

Environmental weed risk assessment

Italian ryegrass (*Lolium multiflorum*)

Italian ryegrass is a long season annual or biennial pasture grass which are diploid or tetraploid hybrids. It is used as a short-term pasture or as a high-yielding silage/hay crop and so requires regular re-seeding. In south-western Australia Italian ryegrass is included in pasture mixes in high rainfall dairy pastures.

In irrigated experiments in northern Western Australia (WA) Italian ryegrass produced high-quality feed but had modest productivity over winter under subtropical conditions and as such does not appear to be a viable forage option (Moore et al. 2021).

Weed lists

National-international:

- Not listed in Weeds of Australia (398 weed species) <https://weeds.org.au/weeds-profiles/>
- “Italian ryegrass (*Lolium multiflorum*) has been widely cultivated as a pasture grass in the temperate regions of Australia. It has become a widespread weed of crops and roadsides in southern and eastern Australia and also readily hybridises with other ryegrasses (*Lolium* spp.).

Though this species is largely seen as a weed of crops and disturbed sites, it is also regarded as an environmental weed in some situations.

...in Western Australia and South Australia, Italian ryegrass (*Lolium multiflorum*) is mainly a problem in higher rainfall areas and saline habitats nearer the coast. It has been recorded from Scott Creek Conservation Park near Adelaide and grows on winter-wet flats and along waterways between Perth and Albany in south-western Western Australia. Italian ryegrass (*Lolium multiflorum*) is also one of several weed species that are replacing native samphire and rush communities in areas flushed by stormwater along the Swan/Canning and Leschenault estuaries in south-western Western Australia” Weeds of Australia website [Fact sheet Index \(lucidcentral.org\)](https://weeds.org.au/fact-sheet-index/)

- In the Global Compendium of Weeds, Italian ryegrass is listed as agricultural weed, casual alien, cultivation escape, environmental weed, garden thug, naturalised, sleeper weed, weed (Randall 2017).

Western Australia:

- “Occurs occasionally in near coastal paddocks, road verges, and disturbed sites between Shark bay and Albany” (Hussey et al. 2007).
- Recorded as naturalised in the following IBRA Regions of WA-Naturalised-Carnarvon, Geraldton Sandplains, Avon wheatbelt, Swan coastal plain, Jarrah Forrest, Warren (Keighery and Longman 2004).
- Recorded as naturalised from national park, Nature reserve and other conservation reserves in WA (Keighery 1991).



Figure 1 Distribution of Italian ryegrass (*Lolium multiflorum*) 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	Yes	Yes	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, 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

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