Snapshot Report

AUSTRALIAN MEAT PROCESSOR CORPORATION

Ice Hide Processing Innovation (Stage 1)

Project Code
2020-1097

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Project Description

This project was commissioned in late 2019 after two years of the hide market having retracted significantly due to factors such as lack of demand driven by substitute products and declining international relations in countries such as China that it is possible there is a risk that hide processors will not be willing to pay a premium for higher quality hides meaning red meat processors like M C Herd will lose what has historically been a valuable co-product provided by the industry.

Project Content

Through discussions with M C Herd's hide processor, the hypothesis was made with management that if hide temperatures could be delivered to the processing facility at less than 10 degrees Celsius, a material improvement in hide quality would be achieved. Temperatures prior to icing varied between 16 & 20 degrees Celsius depending on other variables such as weather, transport time and density of hides in the hide bin. The hypothesis of achieving below 10 degrees was based on the hide processor's experience with other hide suppliers and overseas operations who report that hides received to the tannery at this temperature usually perform better in grading. Others achieve this result by manually icing the hides, paying third parties to ice and or are closer in proximity to the tannery reducing travel time and time the hide spends in the elements.

The initial project scope was for the installation of one ice machine to sit above the hide bin however upon commissioning it was quickly observed that a better result could be achieved by installing two ice machines. It was observed that an insufficient layer of ice was being applied to the hides at the top of the hide bin due to the limited time available to leave the bin there before needing to replace it with an empty bin to keep up with production. Without even looking at the data, management could tell immediately that hides in the top 3rd of the bin would not be cooled at the same rate as the bottom 2/3rds of the bin. M C Herd's engineers designed a concept that would allow for a second ice machine to be installed with a seesaw like hide chute. In theory, once the first hide bin had reached capacity of hides, the chute would swing to a second hide bin, allowing the first to continue filling with ice and thus providing a sufficient coverage of ice on top of the bin before needing to be replaced with an empty bin.

Project Outcome

Based on the data collected, a material improvement in hide temperatures recorded on arrival at the processing facility was achieved. The quality of hides recorded also improved which is evidenced in more detail throughout this report. Most significantly, hides previously rated a D improved to C grading with icing with other more minor improvements in B and A grade hides observed over the period.

Statistics aside, given the subjective nature of the hide grading process, M C Herd requested the hide processor provide their observations upon commencing the dual icing in September 2021.

- On the first inspection, it was positive with hides feeling cold and sitting in cold water – the ice had mainly melted
- We found each bin contained fewer hides and more water.
- Normally we would receive 7 bins on the first delivery however 9 bins were received for approx. the same quantity of hides.
- We measure the hide temperatures of all deliveries at the tannery and we can report yesterday's hides arrived at 4°C which is excellent.

Based on the above comments, M C Herd management were satisfied that the dual icing process was moving towards achieving the project objectives.

Benefit for Industry

The project has been an overall success. Since the ice machine went live in November 2020 there has been a material improvement in hide gradings. The second machine did not provide the same level of improvement in hide gradings in comparison to the first machine however given the timing of the second machine being installed in September 2021, both management and tannery believe the second machine protected the hide gradings from declining over the Summer months as one machine would not have been capable of providing enough ice coverage to keep up with the Summer's productions and harsher external elements.

Whilst the hide market has somewhat recovered over the duration of this project, given the concerns around the hide market when this project was commissioned M C Herd firmly believes the project contributed positively to achieving an above average premium for hides when compared to other suppliers. Additionally, the project will, to an extent, protect M C Herd against future deteriorations in the market by providing the business with the ability to continue to provide a premium product to hide processors and to this extent M C Herd deems this project to have been a success.