were three months pregnant. The collars are fitted once the cow calves, rather than while she's in the dry paddock. Not only does this bring the benefit of automatic heat detection to the farm in an affordable way, it also means that no collars are lost and difficult to locate up in the dry paddock.

Only some of the cows are mated with AI in the herd, however the Wenzels are also able to make use of the heat detection system with natural matings. The bull is not run with the herd and cows are intentionally mated once they are on heat.

The rumination monitoring function of the collars has also been an unexpected benefit to Gary and Karen. Gary has noticed that rumen function generally drops off if cows start to get ill or are approaching a difficult calving. The system does take some user interpretation however. If a cow is held back or kept in the yards, her activity may peak or she may show a drop in rumination.

The collars not only show when a cow is cycling but they also give an indication of the strength of the heat and the best mating time. The Wenzels have noticed

that some of the cows have particularly weak cycles at times and that they are considerably less fertile with a weak cycle. They now wait for the next heat, which is usually stronger and more likely to result in a pregnancy.

There is an art to positioning the collars on the cows. Some of the jersey heifers were getting collars caught in stall gates in the dairy. Because of their size, Gary and Karen had to adjust the collars on the smaller cows to be slightly tighter. The responders also must hang on the left-hand side of the neck; a lesson learnt when some irregular results started to show up in reports.

With many of the bumps now ironed out of the system, the Wenzels are very satisfied with their investment in the collar system and may add a few more collars. The collars have shown that they were doing quite a good job on heat detection in their herd, but they have uncovered another fertility issue, with a group of cows in the herd repeat cycling after a few months. This is the next area of focus to improve fertility in the Wenzel's dairy herd. ■■

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