

# ALMTech Research Advancements in Pork Carcass Measurements



**Project Participants:** Advanced Livestock Measurement Technologies

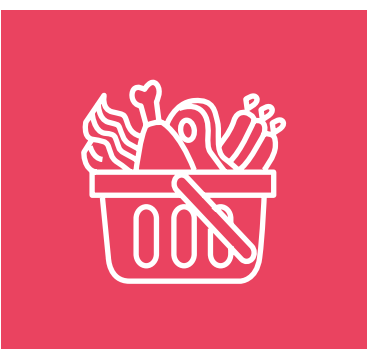


## Problem

The pork processing industry faces the challenge of accurately predicting lean meat yield, a crucial factor in determining carcass value. Traditional methods, particularly P2 fat measurements, have proven insufficient in reflecting lean meat yield across various carcass sections, leading to an incomplete assessment of pork value. Balancing the pursuit of higher lean meat yield with the need to maintain optimal intramuscular fat (IMF) levels presents a significant challenge for the sector.

## Project

The Advanced Livestock Measurement Technologies (ALMTech) research program aimed to develop advanced measurements of meat quality and quantity for the Australian pork industry and address the challenges of predicting lean meat yield by assessing new sensor technologies for measuring pork carcass attributes.



## Value for Industry

The research has delivered a viable new option for measuring lean meat yield, offering pork processors the potential to capture more value from each carcass. The precise measurement capabilities of the AutoFom device also provide an avenue for evaluating carcass value beyond traditional methods.

The findings also presented challenges for the pork industry when trying to balance the pursuit of higher lean meat yield with loin intramuscular fat (IMF) levels – a key indicator of tenderness and eating quality.

## Outcomes

This project assessed three devices for predicting pork composition; the AutoFom III demonstrated the best performance, providing precise predictions of carcass CT lean and fat percentages. The AutoFom technology, validated against the gold standard of CT carcass scanning, excelled in representing whole carcass lean meat percentage. Moreover, its ability to measure fat percentage with precision, especially when predicting loin composition, positions it as a valuable tool for assessing pork composition in abattoirs.

The study revealed a negative relationship between CT lean percentage and loin intramuscular fat (IMF) percentage, emphasizing the need for balanced selection to optimize lean meat yield and IMF percentage for better eating quality. Current abattoir measures like P2 and lean percentage were found inadequate in reflecting this relationship. The ability to maintain selection pressure on lean meat yield while improving meat quality through increases in IMF will rely on the precise and independent measurement of these two traits.

### More information

For a copy of the report, contact the APL Extension Team via [extension@australianpork.com.au](mailto:extension@australianpork.com.au)

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