



## Kikuyu (*Pennisetum clandestinum*) Technical Note F11

Management level	★★★
Yield	★★★★★
Quality	★★★
Water use efficiency	★★★★★
Reliability	★★
Versatility	★★★

Where ★★★★★ is the highest rating.

### Origin

Central Africa Adapted to east and south-west coasts of Australia.

### Establishment

Seed, stolons or sods. Stolons more reliable but time-consuming. Sow in March or October when soil temperature >15°C. Whittet seeding cultivars are preferable to Noonan, plant at 2 - 5 kg seed/ha. Drill at a depth of 10 mm or broadcast then roll. Establish with a temperate species for autumn sowing to allow winter production e.g. 20 kg/ha ryegrass (short-rotation) or oats.

### Nutrient requirements

Grazing at 10 - 18 day intervals apply N every second grazing, when every 19- 30 days apply after each grazing.

Nutrient requirement	N	P	K
Nutrient (% DM)	3.4	0.4	3.2
kg applied (/ha)	340	41	320

*Typical mineral content of kikuyu- based pasture and requirements to produce 10 t DM/ha utilised.*

### Growth rates

Daily growth rates can average 80 kg DM/ha during the October to March. Expected yield: Low: - 5 - 7 t DM/ha; medium: - 8 - 12 t DM/ha; high: >13 t DM/ha.



### Nutrient quality

Quality (% DM)	Average	Min	Max
Crude protein	22.7	16.1	32.1
Starch	2.2	1.0	3.3
Sugar	8.9	3.5	10.9
NDF	50.5	35.7	57.6
Fat	3.5	2.5	5.6
ME (MJ/kg DM)	10.2	9.2	12.0
DM (%)	25.5	17.2	35.5

*Range in quality of kikuyu-based pasture (source FeedPlus database)*

### Milk production

Without supplements Holstein Friesian cows in mid-lactation (no reliance on body reserves, all milk from feed) grazing well managed kikuyu pastures will produce 12 - 14 L of milk/cow/day.

## Grazing management

Grazed at 4.5 leaf stage to maximise forage quality (maximum leaf) and intake and maximise Ca, and Mg and minimise K levels. Recommended to mulch stem periodically or graze intensively with dry-stock to decrease build-up of low digestible stolons.

## Supplements

Kikuyu is low in Ca, P Na and energy, therefore supplement with grain, molasses and minerals.

## Metabolic diseases

Excess K and nitrate. Kikuyu poisoning highest in rapidly growing, young leaf (>25% CP) when nitrate and K are very high and very much in excess of cow requirements.

## Plant diseases and pests

Kikuyu yellows is a fungal disease specific to kikuyu. These plants are also susceptible to black spot, armyworm, African black beetle. Fungus in roots, circular pattern and leaves.

## Silage

Remove excess pasture to aid pasture management. Cut at 5.5 leaf stage, wilt to 30% DM.

## Over sowing in autumn

Annual ryegrass is most commonly oversown into kikuyu, to a lesser extent white clover and brassica (forage rape or leafy turnip). Graze hard, mulch and over sow with a minimum of 30 kg ryegrass seed/ha. Plant when minimum air temperature <15°C, generally this occurs in late March NSW through to late April in Queensland. Low rates of herbicide (0.7 L Roundup®/ha or 1.5 L/ha Sprayseed®) can be applied in autumn to inhibit the growth of kikuyu and increase establishment of ryegrass seedlings. However, continual use can lead to long-term deterioration of the kikuyu and lead to the introduction of volunteer species such as crows foot.

Following the establishment of ryegrass seedlings, frequent light grazing is recommended to prevent the kikuyu shading the seedlings.

## Further information

Contact the DAFF Customer Service Centre by Phone 13 25 23, or Email [callweb@daff.qld.gov.au](mailto:callweb@daff.qld.gov.au)

More technical notes can be found at: [www.dairyinfo.biz](http://www.dairyinfo.biz)

Fulkerson et al. (2010). Milk production from kikuyu based pastures Primefact 1068.

Callow et al. (2013) Successful Dairy Production in the Sub-Tropics

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