



Tony Chapman continues to experiment and innovate to make gains at his Alloway property.

Progressive practices create carbon in southern soils

The Chapman family in the southern region have used a number of innovative techniques to improve soil health on their farm, reducing input costs and delivering other benefits. By Jarrod Sartor

Bundaberg farmers Tony and Katrina Chapman, along with their son Mitch, harvest about 15,000 tonnes of cane each year from their 220 ha farm in Alloway.

Over the years they have put many progressive practices to use and improved farm profitability as a result.

The Chapmans run a controlled-traffic, single row two metre spacing system, with most of the drills being 1.6 km long (with headland breaks in between) and all facing one direction.

Tony has implemented progressive practices such as composting, farm planning, and rotational crops and, more recently, sub soil amelioration.

Tony makes his compost from mill mud and any organic matter he can find, as long as it has no glass, plastic or metal in it.

The raw materials are mixed at a 6:1 ratio of organic matter to mill mud using an implement to turn the pile of two materials inside out and upside down.

“We drop the compost as close as we can to where the stool will be, cultivate it, and then fill it in. It is banded and buried in one single day,” Tony said.

He feels that composting is an important practice to increase Soil Organic Matter (SOM) for his farm, but acknowledges that it isn't suitable for everyone as he relies on being able to access large volumes of organic matter.

It has taken Tony 15 years to steadily implement his farm plan. He has divided his farm into five colour coded sections (each section representing 20 percent of tonnage and area). The colour-coded farm maps date back to 2010 and are used as a guide for Tony and his employees. The maps give information on what to spray, how much fertiliser to use, what will be fallow next year, and what was fallow last year. This provides accurate knowledge and consistency in his farming system without relying on memory.

As a strong believer of never having a bare fallow after a crop cycle, Tony plans to rotate out of cane for 12 months.

He begins with oats, then moves onto harvestable soybeans and field peas, with plans to include mung beans in the future. He often produces 4 t/ha of soybeans with his cover crop but this is only a secondary goal, as his primary goal is the further increase in SOM.

Walking through the paddock, it is easy to see why Tony is so excited. His original grey podzolic soils have been turned into a minimally compacted, dark, friable, organic rich medium that is teaming with life.

Individually, each practice change should contribute to improvement in sustainability but combining the management practices in a systems approach will create long term profitability and be sustainable in the future.

Since implementing soil health practices, Tony said yields have remained at 90 t/ha; the same as when he farmed using traditional inputs and practices. However, input costs have been reduced and he now has time to earn extra income through planting and harvesting contracting.