

How do I make my pastures more productive?

The issue:	Australia's feedbase is not reaching full productivity.
The impact:	Livestock production is failing to reach its full potential from the existing feedbase, and livestock production is largely underpinned by supplementary feeding.
The opportunity:	By lifting feedbase productivity, the red meat industry can lift live weight gain, increase carrying capacity, reduce the cost of production, maximise genetic gain and improve turn-off times.

While it is recognised that pasture persistence is an issue for Australian livestock producers, research has also revealed the feedbase is failing to operate at full productivity, effectively undermining gains made in other on-farm changes.

How to lift pasture productivity

With a combination of interventions and implementing paddock and grazing management changes, most producers have an opportunity to significantly lift feedbase productivity and reduce supplementary feeding costs. A feedbase operating at optimum capacity can also help increase business resilience to assist with climate variation and meeting market specifications amid increasingly complex, but growing, global demand for protein.

Pastures which achieve high productivity and maintain productivity for longer periods reduce the reliance on supplementary feed, such as grain and fodder. They also improve meeting market compliance, which lifts Australia's competitiveness on the global market.

Techniques to lift pasture productivity include:

- growing the right species for your environment and production system
- managing soil health by addressing nutrient deficiencies
- growing legumes to supply free nitrogen to the pasture
- managing weeds and pests
- encouraging regeneration by managing the seed bank and grazing regime
- selecting drought-tolerant and resilient species
- sowing additional species into existing pastures.

How do I know if my pastures are not reaching full productivity?

Start with an honest and realistic assessment. Conduct a pasture assessment, including a visual species review, a dry matter assessment and pasture quality testing.

This will help understand how much pasture is being produced and what its nutritional value is by supplying measures such as digestibility. Producers can also upskill in this area with MLA's Grazing EDGE management training.

Compare the results with trial data on that species and seek advice from advisors on interpreting your results.

Then assess gaps in your production system by looking at:

- current carrying capacity
- weight gain rates
- ability to achieve market compliance
- reproductive efficiency
- animal health.

Are these above or below the local average? If you are unsure, ask around.

If your pastures are not performing to their potential, undertake research, talk to neighbours and advisors, and plan ahead for a better-performing system.

Techniques for improving pasture productivity

The right plant: Use guides such as EverGraze and state department trial information to ensure you are growing the most productive species for your environment and your system.

From the beginning: Management during pasture establishment phase is crucial to the growth of a long-lasting, productive pasture. Understand the impact of early weed and pest control, initial grazing periods and encouraging seed set.

Monitor your pastures: By measuring your pasture production on a regular basis you can understand the impact of climate and grazing on growth. This can help you determine if you have a productivity issue. Are your neighbours growing more and how do your pastures compare?

Get to know your soil: Regular soil testing helps identify nutritional deficiencies which impact growth.

Manage weeds and pests: Controlling weeds, starting at the pasture establishment phase, allows the pasture species to become dominant and productive. Red legged earth mite and other pests, such as slugs, can have a large impact on production. If weeds are dominating pastures and impacting productivity, management techniques include selective spraying for broadleaf or grass weeds, spray grazing, where broadleaf weeds are removed with hormone herbicides, and heavy grazing or spray topping, where herbicide is applied after head emergence on annual grass weeds.

Supply good nutrition: Legume pasture species set up for good nitrogen fixation via strong root nodulation support the productivity of other species. If this is not present producers need to supply nitrogen in the form of fertiliser. Phosphorus, sulphur and molybdenum are commonly deficient in poor-performing pastures. Low soil fertility encourages weed species to dominate.

Seed bank management: Pasture species need to set seed to regenerate. Once established, hard-seeded legumes need to be locked up during seed set every three to four years to generate a quality seed bank.

Grazing control: Over and under-grazing the pasture available impacts your productivity and, in the longer term, affects pasture persistence, increases weeds in the pasture and reduces the seed bank. Do you understand the optimum grazing periods for the species you grow, particularly during the establishment phase?

A new species boost: Did you know research has shown that oversowing existing low-productivity pastures with another species, particularly hard-seeded legumes, can improve production?



Fully assess the entire paddock. Sometimes only a section needs renovation or attention.

Pasture productivity checklist

Before writing off a pasture, carry out a simple assessment which might offer solutions to lift production without costly investment in new pastures:

1. Do other pastures in my district seem to perform better?
2. When did I last assess my soil nutrition status?
3. How targeted is my weed control regime?
4. Do I check legume nodulation?
5. Could I improve nitrogen cycling through my soils?
6. How am I going with seed production and plant regeneration?

More information

Sign up for your own personal livestock production portal at MyMLA and have information on pasture, training and the latest species trials and research sent directly to your inbox.

Making More from Sheep's: *Grow More Pasture tool* makingmorefromsheep.com.au/grow-more-pasture/index.htm

Feed quality testing is conducted by various laboratories around Australia. Ask a reseller or advisor for advice on this.

EverGraze: On-farm options – Feedbase Pasture Species: *Regional pasture growth rates* and in tools, the Pasture Improvement Calculator evergraze.com.au

NSW Department of Primary Industries [Rejuvenating perennial pastures](#) guide

Making More from Sheep's *Healthy Soils* module: makingmorefromsheep.com.au/healthy-soils/index.htm

ASRIS CSIRO's Nutrient Management: [Farm Nutrient Loss Index](#)

EverGraze: On-farm options [Grazing Management](#)

MLA's: [Five Easy Steps phosphorus tool](#)

[Link here to nodulation fact sheet?](#)



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