

California Pest Rating Proposal

***Arorathrips mexicanus* (Crawford): a thrips**

Synonym: *Chirothrips mexicanus* Crawford

Thysanoptera: Thripidae

Current Rating: Q

Proposed Rating: C

Comment Period: 09/07/2021 – 10/22/2021

Initiating Event:

Arorathrips mexicanus is occasionally intercepted. It has not been rated. Therefore, a pest rating proposal is needed.

History & Status:

Background: *Arorathrips mexicanus* is a pest of grasses that is widespread in tropical and subtropical regions (Jacott-Guillarmod, 1971). The adults are usually bicolored but are sometimes uniformly brown (Mound and Marulo, 1996; Crawford, 1909).

Worldwide Distribution: *Arorathrips mexicanus* is native to the New World, possibly South America. It has been introduced widely and is now widespread in tropical and subtropical regions (Thrips of California).

Official Control: *Arorathrips mexicanus* is not known to be under official control anywhere (USDA -Phytosanitary Export Database).

California Distribution: *Arorathrips mexicanus* is widespread in California. It has been collected in the environment in Riverside, Imperial, Sacramento, Yolo, Inyo, Stanislaus, Plumas, and Fresno counties

(F. Forthman, pers. comm.). Bailey (1957) lists additional records from Amador, Kern, Madera, Merced, Modoc, Orange, and Tulare counties.

California Interceptions: *Arorathrips mexicanus* has been intercepted in California multiple times since 2011 (California Department of Food and Agriculture).

The risk *Arorathrips mexicanus* poses to California is evaluated below.

Consequences of Introduction:

- 1) **Climate/Host Interaction:** *Arorathrips mexicanus* is already widespread in 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:** *Arorathrips mexicanus* is reported to feed on many kinds of plants including many grasses. 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:** *Arorathrips mexicanus* can presumably fly and it could also be spread when infested plants are moved. 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:** There is no information available about this thrips species as a significant economic pest. 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:** *Arorathrips mexicanus* is widely established in California and it has not been reported to have environmental impacts or to be a pest triggering official or private treatment programs. Therefore, it receives a **Low (1)** in this category.

Evaluate the environmental impact of the pest on California using the criteria below.

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 *Arorathrips mexicanus*: 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:** *Arorathrips mexicanus* is widely distributed in California. It receives a **High (-3)** 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 is low uncertainty.

Conclusion and Rating Justification:

Arorathrips mexicanus is widespread in California and it is not known to be a significant pest. A “C” rating is justified.

References:

Bailey, S. F. 1957. The thrips of California. Part I: Suborder Terebrantia. University of California Press, Berkeley and Los Angeles, California.

California Department of Food and Agriculture. Pest and damage record database. Accessed July 28, 2021: <https://pdr.cdfa.ca.gov/PDR/>

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Masumoto M., Oda, Y., and Iwaizumi, R., 2001. Two new records of grass-inhabiting thrips from Japan. Research Bulletin of the Plant Protection Service of Japan 37:47-54.

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USDA Phytosanitary Certificate Issuance & Tracking System (PCIT) Phytosanitary Export Database

(PExD). Accessed July 28, 2021: <https://pcit.aphis.usda.gov/pcit/>

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***Comment Period: 09/07/2021 – 10/22/2021**

***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