

# Vat Monitoring Program Project Information

Coles Sustainable Dairy Development Group



**coles**  
Dairy Farmers

## 1. Project Background

This trial aims to assess the benefits of vat monitors for dairy farmers.

Milk temperature is important from a food safety and performance perspective. It can impact critical attributes including quality, taste and shelf life. Temperature problems can lead to wastage and write-offs that impact farmers' profitability and disrupt milk supply.

Power outages, equipment failure, and the hotter months all contribute to issues with milk temperature. Temperature probe technology that monitors milk temperature can have the following benefits:

- Alert farmers of high milk temperature immediately, for example in the case of equipment or electrical failures.
- Help prevent wastage and early milk collection events due to temperature issues.
- Help farmers assess the performance of their milk cooling equipment (heat exchangers, vats).
- Provide vat volume and temperature data to assist in tanker scheduling (McColls transport).

Temperature and volume sensors that comply with cleaning and hygiene standards are readily available and are being increasingly used on milk vats. This trial will give the participating farmers the opportunity over 3 months to test a vat monitoring system ("SmartaFarm" from Smarta Industrial) and assess it for the benefits outlined above. An overview of the Smarta system can be found by clicking on the following link:

[SmartaFarm System Overview](#)

## 2. Scope of the Trial

NSW farmers in the South Coast and Riverina regions are participating in the trial. The system will monitor milk temperature and volume. It will also provide alerts for temperature and other related alerts such as power and equipment failures. The temperature on pickup will continue to be assessed using the same current methodology Dairy Australia recommends; the EMCI cooling curve.

The farmer is not obligated to continue to use the system after the trial period finishes. As part of the trial, data will be shared with McColl's Transport for the purpose of optimising milk pickup efficiency.

Farmers will own the raw data. The processed data will be de-identified and aggregated for the purposes of industry trending analysis by the service provider.

## 3. Expectations of Farms

Participants will be required to commit to the following during the trial:

- The installation of equipment probes on the milk vat and heat exchanger
- Set up an account that will allow the farm to view the information and receive alerts
- Attending a group call to commence the project, 22<sup>nd</sup> December and two progress calls on 1<sup>st</sup> February and 15<sup>th</sup> March 2022.
- Complete a feedback survey post program to assess your experience of the vat monitor trial
- Participate in a field day on one of the participating farms after the trial (date TBC)

## 4. Expectations of Smarta Industrial Pty Ltd

Smarta Industrial is an Australian owned company based in Alderley, Queensland. Their hardware and software solutions are designed and developed in Australia specifically for the Australian dairy industry. The project uses the SmartaFarm system which was recently featured in a Monash University research paper, "Monitor our Milk", March 2021.

Smarta Industrial will be responsible for running this program, including:

- Inspection of the vat and heat exchangers
- Design and fabrication of the connections for the equipment sensors
- Installation and calibration of equipment
- System setup and account activation
- Technical support for equipment, system and alerts

## 5. Project Plan

Activity	Timeframe
1. Installation of equipment on Vats and Heat exchangers	November/December 2021
2. Group Go Live meeting	Wednesday 22 <sup>nd</sup> December
3. Progress Check in call	Tuesday 1 <sup>st</sup> February 2022
4. Final Progress call	Tuesday 15 <sup>th</sup> March 2022
5. Farmer feedback Survey	22 <sup>nd</sup> March 2022
6. Report and Recommendations presented to CSDDG	29 <sup>th</sup> March 2022
7. Field Day – option	June 2022

## 8. Key Contacts

### Milk Department:

Andrew Lane – [andrew.lane@milkdepartment.com.au](mailto:andrew.lane@milkdepartment.com.au) or 0456 001 752

Chris Aucote – [chris.aucote@milkdepartment.com.au](mailto:chris.aucote@milkdepartment.com.au) or 0417 597 689

Simone Ross – [simone.ross@milkdepartment.com.au](mailto:simone.ross@milkdepartment.com.au) or 0417 506 084

Felicity Koch – [felicity.koch@milkdepartment.com.au](mailto:felicity.koch@milkdepartment.com.au) or 0416 240 570

Felicity Doolan – [felicity.doolan@milkdepartment.com.au](mailto:felicity.doolan@milkdepartment.com.au) or 0411405529

### Smarta Industrial Pty Ltd:

Rebecca Morgan – [rmorgan@smartaindustrial.com](mailto:rmorgan@smartaindustrial.com) or 0439 138 881

Ashley Jensen - [ajensen@smartaindustrial.com](mailto:ajensen@smartaindustrial.com) or 0407 136 173

Smarta Industrial Technical Support (office hours): 1300 379 677