



## Native pastures respond to wet season spelling

### Climate Clever Beef

The beef industry contributes approximately 79% of the total greenhouse gas (GHG) emissions attributed to agricultural practices in Australia, mostly in the form of methane from livestock. Reproduction rates and annual liveweight gain directly impact on herd and enterprise GHG emissions.

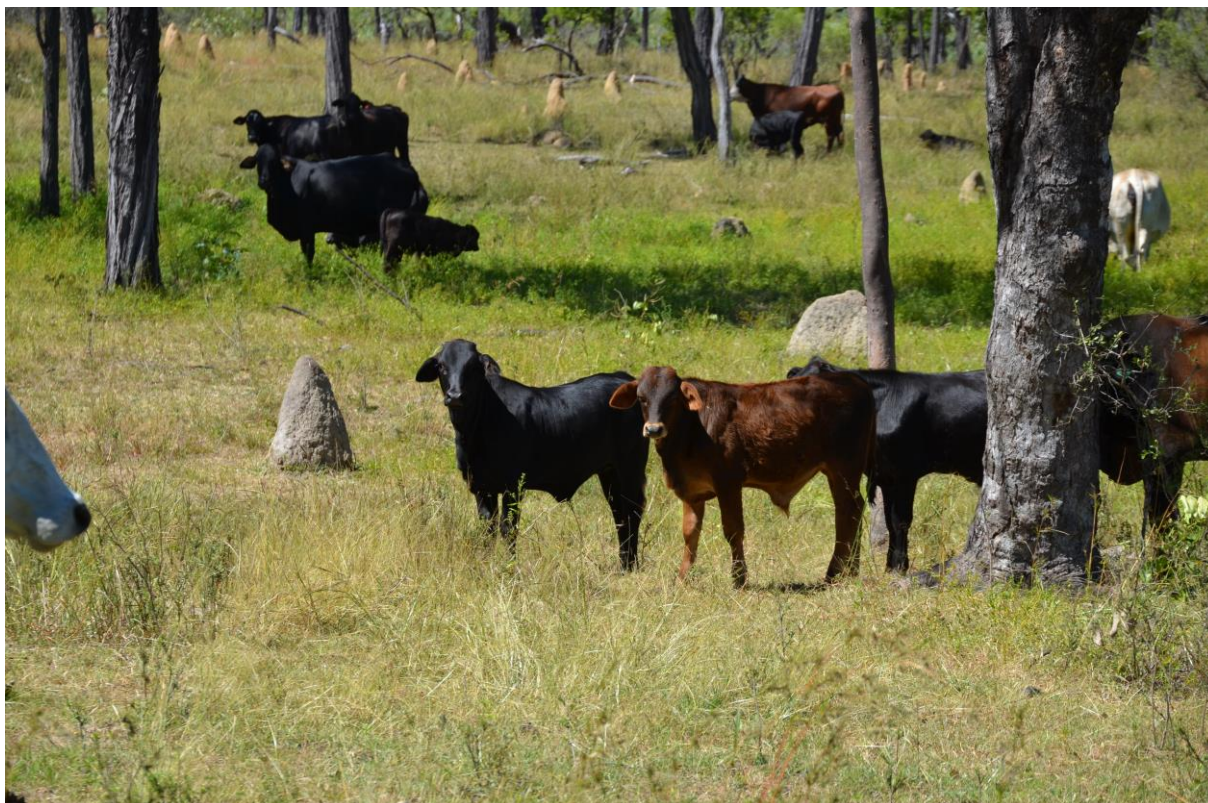
Native pastures are the backbone of the Northern Dry Tropics grazing industry and need good management, including wet season spelling, to maintain pasture and herd productivity.

The Cowan family on Oakleigh and Fernhills Stations in the Kidston district of north Queensland spell 20% of their property each wet season. A series of photo monitoring points have been installed across their various land types to record progress and land condition over time through varying seasonal conditions. Their ongoing spelling program plus timely herd reductions has been a vital factor in their management of consecutive failed wet seasons followed by a third light, late wet.



Image 1. Fence line effect showing spelled paddock on left and grazed paddock on right.

The Oakleigh–Fernhills management team mainly rely on past paddock stocking rate records and continuous visual wet season pasture yield evaluations to adjust cattle numbers early each year.



**Image 2. Crossbred weaners in healthy 3P pastures.**

Northern beef businesses operate in a highly variable rainfall climate and a set rotational wet season spelling program can give a property a critical buffer against poor seasonal conditions, plus allow increased health, vigour and density of 3P grasses (perennial, palatable and productive). Continued overstocking/over utilisation of pastures over time:

- rapidly reduces the density of 3P species,
- leads to declining ground cover, soil loss and land degradation, and
- reduces carrying capacity, annual liveweights and property gross margins.

## Wet season spelling works

After four successive wet season spells on nearby “Ecobeef” Einasleigh Town Common results show improvement in total pasture and 3P pasture yields.

**Table 1. “Ecobeef” Einasleigh Town Common pasture yields (kg/ha DM) after four wet season spells.**

Year	Total Pasture Yield	Yield of 3P Pastures
2008	1,046	606
2011	1,876	1,500

## 3P native pastures

- Perennial
- Palatable
- Productive



**Image 3. Darcy Cowan standing in 2014/15 wet season spelled black speargrass.**

Some preferred species in the Kidston district are:

- Black speargrass and giant speargrass
- Kangaroo grass
- Blue grasses (*Bothriochloa* and *Dichanthium*)
- Desert blue grass
- Golden beard grass

## Further information

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