

Summary of EPPO Prioritization process¹ for: *Prosopis chilensis*, *P. glandulosa*, *P. velutina*

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?

Prosopis chilensis, *P. glandulosa* and *P. velutina* are all alien to the EPPO region. All species are native to the Americas (EPPO, 2020)

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

Prosopis chilensis is reported in Jordan and Spain, *P. glandulosa* is reported from Jordan and *P. velutina* is reported from Jordan, Morocco and Spain (EPPO, 2020). There is some uncertainty if these populations are established or planted.

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

Prosopis chilensis is reported as invasive in Africa (Muturi, 2012). *P. glandulosa* and *P. velutina* are considered invasive in Africa, North America and Australia (CABI, 2022a,b).

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: All three *Prosopis* species produce seeds and these, and the pods, can be dispersed by water (Csurhes, 1996) and animals (particularly livestock). Additionally, movement of the species through the horticulture trade can act to spread the species (EPPO, 2020).

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

High: They can form dense monocultures which can have negative impacts on water availability and alter nutrient sources and flows within the invaded habitat. *Prosopis* species can have negative impacts on native plant biodiversity and the impacts can cascade to higher trophic levels.

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

Moderate: In Africa and Asia, *Prosopis* species have been shown to have a negative impact on human livelihoods by reducing areas for livestock feeding. In the Mediterranean region, these species may have negative impacts on agriculture by using high volumes of water.

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)?

Low: There are some human health impacts known for *Prosopis* species including allergen pollen.

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

Outcome of Section A: *Prosopis chilensis*, *P. glandulosa*, *P. velutina* are included on the EPPO List of invasive alien plants

		A5 -Spread potential		
		Low	Medium	High
Adverse impacts (maximum rating from questions A6, A7. and A.8)	Low	List of minor concern	List of minor concern	List of minor concern
	Medium	List of minor concern	Observation list	of Observation list
	High	Observation list	Observation list	List of invasive alien plants

The EPPO Panel on Invasive Alien Plants considered there is a lot of uncertainty of the exact species composition of invasive populations in the EPPO region, and on the potential of establishment based on eco-climatic variables. For these reasons, the Panel agreed to add the three species to the EPPO List of Invasive Alien Plants and not consider them in section B of the prioritization Process until further information is presented on exact species composition and establishment potential.

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

CABI (2022a) *Prosopis glandulosa* (honey mesquite). CABI Invasive Species Compendium. Available at: <https://www.cabi.org/isc/datasheet/44439>

CABI (2022b) *Prosopis velutina* (velvet mesquite). CABI Invasive Species Compendium. Available at: <https://www.cabi.org/isc/datasheet/44457>

Csurhes SM, 1996. Pest Status Review Series - Land Protection Branch: Mesquite (*Prosopis* spp.) in Queensland. Queensland, Australia: Department of Natural Resources

EPPO (2020) Mini datasheet on *Prosopis chilensis*, *P. glandulosa*, *P. velutina*. Available at: <https://gd.eppo.int/taxon/PRCCH/documents>.

Muturi GK (2012) Ecological impacts of *Prosopis* invasion in riverine forests of Kenya. PhD Thesis. Available at: <https://edepot.wur.nl/218921>

