



Decade of organic exploration comes to fruition

By Jaime Newborn

THE O'CONNOR FAMILY – Gavin, Blair, Gerard, Jenny and Terry – are market gardeners in the fertile hills of Maleny, Queensland, who have come a long way from knowing “not too much” about farming small crops when they began their organic farm from an old avocado plantation in 1997.

Their story began with books, with Gavin and twin brother Blair devouring every title on organic and sustainable production they could put their hands on after trips to local farming groups almost a decade ago proved fruitless.

“Some people (in the Maleny region) were growing small plots in their backyard but at that stage there was no-one who knew how to start expanding on that – in large part because of the region's heavy rainfall,” says Gavin.

He says embarking on a long process of trial-and-error to find “what worked” was the only way forward – with the whole family on board.

“We were essentially transforming a

degraded, weed-infested property into something workable.”

The process has delivered some remarkable results and the O'Connors – who are now certified organic small growers with Organic Growers of Australia (OGA) – are now an established point of reference for others seeking organic advice in the region.

O'Connors Organics currently supplies a range of vegetables including broccoli, cauliflower, shallots, capsicum, rhubarb and silverbeet, as well herbs, avocados and citrus fruits (Tahitian limes and lemons) to the local IGA and the Forest Glen Natural Food Store.

What worked?

A decade of organic exploration with Gavin O'Connor reveals a few tricks of the trade.

Increasing organic matter:

“Because the farm had been conventional there wasn't any real organic matter left in the soil when we first came to it – and what was left was very highly compacted from tractors. It was hard, heavy and lifeless and would clump together,” says Gavin.

“We knew we had to build up organic matter as a first priority. We applied mulch –

“We knew we had to build up organic matter as a first priority. We applied mulch – whatever we could get our hands on; we mulched huge areas – and then ‘green manured’, ploughing in growth from a variety seed mix from a local store.”

whatever we could get our hands on; we mulched huge areas – and then ‘green manured’, ploughing in growth from a variety seed mix from a local store.

“Sunflowers and millet, sorghum, wheat and soybean started popping up everywhere and we’d rotary hoe and slash them back into the earth.”

Gavin says these mulching and green manure tactics have remained staple activities over the past decade and are a major reason the farm’s organic matter has increased on a regular basis.

“It takes at least a few years to notice the difference. Our carbon levels were up 1.5% in the first few years and have increased every year since then.

“We find if we miss a green manure crop it makes a big difference to soil fertility.”

He says that typically green manure crops consist of legumes ploughed in on a yearly basis toward the end of summer. “We grow manure crops from January to March before planting winter brassicas, snow peas or beans.

“We whipper-snip the heads off the seeds before they mature – that way the plant grows but seeds don’t set and become a problem down the track.”

He says in the beginning large quantities of river sand were also applied to the soil – about 30 tonnes. “It was a quick solution for our heavy soil because when we mixed the coarse river sand with our red volcanic soil it quite rapidly became much more friable.”

Soil pH:

Gavin says he believes soils do need to be worked. “Left alone, a bad soil won’t recover unaided. We don’t have to add a lot of nutrients to our soil now but we had to address a lot of mineral imbalances in the beginning.”

Soils in the first stage of the farm’s organic life were highly acidic.

“We counteracted that by adding a bit of dolomite and lime. We used composted manure, and tried seaweed sprays. We have also applied about 50 tonnes of rock dust from local quarries over the years.”

Drainage:

Initially, Gavin says, heavy soil in a high-rainfall area meant water was running straight off the surface and was not being absorbed.



“We created large raised beds to combat forward drainage.

“They worked reasonably well – and once the soil became higher in organic content it absorbed and drained of its own accord and we were able to dismantle them.”

He says in drier times a good irrigation

harbouring pests were uprooted. “We also planted flowering herbs which have attracted predatory insects and helped minimise the risk of a damaging insect attack.”

Gavin says the continuous ‘mulch and legume’ cycle is also a good way to prevent disease.

“We’ve definitely seen the resilience of our crops increase over the years as organic matter has increased. Where both soil and trees are vigorous, the risk of disease can often be reduced naturally. It’s about building up soil bacteria and good fungi.

“I also make sure I don’t compact the soil too much with machinery.”

Weeds are also an issue, combatted by much hand-weeding, using mulch as a natural weedmat and running a small free-range egg operation.

“The chickens (about 160 birds) get into the orchard and clean up a lot of fruit that drops. They help with the weeds and are good for pest

control. But they do need a lot of ground and have to be rotated – left for too long in one area, they will over-fertilise the soil.”

Gavin – who is currently studying horticulture – says organic farming is a continuous learning process. “If you stick to what you think is right you don’t go anywhere. We’re open to anything people have to say, and I’m also learning how to read my own soil tests.

“We are always looking at ways to improve our methods.”



Gavin O'Connor, O'Connor's Organics farm at Maleny, Qld.

bore suffices. “We don’t need to rely on big dams that take up valuable space.”

Pest and disease:

Two of the major problems the farm has experienced include Phytophthora root rot (a root disease which attacks avocados and fruit trees) and cabbage moth.

Gavin says a windbreak made from native shrubs and trees has been planted near crops, creating a hub of local wildlife which helps keep insects like the moth to a minimum. Exotic trees that had been