

**California Pest Rating Proposal for  
*Eutetranychus orientalis* (Klein): Citrus brown mite**

**Acari: Tetranychidae**

**Current Rating: Q**

**Proposed Rating: A**

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**Comment Period: 04/04/2025 – 05/19/2025**

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**Initiating Event:**

This mite, which is not known to be established in North America, was intercepted on grapefruit reportedly grown in Arizona. It has not been rated. A pest rating proposal is needed.

**History & Status:**

**Background:**

*Eutetranychus orientalis* is a polyphagous mite with over 150 reported hosts, including citrus, grape, *Juniperus* sp., *Acacia* sp., *Datura* sp., *Nerium oleander*, *Tamarix* sp., *Saccharum* sp., *Ziziphus* sp., *Albizia* sp., *Mangifera* sp., *Olea* sp., *Psidium* sp., *Azadiracta* sp., and *Ficus* sp. (Kamran et al., 2018; Spider mites of Australia). It is reported to live and feed mostly on leaves (López-Olmos and Ferragut, 2023).

Development from egg hatching to adult is reported to take six days and there can be approximately 20 generations per year (Plant pests of the Middle East; Rasmy, 1977).

*Eutetranychus orientalis* is principally a pest of citrus, especially in dry areas, and impacts are greater on trees already affected by water or nutritional stress (Vela et al., 2013). It was found by Vela et al. (2013) to be the most common tetranychid mite in orange and lemon groves in Spain, and it is a

“major” pest of citrus in India. (Plant pests of the Middle East; Singh and Raghuraman, 2011; Vela et al., 2013). The feeding, which occurs mostly on leaves, causes discoloration, defoliation, and fruit drop and it can impact blossoming (Plant pests of the Middle East; Vela and Boyero, 2014).

**Worldwide Distribution:** *Eutetranychus orientalis* is reported to be native to the Middle East. Its distribution includes: **Africa:** Egypt, Ethiopia, Malawi, Mali, Mozambique, Nigeria, Senegal, South Africa, Sudan, Tunisia; **Asia:** Afghanistan, China, India, Iraq, Japan, Jordan, Kenya, Kuwait, Lebanon, Malaysia, Pakistan, Philippines, Saudi Arabia, Taiwan, Thailand, Turkey, United Arab Emirates, Vietnam, Yemen; **Europe:** Cyprus, Spain; **Oceania:** Australia (Queensland) (Kamran et al., 2018; López-Olmos and Ferragut, 2023; Sabrine et al., 2022; Vela and Boyero, 2014; Walter et al., 1995).

**Official Control:** *Eutetranychus orientalis* is considered reportable by the United States Department of Agriculture (USDA regulated plant pest table). It is a quarantine pest in Mexico and Morocco and on the A1 list for Argentina, Brazil, Chile, Bahrain, and Serbia (EPPO global database).

**California Distribution:** *Eutetranychus orientalis* is not known to be established in California.

**California Interceptions:** *Eutetranychus orientalis* was intercepted on grapefruit from Arizona (indicated as grown in Yuma) at a border station in 2025. This mite is not known to be established in North America.

The risk *Eutetranychus orientalis* poses to California is evaluated below.

### **Consequences of Introduction:**

- 1) **Climate/Host Interaction:** *Eutetranychus orientalis* is polyphagous and one of its hosts is citrus. There are likely suitable hosts over much of California. It is reported from areas with a

Mediterranean climate. This mite is probably capable of establishing over much of the state of 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:** *Eutetranychus orientalis* is polyphagous. 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:** *Eutetranychus orientalis* could be dispersed artificially through movement of infested plant material. It is reported to have many generations per year. 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.** *Eutetranychus orientalis* is reported to be an important citrus pest. It is reported to cause leaf and fruit drop and to impact blossoming. It is a USDA-reportable pest and a quarantine pest in other countries. Therefore, it receives a **High (3)** in this category.

**Economic Impact: A, 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: High**

– 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.** *Eutetranychus orientalis* is a pest of citrus and it might affect other garden or ornamental plants as well. It could trigger treatments. Therefore, this mite 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 *Eutetranychus orientalis*: High (14)**

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:** *Eutetranychus orientalis* 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: High (14)

### **Uncertainty:**

There is little uncertainty regarding how much of the state *E. orientalis* could establish in; it is likely capable of establishing over much of California. There is significant uncertainty regarding how significant it would be as a pest if it did establish here. As with any pest not yet present in the state, growing practices and natural enemies present in California could significantly mitigate the significance of this mite here.

## Conclusion and Rating Justification:

*Eutetranychus orientalis* is a pest of citrus, an important crop in California, and it is not known to be established in the state. For these reasons, an “A” rating is justified.

## References:

California Department of Food and Agriculture. Pest and damage record database. Accessed March 13, 2025:

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López-Olmos, S. and Ferragut, F. 2023. The newcomer takes it all: the invader Texas citrus mite, *Eutetranychus banksi* (Acari: Tetranychidae), displaces the resident relatives in citrus agrosystems. *Biological Invasions* 25:3171-3192.

Plant pests of the Middle East. Accessed March 19, 2025:

[http://www.agri.huji.ac.il/mepests/pest/Eutetranychus\\_orientalis/](http://www.agri.huji.ac.il/mepests/pest/Eutetranychus_orientalis/)

Rasmy, A. H. 1977. Biology of the citrus brown mite, *Eutetranychus orientalis* as affected by some citrus species. *Acarologia* 19:222-224.

Sabrine, C., Hajer, S., and Kouather, L. G. 2022. Dynamics of three phytophagous mites *Tetranychus urticae*, *Panonychus citri* and *Eutetranychus orientalis* (Acari, Tetranychidae) on citrus in Tunisia. *Journal of Oasis Agriculture and Sustainable Development* DOI:

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Singh, J. and Raghuraman, M. 2011. Emerging scenario of important mite pests in north India. *Zoosymposia* 6:170-179.

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USDA regulated plant pest table. Accessed March 19, 2025: <https://www.aphis.usda.gov/plant-imports/regulated-pest-list>

Vela, J. M. and Boyero, J. R. 2014. Ácaros de los cítricos, con especial referencia al ácaro oriental (*Eutetranychus orientalis*). Phytoma 258:39-44.

Vela, J. M., Ledesma, C., Wong, E., Jacas, J. A., and Boyero, J. R. 2013. El ácaro oriental de los cítricos, *Eutetranychus orientalis* (Klein) (Acari, Tetranychidae), y sus ácaros depredadores, en Andalucía (España). Leyante Agrícola 132-136.

Walter, D. E., Halliday, R. B., and Smith, D. 1995. The oriental red mite, *Eutetranychus orientalis* (Klein) (Acarina: Tetranychidae), in Australia. Journal of the Australian Entomological Society 34:307-308.

### **Responsible Party:**

Kyle Beucke, 1220 N Street, Sacramento, CA 95814, 916-698-3034, [permits\[@\]cdfa.ca.gov](mailto:permits[@]cdfa.ca.gov)

**\*Comment Period: 04/04/2025 – 05/19/2025**

### **\*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: A**