



Farmed saltwater crocodiles live in group pens until they are approximately 1.4 metres long. At this point they're separated to keep them from fighting and scaring their skins.

# Farming is just a croc for these Aussies



Crocodiles are a life-long love affair for Hartley's croc farm manager Nick Stevens – his bandaged fingers are proof you can never be too careful around them

A premium skin commands top dollar - \$24-25 US per centimetre of belly area – and even one blemish, which can be anything from a pin prick to a scar from a fight with another crocodile, will downgrade it from first to second class



**BY LILIAN SCHAER**  
*The writer is a freelance journalist based in Arkell*

Like most livestock farmers, Peter and Angela Freeman are passionate about the four-legged beasts in their charge. They care about animal welfare, and market forces drive them to be innovative marketers and adopt new technologies. So what sets them apart?

Owners of Hartley's, the Freemans are crocodile farmers in the northern part of the Australian state of Queensland, and their "livestock" are destined to become luxury handbags, belts, wallets and shoes at Europe's biggest fashion houses.

These saltwater amphibians have the least armour of all the crocodylians, making them the ideal species for this type of farming. European buyers are most interested in the large square section of skin on the

croc's belly – and as the Freemans attest, it's not easy to raise a perfect, blemish-free croc hide that will pass the grade with those discerning buyers.

A premium skin commands top dollar - \$24-25 US per centimetre of belly area – and even one blemish, which can be anything from a pin prick to a scar from a fight with another crocodile, will downgrade it from first to second class. That's a reduction that comes with a 25 per cent drop in value for the farmer.

Two blemishes drop the price by 50 per cent and anything more than that makes the skin rubbish, says Peter Freeman.

"You can't be profitable if you're not producing at least 80 per cent first grade skins," he explains, adding that buyers will closely examine each skin on a light table to make sure it's absolutely perfect.

Everything about raising and handling these crocodiles is done manually, making crocodile farming an expensive undertaking. So to make sure they're hitting that 80 per cent



**Blemish free croc skins are in demand by European fashion houses for luxury handbags, belts, wallets and other leather goods. Buyers examine the skins on a light table like this one before making an offer to purchase.**

first class target, the Freemans have developed a unique individual housing system for the crocs they're finishing for the hide market.

Adult saltwater crocodiles are very aggressive and love to fight when they're housed in groups, so each crocodile is moved from a group pen into an individual enclosure when it's about 1.4 metres long – usually about two to two and a half years old – where it will stay until it has reached market size of 1.8 metres or about three to four years of age.

"This is a special pen we've designed for animal welfare that we believe isn't being used anywhere else in the world," says Angela Freeman. "It is certified as an enclosure by the government and it is to achieve what we believe is the most ethical way to house crocs before processing."

The crocodiles start their lives as hatchlings in the farm's breeding areas – the herd at Hartley's is closed, but other crocodile farmers will buy eggs collected from the wild for their operations.

"Most eggs and nests die in the wild, so this is a sustainable use of wildlife," believes farm manager Nick Stevens. "In the Northern Territory (of Australia), about 40,000 eggs a year are collected from wild crocs and although we don't do this yet in Queensland, it is a great source of cash input for aboriginal communities at \$20-30 AUD per egg."

One Australian dollar is

approximately equal to one Canadian dollar at current exchange rates.

The hatchlings are kept at approximately 32C and 98 per cent humidity, which let them grow rapidly, before being moved to an outdoor grow-out pen.

They're fed lean kangaroo meat – overpopulation of the iconic Australian mammal means special permits are issued for periodic culls – with younger crocodiles also receiving chicken heads and fish brains. The goal is to keep their diet lean so they won't add fat to their skins.

Hartley's is one of about 20 crocodile farms in Australia, and although the croc business is now profitable, 85 per cent of the enterprise's income actually comes from agri-tourism: an on-farm restaurant, a petting zoo featuring Australian animals, and tours of the property's rehabilitated wetland that includes being able to watch crocodile feeding.

For farm manager Nick Stevens, though, the heart and soul of the farm is the crocodiles.

"I've been working with crocs since 1998 and I just fell in love with them even though sometimes I wish I'd never seen the bloody things," he says, holding up his left hand to show off several bandaged fingers. "If you're not careful, one quick moment can change a life forever. You can never become complacent around crocs."



**Sugar cane farmer Jamie Dore snorkelling in the Great Barrier Reef**

## Farming in the shadow of the Great Barrier Reef

Imagine farming in the vicinity of one of the world's seven great natural wonders



**BY LILIAN SCHAEFER**  
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For most of us in Ontario, the Great Lakes are so engrained in every part of our lives that we sometimes forget that they're there.

They influence our weather, provide recreation and tourism opportunities, support commerce, and are at the core of why water – or the lack thereof – is nowhere near as critical a problem in this part of the world as it is in others.

On the flip side, our everyday lives also impact those Great Lakes as well.

That includes agriculture as farming practices in Ontario, Michigan, Ohio and other regions in the Great Lakes basin have a direct impact on water quality and marine environments.

But as great as they are, our Lakes don't hold a candle to Australia's Great Barrier Reef.

Imagine farming in the vicinity of one of the world's seven great natural wonders – a fabulous natural ecosystem that is also a serious tourist attraction and magnet for environmental activists from around the globe.

That's the situation many farmers in northern Queensland – one of Australia's seven states – are in.

They're producers of intensively farmed commodities like banana and sugar cane, but also raise livestock and grow other crops using land, water, and inputs that ultimately feed into the Great Barrier Reef, a marine park the size of Italy or Japan that was declared a world heritage area in 1981.

Under the spotlight of media, tourists and environmental watchdogs the world over, they've been proactive about changing their practices and taking charge of environmental stewardship in the Reef, as we heard directly from farmers themselves at the recent International Federation of Agricultural Journalists' Congress pre-tour in tropical North Queensland.

Banana farmers Jade and Craig Buchanan, for example, are the 2015 winners of the national Horticulture Reef Programme Award. They produce about a million cartons of bananas a year on more than 400 hectares (close to 1000 acres) near Innisfail, Queensland.

Since entering the banana business in 2006, they've implemented best management practices like installing fertigation systems, triple filtering water to reduce sediment run off, and laser leveling and contouring their land to minimize soil erosion and nutrient and pesticide run off into water courses that flow into the Great Barrier Reef.

They're also part of a 25-member "Next Gen" group of young farmers who meet regularly to teach each other practices and share innovation.

"It took us eight years, and a lot of money, passion and time to get here, but we're just trying to do the

best we can for the reef," said Jade.

Fourth generation sugar cane farmer Jamie Dore of the Tully region who farms together with his brother has built environmental lagoons, purchased a high rise sprayer system to reduce pesticide use, and switched to a custom designed and built controlled traffic farming system to reduce tillage and minimize disruption to inter-row spacing during planting.

For fellow cane grower Paul Gregory, the key is fertilizer reduction, keeping water on his property for as long as he can, and having wetlands to clean the water as much as possible

But farmers' environmental efforts in Reef stewardship can only go so far using current tools and techniques, said Dore, explaining that a massive scientific shift will be needed to enable farmers to meet new government targets recently set for reducing nutrient run off into the Reef.

"For example, do we have to engineer sugar cane to change how it uptakes nitrogen?" he asked.

Gregory added that farmers will need smarter plants and smarter fertilizers to allow them to meet these targets without affecting farm profitability and viability.

"We're currently only limited by the technology we have available," he believes.

The Australian and Queensland governments' Reef 2050 plan, which is part of an agreement with UNESCO about how to manage the Reef, calls for a 50 per cent cut in nitrogen entering the reef from all users and a 20 per cent reduction in sediment run off by 2018.