Virtual herding technology could be way of the future for dairy industry

Research being conducted at the Tasmanian Institute of Agriculture (TIA) is exploring the potential for virtual herding technology to increase the productivity of dairy farms.

TIA Dairy Researchers Mark Freeman and Megan Verdon have just completed a month-long field trial at TIA’s Dairy Research Facility in North-West Tasmania. The trial looked at the impacts of more regular and more tightly controlled stock movement on pasture usage and dairy cow productivity.

The trial is part of a national virtual herding project that received $2.6 million from the Australian Government Department of Agriculture and Water Resources as part of its Rural R&D for Profit program.

“We established a trial involving 60 lactating dairy cows and replicated virtual herding technology by manually shifting half of the group seven times each day to give them frequent access to fresh pasture. The remainder of the cows in the trial continued to graze as normal,” Mr Freeman said.

“Each day we took a variety of measurements to assess whether the frequent grazing, which would be possible with virtual herding technology, caused cows to consume more pasture or produce more milk. The data collected included milk production, weight, pasture usage and attributes of cow behaviour such as the time spent ruminating, resting and feeding.

“Having access to TIA’s 60-hectare Dairy Research Facility at Elliott provides huge benefits to this project as it allows us to conduct field research in an environment that replicates the experiences of a commercial dairy farm.”

Mr Freeman said dairy farmers had shown considerable interest in virtual herding technology and were eagerly waiting results from the research.

“The technology could be a game changer for dairy farmers as it would allow them to move virtual fences from their computer at the click of a button rather than going out into a paddock and doing it manually,” Mr Freeman said.

“This innovative technology has the potential to increase productivity, profitability and sustainability outcomes for the dairy industry in Tasmania and around Australia.

“By keeping animals out of sensitive and traditionally hard to fence-off areas and by managing overgrazing, virtual herding technology would be able to help improve environmental outcomes for dairy farmers.”

Data gathered during this trial is currently being analysed and the results will guide the development of subsequent virtual herding trials conducted by TIA and other project partners.

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The project is a partnership between CSIRO, the University of Sydney, University of New England, the Tasmanian Institute of Agriculture, the University of Melbourne and Agersens Pty Ltd, with collaboration from the dairy, beef, wool and pork industries and their respective RDCs; Dairy Australia, Meat and Livestock Australia, Australian Wool Innovation and Australian Pork Limited.

TIA is a joint venture between the Tasmanian Government and the University of Tasmania.

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