

# Case study: Managing for land condition

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## Background

The Burnetts own and manage several properties in the Fitzroy and Burdekin catchments. The properties are mainly scrub, forest and downs land types with significant areas cleared with buffel grass established. The herds are mainly self replacing and turnoff is export steers, domestic and EU females and cull cows. Most of the properties are developed so that cattle are not walking more than three kilometres to water and paddocks sized to carry less than 600 head for ease of management.

Managing for good land condition and animal performance is a key business priority for the properties to ensure future viability. This is achieved through conservative stocking, adjusting stock numbers to seasonal conditions, wet season spelling and burning.

## Managing for land condition

John is quite passionate about land condition and the benefits it brings economically, ecologically, and to the management of the business. Good land condition enables the maintenance of carrying capacity and gives a good body of feed as a buffer for dry times. John believes that subtle changes to pasture management can have a major impact on productivity. "A two month wet season spell is not hard to manage and gives a big improvement. With good land condition and ground cover we can get a pasture growth response to almost any fall of rain, and at any time of the year (except on the very heavy clay soils)." It also gives the ecological resilience needed in pastures, when adjusting stocking rates for spelling and burning. Some paddocks may end up with a higher than desirable stocking rate for short periods and this is quite acceptable when you have good land condition.

*"Subtle changes to pasture management can have a major positive impact on productivity"*

John uses a number of strategies to maintain and improve land condition. Firstly the property stocking rates are aimed to be lower than long term carrying capacity by 25%. This conservative

strategy ensures not only good ground cover and a good bulk of feed, but also that 25% of the property can be spelled. Spelling may be for generating a fuel load for burning, or to regenerate the vigour of a pasture to improve land condition. Burning is conducted to rejuvenate pastures and control tree and shrub thickening. Burning is managed in conjunction with spelling. Regrowth is controlled through a multi-faceted approach using burning, chaining, chemicals and blade ploughing.

## Stocking rate management

The overall stocking rate is constantly monitored via a comprehensive system where all paddocks are assessed annually. Pasture information and levels of woody regrowth are considered when estimating the long and short term carrying capacities of each paddock. The aim is to stock at 75% of long term carrying capacity for each property. This allows a large buffer of feed on hand for dry conditions. During dry conditions the stock numbers can be reduced through more stringent culling of the breeder herd, or earlier sales of the dry cattle. The numbers of cattle which are normally purchased onto the properties will also be reduced. Cattle numbers are then

built up gradually after a drought, as pasture resilience allows. Good distribution of water points assist with an even grazing distribution and effective infrastructure allows regular spelling.

*“We could run more stock, but prefer to ensure our future viability by conservatively managing our cash flow and equity.”*

### **Integrated management**

John believes the benefits of a planned stocking rate and rotational grazing have synergy with the practicalities of property management and stock husbandry. For example, where a paddock is planned to burn, adjoining paddocks will be run at a higher stocking rate for strategic fire hazard reduction. Breeder herds can be rotated to another paddock following processing at branding or weaning, for ease of management. Turnoff cattle will be moved closer to trucking yards as they approach weights for their target markets.

*“We always have 25% of our property area available for spelling, burning, or as a feed reserve.”*

John has cell systems in place which are used on some of the properties. Although originally installed in the early 90's to manage pasture degradation while retaining carrying capacity, these systems are now mainly used to educate young cattle. These small paddocks receive short grazes and long spells. Spelling regimes for most of the properties are dependant on paddock and herd size. Smaller paddocks are rotated more regularly, while the more extensive paddocks carrying 300-600 head are given a wet season spell at least every five years.

### **Looking back, looking forward**

A critical time in John's career was when his father fed survival rations to their cattle in 1969 and he experienced the worst aspects of a drought. He has never repeated this practice, but supplements with a mineral/protein mix as required. Following on to the wet years of the early 70's and further property development, John believes that we all had high (and false) expectations of carrying capacity and pasture resilience due to the abundant growing conditions and recovery of the country.

“The result was we were very vulnerable to parthenium weed invasion into large areas of clay soils, and consequently the drought years in the early 1990s. We soon understood the competition characteristics between Parthenium and perennial grasses. However, we also realised that there was a whole host of management complexities to achieve viability while still managing for the health and vigour of perennial grasses to outcompete Parthenium. It is important that the beef industry (and related sectors) do not make the same mistakes following this run of exceptional seasons. Global Warming may have changed our climate forever, but my bet is there are more dry years just ahead somewhere!! We will continue to manage our pastures for the season we see at the time.”

John is very positive about the landscape management of the grazing industry and believes a large portion of beef businesses are now managing stocking rates according to the seasonal conditions being received. “The satellite ground cover data that government departments have from the Grazing Systems Project has shown that a number of properties across Queensland have improved over the last 20 years. This is particularly noticeable through the droughts of the early 1990s and 2000s. There has been a dramatic improvement that shows as an industry we have demonstrated our improved management. This deserves public recognition.”

John believes that financial systems still can be improved to better work in synergy with the grazing industry to achieve profitability and sustainability. “Mortgagees should not be encouraged to run high stocking rates to maximize short term cash flow. Conservative stocking rates should be encouraged to ensure future viability.”

### **Summary**

Well established infrastructure, together with a conservative stocking rate policy, reducing numbers during dry periods, wet season spelling, burning and a flexible rotational grazing system that works in synergy with the practicalities of management contributes to good land condition. This management system has enabled John to be in the position he wants, and expand the enterprise.