

Management Guide To Minimise Environmental Weed Risk: **Kikuyu**



FUTURE FARM INDUSTRIES CRC

Kikuyu - *Pennisetum clandestinum*

Key points:

- Preventing the spread of kikuyu is the most cost-effective way to control it.
- A 2-3 m kikuyu free zone along fence lines will limit the spread into neighbouring paddocks, properties, waterways and bushland.
- Grazing kikuyu paddocks to reduce flowering, seed set and control growth will reduce spread.
- Cultivation is not an effective control for kikuyu as it can regrow from plant fragments.
- Farm machinery should be cleaned to remove seeds and runners before leaving a kikuyu paddock.
- kikuyu requires frequent monitoring due to its ability to spread rapidly via runners, water flow, livestock movement and seed in some varieties.



Kikuyu should not be planted on the edge of bushland or waterways. A 2-3 m zone free of kikuyu should be maintained along fence lines.

This guide is one of a series of fact sheets created to assist farmers and land managers with managing the environmental weed risks associated with perennial pastures in southern Australia.

What is an environmental weed and why is prevention better than cure?

Environmental weeds are species that invade native ecosystems with detrimental effect.

There are many commercial agricultural species which may invade native ecosystems. Land managers must recognise their duty of care when considering the introduction of a species to balance the agricultural benefits with the risk to the environment. Introduced species must be prevented from becoming weeds in agricultural or native environments.

Preventing the spread of agricultural species into bushland is more effective than trying to control outbreaks after they occur.

Many common weed control methods, such as herbicide application and cultivation damage native plants, and can exacerbate the weed problem.

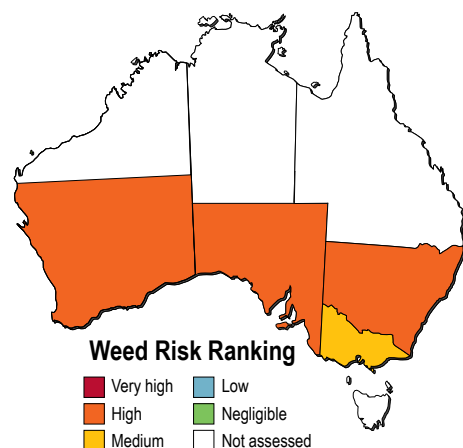
Kikuyu

Kikuyu is a productive sub tropical perennial pasture species and a popular turf grass widely used in Australia.

However, it is also an environmental weed that causes serious damage to natural ecosystems in some regions.

Why kikuyu needs to be managed

Many of the features that make kikuyu a valuable perennial pasture species also make it a high weed risk.



FFI CRC weed risk assessment has shown that Kikuyu is a high weed risk to native ecosystems in parts of Western Australia, South Australia and New South Wales; and a medium risk in parts of Victoria.

It grows best in moist, humid environments where rainfall exceeds 500 mm with fertile, well-drained soils. It tolerates light shade, is competitive on deep infertile sands, and is drought tolerant.

Kikuyu forms vigorous pure stands in pastures and in natural vegetation, and can spread rapidly in a single growing season.

It has naturalised widely in Australia and if not controlled can become a weed along roadsides, creek lines, riverbanks, swamps and wetlands. It can also be a weed in coastal woodlands, dunes, grasslands, and moist forests.

Kikuyu is able to create dense surface and subsurface mats which can eliminate all other ground flora and prevent over-storey regeneration reducing biodiversity.

Internationally, it ranks as a serious weed particularly in tropical and sub-tropical areas.

Due to its vigorous nature, it is essential that kikuyu is managed appropriately on your property to prevent it spreading offsite.

Growth calendar based on characteristics of kikuyu on the south coast of Western Australia and northern New South Wales

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Flowering												
Seed Formation												
Dormant												
Germination												

Use the calendar above to help plan when grazing or mowing should occur to avoid seed production and control excessive growth.

longer duration in cooler areas 



How does kikuyu spread?

Described as a creeping grass, kikuyu spreads by stolons (above ground runners) and rhizomes (below ground). It can also spread from plant fragments which may float down runoff, drainage lines or rivers and establish away from the original planted area.

Some kikuyu varieties such as Whittet can spread by seed if allowed to flower. The seed survives animal digestion so livestock may distribute the plant widely.

Machinery can also carry seeds and plant fragments causing kikuyu to spread to new areas.

Prevention of spread

Kikuyu should never be planted along the edge of bushland or waterways. Maintain at least a 20 m buffer.

To prevent spread, monitor regularly and control any plants that grow beyond the paddock.

Herbicide is the most effective way to control kikuyu. Paddock edges should be sprayed to create a kikuyu free zone between the fence and neighbouring areas.

To ensure that annual spread does not reach the paddock fence before the next herbicide application, the zone should be at least 2-3 m.

Cultivation is not an effective means of control, as rhizome and stolon fragments will regenerate.

Always clean farm machinery, vehicles and clothing before moving to an area free of kikuyu.

Herbicides

Kikuyu can usually be eliminated during a single growing season with a well-timed spray program. Two herbicide options for on-farm fence line use are glyphosate and fluzifop-p. Fluzifop-p is a selective herbicide for grasses, while glyphosate is non-selective. Avoid contact with native and desired vegetation.

Graze or mow and then spray the new growth when 5-10 cm high, to increase herbicide effectiveness.

Two or three applications of herbicide will be needed within a season for effective control of kikuyu.

Refer to the Public Chemical Registration Information System (PUBCRIS website: <http://services.apvma.gov.au/PubcrisWebClient/welcome.do>) to find products containing the active constituents of glyphosate and fluzifop-p in your state, or ask your local agronomist.

The use of herbicides near waterways requires particular care and permits may be required.

Moving stock that have consumed kikuyu seed

Livestock grazing on kikuyu varieties such as 'Whittet' can spread seed after ingestion. The amount of seed passing through the gut peaks at 24 hours, and continues for up to 10 days. This may be used to distribute kikuyu to new pastures but when stock move to areas free of kikuyu such as cropping land, public access tracks, to be sold or transported, they should be kept in a holding area to ensure all seed has passed through the digestive tract before the animals leave the site.

Legislation

Always check your current local priority weed declarations before planting. Information for farmers about national environmental law can be found at: www.environment.gov.au/farming

Acknowledgement: Information for this guide has come from a variety of sources and FFI CRC thanks all who have contributed.

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If kept unchecked, kikuyu quickly spreads into natural ecosystems.