The subject of firewood as implicated in the movement of invasive forest insects and disease has been well-publicized in the media over the past decade. Recreational areas are papered with posters advising against firewood movement; several websites hosted by both national and state agencies provide information about pests and diseases than can be transported; many state, township, regional and even federal quarantines have been implemented.

But not much attention has been paid to another significant source of wood movement— that which is moved by woodturners, furniture makers and other artisans. Utilization of raw urban timber and reclaimed (salvaged) wood is quite popular today. Such trends have arisen from the desire to recover costs from removing infested trees in urban areas, as well as from a sense of preservation, sustainability (“upcycling”) or nostalgia.

Artisans may procure wood from neighbors, friends or other sources from nearby or miles away. “Green” (raw or untreated/unprocessed) wood can be purchased at the regional, national and international level. It is sold at trade shows and events, and even on the Internet.

Specifically, this movement of green wood has led to outbreaks of laurel wilt and thousand cankers disease, which have been traced back to woodworking and veneer industries. The purpose of this fact sheet is to alert woodworkers to these risks and provide a set of Best Management Practices that will help support the future of their craft.

What is the danger of invasive forest pests and diseases?

An invasive species is any species (including its seeds, eggs, spores, or other propagative biological material) that is not native to an ecosystem. Their populations can spread rapidly, and their introduction does or is likely to cause harm to the economy, environment or human health. Native insects can be pests, but the introduction of exotic insect species has the potential to cause greater damage due to a lack of effective biological control agents and a lack of resistance in our native plants. Invasive species can out-compete, displace or kill native species that provide wildlife food and habitat, and disrupt vital ecosystem functions such as water flow, nutrient cycling and soil decomposition.

Most invasive forest insects and diseases come from other continents or countries. They make their way into our regional ecosystems as a result of trade or commerce, sometimes intentionally brought to the continent (as in the case of European gypsy moth, originally brought to North America as an alternative silk producer), or accidentally as “hitch-hikers” in contaminated freight or movement of contaminated wood products, plants or food products.

What are Best Management Practices (BMPs)?

In many cases, there is no treatment for these insects and diseases, and the best course of action is to prevent their spread and introduction. This is why Best Management Practices (BMPs) are so important. BMPs are guidelines that artisans and woodworkers can follow regarding transport and use of raw wood for woodworking, furniture-making and other purposes. These guidelines are basic precautions that can be used to prevent spread of invasive forest insects and diseases, thereby protecting trees in our forests and around our homes. These practices ensure that we will have our favorite native trees around in the future, thus protecting the future of woodworking! What follows is a list of BMPs that artisans and other woodworkers can follow to do their part in protecting our forest resources:
1. Stay local
   - Do not transport wood. Be sure to purchase any imported wood from a reputable USDA APHIS compliant dealer.³
   - Look for sources within 50 miles, staying within the county and state.
   - Your local tree board or city tree manager may be a good source of wood, as city trees need maintenance and removal at times.

2. Learn which species or types of wood are most affected
   
   *Ashes, maples, birches, black walnut and oaks are of greatest concern.*
   
   - Ashes are threatened by emerald ash borer, the larvae of which bore into host tree tissues, disrupting water and nutrient flow.
   - Maples, birches and 18 other genera of hardwoods are threatened by Asian longhorned beetle, the larvae of which bore into host tree tissues, disrupting water and nutrient flow.
   - Black walnut is threatened by thousand cankers disease, a pathogen (disease) transmitted by walnut twig beetle. As the beetle feeds on multiple parts of the host tree, it deposits the pathogen all over, causing many small cankers that cut off the host tree’s vascular system which disrupts nutrient flow.
   - Oaks on the west coast are threatened by sudden oak death, caused by the fungal pathogen *Phytophthora ramorum*, which can also cause twig and foliar diseases in numerous other tree species. No oak should be transported out of California or Oregon. This pathogen has great implications for the health of oak-dominated eastern U.S. forests.⁴

3. Know what to look for and report it
   
   - EDDMapS.org is the central data clearinghouse for the reporting of invasive species in North America, providing identification and mapping resources to the public.
   - Local county extension offices

4. If you must transport
   
   - Contact your local state Forestry program for specifics regarding movement of wood in your state (See #5);
   - De-bark and remove at least 1/2 inch of wood from all hardwoods (non-pine), and/or;³
   - Heat-treat according to USDA APHIS standards for regulated wood articles (employing methods that raise temperatures in the center of wood to at least 160° F (71.1° C) for at least 75 minutes) by a certified treatment facility, and/or;⁵
   - Kiln-dry or air-dry for a minimum of 3 years, and/or;
   - Transport only finished products (furniture, turned bowls, etc.).

5. Learn about quarantines related to firewood and other wood material
   
   - Your state Department of Agriculture or Forestry office
   - Hungrypests.com
   - Don'tmovefirewood.org
   - USDA APHIS Firewood information (goo.gl/IlbW4R)
   - National Plant Board (nationalplantboard.org/laws-and-regulations/)
   - Your local extension office (npic.orst.edu/pest/countyext.htm)

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Selected References