



March 1, 2007

The U. S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) expanded the emerald ash borer (EAB) quarantine to include the entire states of Illinois, Indiana, and Ohio. The new quarantine became effective on December 1, 2006 following the issuance of a federal order. APHIS expanded the quarantine in response to the destructive nature of this invasive plant pest and the significant threat it poses to the ash resource in our nation's forests and residential landscapes.

USDA took this action to prevent the artificial spread of the emerald ash borer (EAB) from infested areas into non-infested areas of the United States. As a result of this quarantine, the interstate movement of regulated articles from Illinois, Indiana, and Ohio is restricted. Three years of EAB survey data support the need to implement strict regulations for the movement of host material. Survey tools are not 100% effective for early detection of low density populations of the pest. Given this uncertainty, the possibility of spreading EAB in unprocessed host material presents a serious risk that requires immediate action.

Regulated articles must be processed in such a way to mitigate pest risk. Mulch products are regulated under the EAB quarantine. A protocol for screening mulch products has been developed and is attached to this correspondence and is based on research work completed by Dr. D. McCullough (Michigan State) and the work undertaken by the USDA Center for Plant Health Science and Technology. This work indicates that EAB will not survive a chipping or grinding process that reduces ash to 1" in two dimensions. This is the required size specification that must be met for mulch in order to move the product interstate beyond a quarantine area.

Once your company has completed a compliance agreement with the EAB Program, our personnel will monitor your premises and review the processes by which your mulch is manufactured and will use the protocol to inspect the resulting products that are produced. If your staff wishes to independently monitor your products for quality control purposes, we wish to suggest that the sieves mentioned in the protocol may be acquired through Fisher SCI at (800) 766-7000.

There are opportunities for the timber, wood, mulch, and firewood industries to continue interstate commerce through the use of processing options associated with the issuance of a USDA compliance agreement, certificate, or limited permit. Please contact the USDA Cooperative Emerald Ash Borer Program office in your State if you wish to complete the attached EAB Compliance Agreement for mulch production in the quarantine area, have questions, or would like more information:

EAB Program Headquarters Office (Michigan)	866-322-4512 (option 2)
Ohio	614-387-1095
Indiana	765-446-0267
Illinois	847-299-6939
Maryland	410-224-3452
Pennsylvania	717-241-2465

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Encl. (2)

## MULCH SAMPLING PROTOCOL

### **Size Requirements and Screening Procedure for Hardwood Mulch and Chips in the Emerald Ash Borer Quarantine Area**

*February 23, 2007*

The following procedure should be followed to determine if hardwood and bark chips, nuggets, and mulch materials can be considered safe for movement from the emerald ash borer quarantine area:

Step 1. Using a 12 inch diameter 3.25 inch deep sieve with 1.25 inch steel mesh openings (Fisher Scientific #04-884-1J) take 10 samples from random locations in the chip or mulch pile - - do not take all samples from the same location. If any chips are found that are greater than 2.5 inches in two dimensions the pile is rejected. If there are no chips found greater than 2.5 inches in two dimensions then proceed to Step 2.

Step 2. If four or more chips from the 10 samples do not pass through the sieve proceed to Step 3. If three or fewer chips from the 10 samples do not pass through the sieve, then the pile passes and can be moved.

Step 3. Resample. Take 10 additional samples from random locations in the chip pile. If any chips are found that are greater than 2.5 inches in two dimensions the pile is rejected. If there are no chips found greater than 2.5 inches then proceed to Step 4.

Step 4. If four or more chips from the 10 samples do not pass through/put through the sieve the pile is rejected. If three or fewer chips fail to pass through the sieve then the pile passes and can be moved.

**NOTE:** Mulch chips that do not meet the specified requirements as outlined above may be reground to meet this specification of 1 inch in two dimensions or alternatively composted as outlined below.

## **OPTION FOR MULCH THAT FAILS PROTOCOL**

### **Composting Requirements for Hardwood Mulch and Chips in the Emerald Ash Borer Quarantine Area**

To render hardwood and bark chips, nuggets, and mulch material that are larger than 1.0 inches in two dimensions certifiable/safe for movement they can be composted using the following procedure adapted from the Gypsy Moth Manual:

1. Compost piles must be a minimum of 200 cubic yards.
2. Internal temperature at a depth of 18 inches must reach 140 °F (60 °C) for 4 continuous days.
3. Using a front-end loader or a bulldozer, remove the outer layer of the compost pile to a depth of 3 feet.
4. Start a second compost pile using the recently-removed cover material as a core.
5. Move the core material from the first compost pile and place on the second compost pile as a cover at least 3 feet deep.
6. Allow the second compost pile to remain undisturbed until the temperature reaches 140 °F (60 °C) for at least 4 continuous days.
7. Remove the second compost pile and use as fully-composted material.

This procedure will allow continuous operation. After the first compost pile is “turned” to become the second compost pile, a new “first” compost pile can be started.

**U.S. Department of Agriculture  
Animal and Plant Health Inspection Service  
Frequently Asked Questions: Emerald Ash Borer Quarantine**

**Q: Why has the U.S. Department of Agriculture (USDA) expanded its emerald ash borer (EAB) quarantine to encompass the entire states of Illinois, Indiana, and Ohio?**

**A:** USDA took this action to prevent the artificial spread of the emerald ash borer (EAB) from infested areas into non-infested areas of the United States. As a result of this quarantine, the interstate movement of regulated articles from Illinois, Indiana, and Ohio is restricted. Three years of EAB survey data support the need to implement strict regulations for the movement of host material. Survey tools are not 100% effective for early detection of low density populations of the pest. Given this uncertainty, the possibility of spreading EAB in unprocessed host material presents a serious risk that requires immediate action.

**Q: What is a regulated article?**

**A:** A regulated article under USDA's quarantine includes any of the following items:

- emerald ash borer
- firewood of all hardwood species, such as ash, oak, maple and hickory
- nursery stock and green lumber of ash
- any other ash material living, dead, cut or fallen including logs, stumps, roots, branches, as well as composted and uncomposted chips of the genus *Fraxinus*

In addition, any other article, product or means of conveyance not listed above may be designated as a regulated article if a USDA inspector determines that it presents a risk of spreading EAB.

**Q: Why is all hardwood firewood regulated instead of only ash firewood?**

**A:** Once a log has been cut and split, it is extremely difficult to differentiate between ash wood and other hardwood species. This is especially true for the casual firewood user and homeowners. Therefore, due to the potential risk associated with moving EAB-infested firewood, all hardwood firewood is regulated. There are no restrictions on the movement of coniferous species of firewood, such as pine, spruce and fir.

**Q: Are coniferous wood products, including pine, spruce, and fir impacted by the EAB quarantine?**

**A:** No, this species of wood is not impacted by USDA's EAB quarantine. However, there are USDA quarantines for gypsy moth and pine shoot beetle that do restrict the interstate movement of coniferous wood and wood products. For more information on these quarantines, please visit [www.aphis.usda.gov/ppq](http://www.aphis.usda.gov/ppq).

**Q: Does USDA's EAB quarantine affect the interstate movement of hardwood (non ash) nursery stock or hardwood (non ash) wood products?**

**A:** No. There are no federal restrictions on the interstate movement of non ash hardwood products such as nursery stock, logs, branches, green lumber or chips.

**Q: Who does this quarantine affect?**

**A:** This quarantine affects any industry, business, individual that deals with or handles hardwood firewood, ash wood or ash nursery stock. This includes, but is not limited to, the general public, commercial firewood dealers, retail firewood sellers, nursery owners & growers and the timber industry including sawmills, wood haulers, wood brokers, etc.

**Q: How can I continue to do business with other States?**

**A:** There are opportunities for the timber, wood, and firewood industries to continue interstate commerce through the use of processing options associated with the issuance of a USDA compliance agreement, certificate, or limited permit. Contact the USDA's Cooperative Emerald Ash Borer Program in your State if you have questions or would like more information:

EAB Program	1-866-322-4512
Michigan	810-844-2705
Ohio	614-387-1095
Indiana	765-446-0267
Illinois	847-299-6939
Maryland	410-224-3452

**Q: Will the federal quarantine affect intrastate (within the State) commerce?**

**A:** No, the federal quarantine will only restrict trade between States, or interstate movement. However, there are State quarantines in Ohio, Indiana, and Illinois that regulate the movement of firewood and ash wood products within those States. Please contact your State department of agriculture for additional information on these quarantines.

Michigan	1-866-325-0023
Ohio	1-888-644-6322
Indiana	1-866-663-9684
Illinois	1-800-641-3934
Maryland	410-841-5920

**Q: Who will enforce the quarantine?**

**A:** USDA's Animal and Plant Health Inspection Services' (APHIS) Plant Protection and Quarantine (PPQ) program will enforce the Federal quarantine.

**Q: Are there civil penalties for breaking the quarantine?**

**A:** Yes. APHIS will assess civil penalties to individuals and businesses that violate restrictions for the movement regulated articles. Under the Plant Protection Act of 2000, violations of a domestic quarantine may result in monetary fine up to \$250,000 and/or imprisonment.

**Q: Why has USDA issued a federal quarantine for the States of Ohio, Indiana and Illinois but not the entire State of Michigan?**

**A:** Michigan is currently under a federal quarantine that prohibits the movement of regulated articles out of the lower peninsula. The reason the quarantine does not encompass the entire state is because Michigan's topography at the Mackinaw bridge creates a natural barrier between the upper and lower peninsula. This natural barrier, which is staffed 24 hrs/7 days a week by the Michigan Department of Agriculture, is a formidable roadblock to the artificial spread of EAB. None of the other States have this natural barrier.

**Q: Why hasn't the USDA quarantined the entire state of Maryland?**

**A:** Maryland's EAB infestation represents a single point of entry where infested ash nursery stock was shipped from Michigan to Maryland. Since the date and recipient of the infested nursery stock is known, proper detection, control and eradication activities have been initiated by the Maryland Department of Agriculture.

**Q: Why quarantine an entire state versus known infested counties?**

**A:** EAB is an extremely destructive plant pest and it is responsible for the death and decline of over 25 million ash trees. Ash in both forested and urban settings constitute a significant portion of the canopy cover in the United States. Current tools to detect, control, suppress and eradicate this pest are not as robust as the USDA would desire. In order to stay ahead of this hard to detect beetle, the USDA is attempting to contain the beetle before it spreads beyond its known positions. These actions will help to mitigate the spread of the pest while the science community continues to investigate biological controls, attractants, traps and pesticides.