

Early joining improves turnoff, financial margins & emission intensity in western Queensland



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Introduction

Can carbon farming present opportunities for beef producers in northern Australia?

Much of the available information suggests the main way to reduce emissions is to reduce cattle numbers—but won't this cost money through reduced productivity?

This poster presents results from one case study in the Longreach district which found:

Breeding herds can become more efficient

The same number of calves can be weaned from fewer breeders

Fewer breeders = reduced input costs

Fewer breeders + the same number of weaners = better margins!

Fewer breeders + the same number of weaners = less emissions!



Results and Discussion

Earlier mating and improved weaning rates:

Increased beef turnoff by 33%

Improved herd Gross Margin (GM) twofold

Reduced Greenhouse Gas (GHG) emissions per tonne of beef by 24%

Did not reduce total GHG emissions.



Table 1: Key characteristics and results for the property and regional average herd structures.

Herd	No. mated	Breeder wt (kg)	Age at first joining	Weaning %	Beef turn-off (t lwt)	GHG emissions (t CO ₂ -e)	Emissions intensity (t CO ₂ -e/t lwt)	GM after interest (\$)
Case study property	1007	435	1 year	79	314.2	3,598	11.5	339,765
Regional average	984	481	2 years	62	236.3	3,593	15.2	157,153

More information

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Did you know:

Australian beef production is estimated to produce 11% of Australia's Greenhouse Gas (GHG) emissions

Carbon Farming projects are based on reducing total farm emissions e.g.

Reducing cattle numbers

Improving breeder efficiency

Lowering age of turnoff.



Methods

We compared the case study property with the regional average.

The case study property:

Is 23,000 ha of predominantly Mitchell grass downs

Has an annual average rainfall of 380 mm

Has reduced joining age to 16-22 months and improved weaning to 79% through selection and improved grazing management.

The regional average:

Is based on Mitchell grass country with 400 mm rainfall

Joins heifers at 24-36 months with 62% weaning.

We used:

Total cattle numbers of 1748 Adult Equivalents (AE) for each case

Current regional prices for costs and sales

Breedcow plus for the economic analysis

the Greenhouse Accounting Framework for beef to estimate emissions.

A joint initiative of:

