

Kikuyu makes on-farm adoption easy



LEFT: Morgan Sounness (kneeling) and Paul Sanford (standing) examine the extensive root profile of kikuyu. INSET: Kikuyu (Photos: Tim Prane).

FAR RIGHT: Sub-clover is a suitable companion for kikuyu. (Photo: Paula Jakobsson)

practices and in fact buy more stock and graze harder,” Paul said. “And they like that approach.”

Paul believes the other two critical adoption factors have been that kikuyu fills the autumn feed gap typical of the region and it protects soils from erosion.

“The soils in this region are fragile and prone to erosion during autumn, before the break of season,” Paul said. “Particularly the sandy surface soils.”

Kikuyu’s ability to protect the soil is to a large extent down to its morphology – kikuyu rhizomes (runners) encourage a growth habit that is prostrate and covers the soil like a mat or carpet.

“In addition to its grazing potential, this superior erosion protection has been a big carrot for our local producers,” Paul said.

High water use potential

According to Paul, measurements have shown that kikuyu has a deep root system that in some soil profiles can go as far as 3 metres.

“Soil moisture readings have proven kikuyu is a high water user that can substantially reduce groundwater recharge and the impact of salinity,” Paul said.

Kikuyu fills the gap

Paul describes the south coast of WA as a region characterised by mild summer temperatures and out-of-season rainfall.

“Trials have shown that in areas receiving more than 400 mm kikuyu can provide out-of-season green feed, consistently resulting in increased stocking rates and reduced supplementary feed,” Paul said.

Kikuyu has been particularly impressive at filling the autumn feed gap when moisture availability is low and most temperate perennials have ceased to provide feed.

In the research conducted to date, kikuyu has resulted in increased stocking rates compared with annual pastures of between 40 to 100 per cent depending on rainfall (see Table 1).

“That these increases have been achieved under continuous grazing systems highlights

By **Catriona Nicholls**
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Researchers on the south coast of Western Australia have been keeping a close eye on kikuyu and are impressed with what it offers local livestock producers – and so are the livestock producers themselves.

key points

- Kikuyu offers livestock producers a perennial pasture option that doesn't require a change in grazing management
- The morphology of kikuyu allows it to offer superior protection to soils prone to erosion
- The combination of kikuyu with sub-clover yields a pasture that delivers year-round growth and grazing potential.

Paul Sanford (DAFWA), WA EverGraze™ Site Leader working in the south coast region of WA has been involved with kikuyu research for the past 12 years.

His interest in hardy perennial pastures stems from consistent research results showing the significant increases in stocking rates they offer.

However, to Paul, the key success story about kikuyu has been the high rate of adoption by livestock producers in the region.

“Adoption is rapid because kikuyu fits well with the existing grazing strategies of many local producers,” Paul explains. “It can be set stocked and unlike most other perennials does not require rotational grazing – something which has been a significant barrier to the adoption of other perennial pastures such as lucerne.

“We say to producers they can adopt kikuyu, continue with their existing management

TABLE 1. Comparative performance of annual- and kikuyu-based pasture at Albany, WA

Year	Annual rainfall (mm)	Pasture type	Stocking rate (dse/ha)	Grain fed (kg/ha)	Clean wool (kg/ha)	Micron (µm)	Staple strength (N/ktx)
1999	706	Annual	13	70	53.7	20	16
		Kikuyu	22	0	91.8	20	41
2000	642	Annual	10	336	34.7	18	33
		Kikuyu	21	0	70.5	20	45



the fact that kikuyu is a very grazing-tolerant and persistent species.”

Forage analysis and livestock measurements have shown that kikuyu is typically a maintenance diet, though it is possible to grow livestock at modest rates on a sward that is made up of mostly young leaf.

“Interestingly, trials have demonstrated that wool from sheep grazing kikuyu has a higher staple strength compared with that from sheep grazing annual pasture,” Paul said. “This is due to the more consistent plane of nutrition throughout the year.”

The most productive kikuyu pastures on the south coast of WA are characterised by high

legume content during winter and spring. Sub-clover is the most common companion.

“The legume drives pasture growth during the cooler months and provides nitrogen to the kikuyu,” Paul explained.

Red-legged earth mite control and hard grazing during autumn to provide space for sub-clover growth during winter are the keys to maintaining high legume content.

Broadleaf weeds such as capeweed are not common in kikuyu swards as the perennial likely out competes these species for moisture and nutrients at the break of season. ↘

More information

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> The smell of success has spread all the way to Kangaroo Island, South Australia where producers with similar soil and climatic conditions are also reaping the benefits of this hardy perennial pasture (see Trevor and Lyn Bolto's Kangaroo Island case study in the FFI CRC's new Future Farm magazine, Issue 1) <

New EverGraze™ website up and running

A new website to showcase the progress and achievements of the EverGraze™ project is up and running.

Launched earlier this year, the new website has dedicated links for each EverGraze™ region across the country. Within each link visitors can access all the research details at their local Proof Site and the regional Supporting Sites. Information on who is running each Proof and Supporting Site is available, as are the trial results as they come to hand.

“We will use the site to publicise coming events, field days, farm walks and other EverGraze™ activities,” said Geoff Saul, National EverGraze™ co-ordinator. “And if people want to know what is coming up in their area, the site is a great reference.

“We are in the process of producing a series of factsheets and there are already three on the website – hedges for lambing, managing tall fescue and chicory.”

Each factsheet can be downloaded directly from the site, free of charge.

In addition to the downloadable fact sheets there are audio-visual presentations of EverGraze™ project staff talking about their recent work in the field.

“In addition to the website we produce EverGraze™ updates which go out every two months to subscribers,” Geoff said. “Anyone can sign up to be a subscriber via the links on the website.”

Subscribers to the EverGraze™ Updates will automatically receive either an email or hard copy Update.

Anyone who is interested in becoming a subscriber, but doesn't have an email address can contact Geoff via snail mail to subscribe to the hard copy newsletter.

A series of recent field days, which have been promoted via the website, have seen more than 500 attendees.



Watch out for an increasing number of fact sheets coming out during the next couple of months, which will focus on a range of pasture species and livestock systems to come from EverGraze™ project research. ↘

More information

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