



Department of
Primary Industries and
Regional Development

Digital Library

Environmental Weed Risk Assessments

Biosecurity, pests, weeds and diseases
research

2022

Medicago polymorpha - environmental weed risk assessment 2022

Department of Primary Industries and Regional Development, Western Australia

Follow this and additional works at: https://library.dpird.wa.gov.au/bs_wra

 Part of the [Biosecurity Commons](#), and the [Weed Science Commons](#)

Recommended Citation

Department of Primary Industries and Regional Development, Western Australia. (2022), *Medicago polymorpha - environmental weed risk assessment 2022*. Department of Primary Industries and Regional Development, Western Australia, Perth. Report.
https://library.dpird.wa.gov.au/bs_wra/71

This report is brought to you for free and open access by the Biosecurity, pests, weeds and diseases research at Digital Library. It has been accepted for inclusion in Environmental Weed Risk Assessments by an authorized administrator of Digital Library. For more information, please contact library@dpird.wa.gov.au.

Environmental weed risk assessment

Burr medic (*Medicago polymorpha*)

Burr medic is a temperate annual pasture legume native to the Mediterranean region which is adapted to a range of soils from sandy loams to clays of moderate fertility because it is adapted to slightly acidic ($\text{pH}_{\text{Ca}} > 4.8$) to alkaline ($\text{pH}_{\text{water}} < 9.0$) soils and can tolerate transient waterlogging. Burr medic is widely naturalised in southern Western Australia (WA) and commercial use followed the identification of cultivars without spines, which contaminate wool (Gillespie 2001; Howie et al. 2007).

In experimental trials in northern WA the annual legumes and herbs had good feed quality but in general, with low forage yields under irrigation, are unlikely to be economically viable (Moore et al. 2021). In the southern rangelands, burr medic is widely naturalized in the Goldfields region.

Weed lists

National-international:

- Not listed in Weeds of Australia (398 weed species) <https://weeds.org.au/weeds-profiles/>
- “Widely naturalised throughout most of the country, but most common in southern and eastern Australia. Common in southern and central Queensland, New South Wales, the ACT, Victoria, Tasmania, southern South Australia and south-western Western Australia. Occasionally naturalised in northern Queensland, in the southern parts of the Northern Territory, and in other parts of South Australia and Western Australia.
...regarded as an environmental weed in Victoria, New South Wales and Western Australia” [Fact sheet Index \(lucidcentral.org\)](https://lucidcentral.org/fact-sheet-index/)
- In the Global Compendium of Weeds, burr medic is listed as an agricultural weed, casual alien, environmental weed, garden thug, naturalised, noxious weed, weed (Randall 2017).

Western Australia:

- “...widely naturalised in many situations, including lawns, throughout the south-west from Carnarvon to the Nullarbor Plain” (Hussey et al. 2007).
- Recorded as naturalised in the following IBRA Regions of WA - Carnarvon, Murchison, Geraldton Sandplains, Yalgoo, Avon wheatbelt, Swan coastal plain, Jarrah forest, Coolgardie, Nullarbor, Mallee, Warren, Esperance” (Keighery and Longman 2004).
- “Naturalised taxa from natural parks, nature reserves, state forest and other conservation reserves” (Keighery 1991).

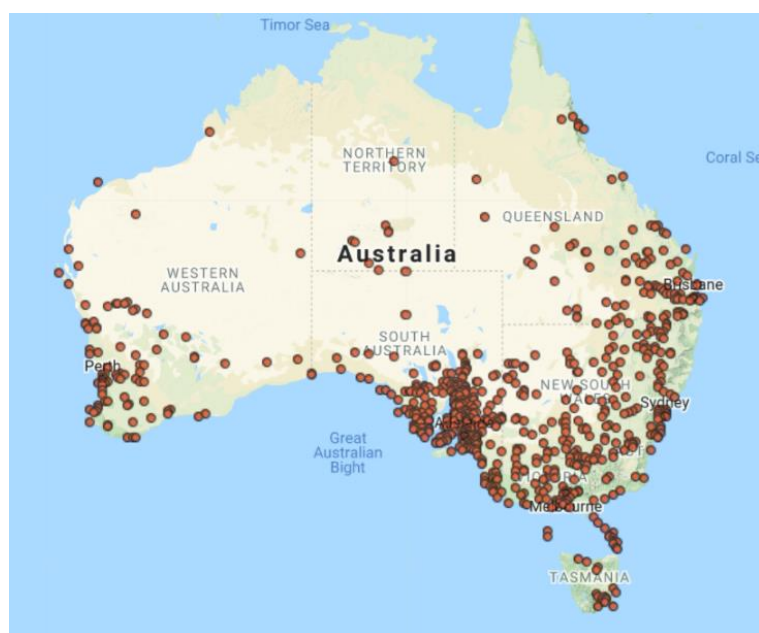


Figure 1 Distribution of burr medic (*Medicago polymorpha*) in Australia (Source: 'The Australasian Virtual Herbarium')

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	Yes	Yes	TBD
Agricultural area	Yes	Yes	TBD

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

References

- Gillespie D (2001) 'Medics' In Chapter 9: Pastures: soil and climatic requirements, Soilguide: A handbook for understanding and managing agricultural soils. (Ed. GA Moore), Department of Primary Industries and Regional Development, Western Australia, Perth. Bulletin 4343.
- Howie J, Lloyd D, Revell C (2007) 'Medics'. Pastures Australia Fact Sheets, A collaboration between AWI, GRDC, MLA, RIRDC and Dairy Australia
<https://keys.lucidcentral.org/keys/v3/pastures/Html/>
- 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
January 2022

Important disclaimer

The Chief Executive Officer of the Department of Primary Industries and Regional Development and the State of Western Australia accept no liability whatsoever by reason of negligence or otherwise arising from the use or release of this information or any part of it.

Copyright © Department of Primary Industries and Regional Development, 2022