High quality kikuyu pasture

Good for profitability and for emissions

This fact sheet is part of the Profitable Dairying series - *Good business management reduces greenhouse gas emissions.*

The Australian dairy industry has committed to reducing greenhouse gas emissions intensity (emissions per litre of milk produced) by 30% by 2020.

Kikuyu is a good source of nutritional feed for dairy cows in summer and autumn if managed correctly. Managed effectively it can reduce enteric greenhouse gas emissions.

Kikuyu for dairy cows

Cows grazing well managed kikuyu pasture can derive about 14-15L milk/day from this grass (compared with 20-22L milk/day from well-managed ryegrass).

Cows grazing kikuyu respond well to grain supplements (about 1.5-1.6L milk/kg grain fed for the first 2-5kg per cow per day).

Grazing management considerations:

- It is important to manage kikuyu so that the maximum leaf area is available to the cow. This is generally at the four and a half leaf stage.
- This approach will maximize metabolisable energy and protein content. For information on how to determine kikuyu leaf stage click here.
- The rate of leaf emergence will be driven by temperature and for kikuyu the rate of leaf appearance might be as short as three days giving a 12-15 day rotation interval in summer.

Fertiliser management

Kikuyu requires highly fertile soil and requires regular nitrogen applications to maintain growth. A general rule of thumb is 50kg/ha every second rotation.

Nitrogen use efficiency can be improved by up to 50% by applying the right source of N fertiliser, at the right rate, in the right place, and at the right time. For more information click here.

If over sowing kikuyu pastures in autumn with rye grass, nitrogen deficiency can be a key constraint to growth. For more information click here and here.

Water efficiency

The water use efficiency of kikuyu is similar to maize. Kikuyu is twice as water efficient as perennial rye grass n summer.

Nutrient content

Cows grazing kikuyu pastures need to be supplemented with calcium, phosphorous (usually dicalcium phosphate) and sodium (as salt).

These deficiencies can be corrected by feeding additives with concentrates or alternatively through provision of lick blocks.

Farmers in NSW are trialling the best use of nitrogen and grazing strategies to maximize the quality and digestibility of kikuyu/ryegrass pastures in subtropical dairy systems. This will improve milk production and decrease emissions intensity.

To access the trial results click here

Further reading:

Kikuyu Grass Future Dairy Tech Note, by Bill Fulkerson

Nitrogen mineralisation and availability under kikuyu pastures on the mid-north coast of NSW, by Kim Billingham

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