

Saltland pastures can pay in WA

By Georgina Wilson

Financial analysis of 21 sites in Western Australia indicates that revegetating saltland with salt-tolerant pastures has good prospects of profitability but that establishment costs vary enormously.

The analysis was done by Department of Agriculture and Food (DAFWA) senior economist Allan Herbert on producer network sites established under the Sustainable Grazing on Saline Lands (SGSL) program from 2002 to 2005.

In medium to high rainfall districts average costs of \$300/ha plus \$65/ha for fencing/water supplies had a good chance of cost recovery within 10 years by providing at least 1000 sheep grazing days per hectare per year valued at 10 cents per day (50 cents for cattle). But low rainfall districts had higher risks and needed to contain costs without compromising success, producing 400–800 sheep grazing d/ha/yr.

Mr Herbert said establishment was strongly affected by infrastructure costs and advised farmers to minimise the capital costs of fencing and water.

Twelve of the studies demonstrated a payback period of less than 10 years if infrastructure costs were included, and 16 were 'profitable' if infrastructure was excluded. The demonstration nature of the sites meant these costs were higher than commercial practice.

Average cost of establishment was \$324/ha (without infrastructure) and \$510/ha (with) shown in Table 1 but infrastructure costs are site-specific.

Highest risk of failure and low profitability occurred in the low rainfall areas, whereas in the medium to high rainfall districts there is



Photo: J Hardy

Mark Jefferies (in tractor) and Arjen Ryder (DAFWA) seeding an SGSL trial

a greater selection of suitable pasture species and potential for high grazing production.

All the case studies were on small sites and generally aimed at bridging the autumn feed gap. It was assumed the animals were already on hand and did not need to be purchased specially.

The 21 studies from 69 SGSL sites in WA were selected on the basis of sufficient information for analysis. Seven sites were from low rainfall areas (< 400 mm), 11 medium (400–600 mm) and three high rainfall sites (> 600 mm).

Getting started

Mr Herbert said any site, low or high rainfall, mildly or highly saline, needed to be considered on its merits. Farmers wanting to establish new pastures on saltland would be wise to obtain good

agronomic advice, and new entrants should concentrate on their 'softer' sites in the first instance — to obtain experience with a higher chance of success.

Establishment costs are magnified by failure. Not only is there a doubling of costs when re-establishment is attempted, but another year's delay in receiving any returns. While no-one can forecast weather, farmers should give new saltland pasture every chance by planting as early as possible into good moisture once soil temperatures are satisfactory — and have an exit strategy if conditions are not suitable.

An issue with partial failures (for example, poor saltbush establishment) is that subsequent weed control is difficult, and

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Table 1. Summary of 21 SGSL farmer case studies

Result	Including costs of infrastructure		Excluding costs of infrastructure	
	Average	Range	Average	Range
Establishment cost	\$510/ha	\$156–\$1,383/ha	\$324/ha	\$77 – \$787/ha
Payback period*	12 inside 10 years	4 – >20 yrs	16 inside 10 years	2 – >20 yrs
Benefit-Cost Ratio (BCR)*	1.25	0.13 – 6.19	1.64	0.22 – 6.19
Internal Rate of Return (IRR)**	6% (14 sites)	<-10 – +37%	8% (19 sites)	<-10 – +37%
Net Present Value (NPV)**	+\$3,315	-\$9,237 – +\$54,761	+\$6,177	-\$6,214 – +\$54,761
Project area	26 ha	4 – 49 ha	26 ha	4 – 49 ha

* Payback period and BCR do not account for any lost production from a 'do nothing' approach. These indicators assume there is no lost opportunity. It simulates a stand-alone investment comparing possible future returns with investment in the initial establishment.

** IRR and NPV are calculated from a true WITH vs WITHOUT infrastructure perspective. NPV is obviously related to size of project.