NEW PROJECT PUTS SUPPLY CHAIN IN SPOTLIGHT

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A new project aims to offer banana producers the opportunity to increase profitability and growth of exports.

The project will bring a laser-like focus on monitoring and improving handling practices to deliver more predictable fruit quality and reduce waste, during the supply chain process.

Pacific Coast Produce, a cooperative of six growers in north Queensland, has been exporting organic and ecoganic Cavendish bananas to Asian markets by airfreight since 2009. About 10% of their consignments are downgraded or discarded because the fruit arrives over-ripe or chilled. This results in significant lost revenue.

There is currently no temperature monitoring of export shipments, which limits the capacity of supply chain partners to identify when, where and how fruit quality loss occurs. The unpredictable arrival quality of individual shipments is a barrier to future growth of export markets for Australian organic bananas.

Dianne and Frank Sciacca, Pacific Coast Produce, are part of a collaborative project looking at improving export supply chains.

A newly commissioned project through the Fight Food Waste Cooperative Research Centre with co-investment from the Department of Agriculture and Fisheries (DAF) and Pacific Coast Produce, as well as in-kind support from the Australian Food Cold Chain Council, will address this issue by demonstrating the benefits of a regular supply chain monitoring and improvement program. The project has three elements:

1. **Monitoring**
   Monitoring shipments to record handling temperatures, identify the cause of fruit quality loss and highlight improvement opportunities.
2. **Decision support tool**
   Developing a decision support tool that predicts fruit arrival quality, waste and shelf life based on how bananas respond to variations in shipment conditions.
3. **Improving practice**
   Encouraging adoption of monitoring technology, improved practices and the decision support tool to reduce waste in export and domestic banana supply chains.

The latest generation of low cost remote monitoring technologies will be used to automatically track consignment movement and report shipment temperatures in real-time. Export shipments will be assessed for fruit quality and compared against organic bananas from other exporting countries. This activity will help identify opportunities to improve handling practice to maintain cold-chain integrity and reduce fruit quality loss and waste.

The project will also determine how Cavendish bananas respond to inevitable variations in export conditions through a series of fruit storage trials in the Cairns laboratory of the DAF. The fruit response will form the basis of a mathematical model that predicts fruit arrival quality, waste and shelf life. A decision support tool that integrates the monitored supply chain conditions and modelled trial data will be developed to inform handling and marketing decisions.

Targeted chain improvement strategies and resources such as best practice guidelines, a supply chain manual and the decision support tool will be delivered to the banana industry. While the project focus is on exports, lessons learnt from this study are also expected to be relevant for improving the efficiency of the Australian domestic supply chain.

For further information about the project, please visit the Fight Food Waste CRC website: https://fightfoodwastecrc.com.au

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QUALITY BANANA APPROVED NURSERY (QBAN) SCHEME FACILITIES

QBAN is the Australian Banana Industry's high health, clean planting material scheme.

Note: Laboratory is where plants are produced using tissue culture, Nursery is where the tissue culture plantlets are grown in pots for the grower

Kool Bananas Tissue Culture Laboratory contact Phil Berry-Porter LABORATORY	0407 126 113	shazza141@bigpond.com	Mission Beach, Qld	Tissue culture plants only
Blue Sky Tissue Culture - contact Craig & Sue Althaus NURSERY	07 4068 2208	admin@blueskytc.com.au	Tully, Qld	Potted plants for commercial sales
Lowes Tc Pty Ltd - contact Natasha Marocik LABORATORY & NURSERY (NSW)	02 4389 8750	Natasha@lowestc.com.au	Tumbi Umbi NSW	Tissue cultured plants and plugs (where authorised)
Yuruga Laboratory and Nursery LABORATORY & NURSERY	07 4093 3826	nursery@yuruga.com.au	Walkamin, Atherton Tablelands 4872, Qld	Tissue culture plants, potted plants or both
Mission Beach Tissue Culture - contact Stephen Lavis LABORATORY & NURSERY	0418 299 900	sdlavis4@bigpond.com	Mission Beach and Walkamin, Q	Tissue culture plants, potted plants or both
Wide Bay Seedlings - contact Adrian Ross NURSERY	07 4129 6684	office@wbseedlings.com.au	Pioneers Rest, Qld	Potted plants
Ausplant Nursery - contact Brady Cumming NURSERY	07 4662 4934	brady@ausplantnursery.com.au	Dalby , Qld	Potted plants
Ramm Botanicals Pty Ltd. Laboratory	02 4351 2099	Ramm@ramm.com.au	Kangy Angy NSW 2258	Tissue cultured plants