Snapshot Report

Smallstock Traceability Pilot Study Evaluation

Project Code
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Project Description

In 2021 AMIC received funding from the Australian Government, through the Traceability Grants Program. The Grant was successfully leveraged by industry co-funding from Australian Meat Processor Corporation (AMPC). The aim of these pilot studies was to examine the benefits of electronic Radio Frequency Identification Device (RFID) readers in sheep processing plants, outside of Victoria. Five processors from NSW, SA and WA participated in these pilot studies.

With all sheep and goat meat processors required to have systems in place to scan EID tags by 30th June 2024 in NSW and South Australia, and 1st January 2025 for Western Australia and Northern Territory, this project developed key recommendations for each state body, industry groups and processing plants to consider in assisting the implementation of RFID readers in processing plants outside of Victoria.

The project objectives included:

- Engage with processors as part of the pilot studies.
- Monitor and evaluate the installation of technology and software.
- Enhance industry knowledge and understanding of the technology.

Project Content

There were 4 main components to the project:

1. Phone meeting with each processor and AMPC Co-innovation Manager to discuss current systems, project focus areas, timelines, potential date for site visit.
2. A site visit with each processor. The visit included an inspection of the technology and software installed. EID tags were used to run a trial to validate the readability of the readers installed. A meeting was then conducted to discuss project focus areas and if they were achieved, systems implemented, performance, effectiveness, what could be done differently or to improved, and other benefits. For example: “How have you found the process and the pilot studies, what key recommendations do you have for other pilot studies?”
3. Phone or face to face meeting with participating technology providers to ascertain their view of the implementation process (if involved in this project), merit of their products and any new developments in their technology since the implementation of this technology in Victoria.
4. Industry consultation with other processors outside this project, state bodies and representatives from Victorian EID committees and Agriculture Victoria.

Project Outcome

At this stage the benefits of installing RFID technology have not fully been realised as there have been significant delays within the project at most sites and systems are still being established. Another major limitation for processors to realise the benefits of such technology is the lack of sheep processed with EID (individual electronic identification) tags prior to the mandatory implementation of the tags. Three of the five processors achieved their project focus areas and the remaining two are still developing their systems and working towards the proposed focus areas.

However, outcomes from this study have shown the benefits of installing RIFD technology when fully operational will be to:

- Improve data collection from objective measurements and how that information is used to improve the business.
- Provide a pathway to integration of full carcase tracking.
- Use data measured along the chain to inform boning room decisions.
- Improved accuracy of animal counts.
- Improve ability to record animal health and defect status.
- Improve accuracy of the mob-based traceability system and reduced human error when manually entering data.
- Improve feedback systems to producers and deliver improvements to grid compliance of carcases in better meeting market specifications.
- Provide individual carcass feedback to producers to link with on farm animal data.
- Provide producers with animal health feedback, in the long-term improving the product they are producing with less wastage saving them money and improving returns to the farmer.

There were several barriers, challenges and lessons learnt from the implementation of RFID readers across the five participating processing plants including:

- Noise interference,
- Insufficient space or modifications were required to locate readers alongside the chain,
- Complications in linking with current software,
- Interference from other RFID readers in multispecies plants,
- Positioning of the reader,
- An important consideration is the time it takes for planning, supply of technology, installation of the hardware and updating of software required.
- The importance of a dedicated innovation manager/supply chain officer and the critical role they played in the progress of the installation, validation and monitoring of the RFID readers.

Each processor is working with the supply companies to find solutions, improve readability and optimise the new technology. Hardware and software providers continue to improve and develop RFID technology. Issues highlighted from the implementation in Victoria were found to be still impacting the installation process throughout these pilot studies and continue to affect some Victorian processors.

Each processing plants is a complex and unique system making a ‘one size fits all’ approach to having traceability through a plant not feasible. More work needs to be done to fully understand and provide solutions to the issues faced so far by the five processors as well as addressing on-going issues in Victorian plants.

All processors across Australia will have mandatory scanning of sheep and goats implemented. There are several key recommendations identified by interviewing Agriculture Victoria staff, consultants, industry representatives and processors to assist and underpin a timely and effective process to the implement mandatory scanning:

- State governments and research development corporations are encouraged to provide adequate information, support, resources, and funding. Substantial time and accurate planning is required for the supply of the technology, installation of the hardware and updating of software required.
- Ensure there is a clear plan, knowledge and understanding from the start to assist the budgeting and installation of RFID readers. An important consideration for processing plants is the time it takes for planning what is needed for installation for mandatory scanning of EIDs as well as the supply of technology, purchase, installation of the hardware and updating of software required.
- Encourage technology providers to provide clear information, guidelines, and case studies from previous installed technology. Adequate support needs to be provided by the technology providers in all stages including development, installation and monitoring of the RFID readers.
- A dedicated innovation manager/supply chain officer is highly beneficial to the progress of the installation, validating and monitoring of RFID readers.
- The employment of key industry personnel with an extensive knowledge of the implementation of mandatory EID scanning in processing plants and saleyards played a pivotal role in the successful implementation of RFID scanners across Victoria.

The following recommendations may improve the implementation of mandatory scanning:

- Provide information from Victorian processors on what they installed, their integration with specific software systems, barriers they encountered and how they were overcome.
- Development of Industry guides for installation of RFID readers and traceability technology.
- Ensure tag quality and readability - A national standardisation of tags will play an important role in the readability and read rates for processors across Australia.
- Read Rate Monitoring – The National read rate required by processors will be 98%. Each state needs to clearly identify:
    - Who is responsible for monitoring?
    - How is it recorded?
    - How is it managed?
- A weekly monitoring report is recommended.
- Ensure there are adequate resources provided to processors for the roll out of mandatory processor scanning.
    - Development of a fact sheet outlining instalment date and guidelines, recommendations, and technology providers. See useful links below.
    - Development of Case Studies - previous learnings, guidelines, barriers, lessons learnt in an easy-to-use format.
    - Technology providers - What services and who is providing these services to processors for the instalment, monitoring of the RFID technology and post instalment help?

- Webinar series - Opportunity for each state or industry bodies to conduct a series of webinars for all processors to come together and talk about what they are going to install, what are some issues that may arise.
- A platform for the sharing of information between processing plants across Australia will aid the implementation of mandatory scanning.

Benefit for Industry

Development of key recommendations for implementing mandatory scanning across Australian processing plants.

The staged pilot studies conducted, and a review of the Victorian implemented EID scanning, has outlined key recommendations for the mandatory scanning requirements for all processing plants. This project has highlighted that no processing plant across Australia is the same. Each processing plant whether it be a single specie plant or multiple specie plant has varying levels of traceability systems implemented. Each processing plant has had their own barriers, challenges, and success with the implementation of the RFID scanners.

Improved traceability and disease prevention

Traceability is integral to Australia's continued access in key export markets, our ability to respond to pest and disease outbreaks, and ensuring food safety. The implementation of RFID readers in processing plants has the potential to reduce the impact on our livestock industries from an emergency animal disease or food safety event and protect market access.

Benefits for the processing plant

- Improve data collection from objective measurements and how that information is used to improve the business.
- Provide a pathway to integration of full carcase tracking.
- Use data measured along the chain to inform boning room decisions.
- Improve accuracy of animal counts.
- Improve ability to record animal health and defect status.
- Improve accuracy of the mob-based traceability system and reduced human error when manually entering data.

Improved feedback systems

Potential for processors to provide producers with individual animal carcass data and animal health feedback. This additional information can be used by producers to improve management practices and decision making relating to animal health and genetics.

Useful resources

https://www.ampc.com.au/getmedia/a6816134-f076-4894-bc93-890ae157a4ec/EID-Processors-Mandatory-Scanning-Factsheet.pdf