

# ESCAVOX HELPS KEEP GLOBAL FOOD SUPPLY CHAINS OPEN

CAPABILITY CASE STUDY | JUNE 2020

Exporters are rising to the challenge of transporting product overseas amid COVID-19 disruptions to airfreight thanks to unique Australian supply chain technology.

The technology from Escavox – an Australian company established in 2018 – is proving particularly significant in the current environment where exporters are being forced to consider sea freight as their key mode of transport while air travel remains heavily restricted.

The Escavox system starts by embedding a small, low-cost, easy-to-use data tracker with the fresh produce from point of pack, meeting the need for independent and validated data about what happens to food while on the supply chain journey.

Capturing time, temperature and location data, Escavox is giving food suppliers a full end-to-end view of the food supply chain, providing more information to better manage the food journey from farm to retail shelf, which ultimately delivers higher quality to the consumer and less waste for the retailer.

## Data gives customers confidence

Having Escavox technology on hand means Australian red meat exporters can give their customers more confidence in the integrity of the product as it spends longer time in-transit.

Organic red meat supplier Simone Tully is finding the Escavox system invaluable as she keeps supply channels open to her Middle East customers.

Exporting about 300 tonnes of chilled primal beef cuts and frozen product to the region annually, Tully's Australian Organic Meats (AOM) was, prior to



Sam O'Leary, Australian Organic Meats business development manager, holding the Escavox tracker on their Glenbye property in NSW.

**'Our technology will allow the industry to drill deeper than they've ever gone before into the long-haul supply journey of red meat exported out of Australia. That has benefits for the whole supply chain from paddock to plate.'**

Darryl Lyons, Co-founder, Escavox

the pandemic disruption, sending containers by air, taking less than 24 hours to reach their destination.

For the last three months, product has been shipped by sea, taking an average of 38 days on the water and further time on land to reach the shelves of AOM's retail customer, who operates a chain of supermarkets throughout United Arab Emirates, Saudi Arabia, Kuwait, Bahrain and Qatar.

The extended travel time has added another variable into what Tully describes as an already complex supply chain where outcomes aren't always predictable.

'The Escavox system will give us irrefutable data to pass onto our customers that the product from Australia will be fine in-transit and will have good shelf-life as long as temperature consistency is maintained through the chain,' Tully says.



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'It's important to our business that we give them this reassurance. Customers can be even more confident of Australia's world-leading quality using ocean shipping than ever before.'

Tully says she envisages three major benefits from obtaining an end-to-end view of her product's supply chain journey:

- Protecting price premiums for longer due to extended shelf life at optimum quality
- Reducing waste by retaining product in front of the consumer for longer
- Opening access to a larger pool of export markets based on the Escavox-generated intelligence that will inform how long the product can remain in-transit without degrading quality and safety.

## Technology, research deliver results

The Escavox technology draws on and validates longstanding Australian research in the field of shelf life modelling.

The shelf-life model draws on research developed by the University of Tasmania, jointly funded by Meat & Livestock Australia (MLA) and Australian Meat Processors Council (AMPC). The research suggests that while product abnormalities can be determined by temperature checks on arrival at distribution centres, such detections have limited value in determining food safety or shelf life. There is a high risk that some retailers might discount or discard product too quickly when abnormal temperatures are experienced during transport.

The project's researchers have recommended reviewing temperature continuously through the chain to control shelf life more accurately, especially for retail-ready beef and lamb chilled cuts in vacuum-skin packaging.

Austrade, the Department of Agriculture, Water and Environment, the Department of Foreign Affairs and Trade, and MLA referenced this research to convince authorities in the Middle East to extend the shelf life of chilled beef from 70 days to 120 days, and chilled lamb from 50 days to 90 days.

'To take advantage of the new protocols, exporters need to monitor and measure each step of their product's journey,' says Escavox co-founder and red meat category manager Darryl Lyons.

'Previously, exporters could only send frozen product via sea freight. The new shelf-life modelling means exporters can also send chilled product by sea – but they need to ensure they have a well-controlled supply chain to protect product quality at the other end.

'This is where the data from Escavox becomes critical – reducing the risk of spoilage and shrink but also ensuring optimum quality for the consumer.'

Lyons says the Escavox technology will allow the industry to drill deeper than they've ever gone before into the long-haul supply journey of red meat exported out of Australia.

'The more exporters we have on board the better that picture will be, ultimately assisting all of us to pull more product through the system,' he says.

'That has benefits for the whole supply chain from paddock to plate.'

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