

# Reducing the spread of invasive insects and pathogens in cut wood

**I**NVASIVE INSECTS AND DISEASES are currently threatening numerous tree species throughout the country. Impacts include increased tree mortality, destruction of forest and urban habitats, and other significant changes in forest ecosystems due to the decline or elimination of tree species. Many of these pests can be transported in firewood and minimally-processed woody debris. Preventing the spread of these pests to new areas is a principal means of protecting valuable forest resources.

Invasive forest pests of concern include those established in other parts of the country (e.g. emerald ash borer and Asian longhorned beetle), as well as those with limited distributions in the western U.S. (e.g. goldspotted oak borer, various bark beetle species, and the pathogens responsible for pitch canker and sudden oak death). Properly managing cut wood can effectively reduce the risk of spreading these threats to new areas. Arborists and tree care workers can help by using best management practices (BMPs) for cut wood.

BMPs need to be broad for a number of reasons:

- They are intended to prevent the spread of a number of invasive pests.
- These pests are located in many different areas and their distributions are not definitively known.
- Incipient or outlier infestations may not be reported, making it less certain which areas may be free of invasive pests.
- It can be difficult to determine if a particular tree or wood cut from it is infested (or contaminated) with an invasive pest, including trees that appear healthy.
- Wood can become infested after it is cut from a tree.

■ Insects and pathogens that are native to a particular area of the U.S. can become serious pests when moved to an area where they don't exist. Goldspotted oak borer and pitch canker are good examples.

## Avoid moving unprocessed cut wood

The safest approach is to assume that all cut wood can harbor invasive pests. The basic recommendation is to limit the transport of unprocessed cut wood to less than 50 miles. Use or dispose of the wood close to where it is cut. For firewood, the outreach campaign slogans "*Don't Move Firewood*" and "*Buy it where you Burn it*" encourage this approach.

Cut wood should not be left curbside for free pick-up. There is no way to keep this wood from being moved long distances. If wood is to be left with the landowner, advise them to

refrain from moving the material. Compliance with quarantine regulations related to the transport of cut wood will help limit spread of serious insects and pathogens.

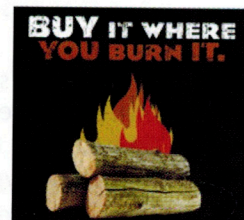
## Treatments to discourage or destroy invasive pests in cut wood

■ Grinding or chipping wood to a chip size of one inch or less can kill most wood boring insects. Using the chipped material as a ground cover on-site or nearby is preferred. Chipping is also recommended if cut wood is to be transported to a biomass or composting facility more than 50 miles away. If that is not possible, the receiving facilities should promptly chip the woody debris.

■ Heat treatment of infested wood material at 160° F for a minimum of 75 minutes has been shown to

## General recommendations for handling and using firewood:

- Don't move firewood more than 50 miles from where it was cut.
- Promote the concept of buying firewood from local sources. "Buy it where you burn it."
- Advise clients to avoid moving firewood and to ask about where the wood was cut, or if it has been treated to eliminate or reduce pests (i.e. bark removed, heat treated, or seasoned for 2 or more years).
- When purchasing firewood for camping, buy just enough to meet your needs, and avoid taking any firewood with you when you leave.
- When cutting firewood, select trees that have been dead for at least two years. Use extreme caution when removing dead trees as they are likely to be unstable.
- Seasoning, or allowing the cut firewood to dry for more than two years can reduce the danger of transporting most invasive insects threatening trees.





eliminate insects and diseases from firewood.

- Complete removal of bark from un-split branch and trunk rounds can eliminate certain insects that feed solely in or under the bark, such as bark beetles and some wood borers. Borers that burrow in the wood will not be eliminated.
- Drying the firewood on site for greater than two (2) years can reduce the threat transporting the pests to other areas. Similarly, wood that is cut from trees that have been dead for more than two years is unlikely to contain living invasive insect pests. Invasive pathogens, however, may still be present.

**Invasive pests associated with moving firewood in the western United States**

The following insect pests and plant diseases are found in limited areas of the western United States, and which threaten the health and sustainability of hardwood and conifer forests throughout the nation. Compliance with federal and state regulations is required to move wood from quarantine areas. Adhering to the BMPs will limit the spread of all invasive pests and help protect our urban and native forests.

**Federally quarantined species:**

Sudden oak death, *Phytophthora ramorum*

**Non-quarantined invasive species:**

Goldspotted oak borer, *Agrilus auraguttatus*

Pitch canker disease, *Fusarium circinatum*

Redhaired pine bark beetle, *Hylurgus*

*ligniperda*

Mediterranean pine engraver, *Orthotomicus erosus*

**Online information**

**Continental dialogue**

<http://www.dontmovefirewood.org/>

**APHIS**

[http://www.aphis.usda.gov/newsroom/hot\\_issues/firewood/index.shtml](http://www.aphis.usda.gov/newsroom/hot_issues/firewood/index.shtml)

**USDA Forest Service**

<http://www.na.fs.fed.us/firewood/>

**CA Firewood Task Force**

<http://www.firewood.ca.gov/>

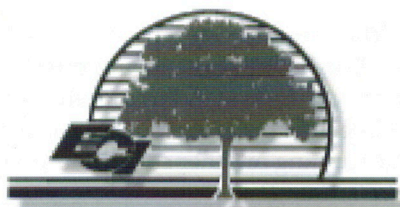
**Yosemite National Park**

<http://www.nps.gov/yose/nature-science/forest-pests.htm>

**Buy it where you burn it**

[http://www.oregon.gov/OISC/pressrelease\\_firewood2010.shtml](http://www.oregon.gov/OISC/pressrelease_firewood2010.shtml)

## Utility Vegetation Management Opportunities



### ECI and Western ECI Currently Has Openings for Entry Level and Experienced Utility Arborist Positions

**Work Planners  
Auditors  
Ticket Inspectors  
Consulting Utility Foresters**

**Supervisors  
Design Arborists  
Special Projects Managers  
Consulting System Arborists**

### Advance Your Career or Start It with the Industry Leader!

**For Consideration and/or Position Qualifications**

**Apply On-Line at [www.eci-consulting.com](http://www.eci-consulting.com)**

**Email [ecihr@eci-consulting.com](mailto:ecihr@eci-consulting.com)**

**Call 800-394-1324**

**Fax 800-871-1308**

**Mail PO Box 293 Southampton, PA 18966**

ECI and Western ECI is an Equal Opportunity Employer