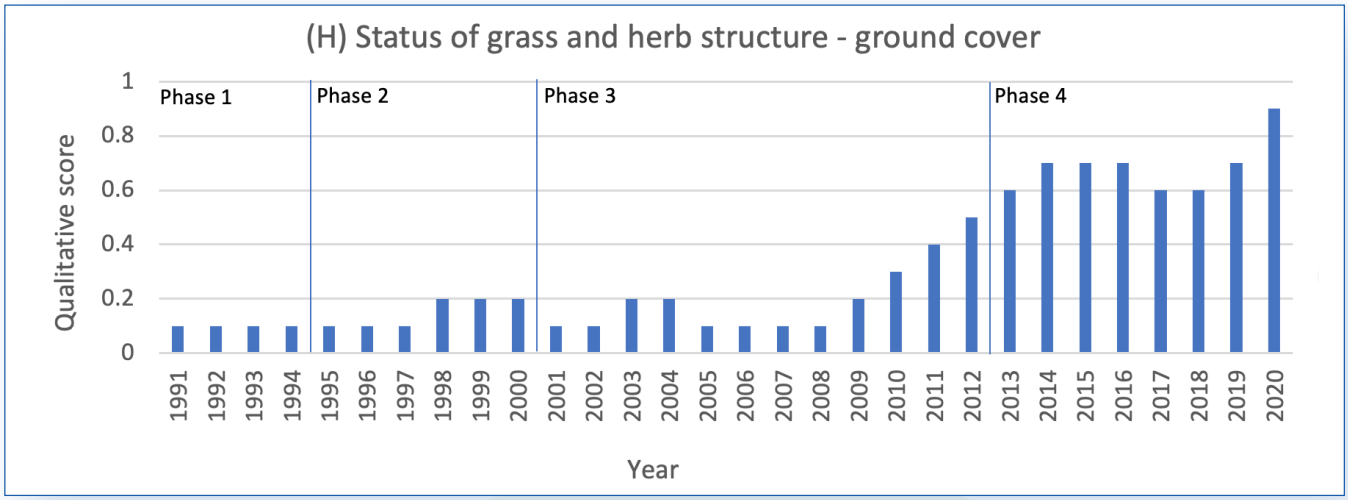

Figure 14. Status of grass and herb structure - ground cover

I. Status of tree and shrub species richness and functional traits

Phase 1 and 2 (1991 – 2000)

Over this period, few species were observed to be regenerating within remnant native vegetation on the rocky hill country and no regeneration of scattered paddock *Eucalyptus* trees within the intensively managed cropping country.

Phase 3 (2001 - 2012)

An area of 200 hectares of native vegetation was fenced to exclude stock grazing and allow native flora and fauna species to regenerate and re-establish. It was during this middle of this phase that scoring was given it first increase from 0.2 to 0.3 in 2004. Scoring consistently increased thereafter and had increased by a further 0.2 by the end of this phase (Figure 15).

Phase 4 (2013 – 2020)

During this period, paddock eucalypts and native remnant areas of vegetation were now observed to be regenerating where regeneration was previously lacking. These observations coincide with the changes to land management practices such as the implementation of rotational grazing and long recovery times. From 2013, scoring continued to increase from 0.6 to 0.8 by the end of this period (Figure 15)

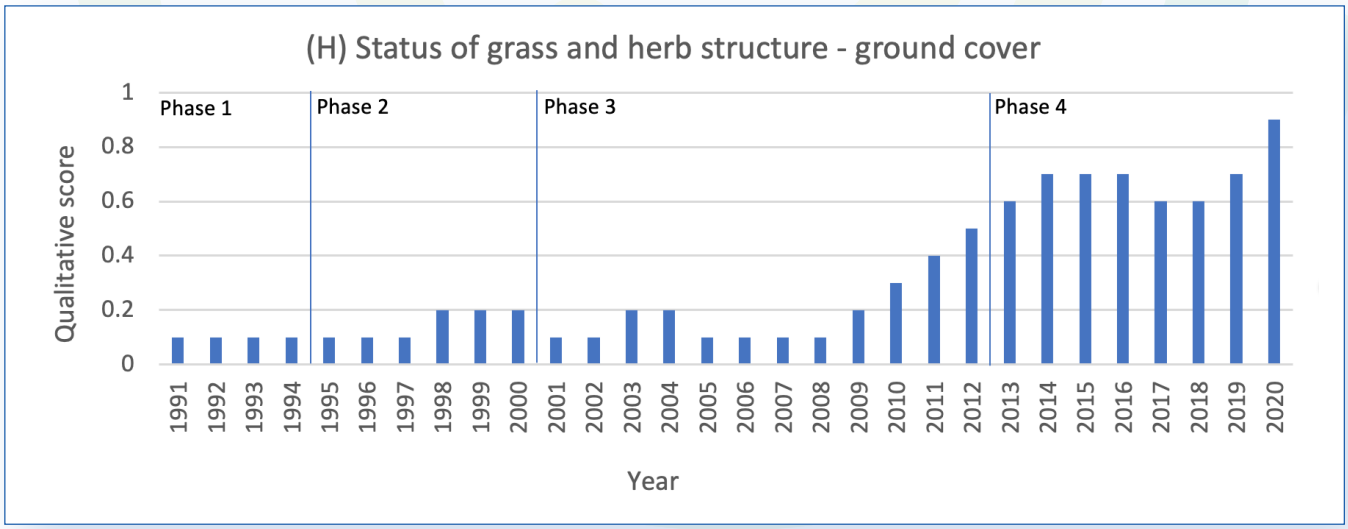

Figure 15. Status of tree and shrub species richness and functional traits

J. Status of grass and herb species richness and functional traits

Phase 1 and 2 (1991 – 2000)

Prior to cultivation, the landscape had patches of *Eucalyptus* with a native grass understory of red grass (*Bothriochloa macra*) and wallaby grass (*Austrodanthonia spp*.). Improved pastures had little diversity and comprised of annual rye grass (*Lolium multiflorum*) and sub clovers (*Trifolium subterraneum*) with some phalaris (*Phalaris aquatica*). Weed pressure was relatively low with only a few thistles, marshmallow (*Malva parviflora*) and cape weed (*Arctotheca calendula*). These and other exotic species spread throughout the property and became part of the understorey vegetation in the woodland and forest areas. Exotic pastures had lower structural diversity with only sparsely scattered trees, very few shrubs and mostly grasses when compared to forested areas.

Phase 3 (2001 - 2012)

Most of the native pastures on Milgadara in lower slopes and valley floors have been replaced with sown exotic pastures. Rotational grazing and long recovery times resulted in a progressive increase in pasture species, grasses and herbs that under set stocking were relatively uncommon.

Phase 4 (2013 – 2020)

Biological farming methods and rotational grazing practices, combined with long recovery times and careful monitoring of pastures, contributed to increases in bi-annual and perennial species diversity. Mulching weeds prior to seed set reduced weed pressure and overall soil structure improved creating conditions inconducive to certain weeds, particularly tap rooted species. Minimal spraying for weeds occurred to manage annual rye grass in cropping and spraying for pests has dramatically reduced. Scoring increased from 0.5 in 2013 to 0.8 in 2019 (Figure 16).

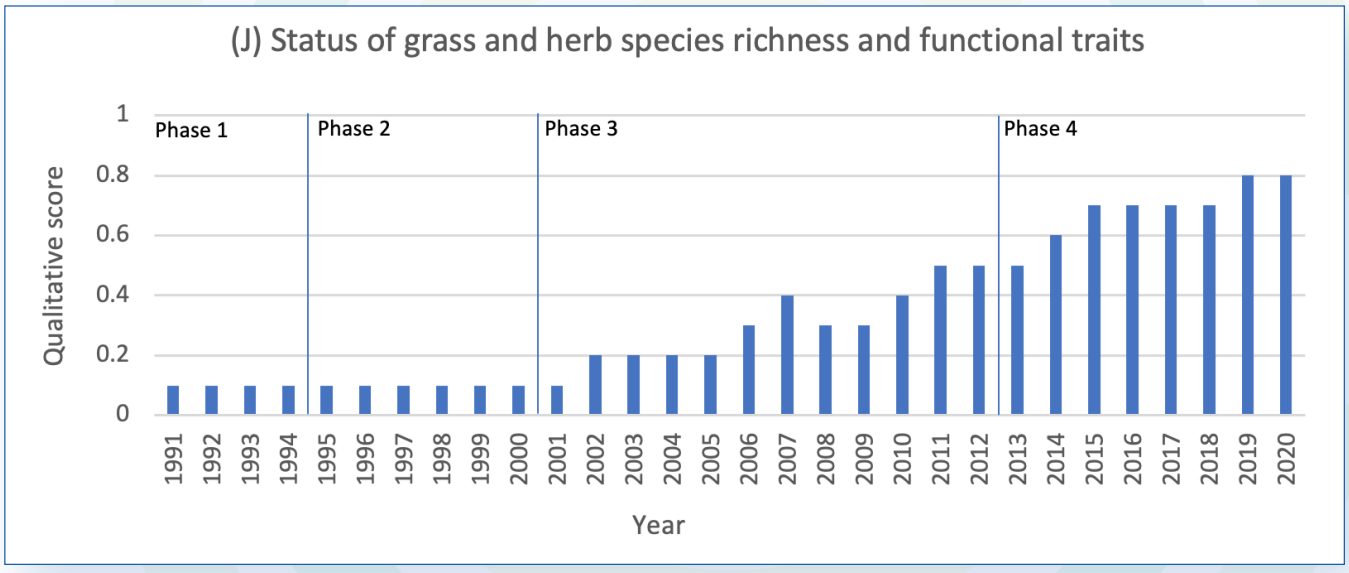

Figure 16. Status of grass and herb species richness and functional trait

Independent Scientific Assessment

Independent assessments for ground cover and woody vegetation involved analysing and comparing patterns and trends across ~30 years of satellite derived landcover metrics within the property and a 5 km fixed-width buffer between 1990 – 2019 (Appendix C). Land parcels which did not share the same broad landcover classes were not used within the fixed-width buffer. National standardised definitions are used for ground cover (Stewart et al., 2011; Thackway et al., 2013) and forest (Montreal Process Implementation Group for Australia and National Forest Inventory Steering Committee, 2018). These independent assessments were used to validate the landowner's self-assessment of changes and trends in the responses of ecological functions derived using the structured expert elicitation approach.

Ground cover

As ground cover percentage is determined by responses to climatic and temporal variations and land management regimes (Thackway et al. 2013), an independent assessment was conducted to analyse and compare patterns and trends of ground cover using Landsat imagery of Milgadara and the surrounding area between 1990-2019 (Appendix C). Over this period the normalised ground cover on Milgadara remained predominantly above 50% (Figure 17). During the period of the Millennium Drought, ground cover averaged ~65% for the period 1996-99 and ~50.6% between 2000-09. In the years following, ground cover averaged ~62% (Figure 17) and this period corresponds with the adoption of regenerative land management practices on Milgadara. In addition, between 2017-19 below average winter and spring average rainfall was recorded, however, the ground cover on Milgadara remained above average (62%) and well above that of the surrounding neighbouring properties.Figure 16: Colodan 's median ground cover relative to reference area's 5th and 95th percentile which are represented at 0% and 100% respectively. For example, a normalised median ground cover of 50% is hallway between the 5th and 95th percentile.

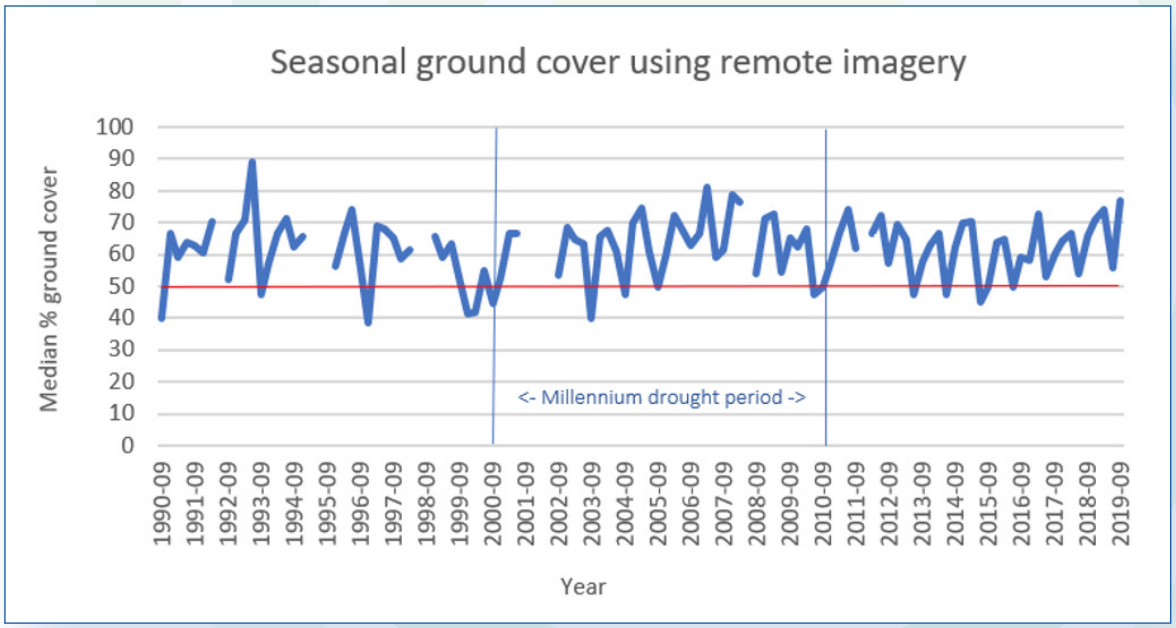

Figure 17. Seasonal ground cover changes on Milgadara over time, measured using remote imaging data (normalised) median ground cover relative to reference area's 25th and 75th percentile.

Woody cover

An independent assessment was conducted to analyse and compare patterns and trends of woody vegetation using Landsat imagery of Milgadara and the surrounding area between 1991-2019 (Appendix C). Between 1991 and 2014 the area of woody vegetation of Milgadara averaged around 260 ha. Between 2015 – 2019, the area of woody vegetation increased to 275 ha and 370 ha respectively (Figure 18). Due to satellite resolution capacity (30 m), detection of revegetation work is limited during the plant's establishment stage. Therefore, it is reasonable to conclude that seedlings planted on Milgadara in 2005 would begin to be detected in the satellite data in 2015. This validates the landowner's self-assessment seen in '(G) Status of tree and shrub structure' (Figure 13). In addition, the small decrease in woody vegetation seen in 2019 (Figure 18) represents an artifact of the satellite sensor's ability to measure woody vegetation during drought. Overall, analysis confirms that the landowner's assessment of '(G) Status of tree and shrub structure' (Figure 13) on Milgadara has been gradually increasing in line with the management of woody cover for multiple benefit outcomes including stock shelter, biodiversity and habitat.

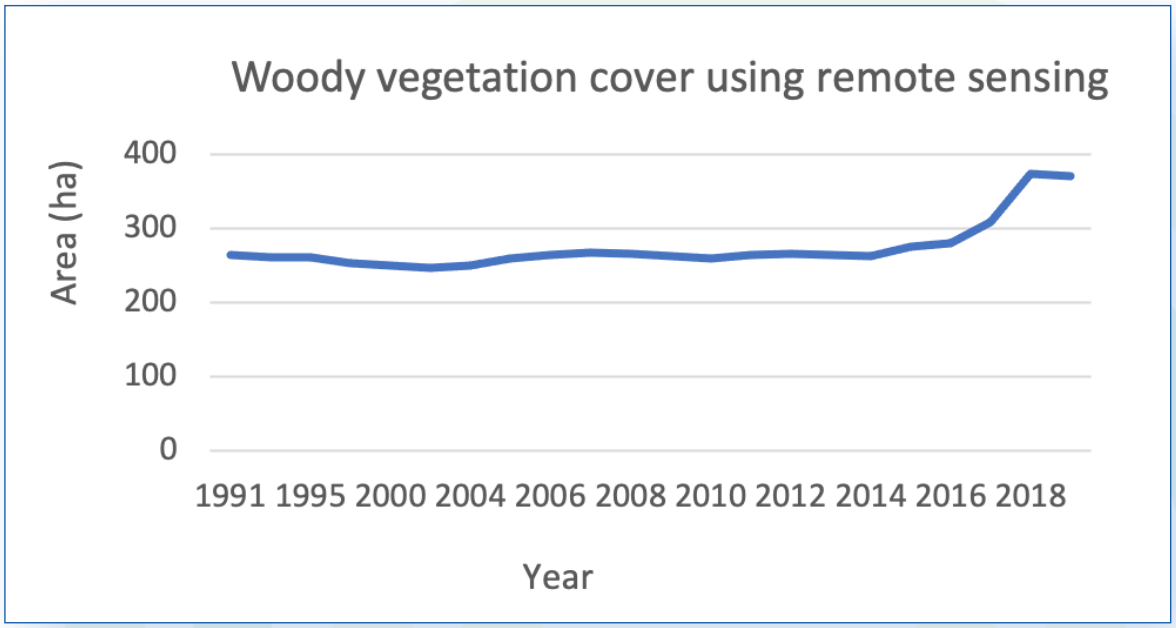

Figure 18. Area of woody vegetation recorded on Milgadara using Landsat imagery and the Montreal definition of a forest

Future enterprise opportunities

The Daly's are investigating the development of a soil carbon project to sell carbon credits with baseline soil testing planned for June 2021. The generation of carbon credits would provide a very welcome additional income stream.

There is also potential to conduct vegetation surveys in the hilly remnant woodland to explore developing Biodiversity Stewardship Agreements (BSA). BSAs are used to generate Biodiversity Credits which can then be sold on the open market to entities who are required to purchase and retire credits to account for the impacts of developments. Alternatively, the credits can be sold to the NSW Biodiversity Conservation Trust (BCT) through a number of mechanisms they run such as open tenders.

Conclusions

This ecological assessment has demonstrated that changes from conventional management regimes to regenerative and “biological” practices have had an overall positive effect on Milgadara across all ecological response outcomes as well as on the Daly’s personal wellbeing. It has greatly decreased the reliance on pesticides, herbicides and fertilisers and has transformed a once degrading landscape to a resilient, balanced and fertile ecosystem. The biologically thriving soils of Milgadara are now absorbing and retaining water and moisture, crop and pastures are stronger and healthier with improved root systems, and the property maintains profitability and recovers more quickly after times of drought. Twenty years down the track, the Daly’s continue to excel in their ecological outcomes however acknowledge the journey is a continuous learning process, where engaging with other innovators is key to success.

Figure 19: Pine Hill paddock- where the once light sandy loam soils have been renovated with a Compost Mineral Blend and diverse pastures planted. (Source Rhonda Daly).

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Appendix A

The chronology of land management practices summarising the agricultural practices and regimes and the outcomes observed by Bill and Rhonda Daly on Milgadara

Year(s)	Practices/regimes	Observed outcome(s) of land management practices and regimes	Other observations
1960s - 1990s	Cropping using conventional approaches such as tillage, artificial fertilisers, stubble burning, chemical use and set stocking, which was industry practice at the time	Soil and land was losing fertility. Soil organic matter was decreasing and there was no sign of soil life or earthworms. Weeds were increasing and disease and insect pressure increasing.	Calcium was an important input however it did not alter the soil structure due to lack of soil biology and the calcium also displaced the magnesium off the clay colloid. Then making our soils deficient in Mg.
1970s to 2000	Applications of Lime		
Mid-1990s	The Daly's initially began questioning the direction of conventional farming and began searching for alternative land management regimes to suite their enterprise and land types		Sought out education and reading
1995	Bill completed a bio-dynamic course	Acknowledged the need to change, adopt, and adapt	At this stage, the principals of Biodynamics were a little ahead of the Daly's understanding
2001	Rhonda was diagnosed with chronic meningitis and heavy metal poisoning. It was a this point the questioning of what they were doing came to a head. The Daly's say that Rhonda's epiphany, 'to heal the soil and help others'" was the catalyst for change.	This lightning bolt epiphany, and gift of Rhonda's higher purpose and mission was the absolute turning point in going forward. Extensive research, attending seminars and field days and learning how to understand and truly interpret the soil and its complexity.	Started to manufacture biological blends to spread as per soil requirements and moved to no-till, no burn methods, reducing chemical used and nurturing soil life.
2001	Commenced innovations in land management regimes such as regular stock movements, retaining stubble and using a microbial stubble digestion program applied as a foliar onto the stubbles Introducing microbial Humus Compost Mineral Nutri-blends and inoculums.	Land resilience increased with quicker recovery times and longer moisture retention.	Began understanding the real possibilities when keeping good ground cover
2001	Sowing crops with liquid injection of Humus Compost Extracted Tea into the plant's rhizosphere.	The liquid injection supplied humus polymers, enzymes and microbes into the root zone for a healthier plant.	
2001-10	Millennium drought	Due to the changes to soil, plant and animal management during the 9-year drought, Milgadara was one of the only properties on Moppity Road that harvested crops each year. No wind erosion occurred on Milgadara, unlike on neighbour's properties. The strategy of balancing stock nutrition with dry lick minerals such as Y-Lick and simple sugars allowed Milgadara to maintain stock numbers, keeping stock in good condition while also maintaining ground cover.	Bill noted, "With nine years of drought from 2001 to 2010, the business profits were still increasing each year. More enjoyment is now gained from farming".
2002	YLAD Living Soils was established	Educating other farmers and supplying a biological fertiliser system to assist with customers making the transition to biological farming. An incredible ground swell of producer's acceptance and curiosity of how they could transition to a healthier way of farming occurred.	

Year(s)	Practices/regimes	Observed outcome(s) of land management practices and regimes	Other observations
2002	In March, 14 separate soil tests were taken from cropping paddocks and independently analysed. Results indicated that soil nutrients were imbalanced with low calcium, magnesium, phosphorus, zinc, copper, boron and sulphur and high potassium, iron, aluminium, and hydrogen.	Information on the three aspects of the soil (physical, chemical and biological) allowed for the blending of correct minerals and applications of microbial inoculum before spreading. The importance of sodium molybdenum for nitrogen fixation was realised and levels were measured regularly to ensure adequate supplies.	This strategy has given a more minerally balanced nutrient dense pasture for grazing. Also, the biological feeding of the soil has given a much-improved root system in both crops and pastures.
2005	Trained in Humus Compost Production in Ocala Florida	Gaining a thorough understanding of Humus Compost production and Humus Soil Fertility changed the way soil amendments were made.	
2006	Established Humus Compost operation utilising local waste products.	Understanding the importance of Humus in a healthy living soil and how to produce high-quality compost in 10 weeks was the beginning of a new era. To be able to utilise farm waste products such as straw and manures to create a humus-based fertiliser with microbial diversity was very exciting.	
2006	Steadily bringing in new strategies of management in cropping and pasture programs. Using Humus Compost, Humus Compost Extracted Teas and creating prescription Compost Mineral Blends, customised for each paddock using soil test results Retaining pasture rather than cutting for hay, thus retaining nutrients and organic matter	Soil structure significantly improved to a tilthy, well-aggregated soil with higher humus levels. Quicker recovery after each harsh weather period and noticeable organic matter increases.	Rainfall penetrated further into the soil profile and therefore retained in the soil for longer with any excess flowing through the soil profile without taking nutrients out of the system. The importance of infiltration and retention when rainfall in recent years has declined, varying from as little as 187mm in 2006, to 680mm in 2011.
2007	Humus Compost Tea Extraction Unit imported from the USA (BioTX 500)	A new extraction system of humus compost, producing microbial liquid tea revolutionised tea brewing. Improvements seen included the ease of use, product stability and microbial diversity and the production and introduction of Humus polymer, minerals and microbes into the soil.	Increased production in crop yields with not having to apply a top of Nitrogen in the springtime. We believe that the Humus Compost Extract delivers around 40 units of nitrogen per season.
2007 – 2008	Worst of the Millennium Drought	The Daly's said "During a drought period, 'Biological Farming' takes you into the drought slower and recovery is much quicker". Resilience to withstand climate variations and achieve high quality production outcomes while at the same time improving soils and ecological outcomes.	
2007-2009	Maarten Stapper Trials commenced to determine the effectiveness of biological inputs on soil health, production, and productivity in the gradual transition from current farming practices.	Trial period was within a drought however results showed definite increases to biology which improved soil structure assisted to effectively store water and supply nutrients to crops. *In non-drought years these results may not have been the same.	The three-year trial showed that farmers can reduce nitrogen and phosphorus inputs by fixing free atmospheric nitrogen and solubilising 'locked up' phosphorus if they nurture their soil biology.
2007 - 2020	Humus Extract Tea used as foliar fertiliser Using a leaf tissue test, results are used to create a recipe for a foliar fertiliser to supply any deficient nutrients and microbes to the crop or pasture.	The foliar application of the Humus Extract and required minerals replaced the use of Urea Benefits included enhanced photosynthetic activity due to the plant, root, microbes working together	Deficient minerals in the plant are provided which are then passed onto the animal, via the pasture.

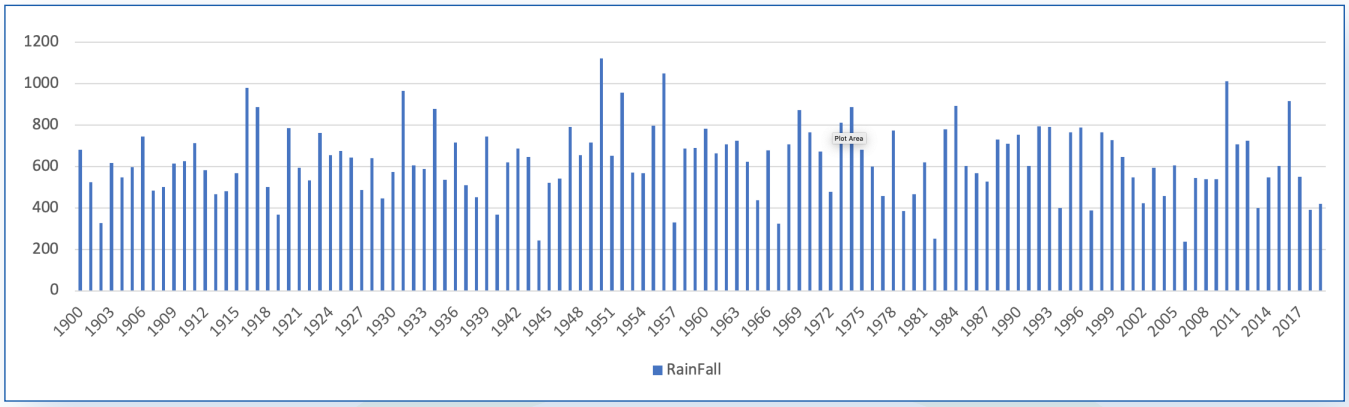
Year(s)	Practices/regimes	Observed outcome(s) of land management practices and regimes	Other observations
2009-10	Pine Hill soil trial commenced. Trial consisted of • YLAD Compost Mineral Blend • YLAD 'Down the Tube' granular fertiliser blend at 94kg/ha • Biological liquid injection • Full stubble retention	Within two years, soils become soft and well-structured with no hardpan and with visible earthworm and fungal activity. Independent soil tests indicate that mineral balance has improved. The sown pastures are thriving and full of nutrition.	Stock health noticeably improved Drenching decreased to once a year. Liveweight to carcass yields improved and commented on by agent.
2010	Agri-Tech Field Trials conducted at Young NSW to evaluate the rate of response and different combinations of YLAD fertiliser products Fertiliser treatments were 1. YLAD compost pellets at 50, 100 and 150 kg/ha 2. YLAD compost pellets at 100 kg + MAP at 15 kg/ha 3. MAP at 70 kg/ha 4. YLAD liquid compost tea at 100 L/ha.	Analysis determined treatment #4 'YLAD Humus Extract tea (BioTX 500) at 100L/ha' increased crop biomass, tiller numbers, yield, and grain protein. Further observations included acknowledging that whatever combination the YLAD Humus Extract was applied with increased the effectiveness of other fertilisers or foliar applications.	Application of YLAD Humus Extract via liquid injection at sowing is highly recommended
	Tree plantings - To increase diversity in bird life as well create shelter belts for stock	Reduced insect pressure on crops and increased beneficial insects and fauna.	
	Grazing Management Finding a balanced system between the known grazing and soil improvement systems to improve and increase soil health, increase carrying capacity, shorten turnoff time of saleable animals and increase infiltration rates	Overall improvements of general building of soil and land health allowed for increased moisture retention	Greater weight gains and stock health.
	Biodynamic Tower Research with Field Broadcasters and organizational life force patterns is on-going, with more being learned all the time.	Success using quantum Field Broadcasting and radionics is built on having a firm foundation of agricultural excellence in all areas to support these endeavours. Therefore, we put so much emphasis on understanding how the minerals, biology, soil testing, composting, seasonal variations, etc. work. When we cover all these bases, problems are identified and minimized so that using energy patterns along with the other management changes more easily achieves the desired results. I believe the beneficial energies covering our farm protect us from adverse events.	As organisation arises at boundaries, experiments showed the most effective method for establishing agricultural property boundaries was using an aerial photo or a survey map of the property with its boundaries clearly marked as a witness in the reagent well, with a written intent to broadcast within the boundaries as marked. This follows the rules of entanglement and non-locality in quantum theory.
2011	Buckwheat sown as a cover crop after canola harvest and turned back in at 10% flower	Remarkable improvements seen across the farm. The use of the cover crop gave a number of benefits: 1. Kept good ground cover 2. Created a microbial bloom in the soil 3. Controlled grass weeds for weeks without any sprays The next crop yielded more than the neighbouring paddock that had not had the cover crop	

Year(s)	Practices/regimes	Observed outcome(s) of land management practices and regimes	Other observations
2011	Soils for Life farm visit	Conducted paddock visits and observed soil health, grass species and overall ecosystem health.	
2013-2014	Biodiversity project – bird counts by Canberra Ornithological Group (COG)	Initial survey in 2013 recorded 65 species. Following survey in 2014 added a further two sites and recorded an additional 8 species (total 73)	Crested shrike-tit and the vulnerably listed Freckled Duck recorded as a notable species in 2014.
2013	Granulation of Humus Compost Following on from a 'Proof of Concept' in late 2012, a more formalised study was undertaken in April 2013 to assess the potential to granulate YLAD material into a granular form suitable for application through conventional, modern farm machinery. The objective of the formal lab study was to identify and quantify the process to produce materials of suitable size, shape, strength, and attrition against recognised standards of product quality.	Lab tests indicated that YLAD materials were suitable for granulation into 2 – 4 mm fertiliser grade products. Strength and attrition across all samples were below expectation however it was felt that with some modification to particle size distribution to within acceptable ranges and with the addition of corn starch as a solid binder, both strength and attrition would improve significantly. This would be achieved by higher levels of grinding and would be assisted by torrefaction of organic materials. Manufacturing on larger scale equipment would also significantly improve physical characteristic of finished products.	The decision was made to discontinue this project even though trial and paddock results were outstanding.
2013	Sold airseeder and sowed for next 7 years without liquid injection	Lack of soil softness and crop vitality. Supplements were required with more artificial fertiliser due to the lack of microbe/root/plant interaction	Set back in biological activity and root development
2015 - 2018	ABARES benchmarking The purpose of this survey is to monitor the production and economic situation of farmers throughout Australia. Participation in this survey was to compare Biological Farming against Conventional Farming to compare profitability.	Results for 2015-16, 2016 – 17 & 2017 - 18 have had YLAD & Co in the top 90th percentile compared with industry statics for cash receipts.	Overwhelmed by the results, the Daly's shared results with their valued customers who have taken the leap into biological farming to illustrate how biological farming can be more financially profitable.
2016	Reintroduced breeding and fattening cattle	Cattle provided a different grazing effect on the land. Cattle were introduced into each paddock in front of the sheep and were found to be complimentary to the grazing management.	
2017	Sowed first tillage radish and forage sorghum	Utilising summer rains, tillage radish provided multiple benefits; fodder for livestock; increased soil aeration and microbial exudates.	This decision needs to be made depending on the season as well as the amount of pastures available for livestock.
2017-2019	Drought – below average rainfall	Able to continue to carry the same number of sheep and cattle. The use of a tub mixer allowed for more efficient feeding, supplying livestock with a 'meal' containing very little grain. In this mix we add minerals as well as stock saver vet and molasses. Limited waste was seen using this type of feed.	Still turning off price lambs and cattle and producing premium wool. When the drought broke, the Daly's did not have to turn around and pay record prices to re-stock.

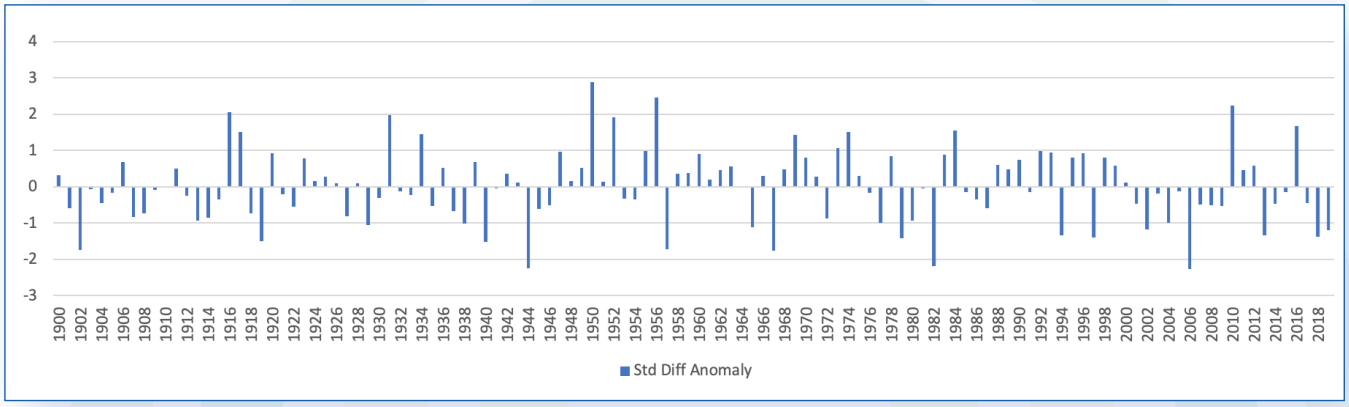
Year(s)	Practices/regimes	Observed outcome(s) of land management practices and regimes	Other observations
2018	Reduced shearing to every 7 months The decision was made for both environmental and productivity outcomes to shear when the wool reaches a length of 70 mm.	Shearing every 7 months reduced the need to crutch, and use click for flyblow strike in the summer. The tensile strength increased due to monitoring the dry/ drought times and shearing before a break occurred.	The Daly's wool has always attracted a premium price due to the lack of dust, vegetable matter and tensile strength and softness.
2020	Multi-species crops	The introduction of sowing 2 paddocks to multi-species crops including legumes for nitrogen fixation.The amount of feed produced by these two paddocks which were sown in February before the drought breaking rain sustained our animals as well as meant we could lock up paddocks for pasture recover.	The benefits to soil and animal health are enormous, however at harvest time we noted this year that the crops do not yield as much as straight single species crops. However, we believe that the benefits outweigh the production of grain only.
	Liquid Injection refitted to new airseeder	Humus extract was again introduced when sowing crops supplying the humus polymer, minerals, enzymes and microbes.	The Daly's second favourite thing after Humus Compost is the liquid injection as it supplies more then what we can even account for and Nature is allowed to do her work when conditions are provided.
	Organic Colloidal Concentrate (OCC) Trials OCC is a nano-structured, concentrated nutrient from plant-based lipids that stimulates organic humus colloid production. OCC Colloidal Nutrients are a new generation carrier tool to enhance delivery and penetration efficiency of fertilisers, herbicides, disease prevention compounds and pesticides while improving nutritional deficiencies. Organically certified and completely non-toxic	Extensive trials produced positive results The introduction of OCC has been very beneficial due to the ability of the nano-structured colloid having the ability to penetrate the plant's vascular system, boosting the plant's passive immunity.	
2020	Biodiversity project – bird counts by Canberra Ornithological Group (COG)	Improved systematic survey approach introduced allowing for future standardisation and comparison of species population and occurrence trends between surveys. Five new species recorded for the property and a total of 65 species for the survey period.	New species recorded - Brown Thronbill - Yellow-rumped Thornbill - Crimson Rosella - Leaden Flycatcher - Scarlet Robin
2021	Initiated a soil carbon project under the Carbon Farming Initiative A base line will be collected in 2021 and continued testing will occur as per project requirements	This will enable us to track soil organic carbon increases and monitor what management regimes are having the greatest outcome on improving soil, ecological and environment health.	The financial benefits from the sale of ACCU's if we sequester carbon will provide a significant boost to income

Appendix B

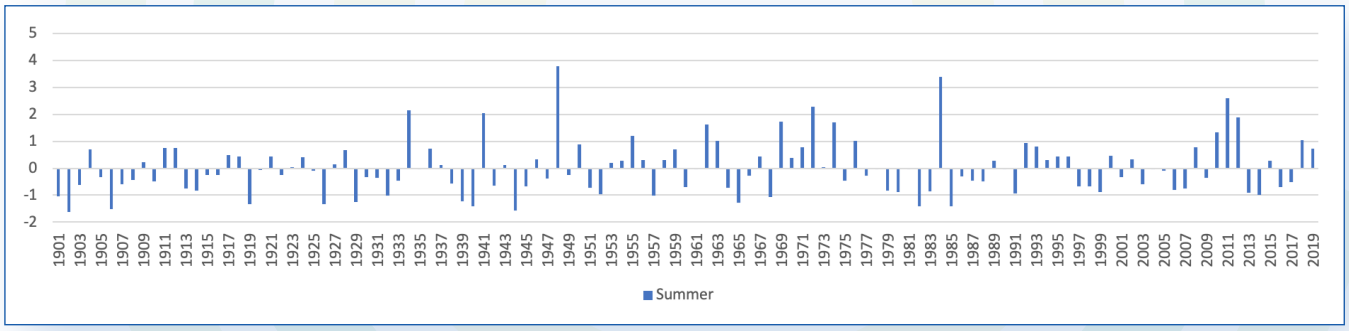
Long-term standardised rainfall information for Milgadara generated from the Bureau of Meteorology (BOM) rainfall database (BOM modelled 5km x 5km national grid). http://www.bom.gov.au/climate/history/.



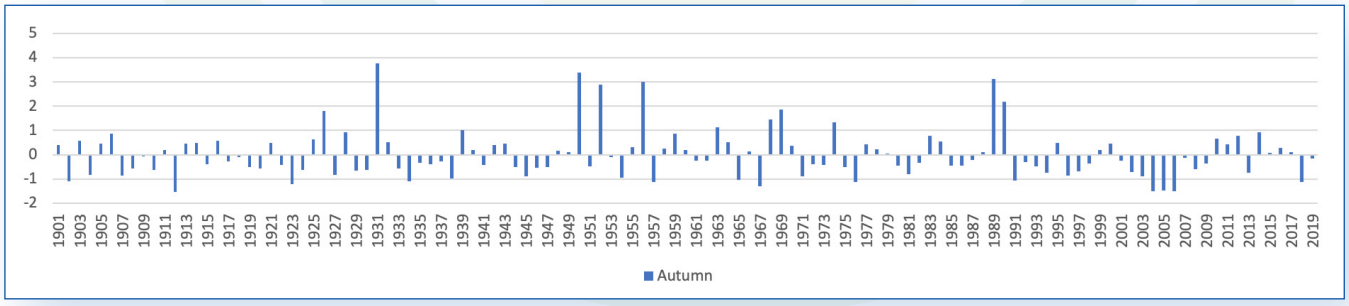
Annual modelled rainfall for Milgadara. Modelled 5km grid for Australia.



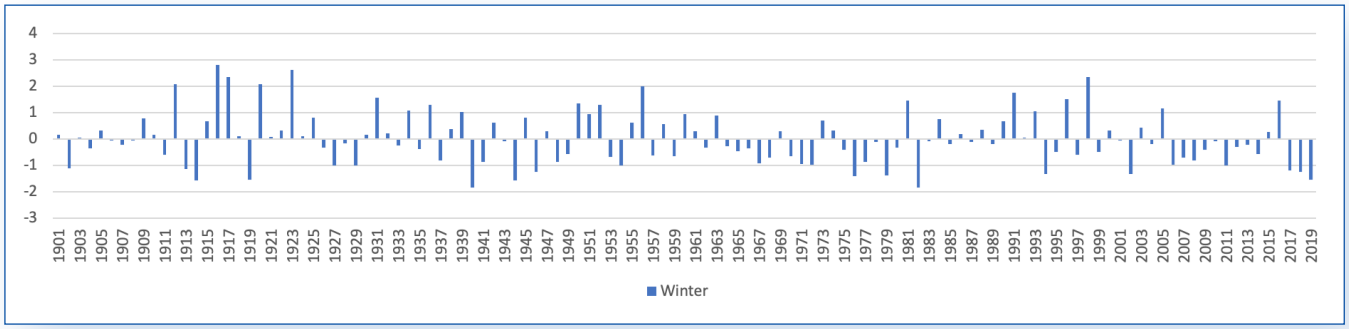
Annual rainfall anomaly above and below the mean for annual rainfall.



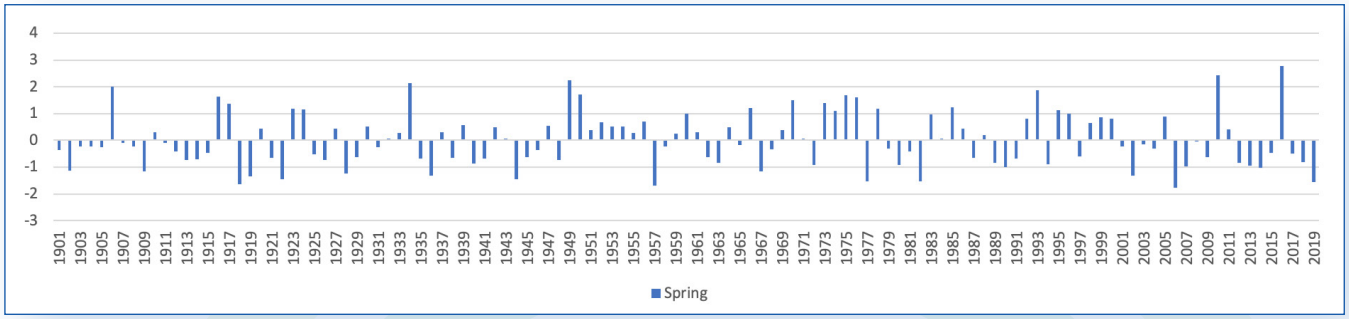
Summer rainfall anomaly above and below the mean for 1900-2019



Autumn rainfall anomaly above and below the mean for 1900-2019



Winter rainfall anomaly above and below the mean for 1900-2019



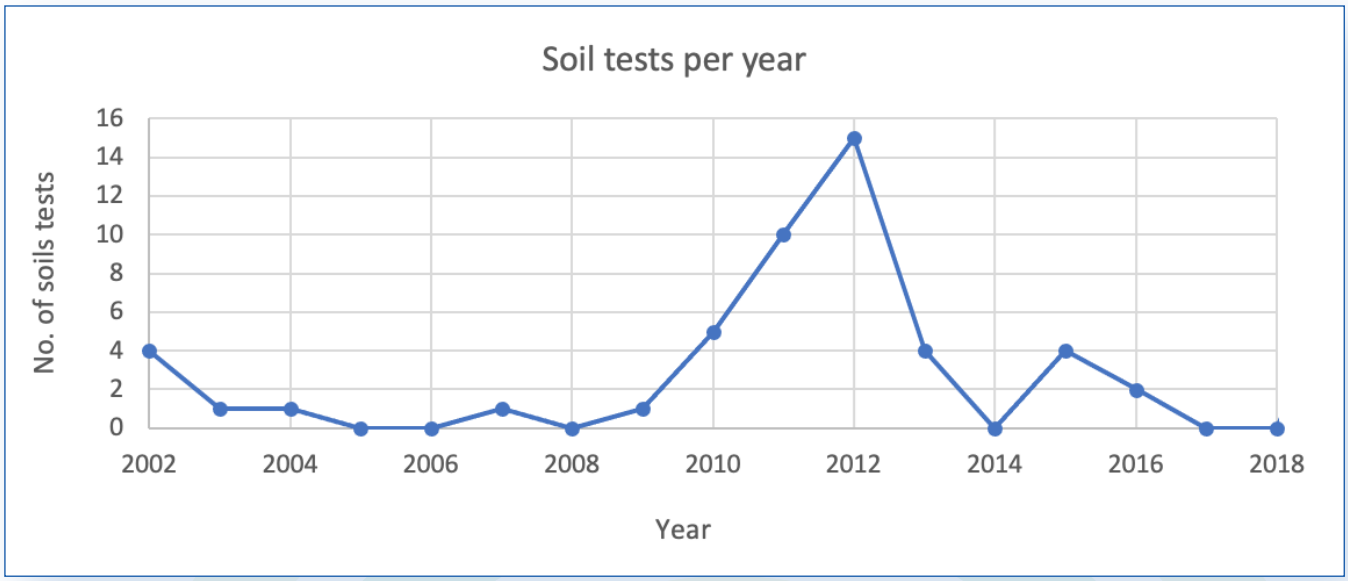
Spring rainfall anomaly above and below the mean for 1900-2019

Appendix C

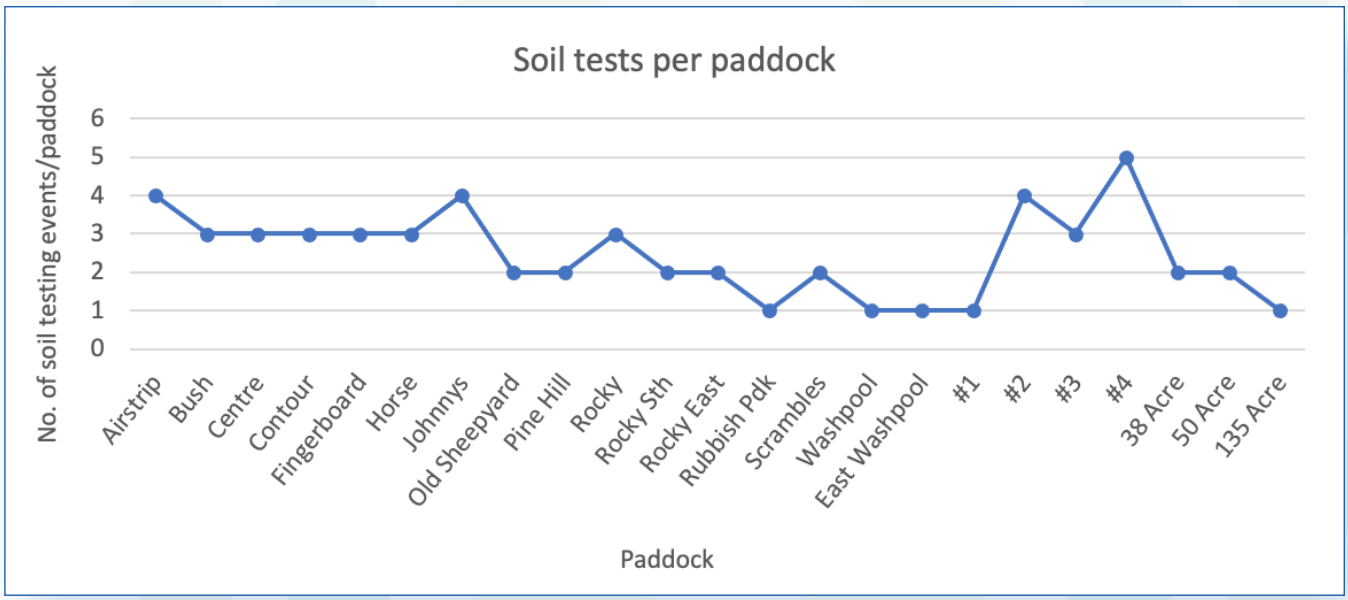
Independent Scientific Assessment method by Cibolads via MyFarmKey showing 5 km reference area and Milgadara with excluded forested areas

Appendix D

Soil fertility testing to track changes of soil health between 2002 – 2019 across 23 paddocks



Number of soil tests completed on Milgadara between 2002 and 2019.



Number of soil tests for each paddock. Multiple soil tests indicate different tests over years e.g., Airstrip paddock was surveyed four times in 2011, 2012, 2015 and 2019

Appendix E

Location of eight standardised bird survey sites visited by COG in spring 2020, full site descriptions and species list showing species presence per survey (Y = Present).

Site no.	Site location	Habitat description
1	Large dam	Farm dam with earth wall and overflow. Continuous water flow when the gully water table is high. Shallow edges with deep open water in the middle of the dam. Wetland vegetation is present in the shallow water. Dam is fenced to exclude stock and is used for house, garden and stock uses.
2	House garden	House Garden. Mature plantings of native and exotic trees and shrubs. Expanses of mown lawns intersperse the plantings. Garden is maintained for amenity and aesthetic reasons.
3	Douglas Range (valley to dam)	Douglas Range gully/valley. Regrowth red stringybark (Eucalyptus macrorhyncha) woodland /open forest. Native vegetation is fenced and minimally-managed for rough-grazing in droughts.
4	Douglas Range (west stringy-bark)	Douglas Range west facing mid-slope. Dominated by regrowth red stringybark (Eucalyptus macrorhyncha) woodland /open forest. Native vegetation is fenced and minimally-managed for rough-grazing in droughts.
5	Douglas Range (east Callitris)	Douglas Range east facing mid-slope. Dominated by regrowth black cypress pine (Callitris endli-cheri) and red stringybark (Eucalyptus macrorhyncha) woodland /open forest. Native vegetation is fenced and minimally-managed for rough-grazing in droughts.
6	Reveg site	Revegetation mixed species planting. Planted in 2010. Failed due to 2017-19 drought. Revegetation plantings were ploughed-in during 2019 and sown down to improved pasture. Managed as rotational grazing paddock.
7	Old coach road	Old coach road. Mature white box (Eucalyptus albens) and (Eucalyptus melliodora) on a historic coach lane. Managed as part of a rotational grazing paddock.
8	Rocky knoll	Rocky knoll with mature eucalypt trees (~Eucalyptus albens) and black cypress pine (Callitris endlicheri). Managed as part of a rotational grazing paddock.

Species	2013	2014	2020
Australasian Grebe	Y	Y	Y
Australasian Pipit		Y	
Australasian Shoveler	Y		Y
Australian Magpie	Y	Y	Y
Australian Raven	Y	Y	Y
Australian Reed-warbler		Y	Y
Australian White Ibis	Y		
Australian Wood Duck	Y	Y	Y
Black Swan	Y	Y	Y
Black-faced Cuckoo-shrike	Y	Y	Y
Black-fronted Dotterel	Y	Y	Y
Black-winged Stilt		Y	
Brown Goshawk	Y		
Brown Thornbill			Y
Brown Treecreeper	Y	Y	Y
Brown-headed Honeyeater	Y		
Buff-rumped Thornbill	Y		Y
Cockatiel	Y	Y	Y
Common Blackbird			Y
Common Bronzewing	Y	Y	Y
Common Myna			Y
Common Starling	Y	Y	Y
Crested Pigeon	Y	Y	Y
Crested Shrike-tit		Y	
Crimson Rosella			Y
Diamond Firetail	Y	Y	
Double-barred Finch	Y		
Dusky Moorhen	Y	Y	Y
Dusky Woodswallow	Y	Y	Y

Species	2013	2014	2020
Eastern Rosella	Y	Y	Y
Eastern Yellow Robin		Y	Y
Eurasian Coot	Y	Y	Y
Fan-tailed Cuckoo	Y	Y	
Freckled Duck		Y	
Galah	Y	Y	Y
Grey Butcherbird	Y		
Grey Currawong			Y
Grey Fantail	Y	Y	Y
Grey Shrike-thrush	Y	Y	Y
Grey Teal	Y	Y	Y
Hardhead	Y	Y	Y
Hoary-headed Grebe	Y	Y	Y
Horsfield's Bronze-Cuckoo		Y	
House Sparrow	Y	Y	Y
Jacky Winter		Y	
Laughing Kookaburra	Y	Y	Y
Leaden Flycatcher			Y
Little Black Cormorant	Y		
Little Corella			Y
Little Grassbird		Y	Y
Magpie-lark	Y	Y	Y
Masked Lapwing	Y	Y	Y
Mistletoebird		Y	Y
Nankeen Kestrel		Y	Y
Noisy Friarbird			Y
Noisy Miner		Y	Y
Pacific Black Duck	Y	Y	Y
Pallid Cuckoo		Y	Y

Species	2013	2014	2020
Pied Butcherbird		Y	Y
Pied Currawong	Y	Y	Y
Pink-eared Duck		Y	Y
Purple Swamphen	Y		
Rainbow Bee-eater		Y	
Red Wattlebird	Y	Y	Y
Red-browed Finch	Y		Y
Red-capped Robin	Y		
Red-kneed Dotterel		Y	
Red-rumped Parrot	Y	Y	Y
Rufous Songlark	Y	Y	Y
Rufous Whistler	Y	Y	Y
Sacred Kingfisher	Y	Y	Y
Scarlet Robin			Y
Sharp-tailed Sandpiper		Y	
Silvereye	Y	Y	Y
Southern Boobook		Y	
Speckled Warbler	Y		
Spotted Pardalote	Y	Y	Y
Straw-necked Ibis	Y		
Striated Pardalote	Y	Y	Y
Striated Thornbill	Y		Y
Stubble Quail		Y	
Sulphur-crested Cockatoo	Y	Y	Y
Superb Fairy-wren	Y	Y	Y
Superb Parrot	Y	Y	Y
Varied Sittella			Y
Wedge-tailed Eagle		Y	
Weebill	Y		Y

Species	2013	2014	2020
Welcome Swallow	Y	Y	Y
Western Gerygone	Y		
White-browed Scrubwren	Y		
White-eared Honeyeater	Y	Y	Y
White-faced Heron		Y	Y
White-plumed Honeyeater	Y	Y	Y
White-throated Gerygone		Y	Y
White-throated Treecreeper	Y	Y	Y
White-winged Chough	Y	Y	Y
White-winged Triller		Y	
Willie Wagtail	Y	Y	Y
Yellow Thornbill	Y		
Yellow-billed Spoonbill		Y	
Yellow-faced Honeyeater	Y	Y	Y
Yellow-rumped Thornbill			Y