

# Saltbush– its value as a supplement for finishing prime lambs in summer/autumn in southern NSW.

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## Introduction

Interest in the establishment of saltbush based pasture systems has escalated in recent years. This has been driven by a number of factors including its suitability for reclaiming mildly salt-affected land, preventing the onset of dryland salinity and as a high protein drought reserve. Claims have been made regarding the high nutritive value of saltbush as a 'living haystack', yet its actual potential to add to whole farm productivity has not been quantified in NSW. The following paper reports on the results from a grazing trial established to quantify the value of saltbush for finishing prime lambs over the summer/autumn months as opposed to other methods of supplementation in southern NSW.

## Materials and methods

Twenty hectares of Old Man Saltbush was established in September 2003 at the Grong Grong, 20 km east of Narrandera in the Riverina of NSW. Despite drought conditions at time of planting, establishment and survival of the saltbush seedlings was high. The area planted borders Cowabbie Creek and surrounding salt affected paddocks which are used for cereal cropping. The saltbush was planted in a NE/SW direction with 2 to 5 m row spacings.

The site was fenced with subdivisions providing four treatment plots and an internal laneway for paddock and yard access during weighing. Plot areas range from 1.6 ha to 3.0 ha. Second cross lambs were introduced to the site in February in 2005 and allocated to one of four treatments (16 lambs/treatment). Plots were grazed for three weeks to remove available ground cover and acclimatise lambs to grazing of saltbush plants. Lambs were weighed fortnightly and slaughtered at trial completion. Treatments studied included:

- saltbush with access to stubble (Plot 1);
- saltbush only (Plot 2);
- saltbush with grain supplement (Plot 3); and
- stubble with grain supplement (Plot 4).

This paper reports on 2005 lamb production and relative performance on each of the treatments.

## Results and discussion

Lamb growth rates were considerably lower on all saltbush treatments compared to the stubble/supplement treatment (Table 1). Performance of lambs grazing saltbush alone was the lowest of all treatments. This is not surprising given the high salt content of saltbush which limits feed intake and increases water intake. Daily water intakes for

Table 1 Second cross lamb performance on a range of saltbush and cereal stubble treatments at Grong Grong, NSW.

Treatment	<sup>1</sup> Saltbush/ Stubble DM (kg/ha)	Lwt (kg) 28/1/05	Lwt (kg) 31/3/05	Growth rate (g/day)	Water intake (L/day)	<sup>2</sup> Carcass value (\$)	<sup>3</sup> Supplement cost/lamb (\$)	<sup>4</sup> Gross margin/ lamb (\$)
Saltbush	134	47.6	59.7	113	13.3	69.98	0	69.98
Saltbush/ Stubble	188/1269	47.8	60.9	135	9.8	73.31	0	73.31
Saltbush/ Supplement	109	49.3	59.1	140	9.2	78.99	7.24	71.75
Stubble/ Supplement	1228	48.0	61.1	215	6.4	82.43	8.80	73.63

<sup>1</sup> Dry matter measured at commencement of the experiment 28/1/05.

<sup>2</sup> Carcass value using 300 c/kg dressed weight

<sup>3</sup> Supplement used was oats, valued at \$120/t

<sup>4</sup> Gross margin does not include establishment cost of the saltbush

2005 are similar to those of MacFarlane (1967) who reported water intakes of up to 13.7 L/day in Merino and Border Leicester wethers grazing saltbush.

In terms of carcass value, after deducting the cost of oat supplementation, there was little difference in the saltbush/stubble and stubble/supplement treatments when valued at 300 c/kg. Penalties for heavier carcasses (>26.1 kg hot standard carcass weight) would further disadvantage oat supplemented treatments. This indicates that saltbush may be a valuable supplement to make use of cereal stubbles over the summer period and make use of what is otherwise an under utilised commodity. However, the gross margin here does not factor in the initial establishment cost of the saltbush nor factors such as management of the saltbush canopy to optimise dry matter production and grazing potential, nor the lag time between planting and grazing, fencing, labour and the installation of watering points.

### Conclusion

This preliminary study has shown that using saltbush as a supplement generates no additional financial advantage compared to a stubble/supplement treatment for maintaining productivity of prime lambs over the summer months. Additionally the high

establishment costs of saltbush are likely to reduce this further, at least in the early years of including saltbush in a farming system. However in areas where there is evidence of mild salinity and rising water tables there may be additional environmental value which has not been factored into this study.

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### References

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