Department of
Primary Industries and Regional Development

GOVERNMENT OF WESTERN AUSTRALIA

Environmental weed risk assessment

Turnip (*Brassica rapa*)

Turnips along with ‘Swedes’ (*Brassica napus* var. *napobrassica*) are members of the brassica or crucifer family which also includes cauliflower, broccoli, cabbage, radish and Brussels sprouts. The edible portion is called a 'root’ but is the enlarged base of the stem. They are biennial plants grown commercially as annuals.

The species also includes ‘wild turnip’ which is an annual, weedy form of the vegetable turnip.

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)
- In the Global Compendium of Weeds, turnip is listed as an agricultural weed, casual alien, cultivation escape, environmental weed, garden thug, naturalised, sleeper weed, and weed (Randall 2017).
- Not listed in NSW Weedwise https://weeds.dpi.nsw.gov.au/

Western Australia:

- “…..is an annual to 1m, and is the weedy form of the vegetable turnip. … It has probably escaped from cultivation, but where it occurs as a weed, its root does not swell as in the vegetable form. It is infrequently reported as an agricultural weed; in some areas, such as Albany it can be the dominant weed in market gardens (Hussey et al. 2007)
- The wild type has been recorded as naturalised in the following IBRA Regions of WA: Geraldton Sandplains, Yalgoo, Avon Wheatbelt, Swan coastal plain, Jarrah Forrest, Warren, Esperance (Keighery and Longman 2004)
- The wild type has naturalised in Nature reserves and State forest in Western Australia (Keighery 1991).

Figure 1. Distribution of turnip (*Brassica rapa*) 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**
Agricultural area	Yes	Yes	**TBC (weedy type)**

*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).

Weeds of Australia database https://keyserver.lucidcentral.org/weeds/data/media/Html/trifolium_repens.htm Site accessed 30 May 2022

Assessment by G Moore
June 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.