Invasive Shot-Hole Borers + Fusarium Dieback

Prioritizing Management Efforts

HOW TO USE THIS CHART

This chart is intended to help inform ISHB (Polyphagous and Kuroshio Shot-Hole Borers) management decisions. Consider potential safety hazards, tree value (economic and ecological), available resources, and other factors unique to each situation when using this tool.

REPRODUCTIVE HOSTS

A reproductive host is a species that supports 1) ISHB reproduction and 2) growth and development of the beetle’s symbiotic fungi. These species are currently the priority for control efforts as they can produce more beetles that may spread the infestation. Some of the more susceptible reproductive hosts appear to be box elder, castor bean, valley oak, Engelmann oak, coral, and several species of sycamore, willow, and cottonwood. Visit pshb.org for the full host list.

LIMB FAILURE HAZARD

The branch collar is the point of attachment between a tree branch and the main stem. ISHB infestation in this area is a serious safety hazard and creates potential for limb failure, as a weakened collar may not be able to support the weight of the branch. Infested trees—including those that have been treated or pruned—must be regularly monitored so that hazards can be identified and removed. When monitoring, consider beetle attacks in the branch collar as part of the branch.

AUTHORS

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1 UC Santa Cruz 2 UC Davis 3 UC Cooperative Extension 4 UC Riverside

Visit www.pshb.org for the full host list.

Assess the damage.

Where is the infestation located? Examine both the trunk and branches for gallery holes.

Prune branches, treat cuts, and monitor*

Choose one:
- Remove entire tree and follow-up with stump grinding
- Remove tree to soil level, treat stump, allow to re-sprout, and monitor

Treat and monitor tree*<150

Does the tree have branch dieback?

Yes

No

Is the tree 1) of special value and 2) not an isolated infestation?

Yes

No

Choose one:
- Solarize with clear tarp
- Compost at commercial facility
- Burn at biogeneration facility
- Send to landfill for use as Alternative Daily Coverage
- Chips that are not solarized, composted, or kiln-dried may only be used as mulch in ISHB heavily infested areas

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Visit www.pshb.org for current reporting information and the most recent list of reproductive hosts.

Scrape away the bark. Is the entry-hole about the size of the tip of a ball point pen? (~.85mm)

Yes

No

Is the tree a known reproductive host?

Yes

No

View the map at ucanr.edu/sites/pshb/map. Has ISHB been found in your city?

Yes

No

How many active gallery holes are there?

<150

≥150

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Yes

No

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