

Kikuyu makes for greener Kangaroo Island farmers

Background

Kikuyu may have an important role to play in some of the farming systems on Kangaroo Island. It is a tough, hardy perennial that can, unlike many other perennials, withstand heavy grazing and set stocking. It is a summer active grass, meaning it can provide green forage for livestock at a time when other pastures are of low quality and, being winter dormant, it allows annual companion species such as sub clover to grow well in the winter months. Its dense turf-like growth provides excellent soil cover during summer reducing erosion risk and, due to its high water usage, it can reduce salinity impacts too.

It also tolerates waterlogging and is relatively drought tolerant. Freshly grazed kikuyu leaves can exceed 70% digestibility, metabolisable energy of around 10 Mg/ha dry matter (DM) and crude protein of between 10 to 20%. Additionally, it is one of the few perennial species suited to acidic infertile sands.

What was done

Despite our long and dry summers, sandy soils and salinity, kikuyu is proving to be a hardy pasture species well suited to the island. While a few farmers on KI have been growing kikuyu for many years, it is only since 2008 that more farmers have trialled the pasture species. The sowings in the last two years have confirmed the potential for kikuyu on KI.

More than 50 landholders attended a series of farm walks in February 2009. The guest speaker was Phil Barrett-Lennard, a pasture specialist from WA.

Results

Phil had nine golden rules for successful kikuyu establishment:

1. Site preparation: spray top ryegrass and silver grass dominate paddocks the year before sowing. Use a double knockdown (min 2 L/ha Glyphosate each) ideally six weeks apart. Use spikes and adjuvants to improve weed kill e.g. Hammer if there is no risk of wind erosion.
2. Timing: sow in spring (soil temp 15°C), probably around mid to late September.
3. Sowing machinery: use combines or air seeders with either discs or knife points with press wheels, and furrow sow on non-wetting sand. Use press wheels or a roller as good seed soil contact is essential.
4. Seeding depth: ensure shallow seed placement (10 mm) but it is possible to go a little deeper on non-wetting sands and seed at 2 kg/ha.
5. Fertiliser: can be used as a carrier for seed as required. Kikuyu is very responsive to nitrogen (N) so improve the annual legume content of the pasture. Consider applying N fertiliser if drought hits and summer rain is forecast.
6. Insect monitoring and control: use a broad-spectrum insecticide with the final pre-sowing knockdown. Monitor closely for insects in the first few months after seeding and be prepared to come back and apply another insecticide spray.
7. Weed control post sowing: control broadleaf weeds (wire weed, radish etc) early before they get too big, but don't spray them out if the germination is patchy and the paddock is prone to wind erosion. Kikuyu can be spray topped if

weeds like silver grass take hold with limited detriment to the kikuyu.

8. Monitor for kangaroo and wallaby impacts (remember it will be the only bit of green for miles!)
9. Grazing: nil or very light grazing in first 6 months. Only commence grazing when the runners are well anchored (tug on them). Don't be tempted to graze too soon – be patient. Once established, it is very grazing tolerant. Graze kikuyu very hard in autumn to encourage good winter legume content. Once established, don't let it become rank as feed quality drops dramatically. Don't continuously set stock pastures if

you want aerial seeders (e.g. ryegrass) as annual companions.

Other issues to consider are:

Companion planting – sow kikuyu on its own but consider a low rate of cereal if you are concerned about wind erosion. Sub clover is an excellent annual legume companion to kikuyu.

Don't rely just on kikuyu as you will get no winter feed and you will need to apply N. It needs a legume companion.



IMAGE 1

A field of green in a dry landscape (R. & V. Willson, kikuyu stand approximately 3 months old)

Take home messages

- Kikuyu has the potential to become a valuable addition to pasture mixes on parts of KI
- Follow the nine golden rules for success – weed, insect and vermin control, good seed/soil contact, shallow seed at 2kg/ha in spring, don't graze until well established, use N fertiliser or legumes.

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