

California Pest Rating Proposal

Aleurotulus anthuricola Nakahara: anthurium whitefly

Hemiptera: Aleyrodidae

Current Rating: Q

Proposed Rating: C

Comment Period: **01/20/2022 – 03/06/2022**

Initiating Event:

Aleurotulus anthuricola is occasionally intercepted on *Anthurium* sp. from Hawaii. It has not been rated. A pest rating proposal is needed.

History & Status:

Background: *Aleurotulus anthuricola* is reported to be limited to *Anthurium* species. Hosts include *Anthurium andraeanum* and *A. palmarum* (Evans, 2007). This whitefly lives within the leaf and flower sheaths and is apparently difficult to control. Infestations are reported to be associated with large amounts of white, waxy secretions on the inner surfaces of anthurium sheaths. However, this whitefly does not appear to cause injury to the plants. The primary concern in Hawaii appears to be the impact on trade with states or nations that regulate this pest (Hara and Hata, 1995).

Worldwide Distribution: *Aleurotulus anthuricola* is reported to be native to Colombia and the lesser Antilles. It is also reported from **Caribbean:** Barbados, Dominica, Trinidad and Tobago, Guadeloupe, Martinique; **Oceania:** Hawaii (Evans, 2007; Hara and Hata, 1995).

Official Control: *Aleurotulus anthuricola* is considered reportable by the United States Department of Food and Agriculture (U.S. regulated plant pest table).

California Distribution: *Aleurotulus anthuricola* is not known to be established in California.

California Interceptions: *Aleurotulus anthuricola* is occasionally intercepted on *Anthurium* sp. from Hawaii. It was found once during nursery inspection (on *Anthurium* sp.) (California Department of Food and Agriculture).

The risk *Aleurotulus anthuricola* poses to California is evaluated below.

Consequences of Introduction:

- 1) **Climate/Host Interaction:** *Aleurotulus anthuricola* is restricted to plants in the genus *Anthurium*. These are popular houseplants in California, but they are likely grown outdoors only rarely, perhaps in warmer parts of the state. This whitefly appears to be limited to areas with subtropical or tropical climate. It seems likely that *A. anthuricola*, if it was able to become established in California at all, would be limited to a very small portion of the state as well as indoors and in greenhouses. Therefore, *A. anthuricola* receives a **Low (1)** 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:** *Aleurotulus anthuricola* is limited to a single genus, *Anthurium*. 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:** *Aleurotulus anthuricola* can be moved with infested plant material. 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.** *Aleurotulus anthuricola* is considered a pest of anthuriums. It is not reported to harm its host plants, but the waxy secretions could be undesirable and nurseries may treat infested plants. This whitefly is considered reportable by the United States Department of Agriculture. Therefore, it receives a **Medium (2)** in this category.

Economic Impact: B, C

- 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.** *Aleurotulus anthuricola* feeds on a single genus of plant, *Anthurium*.

There are no native *Anthurium* species in California. Additionally, these plants are mainly grown indoors. Therefore, *A. anthuricola* receives a **Low (1)** in this category.

Environmental Impact:

- 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: Low (1)

- **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 *Aleurotulus anthuricola*: Low (7)

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:** *Aleurotulus anthuricola* is not known to be established in California. It receives a **Not established (0)** 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: Low (7)

Uncertainty:

There are no ongoing surveys for *A. anthuricola*, so it is possible that this whitefly is already established in California.

Conclusion and Rating Justification:

Aleurotulus anthuricola is a whitefly that is only known to feed on anthuriums. It does not apparently cause significant impacts to those plants. It does not appear to pose a significant threat to California agriculture or environment. For these reasons, a “C” rating is justified.

References:

Evans, G. A. 2007. Host plant list of the whiteflies (Aleyrodidae) of the world. Version 070611.

Accessed December 22, 2021:

http://entomofaune.qc.ca/entomofaune/aleurodes/references/Evans_2007_Hosts_whiteflies.pdf

California Department of Food and Agriculture. Pest and damage record database. Accessed December 21, 2021:

<https://pdr.cdfa.ca.gov/PDR/pdrmainmenu.aspx>

Hara, A. H. and Hata, T. Y. 1995. Insects and mites. Research Extension Series 152:11-13.

U.S. regulated plant pest table. Accessed December 30, 2021:

<https://www.aphis.usda.gov/aphis/ourfocus/planthealth/import-information/rppl/rppl-table>

Responsible Party:

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***Comment Period: 01/20/2022 – 03/06/2022**

***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