

Emerald Ash Borer and Other Potentially Threatening Insects

The emerald ash borer is a recently introduced insect from China that is destroying ash trees in Michigan. Through the movement of infested firewood and nursery stock the beetle has expanded into other states and into Canada. There are other exotic pests that are entering our country via infested shipping boxes. Once in this country they can easily spread by the movement of firewood or nursery stock.

If emerald ash borer or another exotic insect is accidentally introduced in South Dakota the economic impact will be enormous. It is critical that firewood brought in from outside the state be promptly treated to avoid the introduction of these pests into our state.



Adult emerald ash borer



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**Department of Agriculture
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Preventing the Movement of Emerald Ash Borer And Other Serious Pests

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Emerald Ash Borer— A Potential Threat to South Dakota Trees



Emerald ash borer (*Agrilus planipennis*) is a serious threat to all ash trees in North America. This small boring beetle was accidentally

introduced into Michigan several years ago in crates made from ash trees originating in China. Since that time the beetle has been responsible for the loss of tens of millions of trees. Now, the infestation has spread to Ohio, Indiana, Wisconsin, Minnesota, Illinois, Kentucky, Maryland, Missouri, West Virginia, Pennsylvania, and Virginia, as well as the Canadian provinces of Ontario and Quebec.

The beetle can fly up to several miles to find a suitable host but its rapid spread across Michigan and into other states has been through the movement of infested firewood and nursery stock.

This is not the only potential threat to South Dakota forests. There are a number of other exotic insects and diseases that have entered the country and these can quickly spread via the movement of infested or infected wood, either living nursery stock or by firewood.



The Life Cycle of the Emerald Ash Borer

The adults are slender, green metallic beetles about 1/2 inch long. They begin emerging from infested trees and wood in early summer. The adults fly to a nearby ash and deposit eggs on the bark. The larvae hatch in a week or two, burrow into the tree, and begin to feed.



How to Identify Infested Firewood



An indicator that the firewood is infested with emerald ash borer is the presence of small, 1/8-inch D-shaped holes

on the bark of the tree. These holes are created as the adult emerald ash borer emerge from the log.



Another indicator is the appearance of S-shaped galleries beneath the bark. These galleries will be packed with a sawdust-like material. White, segmented, legless larvae may also be found in the wood. Emergence holes created by other exotic insects may be D-shaped or O-shaped; however, the tunneling will

have a different pattern.

How to Prevent the Beetle from Entering the State Through Firewood

Ash firewood brought into South Dakota from out-of-state may contain the larvae and pupae of the emerald ash borer. Firewood brought in from other states may

contain other potentially threatening pests. Since many adult insects emerge from infested wood during the summer months, mid-May through early August, any logs or firewood, containing the insects may become the source of a new infestation. Campers bringing firewood from outside the state may be inadvertently carrying emerald ash borers, banded elm bark beetle or other pests. It is important that all firewood brought in from outside the state be treated as described below.

Firewood May-August

The wood should be immediately burned. If this is not possible it should be chipped to 1-inch size pieces or smaller. The firewood can also be placed in a sunny location, covered and sealed, loosely, with clear polyethylene tarp, such as a boat tarp, at least 8-mils thickness. The plastic must be in complete contact with the ground so trenching and burying the edge is best. The wood should not be stacked more than two logs high. The plastic will create an environment that is unfavorable for the development of the adult beetle. Many beetles can chew through plastic so it is important that the sheets be sealed with the ground to create a warm, humid unfavorable environment. The plastic tarp can be removed in September.

Firewood September—December

The wood should be burned before May 1. If it is to be stored for use later that year, the bark should be removed to allow the wood to dry quickly. This can kill the young larvae so adults will not emerge the following summer.

Firewood January—April

The wood should be burned before May 1. If it is to be stored for later that same year it should be covered with a plastic tarp as described above. Merely removing the bark at this time may not kill enough insects.