

## Ambrosia Beetle

(*Xylosandrus crassiusculus*) (Motschulsky)  
and (*Platypus spp.*)

Native Ambrosia Beetles (*Platypus spp.*) will attack mostly pines, and the exotic Asian Ambrosia Beetles (*Xylosandrus crassiusculus*) will attack hardwoods and fruit trees. They chew the sapwood to create winding tunnels called galleries. The Ambrosia Beetle uses the galleries to grow a fungus as their food. This fungus, called the Ambrosia fungus gives the beetle its name. The Ambrosia Beetle transports the fungal spores with it from tree to tree. The ambrosia fungus is not a pathogen to the tree, but the galleries are the cause of tree decline and possible death. Only stressed or weakened trees are targeted by the Native Ambrosia Beetle. The exotic, invasive Asian Ambrosia Beetle will attack healthy as well as stressed trees.

### SYMPTOMS:

Look for sawdust at the base of the tree. Fragile spines of sawdust (frass) may also be seen on branches and stem of the tree. Foliage of the infested tree will begin to wilt.

### PHOTOS:

**A:** Adult Asian Ambrosia Beetle, **B:** Fragile spines of frass and sawdust from Asian Ambrosia Beetle. **C:** Ambrosia beetle leaves sawdust at tree base. Photo **A** taken by Steve Passoa, USDA APHIS PPQ, [www.forestryimages.org](http://www.forestryimages.org). Photo **B** taken from [aggie-horticulture.tamu.edu](http://aggie-horticulture.tamu.edu). Photo **C** taken by Ronald F. Billings, Texas Forest Service, [www.forestryimages.org](http://www.forestryimages.org).



### WHAT TO DO:

Arborjet is developing a insecticide for control of native and asian ambrosia beetle infestation. Our research shows this new insecticide to be highly effective against scolytids. The Scolytidae also includes *Ips* and *Dendroctonus spp.* commonly called [pine bark beetles](#). This new formulation will be available in the fall of 2006.

In the interim: Arborjet recommends using the [Tree I.V.](#) for a trunk Micro-infusion™ of 3% [Ornazin](#) and [CITRA-jet](#) mixture. Use the [Tree I.V.](#) with the [VIPER Method](#). [CITRA-jet](#) is designed to help Ornazin to move into trees more efficiently. The low pressure, high volume capabilities of the Tree I.V. are ideal for overcoming the restrictive tracheid vascular system and resin flow in conifers. The 3% [Ornazin](#) plus [CITRA-jet](#) mixture will move more readily into hardwood trees.

### WHEN TO DO IT:

Generally, the best seasons for Micro-infusion™ are fall and spring. Uptake occurs when trees are transpiring. The environmental conditions that favor uptake are moderate temperatures, adequate soil moisture, and high humidity. Soil temperature should be above 40 degrees for micro-infusion™. Tree health will influence uptake time. Generally, hot weather or dry soil conditions will result in a reduced rate of uptake. If treating trees in the summer, micro-infuse in the morning for the quickest uptake. A dying tree is a poor candidate for treatment. It is the responsibility of the arborist or tree custodian to assess tree health and its potential for recovery before undertaking treatment.

**A tree with an Ambrosia beetle infestation is likely to be moisture stressed. If possible, water the tree prior to treatment to improve the uptake and diffusion in the tree.**

### WHAT WILL HAPPEN:

**Depending on environmental conditions and tree health, it will take from 30 minutes to one hour to treat a tree at the standard dosage rate. Ambrosia beetle mortality can occur within 10-14 days and continue for up to two years. A heavily infested tree or a tree in obvious mortality spiral is a poor candidate for treatment. The vascular system of a dying tree is not capable of transporting adequate nutrients or chemical treatment for recovery. It is important to be able to diagnose beetle infestation as early as possible. Please see the prioritized list of symptoms above.**



PHOTOS:

***Healthy Lodgepole Pine***

Images from: [oreganostate.edu](http://oreganostate.edu)

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