

# Asian Longhorned Beetle Sacramento 2006



**CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE  
PEST DETECTION/ EMERGENCY PROJECTS  
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# Asian Longhorned Beetle



# Chronology

- Over a two-day period in June 2005, three live Asian longhorned beetles were collected from the Rox Pro Warehouse in Sacramento.
- A 9 square mile area surrounding the warehouse were visually surveyed by ground at least twice in 2005. This was performed again in 2006.
- ALB host trees were also surveyed (by climbing into the trees - 2X in 2005) in a 200 meter epicenter by USFS smokejumpers trained in ALB survey. Performed again in 2006.

## Chronology (cont.)

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- Lindgren funnel traps were used in 2005 but not in 2006. Sentinel trap trees replaced the funnel traps in 2006.
  - Trace Forward inspection surveys were performed in 2005 (properties where items were shipped statewide from the warehouse).
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# Surveys in 2006

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- In 2006, USFS smokejumpers again surveyed (2X) the ALB host trees in a 200 meter radius surrounding the original epicenter by climbing into the trees for a closer inspection for exit holes.
  - Sentinel trap trees (Acer mono-Chinese maple and Acer truncatum)- Shantung maple) were deployed in the 200 meter area. These tree species are very attractive to ALB.
  - Trace Forward inspections (200 meters) were performed again in 2006 .
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## Surveys in 2006 (cont.)

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- Sac County and Neighborly Pest Management (under contract) performed soil injections as a prophylactic treatment on 187 host trees in the core 200 meter epicenter starting March 15th, 2006.
  - Merit (imidacloprid) was the chemical used.
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# Surveys in 2006 (cont.)

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- Call Backs – Phone banks:  
**1-800-491-1800**
  - Public Outreach – USFS and USDA-APHIS print material (bookmarks, Pest Alert flier, posters).
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# 2006 survey results

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- There were no Asian Long Horned Borers found in California in 2006 as a result of all of the performed surveys.
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# PROGRAM: Sentinel trap trees

- Asian Long Horned Beetle Sentinel Tree Insect Trapping.
- **TYPE OF TRAP:** Chinese Maple (Acer Mono)-Potted.
- Funnel supports
- Wooden Planter
- A funnel is used to catch any feeding suspects that might fall from the tree for collection and ID.



# Type of Trap

- The live tree is placed in 20" wooden planters.
- A large plastic funnel **collars** the base of the tree .
- The funnel sets on top of the soil attached to the planter with four rods.



## Type of Trap (cont.)

- It has a seam lined with Velcro that splits down the side to allow easy removal from the tree.



# Type of Trap (cont.)

- The tree is in a self-contained planter with cable wire, wrapping the root ball and coming out the bottom of the planter box.
- This cable is used in the field to lock the tree to an already existing anchor with the use of a lock.
- The ends of the cable are looped to fit a lock hasp on it.



# Attractant

- **Attractant:** Primary Host Tree itself(Acer Mono or Chinese maple). Damaged bark produces a smell that attracts the beetle.
- The objective is to score the bark. Roughing up the bark significantly increases the effectiveness of attraction.
- Take a 1in×6in strip of emery cloth. Grab both sides of the cloth with either hand placing the rough side of the cloth horizontally against the bark. Pull the emery cloth back and forth with your hands, crossing the trunk gently, four or five times.
- Score only half the trunk in a 1× 1-inch patch. Put one of these 1×1 inch scars on the tree every 6 inches, bi-weekly (twice a month). Try not to scar in the same place more than once.

# Scoring



# Treatment

- Insecticide is applied to drop feeding insects.
- The mixed solution included Lambda-Cyhalothrin, a surfactant, and water.
- Use a back pack sprayer to apply the solution to the surface of the leaf (top and bottom), trunk, branches, and twigs.
- Let the insecticide dry before moving trees into their field sites.



# Trapping Density

- Detection Survey :
- We used 4 traps per  $\frac{1}{4}$  mile radius of each find site.
- Set one tree in each quadrant of the map (N, S, E, W) associated with ALB host trees.



# Placement

- Place the Sentinel Tree 50-75 ft in the proximity of an individual or cluster of primary host trees (maples).
- Place the sentinel tree in an area that has a 360° un-obstructed path.
- The beetle needs a direct path to find the tree easier.



# Relocation

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- It is more effective to place the sentinel tree by a primary host to boost the attraction.
  - Relocate the trees to a new host (if available) every rotation period (14 days).
  - Choose five sites per quadrant and cycle the trees through them.
  - Every 6<sup>th</sup> week start back with the first site.
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# Inspection Frequency

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- Water as conditions warrant. We found we needed to water every two to three days in hot weather.
  - Watering slow release bladders were utilized in very hot weather and over weekends.
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