

## California Pest Rating Proposal

### *Dialeurodes schefflerae* Hodges & Dooley: schefflera whitefly

Hemiptera: Aleyrodidae

Current Rating: Q

Proposed Rating: C

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

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#### Initiating Event:

*Dialeurodes schefflerae* is occasionally intercepted on *Schefflera* from Hawaii. It has not been rated. A pest rating proposal is needed.

#### History & Status:

**Background:** *Dialeurodes schefflerae* is reported to be limited to *Schefflera* species, including *S. arboricola* (now sometimes classified as *Heptapleurum arboricola*). In Florida, *D. schefflerae* is the most common whitefly on *H. arboricola* (Evans, 2008; Hodges and Dooley, 2007). Malumphy (2014) reported it to be present in large numbers covering the undersides of leaves of *H. arboricola* in Saint Lucia. Sooty mold was reported to be covering the foliage as well, reducing the aesthetics of the plant. Control measures were taken in response to these infestations.

**Worldwide Distribution:** **Asia:** Widespread, including Indonesia; **Caribbean:** Antigua, Puerto Rico, and Saint Lucia; **North America:** United States (Florida); **Oceania:** Hawaii (Evans, 2008; Hodges and Dooley, 2007; Malumphy, 2014 and 2018).

**Official Control:** *Dialeurodes schefflerae* is not known to be under official control anywhere.

**California Distribution:** *Dialeurodes schefflerae* is not known to be established in California.

**California Interceptions:** *Dialeurodes schefflerae* is occasionally intercepted on *Heptapleurum arboricola* and unidentified *Schefflera* species from Hawaii (California Department of Food and Agriculture).

The risk *Dialeurodes schefflerae* poses to California is evaluated below.

### **Consequences of Introduction:**

- 1) **Climate/Host Interaction:** *Dialeurodes schefflerae* only feeds on *Heptapleurum* and *Schefflera* species. These plants are grown as houseplants and possibly outdoors to a very limited extent. There are no native Californian plants in these genera. *Dialeurodes schefflerae* appears to be limited to areas with tropical or subtropical climate. Therefore, *D. schefflerae* 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:** *Dialeurodes schefflerae* is limited to plants that were previously placed in a single genus, *Schefflera*, but now include the genus *Heptapleurum*. 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:** *Dialeurodes schefflerae* 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.** Scheffleras are common houseplants in California and are grown outdoors in some warmer areas. Infestations could increase the cost of productions. Therefore, *D. schefflerae* receives a **Low (1)** in this category.

**Economic Impact: 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: 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.** There are no native *Heptapleurum* or *Schefflera* species in California. These plants are grown outdoors in warm areas of the state. Infestations could trigger treatments. Therefore, *D. schefflerae* 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 *Dialeurodes schefflerae*: Low (8)**

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:** *Dialeurodes schefflerae* 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 (8)

### **Uncertainty:**

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

### **Conclusion and Rating Justification:**

*Dialeurodes schefflerae* is a whitefly that is only known to feed on *Heptapleurum* and *Schefflera* species. Infestations of this whitefly have been reported to cause sooty mold and trigger treatments. It does not otherwise appear to pose a significant threat to California agriculture or environment, and it scores low. For these reasons, a “C” rating is justified.

### **References:**

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

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

Evans, G. A. 2008. The whiteflies (Hemiptera: Aleyrodidae) of the world and their host plants and natural enemies. Version 2008-09-23.

Hodges, G. S. and Dooley, J. W. 2007. A new species of *Dialeurodes* Cockerell (Hemiptera: Aleyrodidae) on *Schefflera* Forst and Forst in Florida. *Insecta Mundi* 16:1-5.

Malumphy, C. 2014. Seven species of whitefly (Hemiptera: Aleyrodidae) new to Saint Lucia, Lesser Antilles Entomologist's Monthly Magazine 150:201-207.

Malumphy, C. 2018. Two species of whitefly and six species of scale insect (Hemiptera: Aleyrodidae and Coccoidea), new for Antigua, Lesser Antilles. Entomologist's Monthly Magazine 154:53-59.

## 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.

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**Proposed Pest Rating: C**