

Gross margin example of saltbush establishment in a rangeland pasture

Central West Catchment Management Authority, Dubbo NSW 2830

Old Man Saltbush

As indicated in Figure 1. Old Man Saltbush (OMSB) is suited to areas where summer temperatures are high and winters are not too severe. It is generally not suited to areas that are waterlogged for prolonged periods and for that reason is not generally a good choice for saline discharge sites. However in the lower rainfall zone OMSB can provide a reliable source of feed to livestock due to its ability to;

- survive and provide large amounts of dry matter
- provide a high source of protein
- provide a year round feed supply

- be highly utilised by livestock (low wastage)

Grazing management

To increase the production value of OMSB the stand should be grazed in rotation with other pastures. Failure to graze OMSB regularly will result in woody, unpalatable plants that become less nutritious to livestock and grow out of reach to some. Also, livestock need time to adjust to grazing OMSB so keeping it as a regular part of their diet enables higher utilisation rates.

Planting options

OMSB can be planted in blocks or alleys depending on the needs of the grazing system it is being planted into. Block planting densities range between 2000 – 2500 plants per hectare

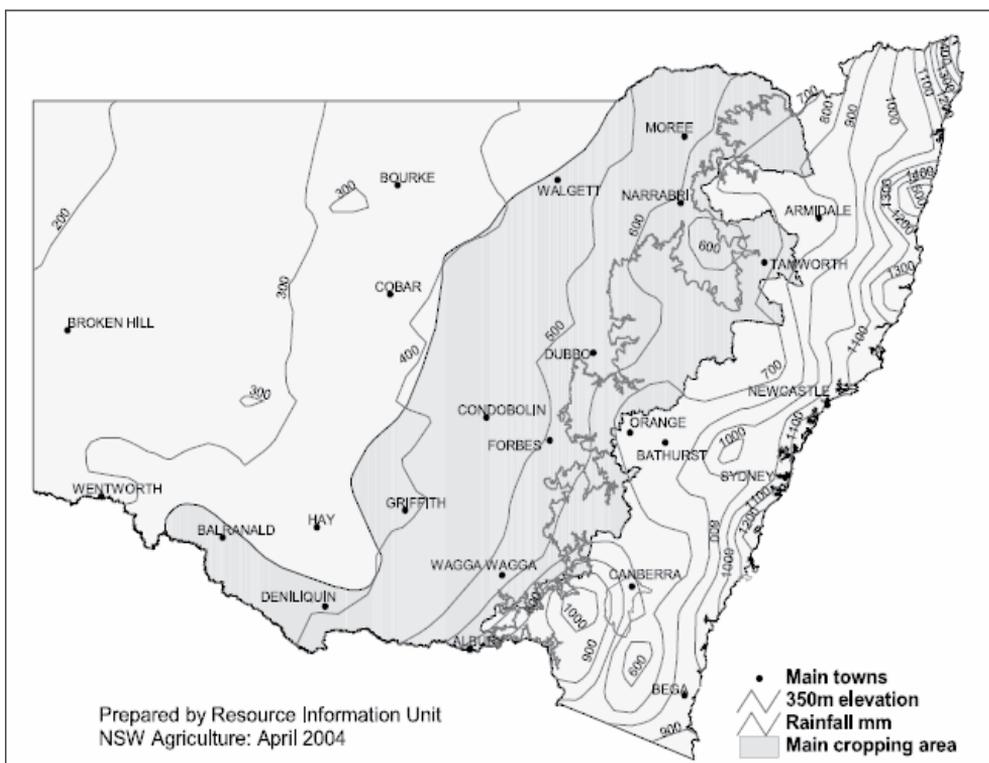


Figure 1 . Areas suitable for saltbush (Source – Honeysett B.M., Milthorpe P.L., Wynne M.J., Getting the best from oldman saltbush, Agfact P2.5.43, NSW Agriculture)



Figure 2. Saltbush planting density and arrangement can vary depending on the needs of the farming system.

in rows 3–4 metres apart and a plant spacing of 1.2 to 1.5 metres.

Alley plantings have similar inter row spacing as block plantings however the row spacing can vary depending on the needs of the farming system. Some growers choose to sow other pasture mixes between the alleys to vary the feed supply whilst others encourage the natural regeneration of pastures in these areas. Others choose to grow OMSB in alley plantings in a circular pattern to alleviate wind tunnelling between rows and to provide more protection for livestock.

Plants are usually ready for grazing around 12 months of age but grazing should be limited during this period to ensure continual survival of the young plant.

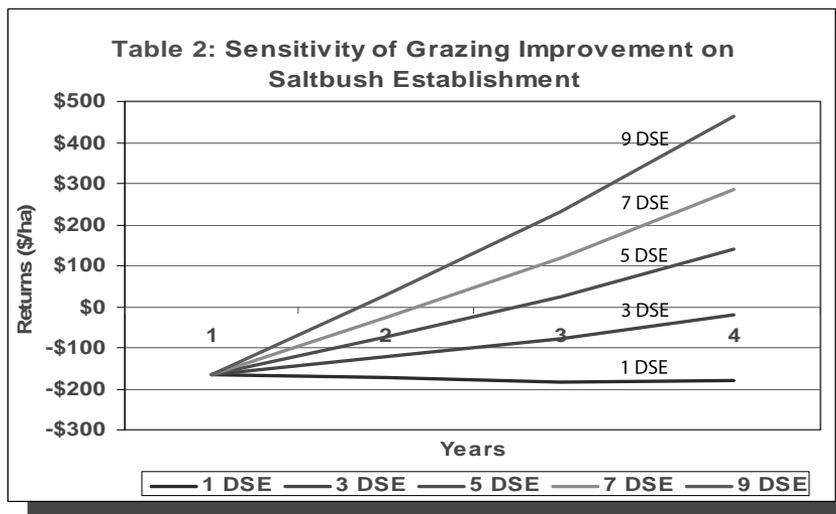
Establishment costs

The cost of establishing OMSB can range between \$150/ha to over \$250/ha depending on establishment techniques, the density of planting and input requirements. Following is a gross margin example of an alley planting and the time it takes to payback this investment.

Table 1 indicates that the first year establishment costs of Saltbush are approximately \$163 per

Table 1. Establishment costs and returns based on interest rate of 7%

	Year 1	Year 2	Year 3	Year 4
INCOME	Establishment	Maintenance	Maintenance	Maintenance
	\$/Ha	\$/Ha	\$/Ha	\$/Ha
Livestock Grazing: 5DSE/ha @ \$25/dse	\$0	\$125	\$125	\$125
A. TOTAL INCOME \$/Ha:	\$0	\$125	\$125	\$125
VARIABLE COSTS:				
Seed	\$14.00			
Fertiliser	\$25.00			
Ground Preparation	\$40.79			
Planting (machinery & labour)	\$38.75			
Weed Control	\$18.40	\$9.20	\$9.20	\$9.20
Plant maintenance (watering)	\$27.00	\$13.50	\$13.50	
B. TOTAL VARIABLE COSTS \$/Ha:	\$163.94	\$22.70	\$22.70	\$9.20
C. GROSS MARGIN (A-B) \$/Ha:	-\$163.94	\$102.30	\$102.30	\$115.80
D. CUMULATIVE RETURNS \$/Ha	-\$163.94	-\$73.12	\$24.07	\$141.55



hectare with maintenance required for the next few years after establishment. Return from plantings does not usually occur until year 2 or 3 of the plants life as livestock is able to be grazed.

Returns are directly related to the livestock grazing numbers (DSE). In this example, grazing 5DSE/ha in the second year will pay back approximately \$102/ha of the initial investment of \$163/ha, leaving a debt of approximately \$73/ha after this period. It is not until year 3 that the initial investment is paid back and a profit of \$24/ha is made. Table 2 shows the impact that a

change of livestock carrying capacity can have on the investment in Saltbush establishment of \$163/ha.

At 1 DSE/ha rating the payback period for planting Saltbush is uncertain and depends on the price received for livestock to make the investment worthwhile. After 4 years at 3 DSE/ha the investment is starting to approach breakeven returns. Whilst above 4 DSE/ha the investment will pay for itself in 4 years and under, with cumulative returns above \$400/ha after 4 years if carrying capacity can increase above 9 DSE/ha.