CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE

California Pest Rating Proposal

Dendrothripoides innoxius (Karny, 1914)

Thysanoptera: Thripidae

Current Rating: Q

Proposed Rating: B

Comment Period: 01/29/2026 - 03/15/2026

Initiating Event:

A female *Dendrothripoides innoxius* was collected in Huntington Beach, Orange County, California in December 2025 and identified. The species does not have a permanent rating.

History & Status:

Background: Female *D. innoxius* reproduce parthenogenically giving the species a high capacity to increase populations (Thrips of California). This thrips inserts eggs into the epidermal layer of leaf tissue of plants in the Convolvulaceae family particularly in the genus *Ipomoea* such as sweet potato, *Ipomoea batatas* (L.) and Chinese water spinach, *Ipomoea aquatica* Forssk, (Mound and Marullo, 1996; Lewis, 1973). Although *D. innoxius* primarily attacks sweet potato, it has been recorded on species in the families Asteraceae, Dioscoreaceae, Musaceae, and Poaceae (Goldarazena et al. 2020).

Adult and immature thrips feed by piercing or rasping the epidermal layer of plants and sucking out cell contents (Western Flower Thrips). Depending on the species, thrips may feed on leaves, flower buds, flowers, or fruit (Thrips of California). Economic damage results from a reduction of plant growth, the deformation of leaves, and discoloration, bronzing or silvering, of the salable plant parts (Thrips of California; Western Flower Thrips).

In a closely related species, the rate of reproduction and development highly depends on temperature with the optimum range falling between 25 °C and 32 °C and upper and lower development thresholds at 35 °C and 10 °C, respectively. Under favorable environmental conditions *D. innoxius* produces from five to eight generations per year (Hong-xue et al. 2016). The primary factor for the artificial spread of *D. innoxius* is the transport of sweet potato and Chinese spinach (Thrips of California; Reyes, 1994).

Worldwide Distribution: *Dendrothripoides innoxius* is native to Southeast Asia and has been introduced to other regions. It is now a widespread tropical and subtropical species. The current geographical range includes: Asia (India, Nepal, Bangladesh, Burma, Malasia, Indonesia, Hong Kong, Taiwan, China (Guangdong, Yunnan), and Japan), Pacific region (Australia (Northern Territory, Queensland, Western Australia), New Caledonia, New Guinea, Vanuatu, Guam, Fiji, Tonga, the Cook Islands, and Hawaii), North America (United States, particularly Florida), Central America and the Caribbean (Panama, Barbados, Bermuda, Cuba, Jamaca, Dominican Republic, Granada, Guadeloupe, St. Croix, and Trinidad), South America (Brazil), and Africa (Nigeria and Reunion) (Goldarazena et. al. 2020).

Official Control: No information was found indicating that *D. innoxius* is under an official control program anywhere within its distribution.

California Distribution: A single adult female was collected on morning glory, *Ipomoea* sp., in Huntington Beach, Orange County, California in December 2025 (California Department of Food and Agriculture).

California Interceptions:

The risk *Dendrothripoides innoxius* poses to California is evaluated below.

Consequences of Introduction:

1) **Climate/Host Interaction:** The climatic conditions of California's San Joaquin Valley and the availability of agricultural and non-agricultural hosts make it probable that *D. innoxius* would establish in California. Therefore, D. innoxius 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:** *D. innoxius* primarily attacks sweet potato and Chinese water spinach but has been recorded on species in the families Asteraceae, Dioscoreaceae, Musaceae, and Poaceae (Goldarazena et al. 2020). Therefore, it receives a **Medium (2)** 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:** *D. innoxius* reproduces parthenogenically, giving the species a high reproduction capacity. This species can naturally disperse via flight and wind, however, the movement of thrips-infested plant material, via commercial commerce, would

greatly facilitate the artificial dispersal of *D. innoxious*. Therefore, it receives a **High (3)** 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**. Feeding damage from thrips pests in California, similar to *D. innoxius*, are known to cause stunting of plant growth, deformation of leaves, and discoloration of fruits and leaves. Information is not available on sweet potato yield loss due to *D. innoxius* feeding. Therefore, it 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 (1)

– **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**. Due to the potential loss in crop value from thrips feeding, growers would treat *D. innoxius* with pesticides to prevent economic loss. Also to protect the aesthetic value of ornamental hosts, such as morning glory, *Ipomoea* sp., a pesticide application would be required. Therefore, it 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 *Species*: Medium (11)

Add up the total score and include it here. **Medium**

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

6) **Post Entry Distribution and Survey Information:** 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 (10)**

Uncertainty: *D. innoxius* has a low uncertainty of establishing in California.

Conclusion and Rating Justification: Sweet potato production occurs in Merced, Fresno, and Stanislaus counties with Merced County accounting for 80 to 90% of the State's total production on roughly 6.47 thousand hectares (16.3 thousand acres) (California Production). Chinese water spinach production occurs primarily in Fresno, Tulare, Merced counties and to a lesser degree in Los Angeles, Orange, Yuba, Sutter, and Lake counties. Economic damage to these crops can result from *D. innoxius* feeding.
Given the economic and cultural importance of these crops in California, County Agricultural Commissioners should have the ability to protect production in their as well as other counties via eradication, containment, control or other holding actions. The sweet potato thrips, *D. innoxius*, should have a California Department of Food and Agriculture pest rating of "B".

References:

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***Comment Period: 01/29/2026 - 03/15/2026**

***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.

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: B