Media Statements

Minister for Agricultural Industry Development and Fisheries
The Honourable Mark Furner

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New farm technology trialled to protect the Great Barrier Reef

A simple, low-cost solution to reduce agricultural run-off from entering the Great Barrier Reef is set to be trialled on North Queensland cane and banana farms.

Minister for Agricultural Industry Development and Fisheries Mark Furner said ensuring the future health of the Great Barrier Reef is a top priority for the Palaszczuk Government.

"The social and economic value of protecting the future of the Reef cannot be overstated," Mr Furner said.

"We know farmers in North Queensland also share this view and have worked extensively on improving environmental best management practices for the past decade.

"That's why the Palaszczuk Government is investing in this trial to improve the quality of water that's entering the Great Barrier Reef Marine Park."

Mr Furner said the three-year, $450,000 trial would determine if bioreactors could play a major role in removing excess nitrates from water leaving farms and flowing into reef catchments.

"Nitrogen is a major component of most fertilisers on cane and banana farms, which can leach into streams and rivers, causing algal blooms in the ocean," he said.

"Excess nitrates have also been linked to crown-of-thorns starfish outbreaks and declining condition of inshore coral in the Great Barrier Reef."

Department of Agriculture and Fisheries bioreactor project leader Ian Layden said bioreactors are trenches filled with solid carbon woodchips and work by intercepting groundwater stopping the nitrates entering the reef.

"Denitrification bioreactors are a relatively simple, low cost solution to improve water quality," Mr Layden said.

"Studies have shown that denitrification bioreactors have the potential to reduce nitrate levels by up to 80 or 90 per cent."

Mr Layden said first trial sites were being identified in the Burdekin, Haughton River and Brandon.

"The Haughton River has been identified as being suitable for a trial bed and wall bioreactor, while another site closer to Brandon may be suitable for a bioreactor bed trial," he said.

"Careful monitoring of water quality and soils will be conducted at these sites over the next couple of months to ensure they are completely suitable, prior to the final design and construction."

Denitrification bioreactors have previously been used in the United States, Ireland and New Zealand as a way of reducing groundwater nitrate concentrations.

Until now, their application in Queensland has been fairly minimal, with only two existing projects underway in South East Queensland.

This project has been funded by the Palaszczuk Government's Great Barrier Reef Innovation Fund under the Queensland Reef Water Quality Program.

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