

FEEDBASE MANAGEMENT IN GRAIN & GRAZE

- a national project of the Grain & Graze Program



Steers grazing on butterfly pea, a tropical legume pasture. Photo: Anthony Whitbread, CSIRO.

Closing the feed gaps

Improving feedbase utilisation and distribution is the key focus for a new national Grain & Graze research project. Making the most of your feedbase throughout the year can reduce business risk and improve natural resource management outcomes.

Together, a team of CSIRO scientists and software experts are exploring feedbase management by identifying where feed gaps exist in current systems and how best to address them.

Applying feedbase management

In the northern part of the WA wheatbelt, the short growing season limits livestock weight gains. One option to close the resulting summer feed gap is to plant sub-tropical perennial grasses; but how reliably will they grow, what is the best way to use the summer feed, and what will happen to ground cover during winter?

Where are the feed gaps?

A farm's 'feedbase' is all the sources of livestock feed grown within the property, such as permanent and ley pastures, dual-purpose crops and crop stubbles. Working closely with Grain & Graze researchers, advisers and farmers, the CSIRO team is auditing feed sources in Australia's mixed farming systems to determine the quantity and quality of different feeds.

The feed on offer is only half the story. By comparing the feed supply with the livestock demand, the project team will quantify the size and timing of 'feed gaps' in mixed farming systems. Feed gaps occur when the amount or quality of feed is insufficient to meet livestock requirements. Knowing when and how large the feed gaps are is vital for better feedbase management.

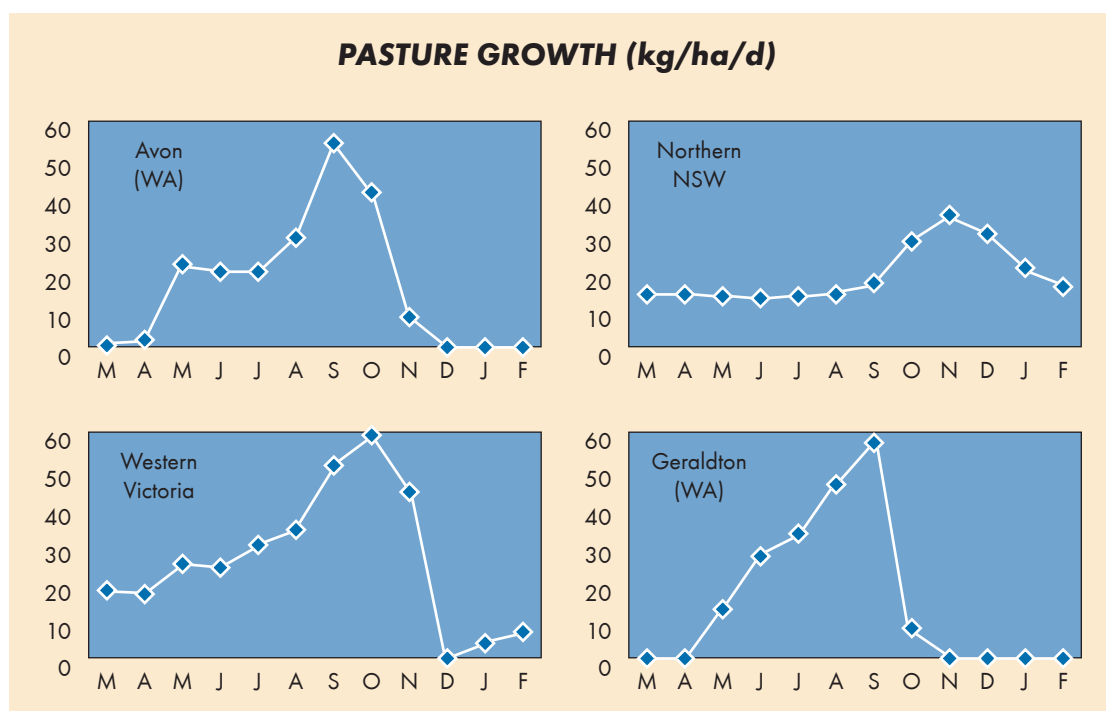
How can feed gaps be closed?

Regional Grain & Graze teams have identified a range of ways in which the feedbase might be better managed. The project team will analyse the most promising of these options, by:

- Assessing the impact on the feedbase of growing new feed sources. When will a new pasture species or dual-purpose crop provide feed and how reliable will it be?
- Finding opportunities to improve livestock production and performance from the existing feedbase.
- Identifying possible changes to mixed farming systems to capitalise on new feed sources.

CSIRO's agricultural simulation models will be used to pull the pieces of the puzzle together. As new ways of managing the feedbase are introduced, these powerful tools allow analysis of the tradeoffs and risks for grain, meat and wool production and for natural resource management.

BELOW: Patterns of feed supply from pasture are very different across the Grain & Graze regions.



How can this help you?

Considerable opportunities exist for improving returns from livestock by better managing what is already grown. Changes to what farmers grow - essentially diversifying the farming system - can reduce marketing and climate risks.

The national feedbase project will provide Australia's mixed farmers with comprehensive information on feedbase management strategies to improve production, reduce risk, and enhance the management of natural resources. Together with other Grain & Graze projects, it will help answer how the 'triple bottom line' of economic, environmental and social outcomes can be evaluated in the mixed farming regions of Australia.



Sheep grazing native pastures in a pasture cropping system. Photo: Warwick Badgery, NSW DPI.

Some feedbase issues:

- Matching feed demand with feed supply
- Matching feedbase to market specifications
- Managing crop and pasture rotations
- Managing stocking rates
- Maintaining soil, water and vegetation health on-farm



Murrumbidgee Grain & Graze project inspection of grazing cereal trials at Wallendbeen, NSW - a potential feed gap option for the region. Photo: Gillian Stewart, Grain & Graze Program, Land & Water Australia.



How can I find out more?

As results and recommendations emerge, Grain & Graze will plan a range of activities which will enable farmers, advisers, researchers and regional groups to adopt relevant project findings into practice.

For regional contacts or to sign up for the bimonthly Grain & Graze electronic newsletter, please visit www.grainandgraze.com.au

Or, you can contact the national feedbase project coordinators:

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Flowers and pods of burgundy bean, a newly commercialised tropical legume for the northern grains belt. Photo: Anthony Whitbread, CSIRO.

Knowing when and how large the feed gaps are is a vital first step for better feedbase management.



Cows grazing oats at Roma, Queensland. Photo: Gillian Stewart, Grain & Graze Program, Land & Water Australia.

THE GRAIN & GRAZE PROGRAM

Grain & Graze helps mixed farmers increase their profitability and social capital while better managing water, soils and biodiversity. The program works across nine regions in five states. Grain & Graze is a joint initiative of the Grains Research and Development Corporation, Meat and Livestock Australia, Australian Wool Innovation Ltd and Land & Water Australia.

www.grainandgraze.com.au