

How do I improve my pasture utilisation?

- The issue:** Over 80% of producers are poorly managing strategic grazing, which is seeing pasture wasted and production opportunities lost.
- The impact:** The feedbase and its associated natural resources are being under-utilised and Australian livestock enterprises are failing to reach their full potential.
- The opportunity:** To increase producers' return on investment and improve the productivity and sustainability of red meat.

Pasture utilisation is how you manage the daily balance between what pasture is being produced and what is removed by animals and pasture decay.

High levels of utilisation will maximise animal production per hectare, but if utilisation is too high and ground cover declines too far, soil health will be damaged and nutrient recycling will be compromised, meaning pastures are slower to respond or recover after grazing or dry periods.

Aim to optimise

Optimal pasture utilisation converts the largest amount of pasture energy and nutrients into saleable product (meat) while leaving pasture residue in the best condition for rapid regrowth.

The amount of pasture utilised depends on livestock type and numbers, timing of lambing/calving, livestock purchases and sales and any bought-in feed. Most importantly, it depends on the season and health of existing pastures. These changes are dynamic and can impact on carrying capacity quickly, so look ahead and use forecasts to assist planning.

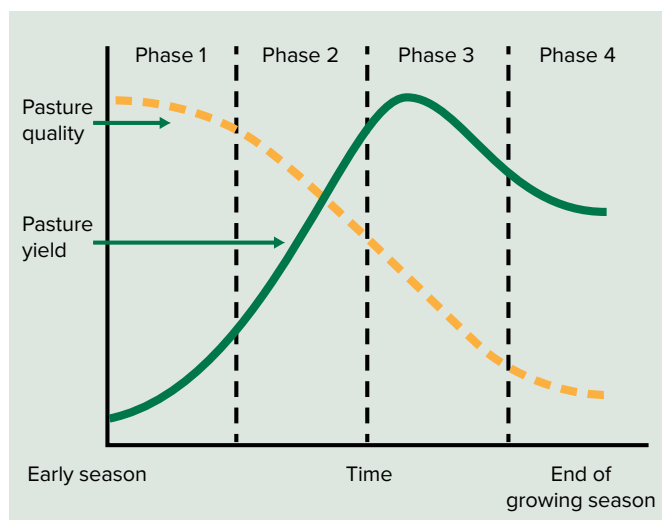
Optimal utilisation also improves environmental outcomes by increasing the rate of the weight gain of grazing animals and improving the return on the inputs, such as herbicide and fertiliser. There are additional benefits in social and environmental outcomes from having good land management practices in place.

Improving utilisation step by step

To improve pasture utilisation you first need to increase your understanding of your production system and establish peak food demand periods, such as when you have lactating animals with offspring at foot. This then needs to be matched with your pasture growth cycle – peak demand should match peak production. For example, if your peak feed demand for lactating animals is September, but the peak for feed production is March, there is a significant gap where pasture will be below the quantity and quality your animals need – this is the feed gap, and a change of practice (either animal or feedbase) is required.

Producers also need to fully understand their feedbase production capacity and the impact of weather events on this. Assessments of land condition and pasture quality are also necessary.

Figure 1. Pasture growth and quality patterns



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Here's a checklist for you to assess if your feedbase utilisation matches your production goals.

1. What is the climatic cycle? Is the break of season getting later and could it better align with your feed needs?
2. In the past five years, what have your supplementary feeding patterns been? Where are the feed gaps?
3. When did you last measure feed on offer to check supply was meeting demand?
4. How often do you assess feed quality?
5. What are the long-term seasonal forecasts?
6. Do you have enough animals to utilise the existing pasture?
7. Are you regularly having to weigh up supply versus demand?
8. Is your livestock enterprise well matched to your land's carrying capacity and turn-off potential?

How do I work out my stocking rate?

Do you know the optimal stocking rate for your property? Stocking rate refers to the number of livestock on a paddock or a whole farm and is expressed as number of a particular type of animal per unit area.

The usual measure is dry sheep equivalents (DSE) per hectare (ha), however, this may also be expressed in terms of cattle per unit area, such as breeders (cattle) per ha or square kilometre.

A DSE is used as a method of standardising an animal unit and is the amount of feed required by a two-year old, 50kg Merino wether to maintain its weight. Applying this principle, one 50kg dry goat is equivalent to one DSE and one yearling steer is equivalent to about

8 DSE, whereas a lactating cow may be equivalent to as much as 25 DSE.

Stocking density (head/ha) refers to the number of stock per hectare on a grazing area or unit at any one time and is usually used to describe the number of stock per unit area in a high-density grazing situation.

Identifying the stocking rate and stocking density that an enterprise can sustain to maximise green pasture utilisation is important in increasing the profitability of an enterprise.

The number of animals will depend on the nature of the enterprise, e.g. breeding or trading, and the current season. The number of animals will change according to the quality of the season, but density should be sufficient to ensure high utilisation of the pasture grown without impacting the long-term sustainability of the pasture and the grazing system.

A long-term view

MLA-funded research at the long-term Wambiana trial site tested the performance of stocking rate, pasture utilisation and condition scores in a northern beef enterprise. Started in 1997, the site is located in Queensland's Burdekin region and considered one of Australia's longest continual beef research projects.

The trial measured profit, land condition and animal production from three different stocking rate scenarios.

It found:

- heavy stocking
 - initially performed well
 - made an economic loss in six of nineteen years
 - led to a decline in carrying capacity and land condition
 - increased water run-off
- moderate stocking
 - profitable in most years
 - maintained pasture condition
 - no decline in carrying capacity
 - was declared sustainable and profitable
- variable stocking
 - profitable in 18 of 19 years
 - animal production was generally good
 - led to some pasture decline
 - was declared profitable and generally sustainable.

More information

Feed Demand Calculator

mla.com.au/extension-training-and-tools/tools-calculators/ and [Feed Demand Calculator Tutorials](#)

Sustainable grazing – a producer resource

mla.com.au/research-and-development/Environment-sustainability/

Estimating dry matter or FOO resources - link to new Tip & Tool

NSW Department of Primary Industries:

[How to use Dry Sheep Equivalents \(DSEs\) to compare sheep enterprises](#)

Download the *Wambiana Grazing Trial* report from mla.com.au search 'Wambiana'



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