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FEEDBASE & PASTURES

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Maximising production from kikuyu-based pastures

Kikuyu is a subtropical perennial grass that can be highly productive, particularly during summer and early autumn when annual pastures have hayed off. Kikuyu pastures must be grazed hard to promote leaf growth to maintain feed value, and need a strong legume component to provide winter production and supply nitrogen.

Key benefits

- Vary your management tactics by season to maximise production from kikuyu-based pastures.
- Grazing management and an understanding of plant characteristics can maintain high-production kikuyu-based pastures.

Tactics

Autumn break

It is essential to maintain kikuyu at 1,400kg DM/ha (kilograms of total dry plant matter per hectare) by grazing pastures using high stock density (high numbers of stock); grazing from 2cm for a dense 'turf-like' pasture to 5cm for a more upright pasture. This will maximise pasture quality and allow light penetration for good establishment of annual clover and winter-active annual grasses.

Fertilise with superphosphate to provide adequate phosphorus (P) for winter-active annual pasture. Nitrogen (N) fertilisers (applied at 40–50kg N/ha as either 100kg of urea or 200kg of ammonium sulphate) may be applied after early rains to encourage extra autumn growth of kikuyu. Defer grazing for several weeks after application.

Red-legged earth mite (RLEM) affected pastures can be sprayed with a recommended insecticide after the first cold spell if control was not achieved in the previous spring. RLEM can severely reduce clover production.

Winter

Graze pasture to 1,400–3,000kg DM/ha to maintain pasture quality. Grazing pressure will need to be 30–50% higher than that imposed on annual pastures. Manage pastures to encourage associated pasture species (winter-active annual grasses and legumes). Aim to have 30–40% kikuyu in the pasture with the balance being other grasses and legumes. This will provide sufficient winter feed for stock, as kikuyu virtually stops growing during colder months.

Spring

Graze pasture to 1,400kg DM/ha (around 2–5cm, depending on density) to help control RLEM for the following autumn. In late spring and early summer, apply higher stock densities to prevent rank material accumulating. Do not let kikuyu exceed 3,000kg DM/ha.

Summer

Use high stock densities to graze to 800kg DM/ha (around 1cm or less). This maintains pasture quality and minimises the build-up of rank material that inhibits germination of winter-active annual pastures in autumn. As summer rain will stimulate kikuyu growth, increase grazing intensity after each rainfall event to keep pasture below 3,000kg DM/ha.

Rejuvenate rank kikuyu stands by slashing to less than 5cm, or disc ploughing and oversowing with sub-clover and ryegrass.

Do not graze new kikuyu stands (established in spring) until runners are more than 20cm long and have developed strong roots. New stands should be monitored during grazing and stock removed if they are pulling out runners.

Cattle grazing productive Kikuyu based pastures in Western Australia

Management tips

Kikuyu pastures are most productive when kept below 1,400kg green DM/ha (around 2cm to 5cm, depending on density). This stimulates new and more nutritious leaf growth, and also allows light to stimulate growth of clover and winter-active grasses through the kikuyu canopy.

Higher stock density is required in autumn to remove dry matter for annual legume germination. Sheep are more effective in reducing pasture mass than cattle at this time. Kikuyu can persist under continuous grazing by cattle and sheep.

Kikuyu pastures provide a valuable autumn deferment area to graze while annual pastures establish.

Kikuyu seedlings grow slowly, and are easily overgrown by weeds. Manage kikuyu well in the early months after establishment to enhance its ability to suppress broad-leaf weed growth during winter.

Kikuyu pastures can be cut for silage in spring. For good quality silage, it is necessary to have at least 60% annual clover and grasses, as kikuyu alone is relatively low in metabolisable energy (ME).

Once established, kikuyu tolerates long dry spells. Under severe drought, defer grazing in summer, particularly if stock start pulling up kikuyu runners.

Note: The suggested pasture height figures for particular dry matter weights of pasture differ to the MLA pasture ruler. This is because of the growth habit of kikuyu.

Plant facts

Kikuyu is a prostrate, subtropical perennial grass that grows rapidly between mid-spring and mid autumn when temperature increases (provided sufficient moisture is available). It will tolerate some waterlogging and is relatively drought tolerant. Kikuyu is an efficient water-user and can stabilise soils that are likely to erode.

Kikuyu requires an annual rainfall of at least 500mm, with a significant component falling in summer and a growing season of at least six months.

As temperatures decline in autumn, kikuyu's growth rate slows down. Kikuyu is winter-dormant and susceptible to frost, particularly if growth is rank.

Mature kikuyu leaves are only about 65% digestible. Although sufficient for maintenance (of livestock bodyweight) and wool production, an energy supplement is required for growing animals. Fresh, closely grazed kikuyu leaves can exceed 70% digestibility.

During summer kikuyu-based pastures can have around 3,000–6,000kg DM of feed-on-offer per ha, compared to only 500–1,000kg DM/ha on annual pastures over the same period.

Kikuyu-based pastures maintain a more consistent level of nutrition, compared with the rapidly changing quantity and quality of the annual pastures.

Perennial pastures such as kikuyu use more water than annuals, especially if they are summer active. They have an important role in slowing recharge and reducing salinity.

Acknowledgments

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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 email publications@mla.com.au

For further assistance, contact your local pasture or livestock advisor.

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