



MEQ



Project summary

MEQ Beef Probe early adoption for hot carcass marble measure

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Executive summary

Background:

Red meat traits are graded using manual and primarily visual subjective methods. Not only are these manual grading methods tedious, but they are also open to inaccuracies in the data captured. Developing precise objective measurement methods is an industry strategic 2025 imperative to capture more accurate data to support alternative pricing methods for producers. This project came about after the MEQ Probe was initially demonstrated through industry validation trials in hot beef grading at Australian Country Choice [ACC] during 2021.

Purpose:

This project aimed to deliver an early adoption and evaluation of the MEQ hot beef grading probe to measure hot beef carcass IMF and marble score to improve accuracy and consistency compared to current subjective grading methods.

Objective:

The overall objective of the project was to deliver an early adoption and evaluation of the MEQ beef probe to measure hot beef carcass IMF and marble score to improve accuracy and consistency compared to current visual grading methods.

Methodology:

ACC partnered with MLA and MEQ to trial and validate their grading probe, including:

- Deployment and commissioning of the MEQ Unit
- Integration with core ACC IT infrastructure (MEQ + ACC IT resources needed to collaborate)
- Data collection to further improve accuracy and customise for the population processed at ACC - image collection and probing (MEQ to resource)
- Map out the sorting process to help optimise chiller use to grade of carcasses
- Train the ACC team to operate the system

Results:

This project developed operating protocols to enable early adoption of a grading solution using the hot carcass IMF and marble measure for future adopters.

Benefits:

The value proposition of early adoption of the MEQ Probe has been is to enable the first hot carcass marbling technology to be used in beef to deliver:

- Carcass Marble Score results for individual carcasses available within 2 hours of slaughter
- Chiller sorting capability same day of slaughter
- Boning Run design capability same day slaughter
- Market / specification defined same day of slaughter

Adopting technology like this will provide greater consistency to brand owners which encourages greater investment as they know it will be rewarded in optimal product categorisation.

Conclusion / outcomes:

This project delivered an early adoption and evaluation of the MEQ hot beef grading probe to measure hot beef carcass marble score to improve accuracy and consistency compared to current visual grading methods. Specifically, the project evaluated and commercially demonstrated the integration of the MEQ hot beef grading solution into a beef processor's workflows and business data management systems, including feedback to producers.

A company specific case-study has been produced on the implementation and integration of the MEQ probe which will provide other beef processors a roadmap to enhance further adoption through addressing the current lack of knowledge of the requirements for implementation and integration of new OM solutions into business systems.

Recommendations:

The application of MEQ Probe device is to be further investigated as a hot beef grading solution into a beef processor's workflows and business data management systems, including feedback to producers. Further work is required on the application of the MEQ Probe data in business and process decisions, such as pre-chiller sortation and hot grading methods, and potentially used in alternative payment models for producers. Further work is required to develop implementation and business integration protocols to support future adoption of the MEQ probe by beef processors. ACC will undertake a detailed company-specific cost benefit analysis to evaluate the business case and feasibility of capturing hot graded marble score and IMF% data for the business in the longer term. ACC are committed to continuing to support OM technology providers, including MEQ, by facilitating ongoing trial work at their processing facilities at Cannon Hill to support validation and AUS-MEAT accreditation of existing and new traits.

Opportunity exists for the technology vendor (MEQ) to further develop their business service offering to include providing industry access to commercial benchmark marble score and IMF% data from the multiple supply chains currently using the MEQ Probe.