

California Pest Rating Proposal

Aleuroclava aucubae (Kuwana): a whitefly

Hemiptera: Aleyrodidae

Current Rating: B

Proposed Rating: C

Comment Period: **08/26/2022 – 10/10/2022**

Initiating Event:

Aleuroclava aucubae is now known to be present in six counties in California and it is not known to have caused any significant impacts. A new pest rating proposal is needed.

History & Status:

Background: *Aleuroclava aucubae* is a polyphagous whitefly. Reported hosts include: **Adoxaceae:** *Sambucus ebulus*; **Araliaceae:** *Hedera colchica*, *H. japonica*; **Aquifoliaceae:** *Ilex crenata*; **Cannabaceae:** *Celtis occidentalis*; **Caprifoliaceae:** *Lonicera gracillipes*; **Cornaceae:** *Aucuba japonica*; **Flacourtiaceae:** *Myroxylon japonicum*; **Juglandaceae:** *Juglans sieboldiana*; **Lauraceae:** *Litsea glauca*; **Lythraceae:** *Lagerstroemia indica*; **Moraceae:** *Cudrania tricuspidata*, *Ficus carica*, *F. erecta*, *Morus alba*, *M. bombycis*; **Oleaceae:** *Fraxinus angustifolia*, *F. excelsior*, *F. ornus*, *Ligustrum japonicum*, *L. lucidum*; **Pittosporaceae:** *Pittosporum tobira*; **Rosaceae:** *Kerria japonica*, *Neillia uekii*, *Photinia fraseri*, *Prunus buergeriana*, *P. laurocerasus*, *P. lusitanica*, *P. myrtifolia*, *P. persica*, *P. yedoensis*, *Pyracantha angustifolia*, *Raphiolepis umbellata*, *Rosa* sp., *Stephanandra incisa*; **Rubiaceae:** *Paederia* sp.; **Rutaceae:** *Citrus junos*, *C. limon*, *C. unshiu*, *Citrus* sp., *Phellodendron lavalleyi*, *Zanthoxylum piperitum*; **Sapindaceae:** *Acer campestre*; **Theaceae:** *Eurya japonica*; **Ulmaceae:** *Aphananthe aspera*, *Ulmus davidiana*, *U. glabra*, *U. pumila* (Evans, 2007; Gavrillov-Zimin and Borisov, 2020; Hári et al., 2021;

Karpun et al., 2021; Seljak, 2012; Šimala et al., 2015; Streito et al., 2014; Suh, 2010). It is not known to cause damage to plants (Hári et al., 2021; Seljak, 2012).

Worldwide Distribution: *Aleuroclava aucubae* is native to Asia. It is reported from: **Asia:** China, Japan, Republic of Korea; **Europe:** Corsica, Croatia, Hungary, Russian Federation; **North America:** United States (California). It is reported from Slovenia, but it may only overwinter on plants that are moved indoors (Gavrilov-Zimin and Borisov, 2020; Hári et al., 2021; Seljak, 2012; Šimala et al., 2015; Streito et al., 2014; Suh, 2010).

Official Control: *Aleuroclava aucubae* is currently a B-rated pest in California.

California Distribution: *Aleuroclava aucubae* is reported from Butte, Contra Costa, Fresno, Merced, Sacramento, and Yolo counties (California Department of Food and Agriculture).

California Interceptions: *Aleuroclava aucubae* has not been intercepted in California (California Department of Food and Agriculture).

The risk *Aleuroclava aucubae* poses to California is evaluated below.

Consequences of Introduction:

1) **Climate/Host Interaction:** *Aleuroclava aucubae* is polyphagous and hosts are likely present over most of California. This whitefly already present in six counties in California, and it can likely establish in additional areas, at least in southern and central California. Therefore, it receives a **High (3)** 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:** *Aleuroclava aucubae* is polyphagous. Hosts are reported from 19 plant families. Therefore, it receives a **High (3)** 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:** *Aleuroclava aucubae* could 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:** Even though it is reported to feed on a wide variety of plants, including important crop genera (e.g., *Citrus*), *A. aucubae* is not reported to cause damage to plants or have economic impacts. Therefore, it receives a **Low (1)** in this category.

Economic Impact:

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: Low

- **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:** *Aleuroclava aucubae* is not reported to impact its host plants. However, it could trigger treatments by residents who object to the presence of this whitefly on plants. Therefore, *A. aucubae* receives a **Medium (2)** in this category.

Environmental Impact: D

- 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: Medium (2)

- 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 *Aleuroclava aucubae*: Medium (11)

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:** *Aleuroclava aucubae* is reported from six counties in California. It receives a **Medium (2)** 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:

Aleuroclava aucubae may occur in additional counties in California. There appears to be low uncertainty regarding potential economic impact, as this whitefly feeds on a wide variety of plants and reports of impacts were not found.

Conclusion and Rating Justification:

Aleuroclava aucubae is already present in six counties in California. It is not known to have had impacts in California or elsewhere. For these reasons, an “C” rating is justified.

References:

California Department of Food and Agriculture. Pest and damage record database. Accessed May 24, 2022:

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Hári, K., Fail, J., Streito, J. -C., Fetykó, K. G., Szita, E., Haltrich, A., Vikár, D., Radácsi, P., and Véték, G. First record of *Aleuroclava aucubae* (Hemiptera: Aleyrodidae) in Hungary, with a checklist of whiteflies occurring in the country. REDIA 104:3-7.

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Suh, S. -J. 2010. New records of *Aleuroclava* (Hemiptera: Aleyrodidae) from Korea. Korean Journal of Applied Entomology 49:1-4.

Responsible Party:

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***Comment Period: 08/26/2022 – 10/10/2022**

***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