



Paola Crofts at Tall Poppy Farm

Integrating farm, animal and human health in
Romsey, Victoria

Part of a wider research project investigating the benefits of regenerative agriculture.

May 2024



Acknowledgements

This case study explores the holistic benefits of a regenerative approach to farming. It is one of six case studies prepared as part of a wider research project investigating the benefits of regenerative agriculture.

Soils for Life's contribution to the project is the development of case studies, which provide insights drawn from a diverse mix of Australian farmers.

Soils for Life gratefully acknowledges the generous contributions of Paola Crofts.

About Soils for Life

Soils for Life is an independent, not-for-profit organisation that works across Australia to support Australian farmers in regenerating soil and landscapes, to build natural and social capital, and transform food and fibre systems.

Front image: Paola Crofts at Tall Poppy Farm.
Image source: Courtesy of Paola Crofts.

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About the Case Study Series

This case study series explores the holistic benefits of a regenerative approach to farming. This case study is one of six that are part of a wider research project investigating the benefits of regenerative agriculture.

It is important to ensure that farmers' perspectives are heard, valued and used to inform research findings and outputs. And so, these case studies have been developed by interviewing each farmer to understand their perspectives, their context and their approaches to new practices. This was done in order to understand their views on the benefits of a regenerative approach to farming.

These case study farmers were selected following an expression-of-interest process calling for farmers who self-identify as 'regenerative.' The project did not include any new on-ground testing or analysis of existing monitoring data by Soils for Life.

Farm Facts

Location

Wurundjeri Woi Wurrung Country | Romsey, Victoria

Climate

Warm summer, cold winter

Average Annual Rainfall

690 mm (recent, 1993-2022)

Agro-ecological Region

Temperate cool-season wet

Property Size

30 ha

Elevation

490 m

Social Structure

Family owned and operated

Enterprises

Grass fed and finished Dexter beef cattle, sheep flock, organic pastured eggs and vineyard

Landscape

Undulating volcanic lava plains to the east of the volcanic cones of the Macedon Ranges. Much of the basalt plains and hills have been cleared for agriculture with some remnant stands of manna gum, peppermint, and blackwood.¹

Soils

Red iron-rich soils ([Ferrosols](#)), black cracking clays ([Vertosols](#)), black, non-cracking, structured soils ([Dermosols](#)), black and brown texture-contrast, sodic ([Sodosols](#)) and non-sodic ([Chromosols](#)) soils.^{2,3}

¹ A Land Capability Study of the Shire of Romsey (Baxter et al., 1994).

² [The Australian Soil Classification](#) (Isbell and NCST, 2021).

³ Soil CRC's [Visualising Australasia's Soils](#) (VAS) Victorian Soil Types.

The Highlights

Practices and strategies

- A holistic grazing strategy with high grass utilisation and long recovery periods
- Adaptive, flexible management, responsive to conditions on farm
- Increased animal diversity incorporating cattle, sheep and chickens
- Partnering with local farming community to operate a boning room
- Building supply networks to promote direct marketing and sales
- Participating in a monthly regenerative grazing group
- Optimising animal health through use of mineral trailer, natural remedies, supplements and nutrient-dense foods
- No synthetic chemicals, no worming or vaccination of cattle
- Mixed species pasture trial and cover crops with biological inputs (anaerobic microbes) to improve pasture
- Integration of biodynamics and regenerative viticulture
- Controlling the flow of water for soil retention

Observed benefits⁴

- Improved animal health across cattle, sheep and poultry
- Health benefits from eliminating synthetic chemicals
- Low production costs with minimal outlays
- Increased customer satisfaction
- Drought resilience through preservation of topsoil and water retention
- A sense of positive wellbeing, satisfaction and inner peace

Monitoring progress

- Monitoring chicken health by tracking quantity and quality of egg production
- Monitoring customer satisfaction via direct feedback and testimonials
- Tracking animals' recovery from illness and general immunity, rate of calving across generations, ease of calving and cross-generational health of cattle
- Tracking improvements in water and soil retention during heavy rains
- Tracking outcomes from recent cover crop trials, particularly improvements in the weed profile and soil health.

⁴ These benefits are based on farmers' observations, except where noted otherwise. No additional testing or analysis has been undertaken for this case study.

Landscape and Soils

Tall Poppy Farm is located approximately five km west of the town of Romsey and 60 km northwest of Melbourne, in the Macedon Ranges Shire of the North Central region of Victoria. The property is on a flat to undulating volcanic plain, just east of the elevated Macedon Ranges of the Great Dividing Range.⁵

The soil types in the region vary depending on the parent material, topography and climate, and particularly the rainfall. Where rainfall is relatively high and the topography allows, deeper fertile soils are more common. These include the strongly structured clays of the volcanic plains (Ferrosols and Dermosols). On the lower slopes of the volcanics, the brown texture-contrast soils (Chromosols and Sodosols) are more common. In other areas, the fertile black and grey cracking clays (Vertosols) can be a management challenge.

Most of the farming land has been cleared of native vegetation with only a few isolated stands remaining in the paddocks of the plains. These remnant stands are dominated by eucalypt species, including messmate (*Eucalyptus obliqua*), broad-leaved peppermint (*E. dives*), and manna gum (*E. viminalis*). Many of these stands have little or no native understorey remaining.⁶ The ground cover is usually dominated by introduced grasses, with very few remnant native grasses remaining.⁷

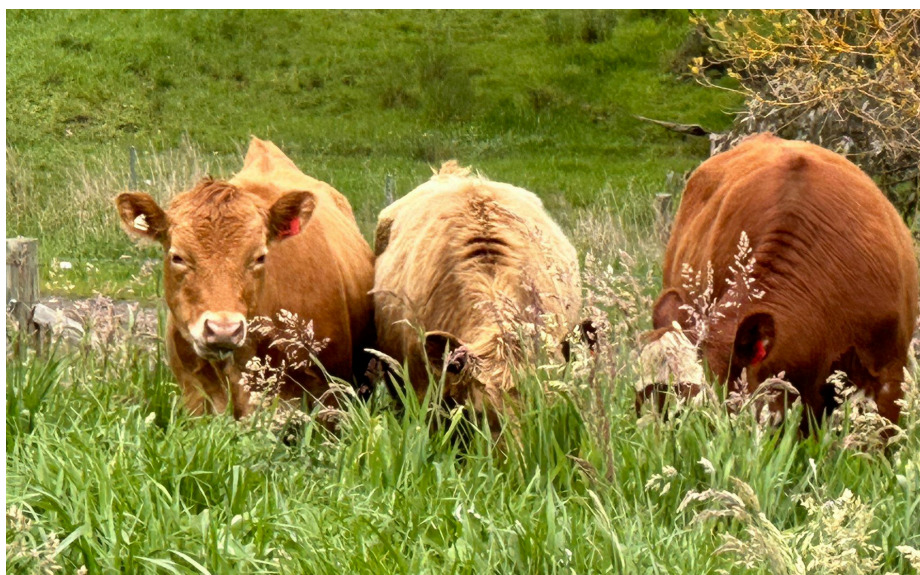


Image 1. Time controlled grazing in a mixed species pasture at Tall Poppy Farm. Source: Paola Crofts.

⁵ A Land Capability Study of the Shire of Romsey (Baxter et al., 1994).

⁶ Land Systems of Victoria (Department of Natural Resources and Environment, 2000).

⁷ Land Systems of Victoria Availability of Maps (Victoria Resources Online, accessed 24 January, 2024).

Meet Paola Crofts

Food and medicine are closely connected for Paola Crofts. Since she began farming over a decade ago, Paola has followed a path that utilises her research skills, curiosity and love of learning, combined with her keen interest in health. Paola has three degrees in economics, accounting and law, which she believes all come in handy in different ways on her farm.

Paola spent 20 years working overseas in the corporate world before deciding to leave her 'high heels in the corner' and begin a life in the country. She has been learning and applying new knowledge 'everyday since.' Her approach to farming is underpinned by the philosophy that 'food is medicine.' Paola developed this guiding principle in response to her son Ethan, who refused to eat when he was very young. Paola decided to support him by changing their lifestyle so that he could connect directly with the way food is grown and harvested. They bought a farm and moved to regional Victoria and Ethan has since grown into a healthy young man with a solid appetite.

Before taking over Tall Poppy Farm in 2018, Paola was based on a smaller property for seven years. She began integrating regenerative farming practices in 2011, including removing synthetic chemicals, eliminating worming and no longer vaccinating cattle. At Tall Poppy Farms, practice changes have involved building new infrastructure to enable time controlled rotational grazing, integrating no-till cover crops into perennial pastures, incorporating biodynamic preparations on pasture and in the vineyard, brewing microbes, experimenting with a range of home remedies and using a mineral trailer to supplement the diet of cattle on the farm. Paola has been married to her husband Andrew for five years. Andrew owns his own farm and he is helping Paola to re-establish the vineyard at Tall Poppy Farm.



Image 2. Paola Crofts in her garden at Tall Poppy Farm.
Source: Paola Crofts.

Practices and Strategies

Optimising animal health naturally

For several years Paola has been investigating ways to naturally optimise animal health. She now integrates natural remedies to support overall animal health and to address specific ailments, experimenting with a range of applications for her cattle and chickens. She began circulating a 'free choice' mineral trailer on the farm in 2016 to supplement the cattle's diet and provide stock with their choice of individual nutrients and minerals. Paola believes there 'has been a huge change in the animal health that we've seen from doing that.'

In summer she gives her cattle apple cider vinegar with garlic on a daily basis (diluted in water) to ensure they are not 'going backwards on dry summer grasses,' shifting the quantity to once a week during winter months. She has trialled a number of other remedies, for example, applying aloe vera powder as an effective treatment for cattle that have developed pink eye after feeding on hay in the dry summer months.

There are 750 chooks laying soy-feed-free, pastured eggs at Tall Poppy Farm, which are delivered and sold across Melbourne. This is the largest enterprise on the farm and integrates several regenerative practices into production. Paola routinely incorporates nutrient-dense feed to support animal health and to increase the quality and quantity of production. The hens have a diet inspired by Paola's philosophy that 'food is medicine.' Paola is certain that eggs are directly impacted by what hens eat and she has read a number of peer-reviewed studies that support this. Chickens at Tall Poppy Farm forage on perennial pastures and their diets are supplemented with organic fermented wheat on a daily basis. Paola has removed all soy-based products due to specific issues like inflammation and hormonal interference, which she believes correlate with soy products. Feeding the chooks is quite a labour-intensive practice as it requires daily preparation of sprouted wheat in order to maximise protein in their diet. It generally 'takes four days to get the wheat to sprout' before it is fed to the chickens in winter and about 24 hours in warmer summer weather. The wheat is distributed each day before 10am because 'once you sprout the wheat it increases the protein at the beginning of the day and it allows the chicken to develop the egg right within that 24 hour cycle.'

At Tall Poppy Farm they raise grass-fed, grass-finished Dexter beef, a smaller breed that does well on the property, especially through winter and during adverse weather conditions. Dexters naturally marble on grass and are easy to move. Paola 'likes the taste of their meat,' as do her satisfied customers who she markets and sells to directly, with meat 'sold during September to April only, depending on the quality of feed available.' Paola has access to a local boning room and has a professional butcher come in for butchering as needed.

Other changes in animal husbandry at Tall Poppy Farm have involved shifting away from routine animal practices such as worming and vaccination. Instead, Paola believes that her focus on prevention and alternatives to these routine practices (as discussed above) have allowed her to go 'from removing worming and any sort of chemicals on the property, to no vaccination of cattle.'



Images 3 & 4. Chickens foraging on perennial pastures and cattle grazing near rotational hotwires at Tall Poppy Farms. Source: Paola Crofts.

Biodynamics and regenerative viticulture

Tall Poppy Farm includes a 4.5-acre vineyard, Red Poppy Estate, which Paola and Andrew have been restoring and rebuilding since they bought the property. Together they have built a cellar door and a commercial kitchen, fenced the vineyard off from the cattle (the previous owner let the cattle into the vineyard leading to neglect and damage), extensively pruned the grapes, and built a lot of new infrastructure because 'everything was taken out.'

Andrew has previous experience in viticulture and making wine, but utilised a more conventional approach before taking over Red Poppy Estate. Managing the vineyard is his main focus and contribution, and the couple have applied a range of regenerative and biodynamic principles since taking over, including using the sheep during winter to graze and manage the weeds and cycle nutrients into the soil; eliminating synthetic chemicals; and recently purchasing a mower for mowing underneath the vines in the

warmer months. In 2023, they integrated the first cover crop into the vineyard. They would both 'love to have more animals running around,' particularly in the vineyard, which is showing clear signs of regeneration both in terms of soil health and grape yields, however they are not quite sure yet 'how we'd manage to do that' at this stage.

The couple plans to specialise in sparkling wines (pét-nats) and will harvest their first season of grapes in 2024. They chose pét-nats for the low sugar first ferment and to use wild yeast in the ferments, which Paola claims 'fits with our food as medicine philosophy.' She recognises that 'alcohol is not food or medicine, but in small doses, it fits with our philosophy of keeping everything natural.'

Utilising cell grazing and strip grazing to support healthy livestock

There were seven very large paddocks across the farm when it was purchased and Paola notes the property was 'very, very degraded' due to overgrazing. There are now 21 permanent paddocks with water available in each, and these are used for 'strip grazing the chooks' and what she refers to as 'cell grazing' cattle.⁸ Cattle are followed by pasture hens, which help distribute the cattle manure and add their own different manure, fertilising the pastures and building organic matter in the soil. There is a small herd of 30 cattle at Tall Poppy Farm (10 breeders/10 calves/10 growing out) and Paola has been upgrading the infrastructure over the past six years to enable the implementation of 'cell grazing.' The chickens are moved with electric fencing, using 6 fenced 8 x 50m yards, each of which fits into one of the paddocks. The animals are allocated enough forage for a short time period and are then shifted to a new allotment. This helps the grass to grow at a healthy, productive rate as only a small area of the pasture is grazed at a time while the ungrazed areas are rested and allowed to recover.

Learning and applying new knowledge

Early on, Paola realised there are ways to farm 'other than the traditional way of just using roundup and killing things.' Her first formal learning experience in regenerative agriculture was with the REX Regrarian online program, and after this she completed a Holistic Management course with Brian Wehlburg. She has since participated in several other training courses and events, including attending a VicNoTill conference, connecting with regenerative farming communities around Australia and reading widely. Key influences on Paola's thinking include Gabe Brown, Grant Sims and Graeme Sait.

⁸ Several terms are used to describe regenerative grazing practices, including: holistic management, cell grazing, rotational grazing, time-controlled grazing, mob grazing and others. These are used in different ways by different people. While they mean similar things, sometimes there are differences. In our case studies, we report on each farm using the language used by individual farmers, and try to explain what this means for them in their practices.

Paola is committed to applying new knowledge and considers this an essential part of implementing new practices on her regenerative farming journey. She believes that farming is something that requires constant attention and focus because of the variability of natural systems.

‘Nature changes every season, the soil’s changing, everything’s changing and there’s still so much to learn.’

Paola Crofts

Observing, adapting and experimenting

Paola and Andrew have become more adaptive in their farming, responding to natural conditions and circumstances in a variety of ways by closely observing changes to the soil and landscape. Managing a property ‘requires a lot of observation and a lot of ongoing decisions,’ and while they can have a plan, Paola is clear that they have ‘to be quite flexible on what that plan is, depending on what you are observing.’ For example, the recent integration of cell grazing at Tall Poppy Farm has involved adaptive management, with grazing decisions that respond to grasses in the paddock rather than following a rigid plan.

‘We are moving into cell grazing the cattle and learning to be more adaptive in our grazing, instead of just creating a plan and following it. We are now looking at what grasses are actually growing out there and adapting the grazing plan as to what is there.’

Paola Crofts

Paola and Andrew have also been experimenting with mixing and applying a range of biologicals (homebrewed and pre-made products), including worm juice and seaweed meal. They have spent time observing the flow of water across the property during heavy rainfall events, which has informed recent decisions, such as building a large drain and directing water into one of the dams. Paula and Andrew have found that changing the ‘way the water moves across the land...has helped to stop a lot of the flooding that was happening across the paddocks.’

A further example of how they are applying adaptive thinking to maximise natural elements and design functional systems on the farm is evident in the way they utilise radiant heat in the vegetable plot. Because they are growing vegetables in a cold climate they have placed stones around the beds to warm the soil, which retains heat throughout the day.

Managing challenges and risks

Experimenting, making mistakes and taking risks are all essential to regenerative farming. Paola notes that over the years she has made some 'significant blunders,' which she has questioned and learnt from, improving her decision making over time.

Tall Poppy is relatively small in relation to other farms and there are several practical challenges in being a small, organic producer. For example, accessing the appropriate quantity of feed (i.e organic wheat for the chickens) is not always easy. They don't have storage space for large quantities and have trouble with secondary issues such as protecting stored grain from mice. As Paola says, 'we have a tractor that can only lift half a tonne. We don't want to have a big 10,000 kg storage of wheat, because that would be a year's supply.'

Another challenge that needs constant attention is the management of customer sales and ensuring a consistent market for their produce. Paola has not been able to sell her eggs regionally and she drives once a week to Melbourne to sell into a 'food hub system,' which operates using a subscription model. With 50% of production from Tall Poppy Farm sold via direct sales and the other 50% making its way into a small selection of retail shops, selling produce requires ongoing incentivisation, customer engagement and supply chain management.

Paola is hopeful that she is overcoming several of the initial challenges of being small and organic by buying direct quantities of feed from other farmers and building networks to market and sell produce with minimal effort. Overall, she is committed to the path she is on and the ongoing risk taking and upskilling that is required. Paola perceives the greater risk on her own farm - and more generally in Australian farming - to be maintaining the status quo by not challenging non-regenerative agricultural practices.

Observed Benefits⁹

Soils and landscapes

Improvements in animal health

Animal health is central to monitoring progress at Tall Poppy Farm, and overall, Paola has observed significant improvements that she attributes to the range of practices they have incorporated in recent years. Tracking animal health includes observing the health of individual animals (particularly rate of recovery from illness and general immunity), rate of calving across generations, ease of calving and cross-generational health of cattle.

‘Animals that were born on the property seem to do much better than animals that weren’t born on the property. I’ve still got two mothers that weren’t born on the property and I’m watching their offspring, and there seems to be a big difference.’

Paola Crofts

Observing what the cattle self-select from the mineral trailer at different times of the year is also something that Paola uses to monitor animal health. She finds it interesting to observe the livestock coming and going as they individually select their nutritional requirements. Paola values the intelligence of animals and attributes the ‘huge change in animal health’ to the increased minerals in their diet as a result of enabling her livestock to choose from a variety of macro- and micro-minerals.

⁹ This section presents the benefits of practice change from the farmers' perspective. It is based on the farmers' observations, and in some instances their own interpretation of data and test results. The project did not include any new on-ground testing or analysis of the farmers' data by Soils for Life.



Image 4. Grazing cattle near rotational hotwires at Tall Poppy Farms. Source: Paola Crofts

The landscape benefits of diversity

Since taking over, Paola has observed the land responding to her management changes, particularly with the integration of different animals and the work they are doing in building soil health, resilience and diversity across the landscape.

‘Having multispecies anywhere changes the landscape very, very quickly. If you’ve got chickens, that does so much. But if you have chickens and cows and whatever else ... having more than one animal I think is a really big piece, and we see that out in the pasture.’

Paola Crofts

Paola has also observed improvements to soil and water retention. She recently observed that home-brewed anaerobic microbes ‘offer a boost to soil fertility’ and that, ‘the pasture stayed greener longer.’ Based on this, Paola will continue to experiment and apply a mix of healthy biologicals to pastures across the farm into the future.

Farmer and Farm

Market advantage

Paola and Andrew believe in the value of doing things differently - in terms of both feeding their natural curiosity and as a value proposition in terms of promoting artisanal, premium products on the market. As Paola suggests, 'everything that we've done has been a little bit different,' which she believes gives them a competitive edge.

'I don't want to be a price taker. I'd rather be a price maker. It's always been about premium products and developing close relationships with my customers. What I have found is that those customers want to remain loyal to me and stay with me.'

Paola Crofts

High-quality localised production for satisfied customers

Paola engages directly with her customers to ensure they are happy with her products and she collects feedback to help guide her decision making. She believes the quality of the eggs produced at Tall Poppy has increased over time in response to regenerative practices. The increased nutrition in the hens diet has increased egg production and Paolo is confident that the extra protein from the introduction of sprouted wheat has led to more consistent laying and higher quality eggs. Paola has consulted with a chicken nutritionist, who credits the increase in production to an improved diet and the benefits of sprouted wheat and healthier forms of protein.

Her egg customers have confirmed that the eggs from Tall Poppy have been consistently stable and brightly coloured throughout all seasons, which Paola attributes to their diet and the removal of soy.

'Our customers have said - and what we have found - is that we don't get that seasonality in the colour of the egg, where previously we were getting bright orange down to pale yellow ... obviously we don't add anything into the food for the colouring and what we found is that we now have a much more stable egg yolk.'

Paola Crofts

Cost savings

Managing the cost of production, lowering overall costs, and tracking cost savings are integral to sustaining Tall Poppy Farms. Paola has recorded a significant reduction in spending for inputs in recent years, noting that they now brew their own microbes for biologicals, 'so there's no real cost to that other than the molasses and the water that you put into the brewing.' They have 'never applied nitrogen or any synthetic chemicals to the property' which Paola says is also cost saving. Their main expense is buying cover crop seed and hay, which is their biggest cost going forward. Paola notes that 'if we can just remove that reliance on hay or reduce it back down to even 30 days,' they will be able to also reduce that expense.

Looking to the Future

Tall Poppy Farm was certified organic in late 2023, and Paola and Andrew have a number of plans going forward. They will continue to support improvements to the soil through the introduction of cover crops into pastures and the vineyard. Paola notes 'we are going to try growing cover crops and see how that changes things. Hopefully it will be less boggy and build more soil structure.'

'The plan for the next 12 months is to get the biodynamics and the cover crops all working. We will see how that goes and if we can get off what I call the "hay addiction." If we can't with the cover crops - if we still can't - then we're going to reduce the size of the herd.'

Paola Crofts

Reducing the amount of hay used on the farm and the number of days they feed their cattle is a short-term goal for Paola and Andrew. The long-term aim is to not need to feed hay at all, and they hope that the cover crops they are trialling will help with this. In 2023 they fed hay for 65 days of the year, choosing one paddock in which to feed. Her attitude is that if she has to feed hay, they should 'make the hay work for us as well.' They rolled the hay out and sprayed home-brewed beneficial microbes over the top, which worked well, 'adding carbon into the soil.'

Paola plans to continue to learn more about alternative approaches to animal health, including tinctures and 'all those things that can be introduced.' They are also going down the path of spraying out biodynamic preps in spring and autumn each year and will incorporate these into the vineyard and on the pasture in the coming years.

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