



Environmental weed risk assessment

Oats (*Avena sativa*)

Oats are a widely sown temperate cereal crop grown across the cereal growing areas of southern Australia and in temperate environments around the world. It is native to the Mediterranean Basin and Asia (Hussey et al. 2007) with the crop varieties most likely originating from wild types in the Middle East. Milled (rolled) oats are used for human consumption while feed oats and oaten hay are used for livestock production. In Western Australia (WA) between 250,000 and 350,000 hectares are sown each year for grain production, and approximately 110,000 hectares for hay production.

Oats can be successfully grown in northern WA over the dry season under irrigation, and promising yields have been achieved at an experimental scale in the inland agro-climatic zones (Moore et al. 2021).

Weed lists

National-international:

- Not listed in Weeds of Australia (398 weed species) <https://weeds.org.au/weeds-profiles/>
- Not listed in Weeds of Australia website [Fact sheet Index \(lucidcentral.org\)](https://www.lucidcentral.org/fact-sheet-index/)
- In the Global Compendium of Weeds; Oats are listed as an agricultural weed, casual alien, cultivation escape, environmental weed, garden thug, naturalised (Randall 2017).

Western Australia:

- “.....Occasionally is found along country road and rail verges where grain has fallen during transport” (Hussey et al. 2007).
- “.... Not naturalised - recorded as garden escapes or outcasts – (Geraldton sandplains, Avon wheatbelt, Swan coastal plain, Jarrah forest, Mallee, Warren, Esperance” (Keighery and Longman 2004).
- Not listed in Environmental weeds of Western Australia (Keighery 1991).



Figure 1 Distribution of oats (*Avena sativa*) species in Australia (Source: 'The Australasian Virtual Herbarium')

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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
Agricultural area	No	No	Negligible to low

*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, Revell C, Schelfhout C, Ham C, Crouch S (2021) '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 Site accessed 30 November 2021

Assessment by G Moore and N Nazeri
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