

Chapter 5 - Syntropic Farming

Shane Joyce: So this is one of the fixed point photo sites that we had before earlier on the computer. This is the mark of the peg and I'm where I take the photo from his 10 meters from this peg and this goes in the center of viewfinder, but you can get a comparison here. What's here now compared with what was here in January 2014. So five years on, five and a half years on, a lot of what you see here, wasn't here. And two weeks ago Matthew turned up and it's now being what they call syntropic farming. It's being reset. So Matthew's in here and he's pruning some of these trees and putting them through a chipper and he's created here the first syntropic bed on this farm. So Matthew can probably explain to you what he's done here the process of setting that up.

Matthew Curtin: So this bed here is basically an experiment with companion planting of a few different native pioneer species. So what we're doing is bringing in some of the sort of dry land pioneers and seeing how they grow with some shrubs, herbs and a few different things just to experiment with what we can achieve in terms of getting quick growth that will then allow the planting of other species that can grow in the conditions created.

So here we're using the wood chip mulch that came from pruning some of the trees that were planted and there's also bananas down by the shed. And we're using the bananas as a kind of, form of mulch and also slow-release watering sort of system. So this is here. We're watering the plants in only got planted last week and then yeah, we'll see how it goes.

Shane Joyce: Planted last week means that were planted actually on Monday of this week. Yeah.

Matthew Curtin: One other thing is that there's a lot of your common crop seeds in there. So there's sunflowers that should be coming up soon. There's basil, coriander, a few edible greens, just all sorts of things growing together. So hopefully in a few weeks, we'll see that stuff to come up and see the system take a bit more shape and then we'll progress this down as we go and modify it as we need to try and get the best results in terms of improving soil, increasing wildlife habitat, biodiversity or all the good stuff. So yeah, that's where we're at.

Helen Disler: So Matthew do you bring experience with syntropy?

Matthew Curtin: Only in the last 6 to 12 months. Yeah.

Helen Disler: So tell us a little weenie bit about that.

Matthew I've got a little property at Pomona where I sort of play around with a few of these ideas.
Curtain: The country there is quite steep so it doesn't really lend itself to running cattle or anything broad scale, but it's a good opportunity in a sort of rich subtropical climate to grow a lot of things, you know, bananas will jump out of the ground, cassava, eucalyptus - it all seems to grow pretty well. So it's kind of like a kick starter version of experimenting with with this entropic farming and companion planting and that sort of stuff. So, yeah, I've been playing with that for the last year, six seven months sort of intensely. Yeah, building from that.

Helen Learning on the way.
Disler:

Matthew Yeah, I think that's the only way you can really get a handle on this stuff is just do it a hundred times and use what you observe. Yeah.

Shane Syntropic systems in Brazil have gone broad acre. So this sort of bed, can you imagine a thousand meter long row? Yeah, and it's a whole deal is the guys that are teaching it are coming out of Brazil and so a good example of what can happen is there's an avocado farmer on the Atherton Tableland at Tolga who came along to a workshop and he was an avocado grower for many years and he knew that you could only grow avocados as a monoculture and you had to do it this way and that way. Apparently that avocado orchard is now is doing so many other things. He's gone in there and planted so many other things in association with the avocados, but the lure that got him in there was the potential to diversify his business and get many other income streams and he's done it. There is some quite good activity on the Atherton Tableland. Another farm up there was a banana Farm. They've got annihilated in Cyclone Yasi and so they came in and said there must be a better way to do this to create a more resilient farming system.

Brazil, it's gone broadacre and that's what they driving for out here now is how can we take this stuff and get it into in the broad scale systems? This place here 141 hectares is probably regarded as a hobby farm so we're doing it at a hobby farming level here beginning to but only starting at a basically a kitchen garden level and we hope to as we as we increase our internalization of the system and getting to know it then we'll go bigger and hopefully we'll end up out there where those cattle are and we'll have what you're talking about, Helen with trees and shrubs and herbs, having species out there that the livestock can actually self-medicate on.

Helen Yeah.
Disler:

Shane And you were talking about the trees in this environment are they the same as what they're doing in Brazil the plantings I've done here is a mixture of natives, local Natives and foreign species. And after five and a half years, I've now got a bit of a handle on what, out of all those the diverse planting, what are the things that are doing well. And we're putting some of that into what we're doing now with syntropic farming and saying well, we know that these ones will grow so we can put them in our system and then we can we can work with other ones like Matthew's got here and say what's going to kick it what's going to do it and what's not going to do it.

So it's a learning thing. It's no different at Dukes Plain in an orchard I planted all the exotic fruit trees to watch the majority of them die. But what the party and jaboticaba, they thrive through hell and high water and I suspect that those two will do the same in this environment.

So in syntropic farming they have a mantra: No more bare dirt. No more bare dirt. So when you when you come into a vegetable garden and you plant a cabbage and the seedling is such a tiny little thing, but when the cabbage is matured needs this much space so what the guys in syntropics are doing is they plant the cabbage and then around it they're planting things like radish, coriander, rocket or lettuce. So they're filling that space while the cabbage is only little, they're filling that space with things that have a much faster lifecycle and harvesting and as they harvest them they have 45 day timeframe up to 90 day timeframe up to 120 days timeframe.

So they class plants in these different time frames and then you start to get them together. So that when the cabbage is big everything else has been harvested and the cabbage is filling this space. So it's all about synchronizing plants and their life cycle and utilizing the space so that if you look at a picture of a syntropic garden, there is not an ounce of space, it's just totally bedlam.

Yeah, all green and all different species. So they're all doing different magic from photosynthesis and what they doing into the soil. So there's this whole network of stuff going in there. So it really gives you a good understanding of what people that are talking about when they talk about a multi-species cover crop.

Yeah, and it's a syntropics is described as a successional agroforestry system. So [00:40:30] in here in some of the beds they're planting a eucalypt every meter or an avocado every meter and then they are pruning the eucalypt for the biomass to mulch on the ground and you can play with those eucalypts and take them up into a saw log. You can take the top off at 8 meters so you have a controlled Timber growing system. And at any time you can take that out for firewood, or you can let it grow through to saw logs and you can thin and keep lot but a lot of it's about growing biomass to get back on the soil to feed the soil biology. Very interesting system.

But as I said before is probably way too weird for a lot of people in agriculture. Just caught word of it through some fat our friends that do broad acre stuff west of Toowoomba. So yeah, just sort of got onto it and combined with a sort of background biodynamics. It's really just a common sense way to go because at every step of the way you're sort of nurturing each plant as opposed to letting them grow on their own until the harvest. So it's sort of yeah, it's letting go of thinking about things in a linear direction and kind of cycling everything back and in particular producing a lot of mulch to feed the soil. That's what it's all about.

Helen Disler: So, do you have to be mindful with syntropic farming, I don't imagine you would?

Shane Joyce: Look I tell you I'm really new in this stuff. It says timeframes 45 days through to things that have got a 40 years plus life cycle. So it's actually like conducting the orchestra. It's how do

you combine those plants from 45-day lifecycle up to 40 years plus life cycle and get the mole intern and working with each other which is what happens in a night in a forest of a self-organizing I get can run without us. So all we're trying to do is to get in step with those natural systems and then we can we can use our knowledge or whatever of you know, this has got a 45-day life cycle. This is got a 40 year plus how we can how we can bring all those together so they can cooperate with each other to get a better outcome. Yep, not compete. So the eucalypt in here with lettuce growing under is not competing with the lettuce. They're cooperating.

So that's Cass The Wonder Dog. Cass is 12 months old and was being trained for a working dog and suffered what they call burnout from expecting too much too soon. So Cass is here now. She's been here for about a month. She's learning to be a dog and grow up around humans and cows and quite enjoying it.