

## Environmental weed risk assessment

### Elephant grass (*Cenchrus purpureus*)

Elephant grass (syn. *Pennisetum purpureum*) is a very tall growing warm season (C4) that is native to Zimbabwe but has now been introduced into most sub-tropical and tropical countries. In Queensland, elephant grass is a highly productive pasture in the humid tropics (850-2,500mm). Elephant grass is planted vegetatively as cuttings because the seed quality is poor.

In Western Australia (WA) elephant grass is used as a windbreak for market gardens on the Swan coastal plain, with very limited plantings as forage on farms. The potential of elephant grass as a forage in southern WA (non-irrigated) or under irrigation in northern WA is limited by the requirement for vegetative propagation (Moore et al. 2006). It has naturalised along creeklines in the Darling Scarp near Perth and should not be sown near waterways (Hussey et al. 2007).

#### Weed lists

National-international:

- Not listed in Weeds of Australia (398 weed species) <https://weeds.org.au/weeds-profiles/>
- “A weed of waterways, wetlands, floodplains, open woodlands, forest margins and clearings, pastures, plantation crops, roadsides, disturbed sites, and waste areas. It prefers wetter sites in tropical, sub-tropical and warmer temperate regions.

Elephant grass (*Cenchrus purpureus*) is regarded as an environmental weed in Queensland, Western Australia and north-eastern New South Wales. It is also seen as a potential environmental weed or ‘sleeper weed’ in other parts of Australia” Weeds of Australia website [Fact sheet Index \(lucidcentral.org\)](https://weeds.org.au/fact-sheet-index/)

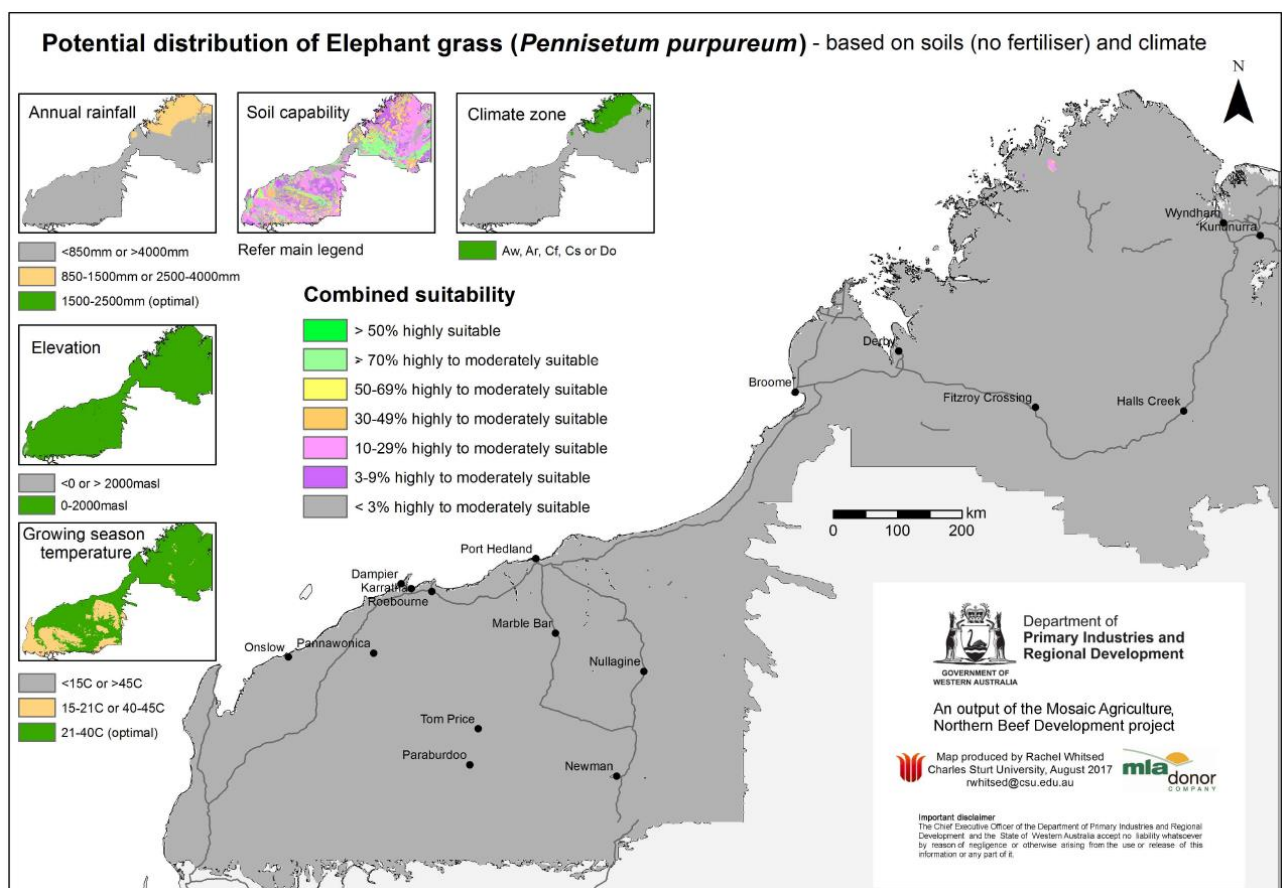
- Listed in the Global Compendium of Weeds as an agricultural weed, cultivation escape, environmental weed, garden thug, naturalised, noxious weed, sleeper weed, weed (Randall 2017).

Western Australia:

- “...a robust, rhizomatous perennial forming large clumps 1-4m tall. ...It is a serious weed dominating creeklines in the Darling Scarp near Perth” (Hussey et al. 2007).
- Recorded as naturalised in the following IBRA Regions of WA: Swan coastal plain, and Jarrah Forrest (Keighery and Longman 2004).
- Listed in Environmental weeds of Western Australia as a weed of local government reserves and other conservation reserves (Keighery 1991).



**Figure 1** Distribution of elephant grass (*Cenchrus purpureus*) in Australia (Source: 'The Australasian Virtual Herbarium')



**Figure 2** Potential distribution of elephant grass (*Cenchrus purpureus*) in north-western Australia based on soils (no fertiliser) and climate

## 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*?	
<b>Kimberley</b>	No	No	<b>Negligible to low</b>
<b>Pilbara</b>	No	No	<b>Negligible to low</b>
<b>Gascoyne – Goldfields</b>	No	No	<b>Negligible to low</b>
<b>Agricultural area</b>	Yes	Yes	<b>TBD</b>

\*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 GA, Sanford P, Wiley T (2006) Perennial pastures for Western Australia. Department of Primary Industries and Regional Development, Western Australia, Perth. Bulletin 4690.
- 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](https://keyserver.lucidcentral.org/weeds/data/media/Html/trifolium_repens.htm) Site accessed 30 November 2021

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