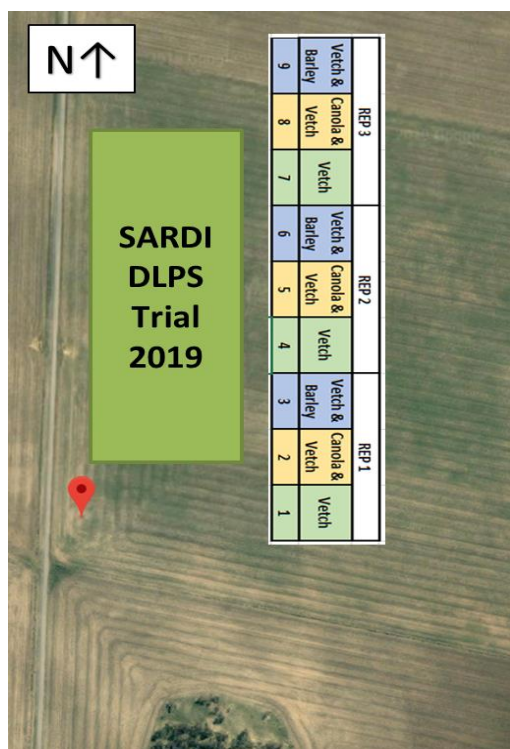


Regenerative Agriculture Program Plant Based Management Options

Lock/ Murdinga/Tooligie Farming Groups Mixed Species demonstration site



Aim

The sandy soils in this district have a history of low organic carbon (low fertility) and have inherent drift issues when grazed in dry seasons.

The aim of this demonstration was to plant mixed species pastures to allow allows for a range of management options depending on the season. It will help overcome soil erosion issues on sandy soils by increasing biomass, ground cover and organic carbon levels.

Background

Site Location	East of Palkagee Road
FS Group/Contact	Lock Murdinga Tooligie Farmers Group.
District	Hundred of Palkagee / Lock area
Landholder	Kerran Glover
Paddock ID	North East 4
Av Annual rainfall	350mm
Landform description	Dune Swale
Depth to clay	45cm
Repellence (Non wetting)	M-H to 10cm
Compaction	M-H to 20-30
2019 growing season rainfall (Aug)	109.3 mm
2019 Rainfall	112.5

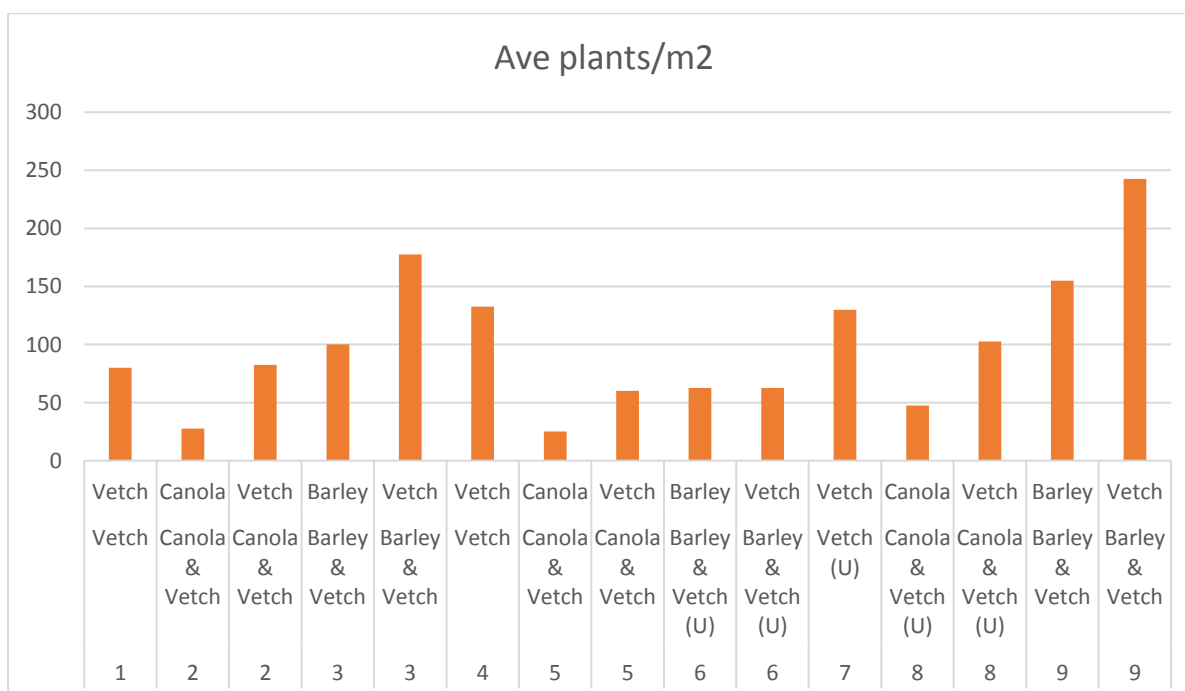
Site establishment and management

The demonstration site was planted on 18th April 2019 with 40 kg DAP. There was no pre-emergence sprays. The site was grass fried on 16th June and again on 2nd of August.

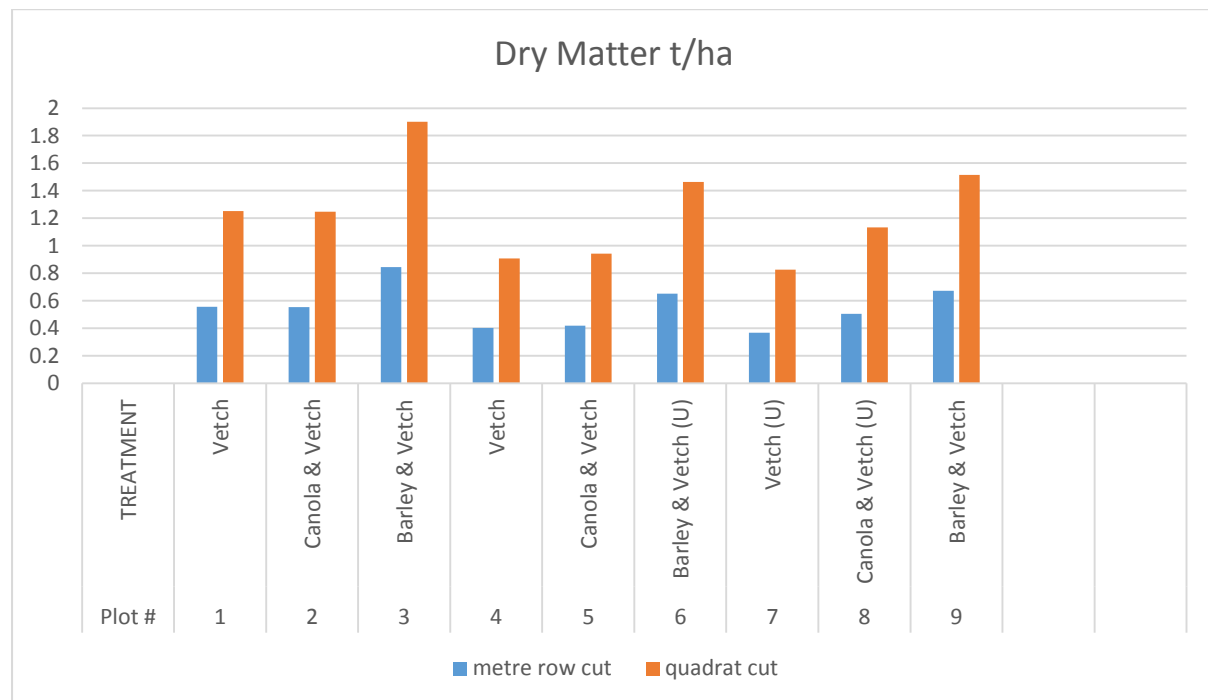
Plot #	TREATMENT DESCRIPTION	Rates
1	Canola and Vetch	Canola: Stingray @ 1.5kg/ha Vetch: Volga @ 35kg/ha
2	Barley and Vetch	Barley: Fathom @ 25kg/ha Vetch: Volga @ 35kg/ha
3	Vetch	Vetch: Volga @ 35kg/ha (control)
4	Canola and Vetch	Canola: Stingray @ 1.5kg/ha Vetch: Volga @ 35kg/ha
5	Barley and Vetch	Barley: Fathom @ 25kg/ha Vetch: Volga @ 35kg/ha
6	Vetch	Vetch: Volga @ 35kg/ha (control)
7	Canola and Vetch	Canola: Stingray @ 1.5kg/ha Vetch: Volga @ 35kg/ha
8	Barley and Vetch	Barley: Fathom @ 25kg/ha Vetch: Volga @ 35kg/ha
9	Vetch	Vetch: Volga @ 35kg/ha (control)

REP 3			REP 2			REP 1		
Vetch & Barley	Canola & Vetch	Vetch	Vetch & Barley	Canola & Vetch	Vetch	Vetch & Barley	Canola & Vetch	Vetch
9	8	7	6	5	4	3	2	1

Emergence counts were conducted on 5th June 2019. Counts was taken for each species at 4 locations across each plot. (Plots 6, 7 a d 8 are ungrazed)



Biomass cuts were taken on 11th July 2019 for early biomass. The samples were dried and converted to t/ha. A further biomass cut will be taken at peak growth.



Grazing

Plots 6, 7 and 8 have been excluded from grazing since planting. The remainder of the paddock has been grazed with 300 ewes with lambs at foot for one week from 24th June – 1st July. Rested for one week then grazed from 12th to 30th July. The paddock was rested, grass freed on 2nd August and then grazed from 9th August through to 16th August. The sheep were reintroduced after two weeks rest and shifted on 19th September 2019.



This project is supported by Eyre Peninsula Natural Resources Management Board, through funding from the Australian Government's National Landcare Program. Acknowledging the landholder co-operator, Kerran Glover for his time in implementing this demonstration on his property.