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Forest Health Protection and State Forestry Organizations

**Management Guide for**

# Wood Borers

**Wood borers take many forms. Among the common boring insects are:**

- **Beetles**
- **Wasps**
- **Moths**

**Boring insects feed within the woody portions of trees and shrubs or within the phloem and pith of shoots.**

## Topics


| | |
|---|---|
| Tissues affected | 1 |
| Hosts attract borers | 1 |
| Cultural Control | 2 |
| Chemical Control | 2 |
| Mating Disruption | 2 |
| Field Guide | |
| Management Guide Index | |


### Key Points

- Several kinds of insects may cause boring damage in wood
- Damaged and dying trees often are attacked
- Improve vigor of potentially damaged trees
- Use pheromones to disrupt mating or trap adults
- Chemical control to prevent attacks

## *Borers invade a variety of tissues*

Boring insects may spend most of their life cycle feeding inside a host or spend part of their life cycle as borers and part as a defoliator on the same host. Beetles, wasps, and moths that are borers, undergo complete metamorphosis and pass through egg, larva, pupa, and adult stages of development.

Boring insects, while feeding, construct tunnels (galleries) in plant tissue. Feeding by borers may deform, weaken, or stunt tree growth. Their galleries may girdle a portion of or an entire tree, or involve an entire bud, branch tip, seed, or fruit. Recovery of a tree from boring damage or replacement of a dead or damaged tree is slow and may take years.

## *Weak or damaged trees may attract borers*

Many borer insects are attracted to trees that are weakened by crowding, stem and trunk diseases, or other insect damage. Chemicals, mechanical activities, rodents and extremes in temperature, sunlight, and moisture may also produce damage that attracts boring insects.

## Cultural Control of Boring Insects

**Attraction of boring insects may be avoided by maintaining health of high-value trees should through cultivating, fertilizing, watering, and thinning when necessary. Removing infested, dead, or dying branches is also beneficial.**

## *Chemical Control*

While some systemic insecticides have proven effective against some boring insects, most will not kill larvae already in the tree. This is especially true for some of the more destructive wood-boring larvae. Chemical control is usually limited to the short period of time when the adult or newly hatched larvae are exposed on the bark and before they enter the tree.

## *Mating Disruption and trapping*

Males of many species of boring insects, especially moths, are attracted to a chemical produced by females (pheromones). A few of these synthetically produced chemicals have been used successfully to survey for, evaluate, or control a pest species.

Mating disruption strategies, using synthetic pheromones, have been used successfully to reduce harmful populations of some stem-boring insects. In some cases, males are "trapped" out of naturally occurring populations. In others, pheromones saturate an area with attractant, confuse searching males, and render mating less successful.

**Forest Health Protection and State Forestry Organizations**

**Assistance on State And Private Lands**

Montana: (406) 542-4300

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