

Poster Abstract

Bull Beef: production per head or per ha?

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Introduction

In January 2003 bull beef producers at Branxholme, in south west Victoria wanted to maximize profitability from their bull beef enterprise over the coming season. Due to the drought elsewhere, there was an unusual opportunity to purchase bulls at a range of weights. Given the current pasture supply, what was the risk of failure to meet market specifications by the end of the growing season? Was it more profitable to maximize beef production per head by running bulls at a low stocking rate and aiming for bull beef market specifications of 550-750 kg live weight or was it more profitable to aim only for feedlot entry specifications (420kg) and to maximize beef production per ha? Animals between the two specifications (feedlot entry and bull beef) are unattractive in the marketplace.

Methods

The decision support tool GrassGro was used to explore the risks associated with each option and to calculate break even prices required for stock to be finished to bull beef specifications with supplement. The soil moisture, amount and quality of pasture and initial live weights of animals on the farm were described for 1 Jan 2003. Production risk was evaluated between January and December using local weather data from 1957-2002. A range of information was used to make a decision on the number of stock required. Local knowledge and market analysis was combined with GrassGro outputs of pasture supply and quality, animal growth rates, supplementary feeding, profitability and risk of reaching the various target live weights before pastures were likely to hay off in Nov-Dec.

Results

Given pasture supply in Dec 2002, the highest gross margin (\$747/ha) was achieved at a stocking rate of 2.5 bulls/ha, but less financial risk was incurred at a similar gross margin (\$717/ha) when the stocking rate was dropped to 2.0 bulls/ha. Meat production/ha was greatest at a stocking rate of 4.0 bulls/ha but this was the least profitable option because of a penalty for failing to make specifications and additional supplementation costs.

References

Moore, A.D., J.R. Donnelly & M. Freer (1997). GRAZPLAN: Decision support systems for Australian grazing enterprises. III. Pasture growth and soil moisture submodels and the GrassGro DSS. *Agricultural Systems* 55(4):535-582.