

California Pest Rating Proposal

Aceria nerii Channabasavana: an oleander mite

Acari: Eriophyidae

Current Rating: Q

Proposed Rating: C

Comment Period: **05/31/2024 – 07/15/2024**

Initiating Event:

Aceria nerii was found on an oleander plant in a residential area in Mendocino County in August 2023. A pest rating proposal is needed.

History & Status:

Background: *Aceria nerii* is reported to occur on oleander and to be associated with “smaller pits filled with hairy outgrowth on the under surface of leaves,” which may be galls. Otherwise, it is not reported to cause damage to host plants (Chakrabarti and Mondal, 1982). Its only reported host plant is oleander (*Nerium oleander*) (Chakrabarti and Mondal, 1982; Manna et al., 2022).

Worldwide Distribution: **Asia:** India (Delhi, Karnataka, Mysore, West Bengal); **North America:** United States (California) (California Department of Food and Agriculture, 2024; Chakrabarti and Mondal, 1982; Manna et al., 2022).

Official Control: *Aceria nerii* is considered reportable by the United States Department of Agriculture (U.S. regulated plant pest table, 2024).

California Distribution: *Aceria nerii* was found in a residential area in Mendocino County, California in 2023 (California Department of Food and Agriculture, 2023). The oleander plants were reported to have likely been in the ground for at least 10 years.

California Interceptions: *Aceria nerii* has not been intercepted in California (California Department of Food and Agriculture, 2023).

The risk *Aceria nerii* poses to California is evaluated below.

Consequences of Introduction:

- 1) **Climate/Host Interaction:** The host plant of *A. nerii*, oleander, is a common ornamental in California. The areas that this mite is reported to occur in have tropical and subtropical climates. The presence of this mite in Mendocino County suggests it has a broader climatic tolerance. Therefore, *A. nerii* receives a **Medium (2)** in this category.
 - Low (1) Not likely to establish in California; or likely to establish in very limited areas.
 - **Medium (2) may be able to establish in a larger but limited part of California.**
 - High (3) likely to establish a widespread distribution in California.
- 2) **Known Pest Host Range:** *Aceria nerii* is only known to occur on oleander. Therefore, it receives a **Low (1)** in this category.
 - **Low (1) has a very limited host range.**
 - Medium (2) has a moderate host range.
 - High (3) has a wide host range.

- 3) **Pest Reproductive and Dispersal Potential:** Wind dispersal appears to be common in the genus *Aceria* (for example, see Majer et al., 2021), and *A. nerii* may disperse this way. Therefore, it receives a **Medium (2)** in this category.
- Low (1) does not have high reproductive or dispersal potential.
 - **Medium (2) has either high reproductive or dispersal potential.**
 - High (3) has both high reproduction and dispersal potential.
- 4) **Economic Impact.** This mite may cause deformations of oleander leaves, which could impact the quality of ornamental oleander. Therefore, it receives a **Medium (2)** in this category.

Economic Impact: A, B

- A. The pest could lower crop yield.**
- B. The pest could lower crop value (includes increasing crop production costs).**
- C. The pest could trigger the loss of markets (includes quarantines).
- D. The pest could negatively change normal cultural practices.
- E. The pest can vector, or is vectored, by another pestiferous organism.
- F. The organism is injurious or poisonous to agriculturally important animals.
- G. The organism can interfere with the delivery or supply of water for agricultural uses.

Economic Impact Score: Medium

- Low (1) causes 0 or 1 of these impacts.
 - **Medium (2) causes 2 of these impacts.**
 - High (3) causes 3 or more of these impacts.
- 5) **Environmental Impact.** *Aceria nerii* could impact foliage in ornamental plantings and may trigger treatments. Therefore, *A. nerii* receives a **High (3)** in this category.

Environmental Impact: D, E

- A. The pest could have a significant environmental impact such as lowering biodiversity, disrupting natural communities, or changing ecosystem processes.
- B. The pest could directly affect threatened or endangered species.
- C. The pest could impact threatened or endangered species by disrupting critical habitats.
- D. The pest could trigger additional official or private treatment programs.**
- E. The pest significantly impacts cultural practices, home/urban gardening or ornamental plantings.**

Environmental Impact Score: High (3)

- Low (1) causes none of the above to occur.
- Medium (2) causes one of the above to occur.
- **High (3) causes two or more of the above to occur.**

Consequences of Introduction to California for *Aceria nerii*: Medium (10)

Add up the total score and include it here.

- Low = 5-8 points
- Medium = 9-12 points**
- High = 13-15 points

6) Post Entry Distribution and Survey Information: *Aceria nerii* is present in Mendocino County, California. It receives a **Low (-1)** in this category.

- Not established (0) Pest never detected in California, or known only from incursions.
- Low (-1) Pest has a localized distribution in California, or is established in one suitable climate/host area (region).**

–Medium (-2) Pest is widespread in California but not fully established in the endangered area, or pest established in two contiguous suitable climate/host areas.

–High (-3) Pest has fully established in the endangered area, or pest is reported in more than two contiguous or non-contiguous suitable climate/host areas.

Final Score:

7) The final score is the consequences of introduction score minus the post entry distribution and survey information score: Medium (9)

Uncertainty:

Aceria nerii may have a broader host range than is currently known; if so, it may impact native plants in California. This mite may be more widespread in California.

Conclusion and Rating Justification:

Aceria nerii is mite that could impact the appearance of oleander foliage in California. Other impacts appear unlikely. This mite is present in Mendocino County. For these reasons, a “C” rating is justified.

References:

California Department of Food and Agriculture. Pest and damage record database. Accessed December 11, 2023:
<https://pdr.cdfa.ca.gov/PDR/pdrmainmenu.aspx>

Chakrabarti, S., Mondal, S. 1982. Studies on the eriophyid mites (Acarina: Eriophyidae) of India. XV. New genus, species and new records from West Bengal. *Oriental Insects* 16:519-525.

Majer, A., Laska, A., Hein, G., Kuczyński, L., Skoracka, A. 2021. Hitchhiking or hang gliding? Dispersal strategies of two cereal-feeding eriophyid mite species. *Experimental and Applied Acarology* 85:131-146.

Manna, D., Mondal, S., Gupta, S. K. 2022. Mites and insects occurring on some leafy ornamentals and floricultural plants in Howrah and Purba Medinipur districts of West Bengal, with their economic importance. *Journal of Entomology and Zoology Studies* 10:45-51
<https://doi.org/10.22271/j.ento.2022.v10.i4a.9033>



U.S. regulated plant pest table. Accessed May 13, 2024:
<https://www.aphis.usda.gov/plant-imports/regulated-pest-list>

Responsible Party:

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***Comment Period: 05/31/2024 – 07/15/2024**

***NOTE:**

You must be registered and logged in to post a comment. If you have registered and have not received the registration confirmation, please contact us at [permits\[@\]cdfa.ca.gov](mailto:permits[@]cdfa.ca.gov).

Comment Format:

- ❖ Comments should refer to the appropriate California Pest Rating Proposal Form subsection(s) being commented on, as shown below.

Example Comment:

Consequences of Introduction: 1. Climate/Host Interaction: [Your comment that relates to “Climate/Host Interaction” here.]

- ❖ Posted comments will not be able to be viewed immediately.
- ❖ Comments may not be posted if they:
 - Contain inappropriate language which is not germane to the pest rating proposal;
 - Contains defamatory, false, inaccurate, abusive, obscene, pornographic, sexually oriented, threatening, racially offensive, discriminatory or illegal material;
 - Violates agency regulations prohibiting sexual harassment or other forms of discrimination;
 - Violates agency regulations prohibiting workplace violence, including threats.
- ❖ Comments may be edited prior to posting to ensure they are entirely germane.
- ❖ Posted comments shall be those which have been approved in content and posted to the website to be viewed, not just submitted.

Proposed Pest Rating: C