

APHIS – Plant Protection and Quarantine
 California Department of Food and Agriculture
 Weekly Situation Report: Light Brown Apple Moth (LBAM)

June 24, 2009

Detection Trapping Pest Results (Adult LBAM):

Source: CDFA/PHPPS

| Report Date: 6/24/2009 | | Positive Totals by Year/YTD | | | | | | | | |
|------------------------|--------------|-----------------------------|-------------|-------------|--------------|--------------|--------------|-------------|--------------|---------------|
| County | 2007 | 2008 | Jan-09 | Feb-09 | Mar-09** | Apr-09** | May-09** | Jun-09* | YTD | Total |
| Alameda | 46 | 1528 | 430 | 796 | 1969 | 2476 | 2343 | 1351 | 9365 | 10939 |
| Contra Costa | 16 | 1283 | 184 | 248 | 1101 | 598 | 606 | 140 | 2877 | 4176 |
| Los Angeles | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Marin | 62 | 927 | 46 | 153 | 707 | 978 | 1471 | 380 | 3735 | 4724 |
| Monterey | 574 | 5163 | 271 | 337 | 408 | 890 | 1387 | 977 | 4270 | 10007 |
| Napa | 0 | 13 | 2 | 10 | 10 | 9 | 21 | 1 | 53 | 66 |
| San Benito | 0 | 9 | 0 | 1 | 3 | 0 | 2 | 1 | 7 | 16 |
| San Francisco | 3959 | 16001 | 2853 | 3969 | 6403 | 1235 | 1884 | 271 | 16615 | 36575 |
| San Joaquin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| San Luis Obispo | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| San Mateo | 73 | 1862 | 536 | 416 | 142 | 225 | 409 | 292 | 2020 | 3955 |
| Santa Barbara | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| Santa Clara | 12 | 128 | 9 | 11 | 29 | 79 | 62 | 22 | 212 | 352 |
| Santa Cruz | 6911 | 15439 | 1388 | 1990 | 3307 | 4206 | 4647 | 1655 | 17193 | 39543 |
| Solano | 7 | 28 | 2 | 4 | 1 | 12 | 7 | 7 | 33 | 68 |
| Sonoma | 0 | 21 | 0 | 2 | 3 | 8 | 28 | 5 | 46 | 67 |
| Ventura | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| Yolo | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 3 | 3 |
| Project Totals | 11662 | 42408 | 5721 | 7938 | 14084 | 10716 | 12868 | 5104 | 56431 | 110501 |

* Not all monthly totals have come in. ** Late finds came in.

• **Survey**

- Survey teams continue to implement a rigorous detection and delimiting survey for the light brown apple moth (LBAM), *Epiphyas postvittana*, in **16** counties.
- A total of **18,977** pheromone-baited traps are placed in and around retail and production nurseries, at ports of entry, and in the open environment and are being inspected bi-weekly.
- Visual inspections of all nurseries located within 1.5 miles from any traps with confirmed LBAM are conducted for the presence of any life stages.
- On June 15, APHIS confirmed one adult male light brown apple moth trapped in a citrus tree in Manteca, California, which is located in a residential area in San Joaquin

County. This detection represents a new county record for the State. Manteca is located 80 miles east of San Francisco and is south of Stockton, California. This find is approximately 30 miles from the nearest LBAM detection. Delimitation surveys are being conducted.

- **Identification and Diagnostics**

- A total of **110,501** moths have been confirmed to date as LBAM (2007-09): 11662 in 2007 and 42,402 in 2008.

Total confirmed “positive” larvae/pupae/egg masses collected in nurseries to date is **2,474**.

- LBAM immature life stages, including larvae and pupae have been found in a total of **98** nurseries, cut flower or greenery farms in Alameda, Contra Costa, Marin, Monterey, San Benito, San Francisco, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, Solano, and Sonoma counties. Infested nurseries have the option to treat and be re-inspected as part of the regulatory requirements.

Operational Update:

- **Technical Working Group (TWG)**

- The TWG plans to meet in July 2009 to review program information and provide technical recommendations in support of the program.

- **Program Resources**

- A total of **173** personnel are on-site (**137** CDFA, and **36** APHIS) assuming various roles within the emergency program structure.

- **Regulatory Actions**

- CDFA, APHIS, and County personnel continue to conduct inspections and certification of host commodities in the quarantine areas as required by State LBAM regulations and by the Federal Quarantine Order.
- To date, a total of **1,998** compliance agreements have been issued to **4,040** sites located within the quarantine area requiring regular inspections of all nursery stock and other host materials.

- **Treatment**

- Nurseries with host plants that are confirmed as infested with LBAM larvae or pupae have the option of treating or destroying infested plants before shipping outside the quarantine area.
- 2009 treatment plans –
 - Twist-ties are being used to eradicate LBAM infestations in outlying areas.

- Preparations continue for the Sterile Insect Technology (SIT) demonstration project. The goal of the demonstration project is to develop, adapt and validate mass-rearing, irradiation, handling, release, and evaluation technologies to lay the groundwork for future implementation of an operational SIT program for the Light Brown Apple Moth (LBAM).
- **Environmental Assessment and Monitoring**
 - APHIS is in the process of conducting an Environmental Assessment in support of the LBAM Sterile Insect Technology (SIT) pilot releases scheduled to be implemented during the summer 2009.

Trade Update:

- From June 15-18, 2009 members of Chile's SAG (Servicio Agrícola y Ganadero) visited the light brown apple moth (LBAM) facilities in Moss Landing, CA. During their visit, the Chilean SAG group toured the Moss Landing program headquarters and heard presentations on surveillance and detection, regulatory methods/treatment of produce, and sterile insect technique from PPQ staff. The Chilean SAG members also visited a plant nursery and observed a field inspection.
- CFIA removed the phytosanitary certificate requirement for citrus, effective August 18, 2008.
- On March 24, 2008, Mexico verified phytosanitary compliance measures required for importation of LBAM host products originating from California and Hawaii, including LBAM regulated areas. Compliance measures include a monitoring system, integrated pest management, products sent in closed containers and sealed at origin.
- On January 25, 2008 the Canadian Food Inspection Agency (CFIA) posted the 3rd revision to D-07-03 - Plant Protection (Phytosanitary) Import Requirements to Prevent the Entry of *Epiphyas postvittana* (Walker) (light brown apple moth). The directive outlines requirements for the importation of host commodities into Canada.
- China and South Korea have made inquiries about the LBAM program.
- Chile has imposed restrictions because of LBAM. An additional AD is required for all LBAM host material declaring that it did not come from a quarantine area.

Communication and Outreach:

- The Joint Information Center (JIC) continues to provide information and field questions regarding LBAM program plans in California.
 - The JIC is developing coalition of individuals and organizations who support solutions to invasive species problems and developing outreach associated with SIT program and invasive species campaign.
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Background:

- On February 6, 2007, a private citizen near Berkeley in Alameda County, California, reported that two suspect moths had been captured in a blacklight trap on his property.
- In response, pheromone-baited traps were placed on March 1, 2007, in Alameda and Contra Costa counties. Trap inspections began March 7, 2007.
- On March 16, 2007, the ARS Systematic Entomology Laboratory (SEL) in Washington, DC, confirmed through morphological testing that the two samples submitted were, in fact, LBAM.
- CDFA established on April 20, 2007 a LBAM quarantine of at least 182 square miles in Alameda, Contra Costa, San Francisco, Marin and Santa Clara counties. The quarantine is expected to expand to include Monterey, Santa Cruz and San Mateo counties.
- APHIS issued a LBAM Federal Quarantine Order on May 2, 2007, requiring inspection and certification of all nursery stock and host commodities from eight counties in California, including Alameda, Contra Costa, Marin, Monterey, San Francisco, San Mateo, Santa Clara, and Santa Cruz counties.
- A Technical Working Group (TWG) consisting of subject matter experts from Australia, New Zealand, and the United States was established to provide APHIS and CDFA technical recommendations. The TWG toured the infested region on May 16 and concluded with a two-day meeting on May 17-18 in San Jose, California. Recommendations designed to provide short and long-term plans to contain, control, and eradicate LBAM in California were forwarded to APHIS and CDFA.
- The light brown apple moth (LBAM), *Epiphyas postvittana*, is a native pest of [Australia](#) and is now widely distributed in New Zealand, the United Kingdom, Ireland, and New Caledonia. Although it was reported in Hawaii in the late 1800s, the LBAM find in California is the first on the US mainland.
- LBAM has a host range in excess of 120 plant genera in over 50 families, including nursery stock, cut flowers, fruits, and vegetables.
- LBAM could cause an estimated \$160 to \$640 million annually in crop damage and control costs if it spreads to agricultural production area in the 15 affected counties and up to \$2.4 billion in California.

