



# Environmental weed risk assessment

## Kikuyu (*Cenchrus clandestinus*)

Kikuyu (syn. *Pennisetum clandestinum*) is a creeping sub-tropical (C4) grass native to the highlands of east and central Africa (i.e. Kenya, Ethiopia) where it grows on deep, red loams of volcanic origin. Kikuyu forms a dense turf and is tolerant of heavy grazing and is widely used as a highly productive pasture for dairying and as a turf or lawn grass.

In Western Australia (WA), it is typically grown on sandy surfaced soils and there is estimated to be >150,000ha of kikuyu on the south coast (Moore et al. 2014). Kikuyu has been the most successful perennial pasture in south-western Australia due to its ability to spread via stolons and rhizomes to provide 100% groundcover, tolerate high rates of defoliation and persist for many decades. In addition, it is cold tolerant, provides out-of-season green feed, can coexist with legumes and annual grasses, reduces groundwater recharge and prevents soil erosion (Moore et al. 2021a).

In northern WA kikuyu has been evaluated under irrigation in the west Kimberly, however the limited adaptation to the high to extreme temperatures experienced over the October to March period in northern Australia resulted in comparatively poor wet season production (Moore et al. 2021b).

### Weed lists

National-international:

- Not listed in Weeds of Australia (398 weed species) <https://weeds.org.au/weeds-profiles/>
- “Kikuyu (*Cenchrus clandestinus*) is regarded as an environmental weed in Victoria, South Australia, Western Australia, New South Wales and Queensland. A weed of closed forests, open woodlands, grasslands, riparian areas, disturbed sites, waste areas, orchards, crops, lawns, gardens, footpaths and parks in sub-tropical and temperate regions” Weeds of Australia website [Fact sheet Index \(lucidcentral.org\)](#)
- Listed in the Global Compendium of Weeds as an agricultural weed, casual alien, cultivation escape, environmental weed, garden thug, naturalised, noxious weed, weed (Randall 2017).

Western Australia:

- “A lawn grass, naturalised in swamps and wetlands in the wetter southwest from Dandaragan to Albany” (Hussey et al. 2007).
- Recorded as naturalised in the following IBRA Regions of WA: Swan Coastal Plain, Jarrah Forrest and Warren (Keighery and Longman 2004).
- Listed as naturalised in National parks, Nature reserves, State forest, and Local government reserves (Keighery 1991).



**Figure 1** Distribution of kikuyu (*Cenchrus clandestinus*) in Australia (Source: 'The Australasian Virtual Herbarium')

### Environmental weed risk assessment

Assessed using the 'Environmental weed risk assessment protocol for growing non-indigenous plants in the Western Australian rangelands' (Moore et al. 2022)

Region	Filter A	Filter B	Weed Risk Assessment rating
	Is the species a weed in similar environments in Australia or overseas?	Is the species likely to persist in the environment without management**?	
<b>Kimberley</b>	No	No	<b>Negligible to low</b>
<b>Pilbara</b>	No	No	<b>Negligible to low</b>
<b>Gascoyne – Goldfields</b>	No	No	<b>Negligible to low</b>
<b>Agricultural area</b>	Yes	Yes	<b>High** (AAR&gt;400mm)</b>

\*Without management means no fertiliser, Rhizobia, irrigation, grazing management or control of competition from other species

\*\*Weed risk assessment by Future Farm Industries (FFI) CRC.

### References

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Keighery G, Longman V (2004) The naturalized vascular plants of Western Australia 1: Checklist, environmental weeds and distribution in IBRA regions. *Plant Protection Quarterly*, **19(1)**, 12-32.

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Moore G, Revell C, Schelfhout C, Ham C, Crouch S (2021b) 'Mosaic agriculture: a guide to irrigated crop and forage production in northern WA', Department of Primary Industries and Regional Development, Bulletin no. 4915, Perth.

Moore G, Munday C, Barua P (2022) 'Environmental weed risk assessment protocol for growing non-indigenous plants in the Western Australian rangelands', Department of Primary Industries and Regional Development, *Bulletin no. 4924*, Perth.

Randall RP (2017) 'Global compendium of weeds' (No. Ed. 3).

Weeds of Australia database

[https://keyserver.lucidcentral.org/weeds/data/media/Html/trifolium\\_repens.htm](https://keyserver.lucidcentral.org/weeds/data/media/Html/trifolium_repens.htm) Site accessed 30 November 2021

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