

## Summary of EPPO Prioritization process<sup>1</sup> for: *Cenchrus spinifex*

The 2022/23/24, a number of species from the EPPO Observation List were re-prioritized with current information to assess if they should remain on the Observation List or moved to another List. This is the 2024 prioritization summary for *Cenchrus spinifex* where the outcome is the species should remain on the Observation List.

### *Section A. Prioritization process scheme for the elaboration of different lists of invasive alien plants (pests or potential pests) for the area under assessment*

**A.1 Is the plant species known to be alien in all, or a significant part, of the area under assessment?**

Yes: *Cenchrus spinifex* is native to the Americas (POWO, 2024).

**A.2 Is the plant species established in at least a part of the area under assessment? (if yes goto A5)**

Yes. In the EPPO region, *C. spinifex* is present in Bulgaria, Croatia, France (mainland), Greece (mainland), Hungary, Italy (mainland), Moldova, Montenegro, Russia (Far East), Spain (mainland), Ukraine. There are both established and casual populations in the EPPO region.

**A. 3 Is the plant species known to be invasive outside the area under assessment?**

A yes for question A.2 means this question is skipped.

**A.4 Based on ecoclimatic conditions, could the species establish in the area under assessment?**

A yes for question A.2 means this question is skipped.

**A.5 How high is the spread potential of the plant in the area under assessment?**

High with a moderate uncertainty:

*Cenchrus spinifex* spreads by seed which are barbed and can become attached to livestock, small mammals, and clothes of hikers, used machinery and equipment and as a contaminant of soil (NSW Weedwise, 2024). Each plant can produce up to 1 000 seeds.

**A.6 How high is the potential negative impact of the plant on native species, habitats and ecosystems in the area under assessment?**

Medium with a moderate uncertainty:

*Cenchrus spinifex* can have a negative impact on the soil nutrient cycling and it can negatively impact on the soil microbiota (Ren et al., 2023). It can invade sandy soils, including sand dunes and can act to alter the habitat. There are no records of impacts in the EPPO region.

**A.7 How high is the potential negative impact of the plant on agriculture, horticulture or forestry in the area under assessment?**

Medium with a low uncertainty:

*Cenchrus spinifex* can grow in cultivated fields, abandoned croplands. However, there is no information on negative impacts.

**A.8 How high are the potential additional impacts (e.g. on animal and human health, on infrastructures, on recreational activities, other trade related impacts such as market losses)?**

<sup>1</sup> EPPO (2012) EPPO Prioritization process for invasive alien plants. EPPO Bulletin 42, 463-474.

Medium with a low uncertainty:

*Cenchrus spinifex* can survive along roadways though it is unlikely to have significant impacts which would affect infrastructure. In general, *Cenchrus* species can be injurious to humans and livestock, the barbs can puncture the skin of animals (Parsons and Cuthbertson, 2001).

**Outcome of Section A: *Cenchrus spinifex* is included on the EPPO Observation List**

		A5 -Spread potential		
		Low	Medium	High
Adverse impacts (maximum rating from questions A6, A7 and A8.	Low	List of minor concern	List of minor concern	List of minor concern
	Medium	List of minor concern	Observation List	Observation List
	High	Observation List	Observation List	List of invasive alien plants

*Cenchrus spinifex* is not considered further. The assessment stops here.

**B. Prioritization process scheme for the identification of invasive alien plants for which a PRA is needed**

B.1 Is the plant species internationally traded or are there other existing or potential international pathways?

B.2 Is the risk of introduction by these international pathways identified to be superior to natural spread?

B.3 Does the plant species still have a significant area suitable for further spread in the area under assessment?

**Outcome of section B: -**

**Selected references**

NSW Weedwise (2024) Spiny burrgrass - spinifex (*Cenchrus spinifex*). Available at: <https://weeds.dpi.nsw.gov.au/Weeds/SpinyBurrgrassSpinifex>

Parsons, W.T. & Cuthbertson, E.G. 2001, Noxious weeds of Australia, 2nd ed., CSIRO Publishing, Collingwood.

POWO (2024). Plants of the World Online. Facilitated by the Royal Botanic Gardens, Kew. Published on the Internet; <http://www.plantsoftheworldonline.org/> Retrieved 01 March 2024.

Ren B, Meng M, YU J, Ma X, Li D, Li J, Yang J, Bai L, Feng Y (2023) Invasion by *Cenchrus spinifex* changes the soil microbial community structure in a sandy grassland ecosystem. *Heliyon*, 11, <https://doi.org/10.1016/j.heliyon.2023.e20860>