Department of
Primary Industries and
Regional Development

GOVERNMENT OF
WESTERN AUSTRALIA

Environmental weed risk assessment

Mung bean (*Vigna radiata subsp. radiata*)

There are two subspecies of Mung bean; *V. radiata* subsp. radiata (var. *setulose*) is the exotic Mung bean native to the Indian subcontinent and *Vigna radiata* subsp. *sublobata* which is native to northern Australia and the Kimberley Region in Western Australia including IBRA Regions: Central Kimberley, Dampierland, Northern Kimberley, Ord Victoria Plain and Victoria Bonaparte (WA Florabase).

Mung beans also known as the moong bean, green gram and golden gram, are a short-season, subtropical plant and are closely related to black gram (*Vigna mungo*) and azuki beans (*Vigna angularis*). Mung beans are mainly grown in India, China and Southeast Asia. The mung bean is an upright, annual legume (height from 0.45 to 1m) and the crop reaches maturity in 90–110 days.

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, mung bean is an agricultural weed, casual alien, garden thug, naturalised, weed (Randall 2017).
- Not listed in NSW Weedwise https://weeds.dpi.nsw.gov.au/

Western Australia:

- "….Naturalised in disturbed areas throughout the Kimberley. A widespread tropical weed, possibly originating from India" (Hussey et al. 2007).
- Recorded as naturalised in the following IBRA Regions of WA: *Vigna radiata* var. *setulosa* (Mung Bean) in the North Kimberley and Victoria Bonaparte; and for *Vigna radiata* var. *sublobata* in the North Kimberley (Keighery and Longman 2004).
- Not listed in naturalised taxa recorded from conservation lands in Western Australia (Keighery 1991).

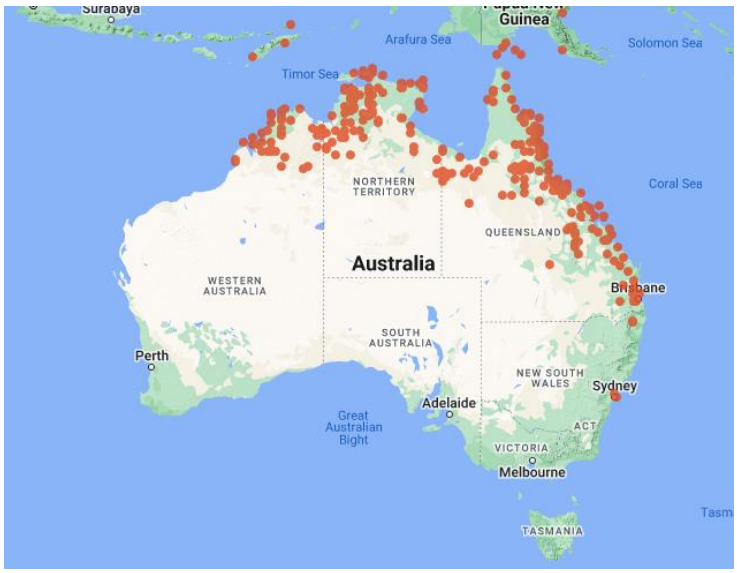

Figure 1. Distribution of mung bean (*Vigna radiata**) in Australia (Source: 'The Australasian Virtual Herbarium')

Note: *Includes both the native and exotic subspecies

Environmental weed risk assessment (*Vigna radiata* subsp. *radiata*)

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	Yes	Yes	**Negligible to low****
Pilbara	No	No	**Negligible to low**
Gascoyne – Goldfields	No	No	**Negligible to low**
South-west land division	No	No	**Negligible to low**

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

**Weed risk assessment (WRA) by Rod Randall (Invasiveness score of 5.2, Impacts score of 0.5 and a Potential distribution of 4 gives an overall WRA score of 10.4 = 'Negligible to low')

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).

WA Florabase https://florabase.dpaw.wa.gov.au/ Accessed 1 June 2022.

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

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January 2022

Important disclaimer