

RFID in Meat industry

Review of slaughter floor, chiller, and boning
room RFID deployments in industry

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Prepared by
Alastair McArthur
Danny Le
Kevin Cohen

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Project Description

RFID technology has potential to traceability, efficiency, data handling and automation of processes in the Meat processing industry. Despite many potential benefits to RFID there is a low adoption rate of the technology in the industry.

The objective of this project is to review experiences from several companies in the Australian meat processing industry and share the successes and key challenges faced in deploying RFID systems.

Project Content

Ramp has conducted several interviews and site visits in both the beef and sheep industry. With the support of AMPC Ramp was able to conduct interviews with nine companies and visit two of them for a better understanding on what has been done in the industry regarding implementation of RFID technology.

The review was split into two sections one exploring the RFID ear tags and its uses and the other investigating RFID tacking in hooks/gambrels.

The review investigated how each processing plant handled ear tags both electronic and non-electronic ear tags (for non-Vic small stock). This involves looking at how data is passed to the NLIS databased and data handling especially for traceability down the process line.

The section investigating hooks/gambrels explored the various systems the processing plants have tried including hooks and read points throughout the plant.

Project Outcome

The findings from each site indicate that the electronic ear tags are scanned in using an RFID reader and the data is sent to the NLIS database. The data on these ear tags can also potentially be used to allocate a body number passed onto a hook-based RFID system. Currently the data is mainly used for feedback to producers. Some plants after the data are scanned into the NLIS system they transfer over to a paper tag system and the ear tag is no longer used.

For the Hooks tracking, most operations have struggled to successfully implement reliable solutions. The key issue with the hooks is the RFID chip can get damaged or fall out making the system unreliable. If a tag is missing, then the paper tags assigned can be out of sequence. For facilities that have tried full RFID solutions other challenges have arisen related to the integration of hardware and/or software. Further, because RFID solutions have typically been retrofitted to current operations, they have generally has not been fully optimised.

Benefit for Industry

This review aims to share the experiences that some meat processing plants have experienced in their attempts of implementing RFID systems. The knowledge shared can give an insight to what works and what problems to watch out for when trying to integrate a RFID solution into meat processing plants. By sharing this knowledge, it is hoped that more reliable RFID implementations can be achieved in the future.