CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE

California Pest Rating Proposal

Leucaspis podocarpi Green: White totara scale

Hemiptera: Diaspididae

Current Rating: Q

Proposed Rating: B

Comment Period: 12/04/2025 – 01/18/2026

Initiating Event:

Leucaspis podocarpi, currently rated Q, was found in the environment in Humboldt County. Therefore, a new pest rating proposal is needed.

History & Status:

Background: All of the reported host plants of *Leucaspis podocarpi* are in two genera of Podocarpaceae: *Podocarpus* and *Prumnopitys* (Brittin, 1937; Henderson and Martin, 2006; García Morales et al., 2016; Williams, 1985). At the detection site in Humboldt County, California, the following species were found to be infested: *Podocarpus acutifolius*, *P. cunninghamii*, *P. nivalis*, *P. nubigenus*, *P. salignus, P. totara*, and *Prumnopitys andina*.

The only reported impacts caused by this scale are deformation of leaves ("leaf margin roll") on the host *Prumnopitys taxifolia* and "numerous marks" and an "unhealthy appearance" on *Podocarpus andinus* (Henderson and Martin, 2006; Williams, 1985). Marks were also observed on infested *Podocarpus* trees in Humboldt County, California.

Worldwide Distribution: **Europe:** United Kingdom; **North America:** United States (California); **Oceania:** New Zealand (native) (Brittin, 1937; García Morales et al., 2016; Williams, 1985).

Official Control: *Leucaspis podocarpi* is not known to be under official control.

California Distribution: *Leucaspis podocarpi* was found infesting *Podocarpus* and *Prumnopitys* trees on a university campus in Humboldt County (California Department of Food and Agriculture). These trees were planted approximately 30 years previously and the scale was reportedly present at least as early as 2016 but had been misidentified (K. Lockwood, pers. comm.).

California Interceptions: *Leucaspis podocarpi* has not been intercepted in California.

The risk *Leucaspis podocarpi* poses to California is evaluated below.

Consequences of Introduction:

1) **Climate/Host Interaction:** *Leucaspis podocarpi* is already established in Humboldt County. *Podocarpus* species are planted widely in California. Therefore, this scale 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:** The reported hosts of *Leucaspis podocarpi* are limited to one plant family. 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:** *Leucaspis podocarpi* could be moved with infested plants. 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**. *Podocarpus* species are commonly grown as ornamentals in California and are sold by major nurseries in the state. *Leucaspis podocarpi* can cause deformation of leaves and chlorosis in host plants. It could increase costs of production of host plants in nurseries. 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

– 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 California plants in the family Podocarpaceae. Treatments of infested trees may be triggered. Therefore, *L. podocarpi* receives a **High (3)** in this category.

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

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 *Leucaspis podocarpi*: 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:** *Leucaspis podocarpi* was found in the environment in Humboldt County. 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.

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Final Score:

7) The final score is the consequences of introduction score minus the post entry distribution and survey information score: Medium (9)

Uncertainty:

There is high uncertainty regarding the distribution of this scale in California. *Podocarpus* species are widely planted in the state, and if the scale was introduced approximately 30 years ago (based on how long ago the infested trees were planted), it seems likely it has spread further in the state.

Conclusion and Rating Justification:

Leucaspis podocarpi is an armored scale with a limited host range that only includes one plant family, the Podocarpaceae. This family does not include any native California plants, but species are planted widely in California as ornamentals. Literature does not support significant impacts on host plants, and this scale likely does not pose a serious risk to agriculture or the environment in California. However, visible feeding damage was associated with the Humboldt County infestation, and a cautious approach is taken in this proposal. For these reasons, a "B" rating is justified.

References:

Brittin, G. 1937. Notes on the genus *Leucaspis*, with descriptions of thirteen New Zealand species and redescription of eight foreign species. Transactions and Proceedings of the Royal Society of New Zealand 67:281-301.

California Department of Food and Agriculture. Pest and damage record database. Accessed October 24, 2025: https://pdr.cdfa.ca.gov/PDR/pdrmainmenu.aspx

García Morales, M., Denno, B.D., Miller, D.R., Miller, G.L., Ben-Dov, Y., and N.B. Hardy. 2016. ScaleNet: A literature-based model of scale insect biology and systematics. Accessed October 24, 2025: http://scalenet.info

Henderson, R. C., and Martin, N. A. 2006. Review of the gall-inducing scale insects of New Zealand (Hemiptera: Coccoidea), with a guide to field identification. New Zealand Entomologist 29:59-75.

Williams, D. J. 1985. Scale insects (Homoptera: Coccoidea) of Tresco, Isles of Scilly. Entomologist's Gazette 36:135-144.

Responsible Party:

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***Comment Period: 12/04/2025 – 01/18/2026**

***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