Organic grain advantage

for Karana Organics

By SARAH WOODRAGE

GRAHAM BACK IS THE PROUD owner of Karana Organics – a grain property that has been in his family since 1949. Graham made the official move to organic certification in 2000, leaving 30 years as a conventional farmer behind. He says he had always thought he was a conventional farmer with an organic farmer's mindset.

"Growing up in a farming family – my grandad and dad were farmers – I had witnessed how crops used to be grown, without the over use of synthetic chemicals. Even as a conventional grain and cotton farmer I never really came to terms with using herbicides and pesticides and basically preferred more biologically friendly options. I adopted integrated pest management practices and a biological program with conventional fertilisers."

He says organic certification seemed the logical step. "Chemical spraying had never been for me as I have always been a firm believer that it leads to long-term health problems. I also don't agree with the introduction of GMOs. I could never go back to conventional cotton or grain farming as it is now riddled with the use of GM seeds."

Once Graham became certified organic, he gave away cotton farming as it proved to be quite a challenge under Australian conditions. He instead turned his energies toward opportunities in the organic grain market. Karana Organics now produces both winter and summers crops near Dalby, Queensland.

Graham Back, Karana Organics, waist-deep in a certified organic soya bean crop near Dalby, Queensland.

Winter crops

Graham says winter cereals tend to be easier to grow as they are more reliable in terms of yield; and wheat is his largest winter crop.

"Wheat has a fairly good weathering ability, germinates easily, and sells well on the domestic market," he says.

Graham grows seed-quality wheat. "My wheat is for human consumption. However, it is clean enough to be sold as seed."

As for weeds, he says: "I have wiped out all traces of wild oats (also known as black oats), which invade and lower the quality of my field crops. I achieved this by being incredibly strict with everything; no-one enters my property if there is the slightest chance of contamination. I will walk my paddocks until I find the last trace of wild oat, mustard weed or wild turnip."

Graham's second-biggest winter crop is spelt, which he says is a little more difficult to grow. "Spelt requires more moisture, and summer weeds can become a problem as it is a crop that is harvested quite late in the year." However, he says it is a good crop to grow as part of a cropping program as it helps create plant diversity, which in turn assists in disease prevention.

Barley and chickpeas are two other winter crops that Graham has also grown organically.

"Wheat prices have been so good these past couple of years that I haven't really had the need to grow any barley, and when I was growing it I was mainly selling it for stockfeed.

"Chickpeas, on the other hand, are something that I have only grown organically once as they require a decent amount of water and you tend to spend a fair amount of your time chipping – the weeds love chickpeas."

In addition to cash crops, around once in seven years Graham grows a green manure crop with a mixture of between four and eight different grains, which is ploughed in to help improve soil fertility.

Summer crops

Summer legumes, which are often perceived

as a more difficult crop to grow, are vital in an organic crop rotation plan as they add valuable nitrogen to the soil. Legume crops convert nitrogen from the atmosphere into a form readily available to other crops and the soil. An important step in an organic management plan is the build-up of microbial activity in the soil, activating it naturally.

Graham's biggest and most reliable summer crop is the legume soya bean – a crop he has been growing since 1971.

"Soya bean is a high-nitrogen-producing legume that requires careful management of moisture, organic nutrient application, weeds and pests."

To minimise weeds, Graham uses inter-row scuffling and hand-chipping. To minimise pests, he plants trees (the majority are native) in which beneficiary insects can breed naturally. "I am a big believer in biodiversity playing an important part in the biological process," he says.

Another interesting summer crop that Graham has grown is popcorn.

Popcorn, a particular type of corn (maize), requires good germination (which Graham says is sometimes hard to achieve). Water timing is crucial and weeds can be harder to control but the crop can produce reasonable yields.

Graham attributes his abundant winter and summer yields to fertile soil. "My soil is extremely rich, with river flats rising up into fertile scrub, creating naturally high-yielding black soil," he says.

To maintain his fertile soil, Graham uses good-quality compost from Enviroganics – a locally produced product that is BFA-registered and NOP-compliant. "We average two and a half tonnes of compost per hectare per year, with a good season not needing as much."

Lamb

Graham also runs a small flock of breeding ewes to help with tillage. He runs around 240 head of organic Dorper, mixed in with a little Damara, which he says makes the meat a bit leaner. His flock has an average lambing rate of about 120% – compliments of a high rate of twins.

He sells mainly to local buyers, given his small production volume.

Besides the extra profit the lambs provide, Graham utilises the sheep's time in the field. "The sheep are great for reducing my tillage – in between rain events the sheep graze the weeds right down, helping to extend correlation time. With the sheep grazing the weeds down I have been able to reduce my tillage by around 40%, saving me money, conserving moisture, improving soil structure and reducing the cost of correlations."

Conserving water is an important issue for Graham, who runs his farm on an irrigation system. "I prefer to irrigate most crops as it gives me greater economic returns. However, some crops can also be rain-grown."

Graham says that while he will continue to use an irrigation system he has future plans for better water efficiency.

"I plan to convert my existing dam into three dams, helping control water levels and regulate water flow. I am also looking into the possibility of switching from ditch irrigation to trickle irrigation. Trickle irrigation is often seen as the most water-efficient method of irrigation as evaporation and run-off are minimised."