

Perennial Pasture Demonstration

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Aim

To evaluate new fodder shrubs on poor performing areas.

Background

Enrich is a project based out of SARDI which is exploring multipurpose healthy grazing systems using perennial shrubs. The Enrich perennial pastures trial is exploring the general performance of a range of fodder shrubs at the Liebe Groups' Long Term Research Site. The trial aims to assess this performance on a soil type gradient from poor shallow gravel, through to good sandy loam. The plots were replicated four times with two replicates on the good soil and two on the poor soil.

Trial Details

Property	Long Term Research Site, West Buntine
Plot size & replication	36 shrubs (6 x 6) per plot x 4 replicates
Soil type	Shallow Gravel – Sandy Loam Gradient
Soil pH	6
EC	0.02 dS/m
Sowing date	2/7/2009
Fertiliser	None
Paddock rotation	06 Lupins, 07 Wheat, 08 Wheat
Herbicides	None
Growing Season Rainfall	158mm

Results

Table 1. Mean and average survival percentage of the perennial species grown at the Liebe long term research site west of Buntine. Percentages are the mean of four replicates \pm standard error.

Species	Mean no of plants surviving / plot of 24 plants	Survival (%)	Standard error \pm (plants)
<i>Atriplex nummularia</i> (Old man saltbush)	19	79.2	2.3
<i>Atriplex rhagodioides</i> (Silver saltbush)	18.5	77.1	1.0
<i>Rhagodia parabolica</i> (Mealy saltbush)	18.25	76.0	2.5
<i>Rhagodia spinescens</i> (Thorny saltbush)	17	70.8	2.4
<i>Enchylaena tomentosa</i> (Ruby saltbush)	16.25	67.7	2.7
<i>Atriplex amnicola</i> (River saltbush)	15.5	64.6	2.1
<i>Rhagodia preissii</i> (Saltbush)	12.5	52.1	5.3
<i>Atriplex semibaccata</i> (Creeping saltbush)	11.75	49.0	4.5
<i>Chenopodium nitrariaceum</i> (Nitre goosefoot)	10.25	42.7	4.9
<i>Acacia saligna</i> (Golden wreath wattle)	3.75	15.6	2.6
<i>Rhagodia crassifolia</i> (Fleshy saltbush)	3.5	14.6	2.2
<i>Medicago strasseri</i> (Tree medic)	0.5	2.1	0.3
<i>Eremophila glabra</i> (Tar bush)	0.5	2.1	0.5
<i>Chameacytis prolifer</i> (Tagasaste)	0	0.0	0.0
<i>Convolvulus remotes</i> (Australian bindweed)	0	0.0	0.0

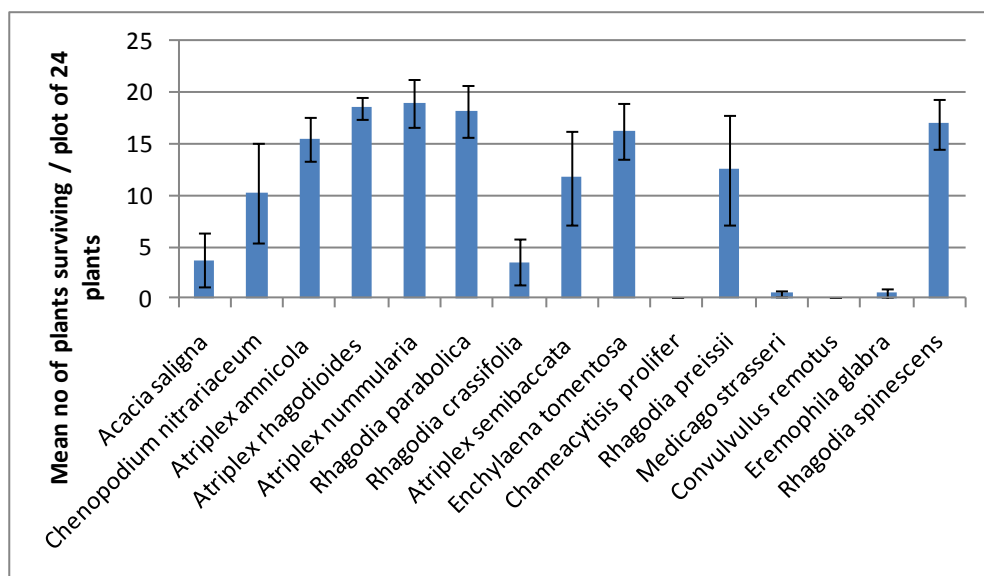


Figure 1. Mean number of plants surviving per plot of 24 plants of the perennial species grown at the Liebe long term research site west of Buntine and standard error.

Comments

Atriplex nummularia (Old man saltbush, 79.2% survival), *Atriplex rhagodioides* (Silver saltbush, 77.1% survival), and *Rhagodia parabolica* (Mealy saltbush, 76% survival) are the species with the highest survival rates.

Weed control was poor with wild radish competing strongly with the perennials for moisture.

The trial will continue next year with more results becoming available during this time, including palatability, feed value and persistence.

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