Plant Risk Evaluator -- PRE™
Evaluation Report

Nerium oleander L. -- Arizona

2023-2025 Western IPM Project

PRE Score: 15 -- Moderate Potential Risk
Confidence: 79 / 100
Questions answered: 20 of 20 -- Valid (80% or more questions answered)

Privacy: Public
Status: Completed

Evaluation Date: December 27, 2024

This PDF was created on August 21, 2025

This project was funded in part by the USDA National Institute of Food and Agriculture through the Western Integrated Pest Management Center, grant number 2018-70006-28881.

Plant Evaluated

Nerium oleander L.

Evaluation Overview

A PRE™ screener conducted a literature review for this plant (*Nerium oleander L.*) in an effort to understand the invasive history, reproductive strategies, and the impact, if any, on the region's native plants and animals. This research reflects the data available at the time this evaluation was conducted.

Summary

Nerium oleander (oleander) is native to southern Europe, north Africa, the Middle East, and southwestern Asia. Oleander is reported as introduced in 75 countries or islands, and with evidence of impact in the climate-matched country of South Africa. Oleander's naturalization in several riparian areas in Arizona has been of concern to the US Forest Service, which has conducted removals. All parts of the oleander plant are extremely toxic. As a result, animals are not likley to disperse the seeds, nor is it reported to disperse vegetatively. The hairy-fringed seeds are reported to disperse by wind and by water. Oleander prefers to grow along waterways, often with roots submerged in the manner of a rheophyte. The seeds are viable but seedlings must germinate in a continously moist environment to survive, and this tends to be along streams.

General Information

Status: Completed
Screener: Michael Chamberland
Evaluation Date: December 27, 2024

Plant Information

Plant: *Nerium oleander L.*

Regional Information

Region Name: Arizona

Climate Matching Map

To answer four of the PRE questions for a regional evaluation, a climate map with three climate data layers (Precipitation, UN EcoZones, and Plant Hardiness) is needed. These maps were built using a toolkit created in collaboration with GreenInfo Network, USDA, PlantRight, California Invasive Plant Council, and The Information Center for the Environment at UC Davis.

Click here to see the generated climate matching map for this region. This climate match database is hosted by GreenInfo Network and publicly accessible.

Evaluation Questions

These questions are based on an article published by PLOS One, which can be found here: https://doi.org/10.1371/journal.pone.0121053.

Invasive History and Climate Matching (Questions 1 - 6)

1. Has the species (or cultivar or variety, if applicable; applies to subsequent "species" questions) become naturalized where it is not native?

- Answer: **Yes**, which contributes **1** point(s) to the total PRE score.
- The *screener* has a **Very High** confidence in this answer based on the available literature.

Answer / Justification:

Nerium oleander (oleander) is native to southern Europe, north Africa, the Middle East, and southwestern Asia (Kew, 2024). Oleander is a popular evergreen shrub known for its beautiful flowers and ability to thrive in various climates. It is native to the Mediterranean region but is now cultivated worldwide for its ornamental value (LiveToPlant, 2024). This is a very commonly used landscaping plant in the Phoenix urban area (USFS, 2024). GBIF (2024) lists Nerium oleander as introduced in 75 countries or islands.

Reference(s):

- Kew (2024). Kew - Plants of the World Online - Nerium oleander.
- LiveToPlant (2024). How Quickly Does Oleander Plant Grow?.
- USFS (2024). Invasive Weeds - Oleander.
- GBIF (2024). GBIF - Nerium oleander.

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2. Is the species (or cultivar or variety) noted as being naturalized in the US or world in a similar climate?

- Answer: **Yes**, which contributes **2** point(s) to the total PRE score.
- The *screener* has a **Very High** confidence in this answer based on the available literature.

Answer / Justification:

GBIF (2024) maps Nerium oleander as being introduced in areas climate-matching with Arizona: southwestern USA, northern Mexico, South Africa, and southeast Australia. A weed alert from Arizona's Tonto National Forest (USFS, 2024) reports: this is a very commonly used landscaping plant in the Phoenix urban area. There are two sites where it has naturalized on the Tonto National Forest. Several clumps of it have attained great height, growing in Arnett and Telegraph Canyons, near Boyce Thompson Arboretum. Another large individual plant was found growing in Camp Creek, on the Cave Creek Ranger District, apparently naturalized from a nearby recreational residence. Oleander has not been considered to have invasive potential until fairly recently. A Red Alert was issued by the California Invasive Species Council for this plant in 2000. It had been found along the Sacramento floodplain near Redding, and riparian zones in southern California. This year, in Arizona, the Arizona Daily Star included oleander in a list of ornamental plants that were becoming invasive in Saguaro National Park.

Reference(s):

- GBIF (2024). GBIF - Nerium oleander.
- USFS (2024). Invasive Weeds - Oleander.

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3. Is the species (or cultivar or variety) noted as being invasive in the U.S. or world?

- Answer: **Yes**, which contributes **2** point(s) to the total PRE score.
- The *screener* has a **Very High** confidence in this answer based on the available literature.

Answer / Justification:

GBIF (2024) lists Nerium oleander as introduced in 75 countries or islands, and cites evidence of impact in Fiji and South Africa. Henderson (1992) describes the naturalization of oleander in parts of South Africa, where it is spreading into many mountain river valleys of the Cederberg, the Gamka, the Baviaanskloof, and others. The plant is of concern due to its extreme toxicity and lack of ecological services. Oleander has been listed as a NEMBA category 1b invader in South Africa (Cronin et al, 2017).

Reference(s):

- GBIF (2024). GBIF - Nerium oleander.
- Henderson, L. (1992). Oleander: An Invasive Riverside Shrub from The Mediterranean.
- Cronin, K., Kaplan H., Gaertner M., Irlich U. M., & M. Hoffman T. (2017). Aliens in the nursery: assessing the attitudes of nursery managers to invasive species regulations. Biological Invasions. 19, 925–937.

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4. Is the species (or cultivar or variety) noted as being invasive in the US or world in a similar climate?

- Answer: **Yes**, which contributes **3** point(s) to the total PRE score.
- The *screener* has a **High** confidence in this answer based on the available literature.

Answer / Justification:

GBIF (2024) lists Nerium oleander as introduced with evidence of impact in South Africa. GBIF (2024) maps occurrence of Nerium oleander in parts of eastern South Africa which are a climate match with Arizona. Henderson (1992) describes the naturalization of oleander in parts of South Africa, where it the plant is of concern due to its extreme toxicity and lack of ecological services. Arizona's Tonto National Forest has issed a weed alert for oleander (USFS, 2024) where projects have been initiated to remove infestations from Arnett and Telegraph Canyons, near Boyce Thompson Arboretum. Oleander is listed as an ornamental plant becoming invasive in Saguaro National Park.

Reference(s):

- GBIF (2024). GBIF - Nerium oleander.
- Henderson, L. (1992). Oleander: An Invasive Riverside Shrub from The Mediterranean.
- USFS (2024). Invasive Weeds - Oleander.

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5. Are other species of the same genus (or closely related genera) invasive in a similar climate?

- Answer: **No**, which contributes **0** point(s) to the total PRE score.
- The *screener* has a **High** confidence in this answer based on the available literature.

Answer / Justification:

Nerium oleander is the only species in the genus Nerium. GBIF shows the somewhat related genus Pachypodium to very rarely naturalize outside its native range (and these records may possibly be cultivated specimens?). Most species of Pachypodium are not tracked by GBIF. Cascabela thevetia is another related genus, native throughout Mexico and in Central America, and cultivated widely as an ornamental. GBIF shows this species as introduced in 27 countries, with evidence of impact in 6 countries, however these are not in climate matched regions.

Reference(s):

- [Anonymous] .

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6. Is the species (or cultivar or variety) found predominately in a climate matching the region of concern?

- Answer: **No**, which contributes **0** point(s) to the total PRE score.
- The *screener* has a **High** confidence in this answer based on the available literature.

Answer / Justification:

GBIF (2024) maps Nerium oleander as occurring in many tropical or warm-temperate regions, including the southeast USA, southern Mexico, Central America, Brazil, Europe, India, southeast Asia, coastal Australia, and the North Island of New Zealand. These areas are not climate-matching with Arizona and cover a greater area than regions which are.

Reference(s):

- GBIF (2024). GBIF - Nerium oleander.

Impact on Native Plants and Animals (Questions 7 - 10)

7. Does this plant displace native plants and dominate (overtop or smother) the plant community in areas where it has established?

- Answer: **No**, which contributes **0** point(s) to the total PRE score.
- The *screener* has a **Low** confidence in this answer based on the available literature.

Answer / Justification:

The HEAR (2005) Report rates oleander as not having a smothering growth habit and no evidence on forming dense thickets. However the plant can grow to be a large shrub.

Reference(s):

- HEAR.org (2005). PIER Report - Nerium oleander.

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8. Is the plant noted as promoting fire and/or changing fire regimes?

- Answer: **No**, which contributes **0** point(s) to the total PRE score.
- The *screener* has a **High** confidence in this answer based on the available literature.

Answer / Justification:

The HEAR (2005) Report rates oleander as not creating a fire hazard in natural ecosystems. Henderson (1992) describes oleander as a rheophyte confined to the beds of swift running streams and rivers where it grows up to flood level, but not further than the reach of regular flash floods. This amphibious growth habit would not seem to be fire-prone.

Reference(s):

- HEAR.org (2005). PIER Report - Nerium oleander.
- Henderson, L. (1992). Oleander: An Invasive Riverside Shrub from The Mediterranean.

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9. Is the plant a health risk to humans or animals/fish? Has the species been noted as impacting grazing systems?

- Answer: **Yes**, which contributes **1** point(s) to the total PRE score.
- The *screener* has a **Very High** confidence in this answer based on the available literature.

Answer / Justification:

The World Flora Online (WFO, 2024) describes oleander as producing abundant, poisonous, clear, sticky latex. The HEAR (2005) Report rates oleander as toxic to humans, toxic to animals, unpalatable to grazing animals. "One leaf of N. oleander may be sufficient to kill a sheep. The lethal dose of N. oleander leaves reported for several animal species is about 0.5 mg/kg." The US Forest Service (2024) cites information that all parts of the plant are extremely poisonous, containing 10 different cardiac glycosides. These compounds induce cardiac arrhythmia and eventual death. The lethal dose of green oleander leaves for cattle and horses is 0.005% of the animal's body weight. Inhalation of smoke from a burning oleander also can cause poisoning.

Reference(s):

- WFO (2024). The World Flora Online - Nerium oleander.
- HEAR.org (2005). PIER Report - Nerium oleander.
- USFS (2024). Invasive Weeds - Oleander.

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10. Does the plant produce impenetrable thickets, blocking or slowing movement of animals, livestock, or humans?

- Answer: **No**, which contributes **0** point(s) to the total PRE score.
- The *screener* has a **Low** confidence in this answer based on the available literature.

Answer / Justification:

The HEAR (2005) Report claims no evidence for oleander regarding formation of dense thickets.

Reference(s):

- HEAR.org (2005). PIER Report - Nerium oleander.

Reproductive Strategies (Questions 11 - 17)

11. Does this species (or cultivar or variety) reproduce and spread vegetatively?

- Answer: **No**, which contributes **0** point(s) to the total PRE score.
- The *screener* has a **Medium** confidence in this answer based on the available literature.

Answer / Justification:

The HEAR (2005) Report rates oleander as not reproducing vegetatively.

Reference(s):

- HEAR.org (2005). PIER Report - Nerium oleander.

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12. If naturally detached fragments from this plant are capable of producing new plants, is this a common method of reproduction for the plant?

- Answer: **No**, which contributes **0** point(s) to the total PRE score.
- The *screener* has a **Medium** confidence in this answer based on the available literature.

Answer / Justification:

The HEAR (2005) Report rates oleander as not reproducing vegetatively. Suckers are produced at the base of the plant, but not a means of spread or natural fragmentation."

Reference(s):

- HEAR.org (2005). PIER Report - Nerium oleander.

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13. Does the species (or cultivar or variety) commonly produce viable seed?

- Answer: **Yes**, which contributes **1** point(s) to the total PRE score.
- The *screener* has a **High** confidence in this answer based on the available literature.

Answer / Justification:

The HEAR (2005) Report rates oleander as "yes" for produces viable seed, however "All seedlings tracked died before completing one year of life, mostly because of desiccation during the first summer drought. It rarely produces fertile seed in the summer rainfall areas (of South Africa). Young oleander seedlings are extremely sensitive to drought and need a steady supply of soil moisture (Henderson, 1992). Experiments by Bufford et al, (2016) showed Nerium oleander had high germination in germination chambers.

Reference(s):

- HEAR.org (2005). PIER Report - Nerium oleander.
- Henderson, L. (1992). Oleander: An Invasive Riverside Shrub from The Mediterranean.
- Bufford, J. L., Lurie M. H., & Daehler C. C. (2016). Biotic resistance to tropical ornamental invasion. Journal of Ecology. 104, 518–530.

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14. Does this plant produce copious viable seeds each year (> 1000)?

- Answer: **Yes**, which contributes **1** point(s) to the total PRE score.
- The *screener* has a **High** confidence in this answer based on the available literature.

Answer / Justification:

The HEAR (2005) Report rates oleander as having prolific seed production (>1000/m2). "Fruits are many seeded follicles (181 seeds per fruit on average), so that individual plants often liberate thousands of seeds in spite of the low percentage of fruit set."

Reference(s):

- HEAR.org (2005). PIER Report - Nerium oleander.

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15. Is there significant germination (>25%) of seeds the next growing season, with no requirement of an infrequent environmental condition for seeds to germinate (i.e. fire) or long dormancy period?

- Answer: **Yes**, which contributes **1** point(s) to the total PRE score.
- The *screener* has a **Medium** confidence in this answer based on the available literature.

Answer / Justification:

Experiments by Bufford et al, (2016) showed Nerium oleander exhibited the lowest percentage germination [of those species studied] in the field, but had high germination in germination chambers. Germination was significantly higher at the wet site and was higher in species [of those under study] with larger seeds. Hear (2025) reports no dormancy - seeds germinate rapidly after seed set. The hairy, water-dispersed seeds [of oleander] are released during the rainiest season in the year, and germination follows rapidly. All seedlings tracked died before completing 1 year of life, mostly because of desiccation during the first summer drought (HEAR, 2005). Young oleander seedlings are extremely sensitive to drought and need a steady supply of soil moisture (Henderson, 1992). These reports suggest high germination can occur under optimal conditions with abundant moisture, though high mortality can occur if moisture is not sustained.

Reference(s):

- Bufford, J. L., Lurie M. H., & Daehler C. C. (2016). Biotic resistance to tropical ornamental invasion. Journal of Ecology. 104, 518–530.
- HEAR.org (2005). PIER Report - Nerium oleander.
- Henderson, L. (1992). Oleander: An Invasive Riverside Shrub from The Mediterranean.

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16. Does this plant produce viable seed within the first three years (for an herbaceous species) to five years (for a woody species) after germination?

- Answer: **Yes**, which contributes **1** point(s) to the total PRE score.
- The *screener* has a **High** confidence in this answer based on the available literature.

Answer / Justification:

The young plants (woody shrub) do not start to flower (in cultivation from seed) until the third year (Gardener, 2024). You need a little patience for breeding, because the small plants (from seed) do not bloom until they are three years old at the earliest - only now can you see what shape and color the flowers have so that you can select (HobbyGardeners, 2024).

Reference(s):

- Gardener (2024). Gardener - Oleander Propagation by Seeds and Cuttings.
- HobbyGardeners (2024). Growing oleander from seeds? This is how you succeed.

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17. Does this plant continuously produce seed for >3 months each year or does seed production occur more than once a year?

- Answer: **Yes**, which contributes **1** point(s) to the total PRE score.
- The *screener* has a **High** confidence in this answer based on the available literature.

Answer / Justification:

The flowering season typically occurs during the summer months and continues into early fall (LiveToPlant, 2024). Oleander is cultivated in part, for its attractive flowers with a long blooming season.

Reference(s):

- LiveToPlant (2024). How Quickly Does Oleander Plant Grow?.

Dispersal (Questions 18 - 20)

18. Are the plant's propagules frequently dispersed long distance (>100 m) by mammals or birds or via domestic animals?

- Answer: **No**, which contributes **0** point(s) to the total PRE score.
- The *screener* has a **Very High** confidence in this answer based on the available literature.

Answer / Justification:

The HEAR Report rates oleander as have propagules which are not bird dispered. The small feathery seeds are adapted to wind and water dispersal, and are unlikely to have any food value to animals (Henderson, 1992). All parts of the plant are extremely poisonous (USFS, 2024) thus unlikely to be consumed by animals.

Reference(s):

- HEAR.org (2005). PIER Report - Nerium oleander.
- Henderson, L. (1992). Oleander: An Invasive Riverside Shrub from The Mediterranean.
- USFS (2024). Invasive Weeds - Oleander.

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19. Are the plant's propagules frequently dispersed long distance (>100 m) by wind or water?

- Answer: **Yes**, which contributes **1** point(s) to the total PRE score.
- The *screener* has a **Very High** confidence in this answer based on the available literature.

Answer / Justification:

The HEAR (2005) Report rates oleander as having propagules which can be water dispered. Henderson (1992) describes oleander as a "rheophyte" i.e. a plant species which is confined to the beds of swift running streams and rivers where it grows up to flood level, but not further than the reach of regualr flash floods. Many rheophytes can be easily cultivated outside of their rheophytic habitat. The small feathery seeds are adapted to wind and water dispersal (Henderson, 1992). Swift running water can be expected to disperse seed long-distance. The seed is described as having a crown of silky hairs which arises directly from the top of the seed. The fruit pod splits to release airborne seed (HEAR, 2024).

Reference(s):

- HEAR.org (2005). PIER Report - Nerium oleander.
- Henderson, L. (1992). Oleander: An Invasive Riverside Shrub from The Mediterranean.

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20. Are the plant's propagules frequently dispersed via contaminated seed (agriculture or wildflower packets), equipment, vehicles, boats or clothing/shoes?

- Answer: **No**, which contributes **0** point(s) to the total PRE score.
- The *screener* has a **High** confidence in this answer based on the available literature.

Answer / Justification:

The HEAR (2005) Report rates oleander as not likely to disperse as a produce contaminant, a "no" to the category of propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas). No evidence that the seeds have any means of attachment.

Reference(s):

- HEAR.org (2005). PIER Report - Nerium oleander.

Total PRE Score

PRE Score: 15 -- Moderate Potential Risk
Confidence: 79 / 100
Questions answered: 20 of 20 -- Valid (80% or more questions answered)

PRE Score Legend

The PRE Score is calculated by adding the point totals for each (answered) question.
< 13 : Low Potential Risk
13 - 15 : Moderate Potential Risk
> 15 : High Potential Risk

Questions Answered Legend

It is important to answer at least 16 questions to consider a PRE Score as "valid".
>= 16 : valid (80% or more questions answered)
<= 15 : invalid (not enough questions answered)

Organization Ownership and Content Privacy

Organization: 2023-2025 Western IPM Project
Content Privacy: Public

Evaluation Reviewers

The PRE approach is to base decisions on science and make decisions by consensus of diverse horticultural stakeholders. The literature review and process of answering PRE's questions are based on science; the decisions of which plants to prioritize are based on consensus. To ensure this process is in place and that PRE is collaborative, volunteer stakeholders are recruited from each region to review evaluations. The following experts in their profession (plant science, conservation, or horticultural trade) have participated as volunteer PRE reviewers for this evaluation:

• Amy Bulone	March 13, 2025
• Jutta Burger	February 5, 2025
• Nicole Valentine	January 10, 2025

This evaluation has a total of 3 reviewer(s).

Evaluation Issues

The following section lists all public issues for this evaluation. Issues provide a way for stakeholder reviewers to communicate any concerns or suggestions they might have with the plant or evaluation. Please email info@plantright.org if additional action is required to resolve open issues.

Issue ID # 11094

Date Created: March 13, 2025 - 7:27pm
Date Updated: March 19, 2025 - 2:40pm

Submitted by: Amy Bulone

Status: Fixed
Type: Comment
Severity: Minor
Scope: Q16. Does this plant produce viable seed within the first three years (for an herbaceous species) to five years (for a woody species) after germination?

Issue Description

Is some or all of this text a direct quote from the reference? That is unclear to me. --AB

Issue Resolution (Screener's Response to Issue)

Yes. - M. Chamberland

Issue ID # 11069

Date Created: March 10, 2025 - 9:18pm
Date Updated: March 19, 2025 - 2:34pm

Submitted by: Amy Bulone

Status: Fixed
Type: Suggestion

Severity: Minor
Scope: Q05. Are other species of the same genus invasive in a similar climate?

Issue Description

The species that comes to my mind for comparison is *Cascabela thevetia*, which shares the common name of oleander, the high toxicity, and is also very popular as an ornamental in Arizona. I haven't researched its possible invasive status, but a quick glance at GBIF shows it all over the world. It does however have a different kind of seed--bigger and not wind dispersed.

In my experience *Pachypodium* is a collector's plant; a novelty for botanical displays, but not typical public landscaping. --AB

Issue Resolution (Screener's Response to Issue)

Done. - M. Chamberland

Issue ID # 10754

Date Created: February 5, 2025 - 6:53am
Date Updated: March 4, 2025 - 6:47pm

Submitted by: Jutta Burger

Status: Fixed
Type: Suggestion
Severity: Minor
Scope: Q15. Is there significant germination (>25%) of seeds the next growing season, with no requirement of an infrequent environmental condition for seeds to germinate (i.e. fire) or long dormancy period?

Issue Description

Based on your justification, it appears that oleander can germinate readily in the growing season following that when seed is produced (e.g., produced in fall/winter; germinating in spring). So it seems like this would be a yes unless you are saying that these conditions are not present specifically in AZ. - JB

Issue Resolution (Screener's Response to Issue)

I have fixed and clarified. - M. Chamberland

Issue ID # 10753

Date Created: February 5, 2025 - 6:43am
Date Updated: March 4, 2025 - 5:32pm

Submitted by: Jutta Burger

Status: Fixed
Type: Comment
Severity: Minor
Scope: Q01. Has the species (or cultivar or variety, if applicable) become naturalized where it is not native?

Issue Description

You may want to add somewhere that N. oleander has been introduced widely as an ornamental (maybe in question 1). - JB

Issue Resolution (Screener's Response to Issue)

Done. - M. Chamberland

Issue ID # 10752

Date Created: February 4, 2025 - 9:55pm
Date Updated: March 4, 2025 - 6:02pm

Submitted by: Jutta Burger

Status: Fixed
Type: Suggestion
Severity: Minor
Scope: Q04. Is the species (or cultivar or variety) noted as being invasive in the US or world in a similar climate?

Issue Description

Add more than just occurrence as justification for its invasiveness in areas w AZ's climate. - JB

Issue Resolution (Screener's Response to Issue)

Done. - M. Chamberland

Issue ID # 10677

Date Created: January 10, 2025 - 9:09am
Date Updated: March 4, 2025 - 6:55pm

Submitted by: Nicole Valentine

Status: Fixed
Type: Suggestion
Severity: Minor
Scope: Evaluation as a whole

Issue Description

I think you need a period after the first part of the sentence: The HEAR (2005) Report rates oleander as not reproducing vegetatively

Issue Resolution (Screener's Response to Issue)

I have made this fix to question 12. - M. Chamberland

Issue ID # 10676

Date Created: January 10, 2025 - 9:08am
Date Updated: March 4, 2025 - 6:11pm

Submitted by: Nicole Valentine

Status: Fixed
Type: Suggestion
Severity: Minor
Scope: Q10. Does the plant produce impenetrable thickets, blocking or slowing movement of animals, livestock, or humans?

Issue Description

Would it be a little impenetrable to humans just because handling it can expose humans to toxicity? -NV

Issue Resolution (Screener's Response to Issue)

I would consider it a stretch to cite its toxicity as a contribution to impenetribility. - M. Chamberland

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Issue ID # 10675

Date Created: January 10, 2025 - 8:58am
Date Updated: March 4, 2025 - 6:07pm

Submitted by: Nicole Valentine

Status: Fixed
Type: Suggestion
Severity: Minor
Scope: Q07. Does this plant displace native plants and dominate the plant community in areas where it has been established?

Issue Description

The HEAR site lists evidence for not forming dense thickets as no evidence. You may want to reword to say there is no evidence and lower confidence. -NV

Issue Resolution (Screener's Response to Issue)

Done. M. Chamberland

Issue ID # 10674

Date Created: January 9, 2025 - 2:51pm
Date Updated: March 4, 2025 - 5:56pm

Submitted by: Nicole Valentine

Status: Fixed
Type: Suggestion
Severity: Minor
Scope: Q03. Is the species (or cultivar or variety) noted as being invasive in the U.S. or world?

Issue Description

For Questions 3 and 4 could you briefly describe its invasive impacts in those areas. -NV

Issue Resolution (Screener's Response to Issue)

Done. - M. Chamberland

About PRE and this Plant Evaluation Report

The Plant Risk Evaluator (PRE) is an online database and platform designed to assess the risk of a plant becoming invasive in a given region.This tool offers many benefits, and we encourage you to visit the PRE website (https://pretool.org) for more information.

If you would like to learn more about PRE, please email us at info@plantright.org, requesting a PRE Account.

PRE beta funding was provided by Sustainable Conservation (https://www.suscon.org/) and a USDA Farm Bill grant. Additional funding has been provided by the Western Integrated Pest Management Center.