

Plant Material Shipments

Federal and State Plant Protection Regulations Relevant to Your Nursery Business

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Consider for a moment the major advancements in global trade that have developed in recent centuries. International shipments that once took months or even years to transport now reach their destination within hours or days. With regular use of airplanes, semi-trucks, trains, and giant freighters, and with major changes in global-trade policies, the world continually transports massive amounts of cargo around the globe every day.

With these shipments come living organisms that discreetly ride commodities, packaging materials, trucks, ships, and numerous other pathways before entering a foreign habitat. In the past century, countless alien species entered the United States, many of which have caused severe economic and environmental damage. Harmful non-native species are extremely diverse. They include, but are not limited to, insect pests such as Japanese beetle, emerald ash borer, or gypsy moth; weeds such as garlic mustard or spotted knapweed; and plant pathogens causing diseases such as sudden oak death or chestnut blight.

The level of economic or environmental damage sometimes caused by non-native organisms is alarming. Therefore, it is critical that individuals transporting plant materials as well as state and federal agencies that regulate these shipments remain diligent in preventing movement of harmful pests. Here is a basic explanation of some of the regulations that may apply to nursery businesses' shipping activities.

Nursery Licenses

Nursery licenses are typically issued by the state plant regulatory official of each individual state. In Kentucky, the state plant regulatory official is the state entomologist located at the University of Kentucky. In nearly all other states, this individual is affiliated with a state governmental agency.

In most states, including Kentucky, any business that sells plants capable of overwintering outdoors must obtain a nursery or nursery dealer license. In addition, businesses that sell plants to out-of-state customers should also obtain a license, regardless of the plants' ability to overwinter. The license is important because many states require proof that plants sold and shipped from another state are from a licensed nursery. Typically, the various state agencies communicate this proof through continually updated lists of all licensed nurseries.

For more information about Kentucky nursery licenses and the application for a license, call the Office of the State Entomologist or visit their website, www.kystateent.org.

Federal Quarantine Pests and Regulations

Federal quarantine pests are pests of particular national importance. These pests are identified by the USDA-Animal and Plant Health Inspection Service (APHIS) as needing official regulations to prevent their introduction and/or spread. One example is emerald ash borer, a highly destructive beetle that by 2011 had killed tens of millions of ash trees in fifteen Eastern and Midwestern states.

For each federal quarantine pest, APHIS identifies and regulates specific pathways for the pest's potential movement. In the case of emerald ash borer, regulated items include firewood of any hardwood species, ash trees, and any product from an ash tree such as logs, roots, branches, or chipped wood. APHIS also defines quarantine areas for each federal quarantine pest. In the United States, these areas are typically entire states where the pest is present and being officially controlled. However, with the aid of state officials, individual counties may be quarantined rather than an entire state.



Photo: David Cappaert, Michigan State University, Bugwood.org

Ash logs pile up in a chipping yard following the introduction of the destructive emerald ash borer.

Compliance Agreements

Any individual or firm wishing to transport federally regulated items from a quarantine area to a non-quarantine area must enter into a compliance agreement. In many situations, this involves both the sender and the receiver. In a compliance agreement, the applicant agrees to follow specific guidelines, as outlined by an APHIS official, which ensure that regulated items are handled in a manner consistent with federal regulations.

In cooperation with the federal government, Kentucky issued a state quarantine against emerald ash borer in July 2009, shortly after the beetle was first detected in the state. This quarantine differentiates infested (quarantine) counties and “pest-free” counties. Because state regulations regarding emerald ash borer mirror the already existing federal regulations, movement of any ash products from a quarantine county to a non-quarantine area must follow a compliance agreement.

In Kentucky, the vast majority of compliance agreements are issued for the movement of timber. The agreements aim to prevent movement of gypsy moth into Kentucky and emerald ash borer out of Kentucky. Kentucky nursery operators have rarely needed to enter into compliance agreements, although the issues surrounding these agreements may still directly affect them.

For example, wholesalers located within federal quarantine areas (such as northeastern gypsy moth quarantine areas) that ship regulated plant material to non-quarantine areas must enter a compliance agreement. If those nurseries fail to enter such an agreement or violate their agreement, shipment and/or sales of that plant material may be halted until the plants are properly inspected and cleared by a regulatory official. This process can cause significant delay in the receiving nursery's ability to sell the inventory.

If you have concerns about whether or not your wholesale source needs to enter into a compliance agreement, contact your state plant regulatory official or your local APHIS state plant health director.

Current regulations for federal quarantine pests are in the Code of Federal Regulations. Find a link to the electronic Code of Federal Regulations in the list of references below. For more information about federal quarantine pests or compliance agreements, contact your local APHIS state plant health director.

State Quarantine Pests and Regulations

In addition to federal quarantines, each state may identify its own list of quarantine pests. With these quarantines, individual states create and enforce their own regulations that minimize these pests' movement into or within their state. The number of state quarantine pests differs among states. Some states tend to issue few or no state quarantines, while others regularly have numerous quarantine pests listed.

Regulations placed on plant shipments also vary from one state to another. These regulations can require additional or altered pesticide treatments, production practices, sampling programs, or a number of other efforts. Individuals involved in interstate shipment of plant material must learn the requirements of the states to which they plan to ship.

Written summaries of each state's plant protection regulations are available on the National Plant Board website, <http://nationalplantboard.org/laws/index.html>. Important points included for each quarantine pest are: the states (or counties) for which the regulations apply, the materials regulated, and the restrictions placed on shipments of those materials from those defined states (or counties).

Before making plans to ship plant material out of the state, it is critical that you contact the office of your state plant regulatory official. This is important because state requirements can be very involved and information available online is not guaranteed to be current. Your state plant regulatory official will also play a fundamental role in developing the proper documentation to accompany your regulated shipments. In Kentucky, this documentation, in addition to nursery licensing, is issued by the Office of the State Entomologist at the University of Kentucky.

General Documentation and Labeling for Shipments

Most states have regulations concerning documents or labels that must accompany plant shipments into the state. These requirements vary between states and are outlined in the summaries of each state's plant-protection regulations.

Necessary documentation often includes a copy of a valid nursery license or certificate of inspection, the name and quantity of each type of commodity, and the county and state (or country) where the commodity originated. Many states require labels on each individual package that display the name and address of both the shipper and receiver. In some cases, labels providing the correct botanical (scientific) or approved common name and the hardiness zone are required on individual plants.

State Phytosanitary Certificates

Any product regulated by the receiving state and shipped from a regulated state (or county) must have a state phytosanitary certificate. This certificate shows that the commodity meets the requirements set by the receiving state. Some states seldom require this additional certificate because they have few or no state quarantine pests. Other states are much more restrictive of plant imports. For example, California and Florida require a state phytosanitary certificate for shipments of nearly any type of live plant material.

Again, it is essential that nurseries involved in interstate shipment of plant material communicate with their state plant regulatory official and become familiar with the requirements of the states to which they plan to ship. The examples below are a few of the more common situations that require a state phytosanitary certificate.

Movement of Soil-Inhabiting Pests

Two state quarantine pests that pose a particular problem for Kentucky nursery growers are Japanese beetle and soybean cyst nematode. Even if the nursery crop is not a host, these pests can still be present as they feed on the roots of nearby grasses or weeds. This creates a constant threat that the pests may be transported in the soil of balled and burlapped plants. Consequently, it is usually easier to ship bare-root plants because there

is less risk of transporting soil-inhabiting pests, and treatment requirements tend to be less involved.

Japanese Beetle. Japanese beetle is a serious agricultural pest whose current distribution in the United States is primarily limited to regions east of the Mississippi River. Many Western states have very specific regulations for plant shipments from Kentucky and other Eastern states with Japanese beetle populations. For example, Colorado has quarantined Japanese beetle, its hosts, and any possible carriers of the pest. Included in the extensive list of regulated products are any balled and burlapped plants due to the beetle grubs' possible presence in the soil ball.

Nursery growers in Kentucky and other states with Japanese beetle populations have a few options for meeting the requirements to deliver balled and burlapped plants to Colorado. Examples include pre-harvest soil surface treatments, post-harvest dip treatments, trapping and sampling programs showing that the beetle is absent from the nursery or below a defined threshold, and specific adaptations of production methods to reduce Japanese beetle infestations. Colorado, of course, is not the only state that regulates shipments to prevent Japanese beetle introductions, and these regulations vary with each state.

Soybean Cyst Nematode. Soybean cyst nematode is a plant-parasitic roundworm that feeds on the roots of soybeans and a limited number of other plants, including several weeds. Its current distribution covers much of the eastern half of the United States. Its eggs are capable of persisting in soils for several years, and infestations often remain unnoticed while populations build to damaging levels.

Many states require soil testing for soybean cyst nematode before accepting shipments with soil from Kentucky or other states that have the pest. These soil samples must be collected by a county agriculture Extension agent or other official personnel and are tested at the University of Kentucky Plant Disease Diagnostic Laboratory in Princeton. Contact your county Extension office or state plant regulatory official to have your soil tested.



Photo: Joe Collins, University of Kentucky

Balled and burlapped trees are treated for Japanese beetle grubs using a bifenthrin dip treatment prior to shipping.

Pest-Free Shipments

Although the vast majority of horticultural pests are not addressed in official regulations, it is important for nurseries to maintain relatively pest-free plants for sale. As nursery managers know, customers generally expect plant material to be nearly flawless. Damaging infestations can reduce sales and even harm a business's reputation.

Of course, transporting pest species has other negative consequences as well. For example, a few states inspect all incoming plant shipments and refuse entrance of infested shipments, regardless of the type of pest or disease. More importantly, artificial spread of plant-infesting insects, diseases, and other pests can accelerate related environmental and economic impacts.

Federal and state governments cannot possibly regulate every invasive pest. They simply do not have the resources to do so, nor do they intend to impede economic activity. For this reason, it is essential that nursery managers take seriously their own ability to minimize movement of both regulated and non-regulated pests.

For information about pest-management options, contact your county Extension office.

Resources

Kentucky's Office of the State Entomologist, nursery licenses and phytosanitary certificates: (859) 257-5838 or www.kystateent.org.

National Plant Board, laws and regulations for individual states: <http://nationalplantboard.org/laws/index.html>.

National Plant Board, listing of all State Plant Regulatory Officials: <http://nationalplantboard.org/member/index.html>.

Kentucky's State Plant Health Director, compliance agreements: (859) 689-2626.

Code of Federal Regulations (see "Agriculture," then "Animal and Plant Health Inspection Service"): <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl>.

State plant health directors in each state: www.aphis.usda.gov/services/report_pest_disease/report_pest_disease.shtml.

Kentucky County Extension Offices: www.ca.uky.edu/county.

Information presented in this article is for educational purposes only and should not be considered complete. For more information, contact your state plant health director, state plant regulatory official, or county Extension agent.

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