2022

Dactylis glomerata - environmental weed risk assessment 2022

Department of Primary Industries and Regional Development, Western Australia

Department of
Primary Industries and Regional Development

GOVERNMENT OF WESTERN AUSTRALIA

Environmental weed risk assessment

Cocksfoot (*Dactylis glomerata*)

Cocksfoot (also orchard grass) is a cool-season (temperate) perennial bunch pasture grass native to Europe, northern Africa and temperate Asia. It has been introduced to other temperate parts of the world including North and South America, South Africa, New Zealand and Australia because of its value as a pasture plant.

Cocksfoot is a minor pasture grass in high rainfall south-western Australia and requires annual rainfall greater than 500mm and a growing season longer than 6 months to persist (Sanford 2006). Cocksfoot is a cool season grass and is unsuited to northern Western Australia (WA) even under irrigation.

Weed lists

National-international:

- Not listed in Weeds of Australia (398 weed species) https://weeds.org.au/weeds-profiles/
- "Widely naturalised southern Australia (i.e. in south-eastern Queensland, New South Wales, ACT, Victoria, Tasmania, and the southern parts of South Australia and Western Australia).

  Cocksfoot is regarded as an environmental weed in Victoria, Tasmania, ACT and New South Wales. It has been grown as a pasture grass, but has also spread into disturbed sites and natural plant communities. It is invasive in heathlands, open woodlands, forests, riparian habitats, freshwater wetlands, and coastal environments, where it forms dense swards that suppress native grasses and forbs."

  Weeds of Australia website Fact sheet Index (lucidcentral.org)
- In the Global Compendium of Weeds, cocksfoot is listed as an agricultural weed, casual alien, cultivation escape, environmental weed, garden thug, naturalised, noxious weed, weed (Randall 2017).

Western Australia:

- "Introduced as a pasture grass for higher rainfall areas, it now also occurs in disturbed creek lines, roadsides and wasteland in high rainfall sites from Gingin to Albany" (Hussey et al. 2007).
- Recorded as naturalised in the following IBRA Regions of WA: Swan coastal plain, Jarrah Forrest, Warren, Esperance (Keighery and Longman 2004).
- Not listed in Environmental weeds of Western Australia (Keighery 1991).

Figure 1 Distribution of Cocksfoot (*Dactylis glomerata*) 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*?	
Kimberley	No	No	**Negligible to low**
Pilbara	No	No	**Negligible to low**
Gascoyne – Goldfields	No	No	**Negligible to low**
South-west land division	Yes	Yes (AAR >500mm)	**TBD**

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

References

Hussey BMJ, Keighery GJ, Dodd J, Lloyd SG, Cousens RD (2007) 'Western weeds. A guide to the weeds of Western Australia'. Second Edition. The Weeds Society of Western Australia Inc.

Keighery GJ (1991) Environmental weeds of Western Australia. *Kowari*, **2:** 180-188.

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.

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).

Sanford P (2006) 'Chapter 4, Temperate grasses'. *In* 'Perennial pastures for Western Australia'. (Ed. GA Moore, P Sanford and T Wiley). Department of Primary Industries and Regional Development, Western Australia, Perth. Bulletin 4690.

Weeds of Australia database
https://keyserver.lucidcentral.org/weeds/data/media/Html/trifolium_repens.htm Site accessed 30 November 2021

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Important disclaimer