

tips & tools

FEEDBASE AND PASTURES



Grazing management for productive native pastures

Native grasses produce significant quantities of wool and meat in the temperate high rainfall zones of Australia. With careful grazing management, they can be persistent and provide a valuable feed supply.

Tactics

Grazing principles

MLA's Sustainable Grazing Systems (SGS) program found that grazing systems that retained all native species were either rotationally grazed or stocked at low rates. These systems maintained average herbage masses above 2,000kg DM/ha and 70% ground cover. This ensures that native grasses are only partially defoliated, and maintain growth, vigour and ground cover.

Grazing below these levels during winter may be required to meet livestock production targets in accordance with pasture benchmarks and as part of a planned rotational grazing system

Even a two-paddock rotation (four-week graze, four-week rest) can benefit the pasture, as well as livestock and soil organisms.

For the maintenance of productive native pastures it is also important to avoid long rest periods that result in abundant standing dead grass, reduced green material and less plant flowering.

Native pastures will also benefit from high density, short-term grazing tactics to trample standing dead plant material.

Seasonal tactics

Late summer/early autumn

Retain a minimum of 70% ground cover, including dry standing residue and litter. While high plant residues can suppress germination of clover and annual grasses, ground cover is needed to reduce the risk of erosion.

Key benefits

- Using seasonal tactics can improve native pastures.
- A preferred balance of plant types can be achieved by manipulating native pastures.
- Using tactical management can remove undesirable weeds and annual grasses.

After autumn break

Defer grazing for 6–8 weeks to allow native grasses to grow and increase their competitiveness. This also protects native grass seedlings. Rotationally graze to 1,000kg DM/ha (or less as determined by livestock pasture benchmarks) followed by rest. This encourages native grass growth and the establishment of clover seedlings.

Winter

Burn any paddocks infested with poor quality species, such as wiregrass, in late winter.

Spring

Apply extra grazing pressure to well fertilised native pastures in early spring to ensure that clover and vigorous native species do not smother shorter species such as wallaby grass.

Reduce stock density or defer grazing when native grass seed heads begin to appear in late spring. A rest will increase seed production in native grasses, as well as replenish plant energy reserves.

Summer

Continue low-density grazing until after native grasses have set seed. Maintain a minimum of 70% ground cover, with plant residue levels from 1,500–3,000kg DM/ha.

Managing native pastures

To reduce annual grasses

In autumn, keep grazing pressure low or defer grazing until late winter/early spring to crowd-out the annual grasses. In spring, use short-term, high density grazing to control annual grass growth and restrict seed-set. Reduce grazing pressure before stem elongation of native grasses. In late summer, retain plant litter to minimise the bare ground that favours annual grass germination.

Fertilised native pastures have healthier soils and better quality feed. Start with very low rates of superphosphate and gradually build up to a maximum of 80–100kg/ha.

To reduce broadleaf weeds

Crowd out broadleaf weeds by maintaining a high ground cover of desirable species. Defer grazing for 6–8 weeks in autumn to allow native grasses to compete.

To manage sub-clover

Legumes (commonly subterranean clover) are valuable components of native pastures. However, the pasture stability is threatened if clover content is greater than 20%.

In late autumn/early winter use short-term, high density rotational grazing in pastures with more than 20% clover. Take care to prevent overgrazing of newly established native grass seedlings. In a good spring season, additional short-term, high density grazing may be required to stop clover and broadleaf weeds shading native perennial grasses. Then rest to allow perennial native grasses to set seed.

Plant facts

Legumes improve pasture productivity and respond well to fertiliser. It is preferable to have up to 20% legume

content as the nitrogen produced encourages native grasses to remain green and productive all year.

Perennial native grasses are generally better at recruiting new seedlings than most improved pasture species.

Well managed and fertilised native grasses (wallaby grass and weeping grass) are a viable alternative to sowing introduced perennial grasses, particularly on steeper areas with shallow acid soils.

Management tips

Careful grazing management is essential if native pastures are to be more productive. To improve livestock production from native pastures:

- Increase the proportion of desirable native and introduced legumes species while reducing any undesirable weed species
- Improve the quality and quantity of green feed on offer to grazing animals through better grazing management

Achieving the correct legume balance in native grass-based pastures generally requires careful application of fertiliser and control of stocking rates, particularly in wet seasons.

Native pastures usually have several species of native grass present, so learn to identify both the desirable and undesirable plants.

Maintain groundcover at more than 70% to limit the bare spaces between the tussocky native grasses. These spaces provide sites for germination of annual species and weeds. Avoid set stocking native pastures as this prevents build-up of litter and increases the proportion of bare ground.

The main threat to sustainability of native pastures is overgrazing leading to subsequent soil erosion and weed invasion. It only takes one critical event to remove the desirable components in a pasture and reduce its sustainability.

Acknowledgments

Denys Garden, NSW Agriculture, Canberra; Greg Lodge, NSW Agriculture, Tamworth; Meredith Mitchell, Department of Primary Industry Victoria, Rutherglen; Kathy Junor, technical editor

Further information

This *Tips & Tools* is part of a series on grazing management that provides best practice pasture management information. For a copy of the *Grazing Management Tips & Tools* series call MLA on 1800 675 717 or email publications@mla.com.au

For further assistance contact your local pasture or livestock advisor.

Further reading

Native Grasses: An Identification Handbook for Temperate Australia by M Mitchell. Published by CSIRO, Melbourne 2002.

Managing Native Pastures for Agriculture and Conservation by C.M. Langford et al. Published by NSW DPI (2006)



Level 1, 165 Walker Street
North Sydney NSW 2060
Ph: 02 9463 9333
Fax: 02 9463 9393
www.mla.com.au