

# CONIFER BARK BEETLE



## WHAT IS THE THREAT:

Several species of bark beetle including Southern Pine Beetle, Black Turpentine Beetle, Mountain Pine beetle, Western Pine Beetle (all *Dendroctonus* species), Ips Engraver Beetle, and Spruce Beetle are known to attack and kill conifers such as pines and/or spruce. These beetles bore into the tree's cambium in large groups and disrupt nutrient and water movement, thus killing the tree. Several of these species also introduce a fungus, known as blue stain, which may kill a tree by clogging its vascular system.

## WHERE IS THE THREAT:

Some bark beetles, such as spruce beetle and Ips engraver beetle, occur continent wide, while the Mountain and Western Pine Beetles appear west of the Rocky Mountains. The Southern Pine Beetle originated in the southeastern United States, but is now found as far north as New York and as far west as Texas.

## SYMPTOMS:

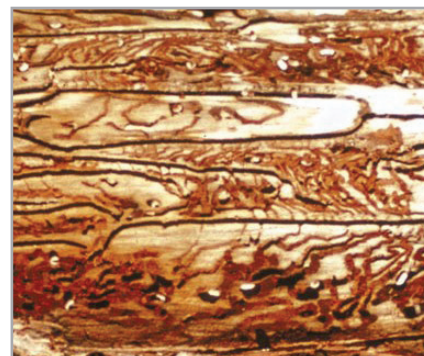
Most of these beetles will attack both stressed (drought, nutrient deficient, excess moisture) as well as healthy conifers. Cream to red-colored pitch tubes and/or boring dust is often observed on the lower bole of attacked trees. Crowns of individually attacked trees will fade from green to yellow to red, followed by tree death over several weeks. Most of these beetles carry a fungus that serves as a food base for young larvae. The introduced fungus inhibits water transport and hastens tree mortality.

## WHAT TO DO ABOUT IT:

A trunk injection of TREE-äge®, TREE-äge® G4, and TREE-age® R10 will provide up to two years of protection from bark beetle damage. Preventive treatment is best, as trees with existing beetle infestations are unlikely to survive. In areas where beetles carry the blue stain fungus, it is recommended that a systemic fungicide such as Propizol® be added as a sequential treatment to eliminate additional stress from the fungus.



*Southern pine beetle adult with pitch tube*



*Ips engraver beetle egg galleries and larvae*



*Pine killed by Ips engraver beetles*

Header Image Bark Beetle: Don Grossman, Arborjet, Inc., Southern Pine: Don Grossman, Arborjet, Inc., Gallery and Larve: Don Grossman, Arborjet, Inc., Damage: Don Grossman, Arborjet, Inc.

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