

30 | “Paddock Power”: unlocking the secrets to sustainable and profitable intensification

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Introduction

“Paddock Power” is a new project that will measure the influence of paddock area and distance to water on breeder herd performance, steer live weight gain, mortality rates, operating costs and feedbase management.

Many breeder paddocks in northern Australia are too big and under-watered to achieve optimum productivity. Large, poorly watered paddocks impact on reproduction and profitability: there’s over- and under-utilised feed (depending on distance from water), incomplete musters and limited opportunities to implement herd segregation, controlled mating or tactical pasture management.

Walking long distances out to feed erodes live weight gain and body condition. The negative impact of poor body condition on re-conception and calf survival rates further reduces productivity. Some producers speculate that high rates of calf wastage (>20%) in large poorly-watered paddocks may be caused by cows leaving newborn calves to return several kilometres back to water, thus increasing the risk of predation or dehydration.

Fencing and water development is gathering pace on large properties in northern Australia. However it is very expensive and producers tell us that they need data on potential productivity increases to better articulate the benefits to owners and financiers.

The findings will refine current recommendations on water point spacing and provide better information on where to place new infrastructure to maximise return on investment. The project will deliver a user-friendly “Paddock Power Calculator” for producers to compare the costs of different infrastructure development options, and evaluate their profitability in the context of their specific land types, cost base and livestock productivity.

Methods

By April 2021 we will:

- Collate objective data from existing commercial property records to quantify the potential impact of paddock area and distance to water on reproductive performance and calf wastage.
- Make initial assessments into quantifying the impact of reducing paddock area and/or improving watered area on reproductive performance and calf wastage via trials of commercially managed beef cattle.
- Deliver preliminary recommendations for cost-effectively increasing reproductive productivity via paddock development.
- Complete the development of the “Paddock Power Calculator”, a user-friendly online tool which compares the costs and benefits of user-defined water point and fencing options.
- Seek commercial partners to contribute financially to extending the study to increase producer engagement and adoption.

Want to get involved?

Contact the authors to discuss how you could be part of this new project.

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