

CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
COTTON PEST CONTROL PROGRAM – COTTON SEED BUG UPDATE
56 YEARS OF SERVICE TO COTTON GROWERS

Date: August 4, 2026

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Subject: Cotton Seed Bug Nursery Detection Updates

This advisory provides an update to the cotton industry of the recent detections of cotton seed bug (CSB) (*Oxycarenus hyalinipennis*) in California nurseries. The California Department of Food and Agriculture (CDFA) has conducted annual visual CSB surveys in nurseries since 2023.

To date, CSB has been identified in 16 nursery locations across Orange (4), Riverside (1), San Diego (7), Santa Barbara (2), and Ventura (2*) (*one nursery detection was not collected on a plant. CSB landed on an inspector during a glassy-winged sharpshooter treatment) counties.

All associated plants were either placed on hold and treated until they passed reinspection and were found free from CSB or destroyed by County Agricultural Commissioner (CAC).

A detailed summary of each find is included below.

Summary of Nursery Finds

San Marcos, San Diego County

- On July 11, 2025, CAC staff visited a nursery in San Marcos, San Diego County and collected six suspect CSB samples from hibiscus plants. These samples were sent to the CDFA's Plant Pest Diagnostic Center (PPDC) for identification. On July 15, 2025, the PPDC confirmed the samples were six adult CSBs.
 - This was the first detection of CSB in a commercial nursery.
- The CAC staff isolated 30 plants. These plants were destroyed on July 28, 2025.
- The trace back survey was conducted on August 1, 2025, with no finds.
- The nearest commercial cotton field is 129 miles from this location.

Vista, San Diego County

- On July 11, 2025, CAC staff visited a nursery in Vista, San Diego County and collected one suspect CSB sample from one hibiscus plant. The sample was sent to the PPDC for identification. On July 15, 2025, the PPDC confirmed the sample

was an adult CSB.

- The CAC staff isolated associated hibiscus plants, and the plants were treated with insecticide on July 22, 2025, July 29, 2025, September 12, 2025, and October 11, 2025. After the treatments, two 30-day inspections were completed with no CSB finds. Plants were released on December 12, 2025.
- The nearest commercial cotton field is 127 miles from this location.

San Diego, San Diego County

- On July 16, 2025, CAC staff visited a nursery in San Diego, San Diego County and collected eight suspect CSB samples from hibiscus plants. The samples were sent to the PPDC for identification. On July 18, 2025, the PPDC confirmed the samples were adult CSBs.
- The CAC staff isolated 79 plants in total, and they were treated with insecticide on July 17, 2025.
- The site was resurveyed and the host plants were inspected and released on October 3, 2025, with no CSB finds.
- The nearest commercial cotton field is 123 miles from this location.

Oceanside, San Diego County

- On July 18, 2025, and on September 12, 2025, CAC staff visited a nursery in Oceanside, San Diego County and collected 11 suspect CSB samples from hibiscus plants. The samples were sent to the PPDC for identification, and the PPDC confirmed that the samples were adult CSBs.
- The CAC staff isolated 3,251 plants and they were treated with insecticide on July 18, 2025, July 19, 2025, and September 19, 2025.
- The site was resurveyed on October 19, 2025, and on November 19, 2025, the host plants were inspected and released with no CSB finds.
- The nearest commercial cotton field is 118 miles from this location.

Oceanside, San Diego County

- On July 22, 2025, CAC staff visited another nursery located in Oceanside, San Diego County and collected seven suspect CSB samples from hibiscus plants. The samples were sent to the PPDC for identification and the PPDC confirmed the samples were adult CSBs.
- The CAC staff isolated 96 plants in total, and they were treated with insecticide on July 25, 2025.
- The site was resurveyed and the host plants were released on September 30, 2025.
- The nearest commercial cotton field is 118 miles from this location.

Escondido, San Diego County

- On July 22, 2025, CAC staff visited a nursery in Escondido, San Diego County and collected three suspect CSB samples from hibiscus plants. The samples were sent to the PPDC for identification and the PPDC confirmed the samples were adult CSBs.
- The CAC staff isolated 23 plants in total, and they were treated with insecticide on July 23, 2025.
- The site was resurveyed and the host plants were released on October 3, 2025.
- The nearest commercial cotton field is 100 miles from this location.

Fallbrook, San Diego County

- On July 25, 2025, CAC staff visited a nursery in Fallbrook, San Diego County and collected five suspect CSB samples from hibiscus and mallow plants. The samples were sent to the PPDC for identification and the PPDC confirmed the samples were adult CSBs.
- The CAC staff isolated 4,910 plants in total, and they were treated with insecticide on July 25, 2025, and July 28, 2025.
- The site was resurveyed and the host plants were released on October 3, 2025.
- The nearest commercial cotton field is 113 miles from this location.

Orange, Orange County

- On July 23, 2025, CDFA staff visited a nursery in the City of Orange, Orange County and collected two suspect CSB samples from hibiscus plants. The samples were sent to the PPDC for identification and the PPDC confirmed the samples were adult CSBs.
- The CDFA staff isolated 100 plants in total, and they were treated with insecticide on August 6, 2025.
- The host plants were reinspected and released on October 8, 2025.
- The nearest commercial cotton field is 105 miles from this location.

Irvine, Orange County

- On August 4, 2025, CAC staff visited a nursery in Irvine, Orange County and collected ten suspect CSB samples from hibiscus plants. The samples were sent to the PPDC for identification and the PPDC confirmed the samples were adult CSBs.
- The CAC staff isolated 124 plants in total, and they were treated with insecticide on August 12, 2025.
- The host plants were inspected on October 16, 2025, and November 17, 2025, and

released on December 1, 2025.

- The nearest commercial cotton field is 116 miles from this location.

Santa Barbara, Santa Barbara County

- On July 31, and August 5, 2025, CAC staff visited a nursery in Santa Barbara, Santa Barbara County and collected 14 suspect CSB samples from *Alyogyne huegelii* 'Lady Barbara Rose', and *Anisodonteia* sp. 'Tara's Pink' plants. The samples were sent to the PPDC for identification and the PPDC confirmed the samples were adult and nymph CSBs.
- The CAC staff isolated 106 plants, and the plants were destroyed on August 12, 2025.
- The nearest commercial cotton field is 60 miles from this location.

San Juan Capistrano, Orange County

- On September 17, 2025, CAC staff visited a nursery in San Juan Capistrano, Orange County and collected ten suspect CSB samples from *Alyogyne* sp. plants. The samples were sent to the PPDC for identification and the PPDC confirmed the samples were adult and nymph CSBs.
- The CAC staff isolated 12 plants in total, and the plants were destroyed on September 24, 2025.
- The nearest commercial cotton field is 148 miles from this location.

Riverside, Riverside County

- On September 18, 2025, CAC staff visited a nursery in Riverside, Riverside County and collected three suspect CSB samples from hibiscus plants. The samples were sent to the PPDC for identification and the PPDC confirmed the samples were adult and nymph CSBs.
- The CAC staff isolated 24 plants, and the plants were treated with insecticide on September 28, 2025.
- The plants were released after a second 30-day inspection was conducted on November 26, 2025, and no suspects of CSB were found.
- The nearest commercial cotton field is 116 miles from this location.

Moorpark, Ventura County

- On October 7, 2025, CAC staff visited a nursery in Moorpark, Ventura County and collected two suspect CSB samples from *Alyogyne huegelii* plants. The samples were sent to the PPDC for identification and the PPDC confirmed the samples were adult CSBs.
- The CAC staff isolated 24 plants, and the plants were treated with insecticide on October 31, 2025, and inspected on December 1, 2025, with no CSB finds.

- The plants were reinspected on January 2, 2026. No CSB was found and the plants were released for intrastate shipment.
- The nearest commercial cotton field is 57 miles from this location.

Santa Paula, Ventura County

- On October 21, 2025, CAC staff visited a nursery in Santa Paula, Ventura County and collected one suspect CSB sample that landed on an inspector while they were observing a glassy-winged sharpshooter treatment. The sample was sent to the PPDC for identification and the PPDC confirmed the sample was an adult CSB.
- The CAC staff surveyed the Santa Paula and Saticoy locations and no additional CSB suspect was found.
- The nearest commercial cotton field is 54 miles from this location.

San Juan Capistrano, Orange County

- On December 10, and December 17, 2025, CAC staff visited a nursery in San Juan Capistrano, Orange County and collected 14 suspect CSB samples from hibiscus and *Anisodonta* sp. plants. The samples were sent to the PPDC for identification and the PPDC confirmed the samples were adult and nymph CSBs.
- CAC staff isolated and destroyed 15 plants on December 18, 2025, and 26 plants on December 23, 2025.
- The nearest commercial cotton field is 130 miles from this location.

Carpinteria, Santa Barbara County

- On March 17, 2026, CAC staff visited a nursery in Carpinteria, Santa Barbara County and collected 7 suspect CSB samples from hibiscus plants. The samples were sent to the PPDC for identification and the PPDC confirmed the samples were adult CSBs.
- The CAC staff isolated 18 plants in total, and the plants were destroyed on March 23, 2026.
- The nearest commercial cotton field is 54 miles from this location.

Cypress, Orange County

- On May 05, 2026, CAC staff visited a nursery in Cypress, Orange County and collected 29 suspect CSB samples from hibiscus plants. The samples were sent to the PPDC for identification and the PPDC confirmed the samples were adult CSBs.
- The CAC staff isolated 11 plants in total, and the plants were destroyed on May 05 and May 12, 2026.
- The nearest commercial cotton field is 98 miles from this location.

Cotton Seed Bug Description

CSB is a small (adults are ~4mm long), brownish-black, nondescript true bug. The primary food of adults and nymphs is seed of plants in the family Malvaceae, including the genera *Gossypium*, *Hibiscus*, *Malva*, *Abutilon*, and (based on California detections) *Lagunaria*. Agricultural hosts include cotton, okra, and kenaf. The ornamental primrose tree (*Lagunaria patersonia*) appears to be a potentially preferred host, as the seeds are present on the tree for long time periods. See the USDA-APHIS Pest Alert listed under resources for images and additional information.

Adult Cotton Seed Bug Photos

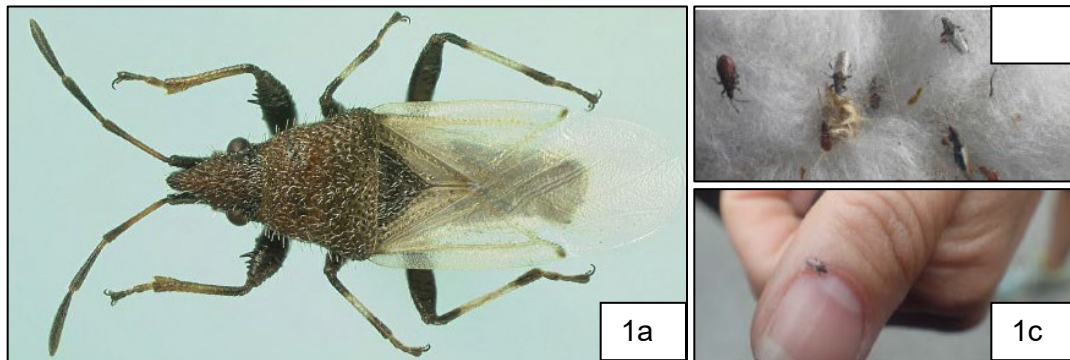


Figure 1a: Adult CSB, photo by Julieta Brambila, USDA; Figure 1b: CSB life stages on a cotton boll, photo by Karolynne Griffith, USDA; Figure 1c: Adult CSB resting on a person's thumb, photo by CDFA

Cotton Seed Bug on Malva



Figure 2: CSB on the host plant *Malva parviflora*. Photo courtesy of San Diego CAC

Summary of Cotton Seed Bug Activities

CDFA has conducted a visual survey for CSB in nurseries since 2023.

In 2023, CDFA's Pest Detection and Emergency Projects (PDEP) surveyed a total of 27 nurseries across Los Angeles, Riverside, Orange, and San Diego counties. No CSBs were found during this or past PDEP nursery and ornamental surveys.

In 2024, CDFA surveyed a total of 49 nurseries for CSB in Los Angeles, Orange, Riverside,

San Diego, Santa Barbara, and Ventura counties. The nurseries were chosen based on the likelihood that they would have Malvaceous plants present ideally with seed pods. No CSB were found during this or past PDEP nursery and ornamental surveys.

In 2025, CDFA continued the CSB survey covering a total of 46 nurseries located in Los Angeles, Orange, Riverside, San Diego, Santa Barbara, Santa Clara, and Ventura counties. Production nurseries that ship Malvaceous plants out of state were prioritized. Of the 43 nurseries surveyed, samples collected from 17 nurseries were confirmed positive for CSB. In addition to these nursery/ornamental surveys, CDFA is continuing to partner with the United States Department of Agriculture (USDA) to conduct surveys in commercial cotton and okra. The 2025 annual CSB survey in commercial cotton was completed, and no CSB was found in production cotton or okra in California.

In 2026, CDFA will continue the CSB survey in nurseries across Los Angeles, Orange, Riverside, San Diego, Santa Barbara, Santa Clara, and Ventura counties. CDFA is also holding monthly meetings with USDA to coordinate management of CSB.

The map below illustrates the current official CSB nursery detections and their proximity to the 2025 commercial cotton acreage.



Resources

The USDA-APHIS Pest Alert, which includes information on the identification of and surveying for this pest, is available here:

<https://www.aphis.usda.gov/sites/default/files/alert-cotton-seed-bug.pdf>

For information on the pest risk assessment and rating of cotton seed bug in California, please visit:

https://blogs.cdfa.ca.gov/Section3162/wp-content/uploads/2019/07/PRP2019-Oxycarenus_Profile_ADA.pdf

USDA Response Guidelines for commercial cotton fields:

https://www.cdfa.ca.gov/plant/ipc/pinkbollworm/pbw_pdfs/2026/New_Pest_Response_Guidelines_Oxycarenus_hyalinipennis_Cotton_seed_bug.pdf

For information about the CDFA Nursery program activities please contact peinfo@cdfa.ca.gov