

Summary of EPPO Prioritization process¹ for: *Sesbania punicea*

In 2022/23, a number of species on the EPPO Observation List were re-prioritized with current information to assess if they should remain on the Observation List or be moved to another list. This is the prioritization summary for *Sesbania punicea* 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: *Sesbania punicea* is native to Argentina, Brazil, Uruguay and some other counties of South America (EPPO, 2022).

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

Yes the species is established in the EPPO region. The species has been recorded in France (incl. Corse), Italy (incl. Sardegna, Sicilia), Spain, Portugal (<https://www.gbif.org/ru/species/2970728>; (EPPO, 2022).

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?

Medium spread potential with moderate uncertainty: the hundreds of pods produced are released around the base of the parent plant. They may fall directly into rivers, floating kilometres downstream to start new populations.

CABI (2022) highlights: The seeds are retained in the pods which fall from the trees and float downstream, dispersing the seeds which sink as the pods disintegrate with time. There is no evidence that *S. punicea* is dispersed to any great extent by agricultural practices.

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

High with a low uncertainty. *S. punicea* rapidly forms dense stands along rivers and creeks. It can completely cover (100% cover) areas of up to several thousand square meters. It displaces native plants that provide essential food and shelter for a wide variety of wildlife species.

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

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

Low with a low uncertainty. *Sesbania punicea* seldom impacts directly on agriculture. The species is unlikely to impact on agricultural production in Italy and other areas of the EPPO region.

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)?

Medium with a high uncertainty: *S. punicea* degradation of stream and river banks where the plants form thickets within the water channels and impede water flow, forcing the rivers to overflow and causing lateral erosion of the banks. The shading effect of trees hanging over the water channel reduces sunlight penetration and lowers temperatures with detrimental effects on the development and composition of the native aquatic biota.

Additionally, the species could block access to water ways for recreation activities.

S. punicea, and in particular the seed, is toxic to livestock and fowl.

Outcome of Section A: *Sesbania punicea* 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

Sesbania punicea 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

Tison J-M (2013) Establishment of *Sesbania punicea* (Cav.) Benth. In Corsica. *Bulletin OEPP/EPPO Bulletin* 43(1), 193–194.

CABI (2022). *Sesbania punicea*. Available at:
<https://www.cabidigitallibrary.org/doi/10.1079/cabicompendium.49464>

EPPO (2020) Mini data sheet on *Sesbania punicea*. Available at:
<https://gd.eppo.int/taxon/SEBPU/documents>

Campagnaro T, Brundu G, Burrascano S, Celesti-Grappo L, La Mantia T, Sitzia T, Badalamenti E (2022) Tree invasions in Italian forests. *Forest Ecology and Management* 521.
<https://doi.org/10.1016/j.foreco.2022.120382>