



EROSION CONTROL

The property is undulating, and therefore prone to erosion in heavy rain. The rainforest has helped to control erosion by slowing the flow of water. The establishment of the root systems has also helped to hold the banks together during flood.

Additionally the orchard floor has been planted with a groundcover of Sweet Smothergrass (*Dactyloctenium australe*). This has reduced soil erosion across the entire orchard, provided weed suppression, and increased water filtration. It has also reduced the loss of organic compost, which is carefully made on-site and applied to the orchard floor to increase the biological activity of the soil.

OUTCOME

It has been a labour of love and Martin reckons protecting and restoring sub-tropical rainforest on his property has benefited his farms productivity and created a fully functioning ecosystem. It has also created a legacy he can share with others.

Martin's story is a wonderful example of what a working farm like Brookfarm can do to protect the health of our waterways, our local drinking water supply, the land, wildlife and people.

These articles were prepared by Shannon Greenfields for Rous County Council in liaison with participating landholders.

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Photography: Trevor Worden.
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7. MACADAMIA PLANTATION BUFFERED BY RAINFOREST
8. FARM DAM



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MEET MARTIN

IN HIS SPARE TIME HE HAS CREATED A LUSH SUB-TROPICAL RAINFOREST ON HIS MACADAMIA FARM



TINDERBOX CREEK

Martin runs a successful business, and his macadamia farm is at its very heart.

But the soul of Brookfarm is the rich sub-tropical rainforest created over the past 25 years by Martin and his wife Pam.

Martin's 40 hectares sits atop St Helena in Northern NSW and looks down over Byron Bay to the North and Bangalow to the South.

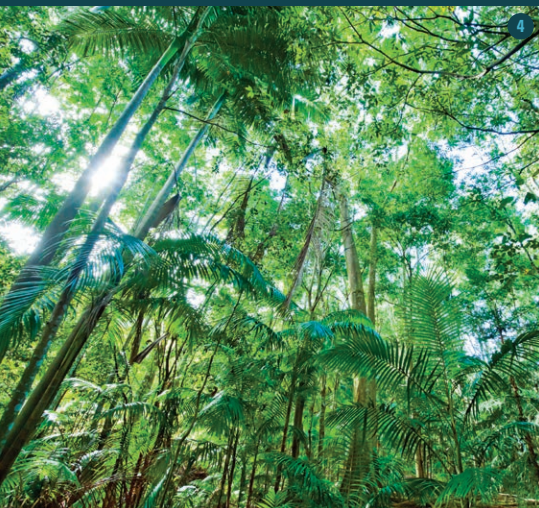
DRINKING WATER CATCHMENTS

A catchment is an area where water is collected by the natural landscape.

Brookfarm is located within the Wilsons River drinking water catchment. Tinderbox Creek flows through Martin's property and feeds into the Wilsons River. Water from the Wilsons is pumped to the Nightcap Water Treatment Plant for filtration and disinfection before it is distributed across the region as drinking water.



1. NATIVE STINGLESS BEES 2. BLUE FIG (*Elaeocarpus grandis*) 3. WEED REMOVAL 4. THE RAINFOREST CANOPY 5. BLUE FIG SEED 6. FUNGI ON THE FOREST FLOOR



Land use within the drinking water catchment is predominantly agricultural, which potentially influences water quality by introducing pathogens, nutrients, sediment and chemicals into waterways. The quality of the water in our creeks and rivers determines how much treatment is needed before the water is safe to drink.

Martin knows that protecting and restoring vegetation on his property is an integral part of good land management. He also understands that creating a buffer between agricultural activities and our creeks and rivers helps to protect drinking water.

RAINFOREST RESTORATION

Purchased in the late 1980s as a dairy farm, Martin planted 4500 macadamia trees following many others in the area. Martin's interest in sub-tropical rainforest and particularly in the former Big Scrub, led him to look beyond his orchard and begin the task of protecting and restoring sub-tropical rainforest.

What may have started as an interest has grown to something much more. Martin has now restored every inch of available space on his property to sub-tropical rainforest!

Over the past 25 years Martin has planted a staggering 30,000 sub-tropical rainforest plants – most of which are indigenous to the Big Scrub. Additionally an estimated 15,000 plants have self-regenerated.

Martin has also succeeded in creating a riparian corridor along both sides of the entire section of creek flowing through his property.

In the early days, Martin admits they knew very little about rainforest restoration. So along the way they sought help from experts, joined the Landcare network and asked for advice from their local rainforest nursery. Martin reckons that in his business, the key to success is asking for advice when you need it.

Some of the pioneer species planted at Brookfarm that have done well include Blue Fig (*Elaeocarpus grandis*), Cudgerie (*Flindersia schottiana*), Red Bean (*Dysoxylum mollissimum*), Creek Sandpaper Fig (*Ficus coronata*), Silky Oak (*Grevillea robusta*), Coolamon (*Syzygium moorei*) and Cheese Tree (*Glochidion ferdinandi*). Martin's farm manager, Pete, says that what might do well on one property could do poorly next door. Trial and error have played their part.

WILDLIFE, BIODIVERSITY & PEOPLE

Martin has created a haven for wildlife on his property – the lush sub-tropical rainforest speaks for itself. The forest provides a home for echidna, wallabies, snakes and bandicoots. From the creek-bank water dragons, turtles and duckbill platypus are spotted. The dawn bird chorus is a symphony of song.

It's also a haven for people. Martin uses it as a place to wind down after a long day at the office or an overseas business trip. He brings his business associates here too. City-folk are in awe when they come here – so much life right on Martin's doorstep!

PEST MANAGEMENT

Rodents can be a big problem in a macadamia orchard and chemicals from baiting can enter nearby streams during heavy rain periods. But Martin doesn't bait for rodents. He doesn't need to.

Eucalyptus trees planted at the North of the property provide a home for several breeding pairs of owl. These birds of prey consume around 1200 rodents each per year. The snakes from the forest floor take care of the rest. He uses a natural approach to pest management in the orchard. He works closely with the Department of Primary Industries and the University of Queensland using known biological control methods, as well as trialling new and innovative approaches to combat pest-insect problems.



RED BEAN (*Dysoxylum mollissimum*)