

FARMING within the LANDSCAPE

By John Flynn



With a lifetime of experience in cane farming and more than a decade in local government, Cairns cane grower Paul Gregory has developed a clear understanding of the social contract binding farmers as custodians of the land.

That's why he has become a vocal advocate for Smartcane BMP, the industry-driven best practice management scheme that is giving cane growers a unique opportunity to build community confidence in their industry.

Glancing westward across the Mulgrave Valley towards Gordonvale, the vista is striking. In the distance, beyond the Mulgrave Central Mill, a patchwork of cane fields gives way to the unmistakable peak of Walsh's Pyramid.

Point your tractor to the east and you'll quickly stumble on a tranquil tropical beach at Bessie Point, where the mangrove estuaries of Trinity Inlet empty into the Coral Sea. From here it's a short blast north by tinnie across the inlet to the Port of Cairns where tourist boats ferry thousands of international visitors each day to dive and snorkel on the Great Barrier Reef.

Sandwiched between these World Heritage listed icons is the place

CANEGROWERS Cairns Director **Paul Gregory** calls home, a 240+ ha cane farm in the Packers Camp district fringing the wetlands of Trinity Inlet.

"It's a spectacular part of the country, we're pretty much in the geographical centre of the valley that runs back between Cairns and Gordonvale and surrounded by beautiful mountains and pretty stunning landscape," Paul told *Australian Canegrower* during a tour of the farm.

"I guess what we try to do is farm in that landscape and utilise the landscape both for enjoyment and also for opportunities on the farming side of it.

"Farming in a landscape is a phrase that one of my friends has coined, that's farming in a landscape instead of in spite of it, it's making the most of what your property provides you with."

In a region where two metres of annual rainfall is considered about average and where primary producers are under increasing pressure to take a leading role in protecting the Great Barrier Reef, farming in the landscape means working with the topography, hydrology and





surrounding ecosystem to minimise the loss of farm inputs into the Great Barrier Reef lagoon during rainfall events.

The challenge here is to get water off the blocks fast enough to avoid waterlogging while at the same time preventing sediment and nutrient leaving the farm.

To achieve that objective, the Gregorys are making best use of a combination of science, sensible farm management practices and a helping hand from Mother Nature.

"We're not irrigators, we're drainers," Paul explained.

"When you get average rainfall every year of 80 inches and some years much more than that in the growing period from Christmas through until the end of May,

"Farming in a landscape instead of in spite of it, is making the most of what your property provides you with."

the more opportunity you give the cane to grow with soil that's not waterlogged, that's obviously very instrumental in your productivity.

"Obviously the runoff of the surface water is the first step in draining.

"You have to be very conscious of the nutrient load that's in that water that does run off."

The first task in managing runoff is to slow down the velocity at which water exits the rows, limiting its capacity to cause erosion and carry sediment loads.

In keeping with best practice benchmarks established through Smartcane BMP, the Gregorys are progressively laser levelling blocks and converting the farm to a GPS-mapped controlled traffic system.

Laser levelling is allowing blocks to be reformed in a way that minimises waterlogging and allows water to be channelled away at low velocity.

At the same time inter-row spacings are being matched to machinery wheel spacings, reducing the risk of compaction and crop damage while providing a firmer, less erosion-prone path for machinery movements.

With the blocks GPS mapped, tillage can be limited to re-establishing the plant zones at the end of each five-year crop

Continues page 18 ►



Pictured: (above) Cairns grower Paul Gregory takes his role as a custodian of the land very seriously; (top) harvesting underway at the Gregorys' Packers Camp farm; (page 16) Mulgrave Mill.



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cycle, meaning there is zero tillage during most growing seasons and minimal threat of sediment loss.

It's a system Paul is confident will offer numerous benefits, not just in terms of limiting erosion but in boosting yield via better application and retention of nutrient and ameliorants.

“We've started a program where we're going to convert the whole farm to 1.85 metres, GPS controlled,” he said.

“We'll end up with nice firm traffic ways and nice soft growing zones.

“This is not just about the control of sediment running off the paddocks, it's more specific placement of nutrients and the ability to use soil ameliorants that are delivered directly to the growing zone, not spread over the block.”

For example, next year he'll be able to provide lime and mill mud to the growing beds with an autosteer truck, targeting the nutrients to the crop.

“The very small grades in these paddocks means there isn't a great opportunity for sediment run-off, so really it's about profitability, productivity and an eye to the future,” Paul said.

The *Australian Canegrower's* tour included a close-up look at how natural processes are contributing to the management of on-farm nutrient and sediment.

The steps outlined in the Smartcane BMP program are clearly being taken, such as ensuring adequate grass cover is maintained on headlands.

A standout feature of the farm is how riparian vegetation has been maintained.

“Riparian vegetation is very important,” Paul said.

“It performs a couple of uses, it actually traps sediment before it runs into the stream, and attached to that sediment is usually the nutrients. The vegetation holds that sediment and uses the nutrient.”

Similarly, natural wetlands and patches of rainforest that have been left standing and continue to thrive on the farm are helping filter nutrient as it leaves the blocks.

This includes areas of melaleuca swamp and mangrove saltpan covering more than 12 acres.

“The whole method of farming that I employ here is to try to keep the water as long as I can on my property before discharging into Mackeys Creek,” Paul said.

“The way I can do that is to use the natural geography.

“I direct my drains, I direct my drills, I grass my headlands so that the water flow naturally makes its way to a natural



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(trap), almost like a nutrient trap or sediment trap.

“Wherever I can on my property I’ve used that principle to contain the water on my property and also to filter the water as naturally as possible before it runs into the stream.”

It is little surprise that Paul has already completed the drainage and irrigation module Smartcane BMP.

“We’re not in it to lose money. You’ve got to be financially sustainable to be environmentally sustainable.”

It’s a process the former Cairns divisional councillor believes the industry needs to embrace.

At the same time, he is firmly of the view that most growers, most of the time, are working in a way that is consistent with the objectives set out under Smartcane BMP, and in time this will be reflected

in the numbers of growers achieving accreditation for their on-farm practices.

“Most farmers do them (best management practices) and there will be a period of time where the documentation around the practices of those growers is collated and then there’ll be a real groundswell of accreditation that takes place, that is a significant step,” Paul said.

Paul sees the future as one where growers work in partnership with the community, government and other sectors of the industry, accepting a helping hand to achieve better outcomes.

It’s also about recognising what could be described as a ‘social contract’ with the Australian community to protect the World Heritage assets on the doorstep of the region’s farmers.

“All of us who own land and maintain a living from the land, there’s no place like your own and it’s the most important thing in your life, but there’s another 23 million Australians out there and they have an emotional attachment with many things,” he said.

“They all feel Australians own the Daintree and the Reef and that may be the case.

“The awareness of being part of maintaining those icons is something that weighs heavily on you as a landholder.” ■



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