

Diversity is the key for the Kowald's

Farm info.

Grower: Geoff and Bev Kowald

Location: Carrolup, west of Katanning

Soil type: Vary from light sandy to medium loam

Property size: 1468 ha

Percentage cropped: 45%

Percentage arable: 90%

Ave annual rainfall: 440 mm

Enterprise mix for 2012: Merino sheep (2500) and cattle (80)



Interview conducted by Marianne Perrie, Katanning Landcare Centre

For Geoff and Bev Kowald of Carrolup, west of Katanning, the driver to start incorporating perennials into their farming system was a desire to increase profitability via reducing input costs, while dealing with rising soil acidity and aluminium toxicity.

Over the last three years they have been very active, hosting several on-farm trial and demonstration sites, in an effort to find perennial pastures that fit in with their holistic farming vision.

What perennials have you tried before?

Tagasaste (1995): Tagasaste was direct seeded on areas of lighter sand to address wind erosion and to fill the autumn feed gap for cattle. We are happy with the initial plots, and with cattle grazing, minimal management (e.g. cutting) is needed.

Tall wheat grass (2010): We established 40ha of tall wheat grass (TWG) on marginally saline land that had not been cropped for 20+ years, as the bare areas were getting barer. The major focus was to establish ground cover to reduce erosion and lower the water table. Despite the driest year on record, the success of the TWG was outstanding! Seed has been harvested in subsequent years from this stand and used to seed other areas on the farm.



ABOVE AND TOP: Geoff Kowald and Marianne Perrie inspect the excellent stand of tall wheat grass after harvest in early 2012.

LEFT: A blockage with the airseeder shows just how good the tall wheat grass stand is!

RIGHT: Chicory looking good following early autumn rains in 2013.



Perennial success in whole-farming systems

Perennial pasture mix (2011): A diverse mix of Venus lucerne, chicory, plantain, Santorini serradella and tall wheat grass was planted on this varied but mostly sandy 10ha site in June 2011. Despite the soil acidity identified through the soil testing (including EM survey and radiometrics), some lucerne survived. Plantain germinated well, grew well and recovered well after grazing.

Sudax and veldt (2011): A mix of sudax and veldt grass was sown in September on this four ha sand over gravel site. Due to the excellent season, both established really well. The sudax provided good summer/autumn feed, but summer rainfall was not adequate to aid recovery. The following year the veldt grass was swathed and harvested producing seed for future on-farm use.

Kikuyu and Santorini serradella pod (2011): We planted 80ha of our poorer sand to a mix of kikuyu and Santorini serradella pod under a barley cover crop in September 2011. We had mixed results with not much germination on the worst of the non-wetting sand. However, this paddock is getting better and better each year with the kikuyu spreading around and thickening up.

A good result all round, with soil organic matter improving and less risk of wind erosion over summer and autumn.

Chicory, veldt, tall wheat grass, tall fescue, Charano and Margarita serredella, biserrula (2012):

Our latest project funded by the Southwest Catchments Council is a demonstration looking at building carbon and addressing sub soil acidity and erosion. Several different pasture mixes were sown on the different soil types, and these were fenced to aid future management. A major aim of this project was to demonstrate differences between traditional fertilisers (MAP, Lime) and alternative ameliorants (compost pellets) on perennial pasture growth.

Getting sound advice

Evergreen Farming's Phil Barrett-Lennard suggested we divide the paddock up into three separate management areas and provided a list of suitable pasture species for each area. We also sought advice on compost and other alternative products from Deb Archdeacon from Agronomica.

The perennial pastures did not establish quite as well as we would have liked, given the very dry conditions at the time of sowing. However, rain received in March 2013 has seen more perennials germinate, and the existing perennials flourish, so with good management this paddock looks set to provide a new and varied feed source for our sheep over summer and autumn.

We have learnt over the last three years that successful establishment of perennial pastures is highly dependent on soil moisture at seeding and the amount of follow up summer rainfall. Seeding rates are probably not as critical as we use to think, but we do need to learn more about the grazing management requirements of some of the perennials (e.g. chicory) we have planted.

The one thing we do know is that the technical advice we have received from Evergreen Farming has been invaluable in helping us get in to perennial pastures. ✓

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