

Case study: Syntropic farming



Can syntropic agriculture work to regenerate degraded areas?

Dr Victor Pires is a syntropic farmer and educator who has been restoring a seemingly unproductive piece of rural land outside of Uki.

The property that Victor manages is a typical rural block with a combination of high conservation value native forest and cleared areas, now overrun with weedy regrowth. Camphor laurel and lantana were rapidly taking over the site and stopping higher successional species from entering and continuing regeneration.



Victor in the regeneration area not long after planting. Fast growing local tree species are interspersed with horticultural crops while weeds are manually controlled, and the organic matter utilised in situ.

Victor is a chemical-free farmer and was particularly interested in trialling a syntropic agriculture approach to bush regeneration. The approach combines food production with agroforestry, effectively maximising photosynthesis and symbiotic relationships between plants, animals and microorganisms above and below the ground.

How syntropic farming worked on the farm

The project involved heavy pruning of weeds like lantana and camphor laurel across 1,500m² and the reintroduction of a combination of native species, fruit and nut trees and annual crops.

The aim was to quickly cover the soil and maximise growth of a diversity of plant species, providing a more productive approach to bush regeneration than conventionally practised.

Leaving the weeds in-situ rather than complete removal ensures the release of root exudates, like growth hormones and sugars, into the soil to feed the soil biology and recently planted trees.

Woody biomass was also chipped to provide groundcover and plantings were supplemented with chicken litter and rock phosphate. Care was taken not to introduce species that could become environmental weeds.

In less than 9 months, Victor was able to convert a dense infestation of lantana into a productive food forest. Victor created a farming system that is highly productive, enjoyable to work in, encourages community collaboration, and can be left behind at any time leading to succession of local native species like eucalyptus and acacia.

“Council’s Sustainable Agriculture Grant allowed us to take a necessary step towards a better relationship with our land. I found that a bit of money, coupled with the responsibility of delivering a meaningful project for our region and people is a powerful one. Hopefully this program can continue to exist and support landowners that are willing to go beyond and do things differently.”

Dr Victor Pires

Sustainable Agriculture Small Grants Program

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The system has also been designed to minimise complex management in its early stage of establishment, only requiring brush cutting the inter-rows once the weeds reach their flowering stage.

After 12 months the area had only been brush cut 4 times and reshooting lantana and camphor stumps were left in place, yet all the native trees were thriving.

This method of intense planting coupled with strategic management of existing weeds (without their removal), has also proven to be extremely resilient during the devastating 2022 floods.



Before and after. The lantana infested patch has been transformed into a food producing, fast growing native forest.



The syntropic approach involves regular pruning of vegetation to provide groundcover, encourages organic matter cycling and stimulates the release of root exudates that feed soil biology.

As a low-lying riparian area, the project site was battered by huge volumes of flowing water as well as large logs. Despite losing mulch cover, there was minimal loss of topsoil and only minimal damage to newly planted trees.

As a result, plants came back into growth mode as soon as the sun started to shine again and were back into the photosynthetic and sugar production business.

“I have found the Sustainable Agriculture Grant to be a very valuable component in putting into practice some of the regenerative ideas that I had floating about in my head ... a risk-free opportunity to try something different and learn from the experience.”