

## Beef production from buffel grass pasture compared to leucaena-buffel grass pasture in the brigalow belt of Central Queensland

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### Introduction

Establishing leucaena pastures requires significant financial investment, which is expected to be recouped via increased beef production. This study compares beef productivity from grass-only pasture and grass-leucaena pasture at two set stocking rates.

### Methods

Two drafts of weaner cattle grazed paddocks of either nominally buffel grass or a leucaena-buffel grass pasture on the Brigalow Catchment Study in central Qld from May 2008 to May 2009 and June 2009 to Mar 2011 respectively. The pastures were stocked at similar stocking rates for the first grazing period (2.1 ha/hd grass only vs 2.2 ha/hd grass-leucaena). In the second grazing period stocking rate was decreased in the grass only pasture and increased in the grass-leucaena pasture (3.4 ha/hd grass only and 1.5 ha/hd grass-leucaena) to match feed availability.

### Results

During the first grazing period (similar stocking rates) the two pasture types had similar total weight gain and maximum average daily gain. However, beef production per hectare from the grass only pasture was 87% of the of the grass-leucaena pasture (82 kg/ha/yr cf. 95 kg/ha/yr). During the second grazing period when stocking rate was adjusted to match feed availability, beef production per hectare on the grass only pasture was half that of the grass-leucaena pasture (51 kg/ha/yr cf. 103 kg/ha/yr) (Fig. 1), again with similar total weight gain and maximum average daily gain.

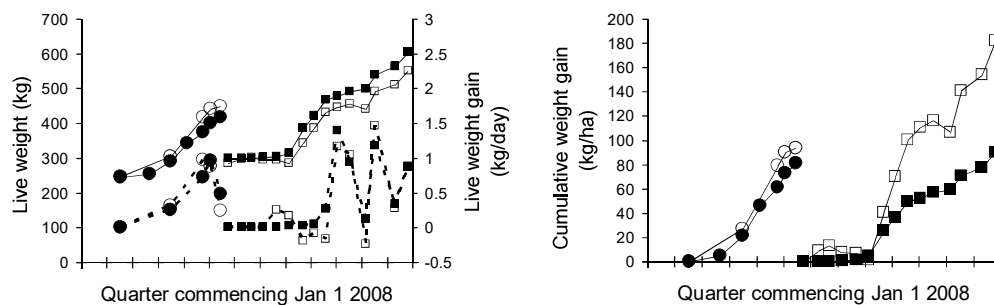


Fig 1. Liveweight (-), average daily gain (") and cumulative weight gain/ha for cattle grazing grass (●, ■) and grass-leucaena (○, □) at similar (circles) and feed on offer (squares) stocking rate.

### Discussion and Conclusions

Similar total weight gain and maximum average daily weight gain were observed for all drafts of cattle irrespective of pasture type. When stocking rate was set based on feed availability, the higher quality grass-leucaena pasture (Buck *et al.* 2011) could be stocked at more than double the stocking rate of the grass only pasture, doubling the amount of beef produced per hectare.

### Reference

Buck S, Thornton C and Dixon R (2011) Diet quality of cattle grazing grass or Leucaena-grass pastures in Central Qld. *Proceedings of the Northern Beef Research Update Conference, Darwin, 2-5 August 2011.*

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