

Slow-cooked approach provides some

KRISTY McDONALD

TWO south-west farming properties are proof of life after blue gums for local farmland, with the plantations themselves providing the vital first step in re-establishing pastures.

Four years into a five-year project to restore a former blue gum plantation, Chris and Kate Dorahy are confident with their choice to try “the slow-cooked” method of reclamation, with positive results already appearing at a second parcel of land.

With land in the area tightly held and the need to expand their holding to accommodate a growing sheep stud and commercial operation, in 2016 the Dorahys purchased a 561-acre parcel of harvested blue gum land, abutting their Nareen property, Cloven Hills.

“There’s a perception with blue gums that once the area is planted and harvested it’s simply a wasteland, which is not correct, it’s just a that there’s been a change in the ecosystem from grassland to forest,” Chris, who was a soil scientist before taking up farming, said.

“This can be undone by opening it up, letting the light in to promote grasses and legumes and slowly shifting the balance back to where you want it to be.

“The ecosystems are always there, depending on

the balance of water, light, nutrients and organic matter.”

Harvesting had been executed with the trees cut at ground level and the trash – stumps, leaves and small branches – left where they fell and while Chris said the first impulse was often to burn the plantation waste and expose clear ground as quickly as possible, he saw an opportunity in the huge quantity of remnant organic matter, which could potentially benefit the final aim.

“It really looked like a mountain of trash and it was quite overwhelming,” he said.

“But the Dundas tablelands soils are highly weathered, inherently low in fertility and with a sodic subsoil, they have a high concentration of exchangeable sodium and we’re highly conscious of that.

“By burning the trash – and there was a lot of it, it was really overwhelming at first – you’re burning a lot of organic matter and nutrients ... releasing or removing valuable carbon which can feed the biological processes in the soil.

“The second reason (for moving away from quick clearing) is that when people want to get rid of the stumps as soon as possible, they have to use a mechanised means of removing or grinding them, which means diesel; diesel is expensive and our budget didn’t allow expensive methods

to get where we wanted to be.

“So we decided to take the slow-cooked approach.”

Starting out

WITH the goal to complete their reclamation over a five-year period, the Dorahys set about rebalancing the chemical, physical and biological profiles of the property, a task undertaken with organic, chemical and low impact mechanical processes.

“The biological aspect is a bit of a last frontier of soil science and one that there’s a lot of grappling to understand,” Chris said.

While compost and organic matter is easily applied in domestic gardening situations, Chris said the biology of soil was difficult to manipulate with the application of composts at a grazier level, due to the massive volume required on a large acreage.

“People know in their home gardens, when they’re loading in compost, how rich the soils become, but it’s a real battle on a broadacre sense to kickstart it with imported materials,” he said.

“You need to apply tonnes of material per hectare to make it work and ordinarily it’s cost-prohibitive with the carting being bulky and that’s expensive.

“Our other philosophy is to minimise materials handling.”



STUMPS are loosely chopped and returned to the soil for further breakdown by fungi and microbes, increasing biological activity in the soil. Photo: SUPPLIED.

Following an initial chemical application to kill the remaining blue gum regrowth and to kick off the biological process, the existing trash between windrows was returned to the soil with the assistance of a set of discs and a 104hp tractor engine and similarly, the remaining stumps were broken up – but not removed.

A slow and laborious project, leaving the massive carbon deposit held in the trash paid dividends in a short period, with the biological profile of the land exhibiting desirable, pre-plantation properties within months.

“What was amazing, after summer we were digging up the trash and it was a hive or activity - worms, beetles, centipedes, an explosion of fungi of all different colours and shapes, using that organic matter as a substrate, turning it into soil.” Chris said.

“Essentially, it was just big blanket of newspaper, providing a substrate for fungi then microbes to be consumed and returned to the soil and get that nutrient cycling process happening again.

“We chopper-rolled the stumps and once we introduced water to the stumps, they started to soften up, fungi colonised the stumps and started that process again.

“I’m really against carting organic matter from one place to another; from my background I

Rural women’s health front and centre

GEORGINA MORRISON

THIS week the 2020 Rural Women’s Health Summit reached women across the country with great success.

Event organiser, local naturopath and nutritionist, Hayley Dawson said the event “aimed to build a healthier and more connected community of rural women”, particularly amid the pandemic.

The summit featured a five-day program, giving women invaluable access to industry professionals across all sections of women’s health.

Although originally planned as a face-to-face event, Ms Dawson had to adapt to an online format but she said this ended up working in its favour, allowing for a broader scope of guest speakers and attendees from around the country.

Registrations came from every state, which Ms Dawson said was fantastic to see.

“We wanted to reach women who are maybe feeling isolated during the pandemic; stressed from work, and running from job to job; perhaps someone who is left all day at home while their husband works; or maybe their kids have moved out of home and they’re feeling lost,” Ms Dawson said.

Monday covered mental health; Tuesday, farm safety; Wednesday, women’s health; Thursday looked at food as medicine; and Friday was dedicated to fun activities to help women relax.

The sessions included a line-up of local keynote speakers, including financial counsellor, Sarah Moncrieff, eating disorder recovery speaker, Lauren Dellinger, neuropsychologist and farmer, Sarah McLean and women’s health physiotherapist, Jessica Fishburn.

Ms Dawson said she had received very positive feedback with attendees expressing how much they enjoyed the summit.

“They have loved the interactions and information provided as it has given them lots of things to think about for their health,” she said.

“It was really good to attract the online audience and help people through this time, so I’ll definitely keep looking at ways that I can support women across the country, whether it’s something else later in the year, I’m not sure as yet, but I hope to be able to run more in-person and online events like this in future.”

For further information about guest speakers and resources from the event, visit theruralnaturopath.com.au or get in touch with Ms Dawson via Instagram, @theruralnaturopath.

thriving results for ex-blue gum land

know that it is bulky and difficult ... you're just transporting energy from one place to another."

A huge mulching experiment

THE decision to take part in what Chris described as "Australia's biggest mulching experiment" and the property's location next to existing infrastructure on the home property – negating the need for further, expensive construction – allowed the Dorahys to use the regenerating farm land for strategic stocking for lambing and containment feeding and resting their home pastures.

"The existing seed bank, once it got access to light, was quite prolific; we were surprised, there was clover there from when it was grazing land before, a lot of native grasses and varying grades of rye grass and phalaris," Chris said.

"It wasn't the highest quality feed, but fortunately sheep aren't fussy.

"It was a bit inconvenient, with remnant stumps and sticks from a mustering and management point of view, but the sheep don't mind getting around it and we were able to return sheep to it almost straight away."

With promoting existing grass stock a high priority, a capital dose of lime was applied at a rate of two tonnes per hectare, increasing the soil pH and reducing the level of toxic, exchangeable aluminium in the system.

"We also put on a capital dose of phosphorus at 30 kilos per hectare and 20 kilos of potassium per hectare," Chris said."When we tested the soil, it ranged from between five and six milligrams per kilogram of available phosphorus, some tests were lower at two to three milligrams – when you get a well-established and well-fertilised pasture, you want an Olsen-P level of about 15 milligrams per kilogram or more."

With the chemical and biological correction of the land underway, the physical profile of the soil is also seeing massive improvements – a factor Chris attributed to the biological activity, promoted by the initial exploitation of the blue gum trash.

"We all know that if you put coals from a fire on a vegie patch, they stay there for years and years and that's what would have happened if we had burned that trash," he said.

"Put destructive stump grinding on top of that, pulverising the aggregates, and you get slumping of the soil because of its sodic nature; the water-holding capacity of the soil is greatly reduced and when we need to conserve every drop of soil moisture, carbon is our friend to do that."

Rewards visible

WHILE large-scale mechanical intervention



REMNANTS from blue gum plantations provide both organic material, which contributes to the regeneration of pasture and a shelter belt in the form of remnant trees. Photo: SUPPLIED.

was shied away from in the preparation, some was necessary for the overall future management of the land and will be employed in the final stages of its rehabilitation.

"The hardest thing on the property was doing the fencing, the subdividing," Chris said.

"That was our first challenge, with no internal fences and stumps in the way, so we did some mechanical clearing, some strategic grinding and with aerial mapping, found and used the internal forestry tracks as fence lines.

"Now we've got a yakka hoop going along and pulling the remnant stumps out in a gentle way, with very low energy and with what is left in the stump rows now, you couldn't even call it a windrow; all that's left now is beautiful, friable material.

"If you take a step back and look at the time frame of the land, we've had a few years of inconvenience, but a massive kick start by looking after the organic matter, building up the soil structure and fertility, where we would have sacrificed the soil quality in a race process.

"Carbon is the number one thing driving soil quality and with Australian soils inherently low in carbon ... this slow-cooked but low-cost option has worked for us ... we would be lucky to have spent \$400 to \$500 an acre on rehabilitating the land."

In addition to a ready-made, bulk load of compost, the blue gum plantation has provided an additional, direct benefit to the Dorahy's

operation – with no physical or monetary outlay.

"We've left some strategic, remnant belts of blue gums around the properties which complements what we're doing and is aesthetically pleasing," Chris said.

"It provides a shelter belt and privacy for livestock, particularly lambing ewes, in areas where the wind howls through."

With the home block showing positive signs of rehabilitation so early in the process, the Dorahys purchased an additional 3000 acres of ex-blue gum land in 2018 which is currently holding around 2000 pregnant ewes.

"It's early days, there but we are seeing the same thing over there," Chris said.

"It's a misnomer that plantations are a dead bit of monoculture, that it's not a functioning ecosystem.

"Our philosophy is that there is a place for blue gum plantations.

"I think the pendulum swung too far in the late 90s, but like everything there needs to be balance.

"We need paper, we need wood products and if we can work with each other, develop ecosystems which work in the long term, dealing with the trash, using fertilisers, you can make it pretty and viable again for another purpose.

"It's torturous travelling at two kilometres an hour, like we did with this slow-cooked approach, but you do get there with some pretty good results."

Call to invest in regional Victoria

ASH BOLT

RURAL Councils Victoria (RCV) is calling on the state and federal governments to invest more money in rural Victoria, after new data released by the Australian Bureau of Statistics (ABS) revealed the impact coronavirus (COVID-19) and bushfires had on employment in regional communities.

RCV chairwoman, Mary-Ann Brown said the governments should be providing a \$4 billion emergency funding package to maintain and create jobs in rural Victoria.

Figures released by the ABS have shown there were 20,800 more people employed in regional communities in February this year than there were in May, as the COVID-19 pandemic caused many businesses to close or reduce staff.

"This is major blow to rural communities and we are calling on the state and federal government to do what they can to provide support," Cr Brown said.

"Research by Rural Councils Victoria shows that a job in a rural town with 1000 people or less has 37 times greater positive impact on local economies than a job in a regional city with a population of 100,000 or more.

"The federal and state governments must step up with a rural emergency

package to ensure food security, as well as maintaining and creating jobs."

Cr Brown said RCV's proposed funding package would be used to support the rural shires, through providing rate relief for individuals and business, funding essential road repairs and providing stimulus for tourism-related businesses that have been impacted by COVID-19 restrictions.

She said funding should also be used to guarantee important regional infrastructure projects wouldn't be pushed back because of the financial uncertainty, to ensure jobs were still being created.

According to the ABS data the unemployment rate in regional Victoria jumped from 3.4 per cent to 4.9 per cent in May, even with the support of the Federal Government's JobKeeper program, which Cr Brown said showed how critical it was that regional Victoria received further financial support.

ABS data released this week also showed the number of job vacancies in Australia had dropped by 43 per cent between February and May – the single largest decrease on record.

Victoria saw the largest fall, at 52 per cent, meaning there were less than half as many available positions in May as there were in February before restrictions kicked in across Australia.