

**Prioritization process report<sup>1</sup> for : *Ambrosia grayi* (A.Nelson) Shinnors**

*Ambrosia grayi* was added to the EPPO Alert List in 2024. The EPPO Panel on Invasive Alien Plants prioritized *A. grayi* during the 31<sup>st</sup> meeting of the Panel in 05-2026. The output of the prioritization process is that *Ambrosia grayi* is added to the EPPO Observation List. This report was reviewed and approved by the Panel on Invasive Alien Plants in 2026.

26-30266

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

**Init1. Enter the name of the pest**

*Ambrosia grayi*

**Init2. Indicate the taxonomic position and synonyms**

Preferred name: *Ambrosia grayi* (A.Nelson) Shinnors

Common names: woollyleaf povertyweed [en], woollyleaf burr ragweed [en], woollyleaf burr sage [en]

| - Plantae  
 |-- Magnoliophyta  
 |--- Angiospermae  
 |---- Campanulids  
 |----- Asterales  
 |----- Asteraceae  
 |----- Asteroideae  
 |----- Ambrosia  
 |----- Ambrosia grayi

**Init3. Clearly define the area for prioritization**

EPPO region (Albania, Algeria, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Guernsey, Hungary, Ireland, Israel, Italy, Jersey, Jordan, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Luxembourg, The Republic of North Macedonia, Malta, Moldova, Montenegro, Morocco, Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tunisia, Turkey, Ukraine, United Kingdom, Uzbekistan).

**Init4. Provide the reasons for performing this prioritization, and detail any prioritization reports available for the assessed species.**

In the EPPO region, *Ambrosia grayi* (Asteraceae) is currently confined to a small area (approximately 4 ha) in Israel, where the species is considered transient. The EPPO Panel on Invasive Alien Plants are seeking further information on any additional occurrences of *A. grayi* in the EPPO region and any reports of environmental and economic impacts

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<sup>1</sup> Using EPPO (2012) PM 5/6 EPPO prioritization process for invasive alien plants. *EPPO Bulletin*, 42, 463-474.

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

Yes

*Ambrosia grayi* is native to North America: Mexico, USA (Colorado, Kansas, Nebraska, New Mexico, Oklahoma, Texas).

**A.2. Is the plant species established in at least a part of the area under assessment?**

No, the plant has never been observed in the wild in the area under assessment, or is only recorded as transient and may be in the process of establishment.

*Ambrosia grayi* is recorded as transient in Israel. Here it is present in the Köppen-Geiger climate classification (BSH and Csa). Although only small areas of BSH are present in the EPPO region, CSa (according to Beck et al., 2023) is the main climate classification of the Mediterranean Basin.

In the United States, *A. grayi* is recorded in the Köppen-Geiger climate classification (BSk and Cfa). These climate zones are present in the EPPO region.

Therefore, *A. grayi* has the potential for further establishment in the EPPO region though there remains some uncertainty.

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

Yes

*A. grayi* is only recorded as transient in Israel. It is not known to be invasive in other regions.

However, in the USA, *A. grayi* is a weed in agricultural systems in the central and southern Great Plains. In Texas, *A. grayi* is considered a highly competitive species in crops such as cotton and sorghum.

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

Yes

*A. grayi* has the potential to establish in the EPPO region in habitats and climatic conditions suitable for its growth. These can include areas of the Mediterranean basin.

**A.4b. Describe the area of potential establishment considering major factors such as climatic and soil conditions.**

Mediterranean basin.

Soil moisture content of <20% is insufficient to support the sprouting of *A. grayi* rhizomes (Neta et al., 2024).

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

Medium

In the USA, *A. grayi* can reproduce by both seed and rhizome, with the later extending up to 3 m deep in the soil. However, in Israel, sexual reproduction is considered unlikely to significantly contribute to the spread of the species. Rhizomes may remain in a dormant state in dry soils and

dormancy can be broken when the soil moisture content increases to a range from 25 % to 60 % (Neta et al., 2024).

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

List natural and semi-natural habitats where the species is known to occur based on the EUNIS habitat categorization (<http://eunis.eea.europa.eu/habitats-code-browser.jsp>),

Low

There are no current reports of *A. grayi* having negative impacts on biodiversity. The species is mainly a pest of ruderal habitats or agricultural areas.

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

The habitats and the situations in which the species has negative impact on agriculture, horticulture or forestry should be listed. It includes EUNIS habitats (<http://eunis.eea.europa.eu/habitats-code-browser.jsp>).

Medium

*A. grayi* may be found as an agricultural weed in the central and southern Great Plains of the US (e.g., Nebraska, Colorado, New Mexico, Texas, Oklahoma, and Kansas). In Texas, *A. grayi* is considered highly competitive with crops such as cotton and grain sorghum. Notably, Israel is the only country outside the Americas where *A. grayi* has been introduced (Neta et al., 2024; Yair et al., 2019). Despite this introduction, its distribution has remained confined to its initial introduction range for the past six years, leading to its classification as a casual (transient) species.

**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

No other reports are detailed in the literature.

Conclusion.

- The answer provided to question A.5 on the spread potential of the species assessed was: **Medium**
- The answer provided to question A.6 on negative impact on native species, habitats and ecosystems was: **Low**
- The answer provided to question A.7 on negative impact on agriculture, horticulture or forestry was: **Medium**
- The answer provided to question A.8 on additional impacts was: **Low**

According to the ratings provided, the assessed species falls into the:

**Observation list of invasive alien plants**

Section B is not completed and the prioritization stops.

**Key references:**

Neta D, Abu-Nassar A., Cafri D, Ezra N, David I, Shtein I, Goldway M, Elzenberg H, Matzrafi M (2024) *Ambrosia grayi* as a new alien causal species in Israel: plant biology and chemical management. *Pest Management Science*. <https://doi.org/10.1002/ps.8048>

Yair Y, Sibony M, Confino-Cohen R, Rubin, Shahr E (2019) Ragweed species (*Ambrosia* spp.) in Israel: distribution and allergenicity. *Aerobiologia* **35**, 85-95.