

PRESCRIPTION PROGRAMS

PINE BEETLES

The plague of southern pines, *Dendroctonus frontalis*, annually kills enough pine trees to build 30,000 homes, and the financial losses are enormous. This lethal insect is 2-4 mm long, black and shiny, with a large head. It's nearly impossible to spot the beetle on the ground or trunk prior to infection, and once a tree has been infected, it cannot be saved. Southern pine beetles can kill trees singly, in small stands, or in wide swaths of thousands of trees.

Pine Beetles populations, like most bugs, are cyclical. So even if you remember a year in which Pine Beetles spread from tree to tree killing every tree that was adjacent to an infected tree, don't assume that the same thing will happen this year. Instead, call the Arborists at Boutte Tree Inc. to get a better idea of the severity of the pest this year.

First, the females find the tree and bore into the bark, releasing a pheromone which attracts male beetles to the tree. They continue to emit this until the tree is completely filled with beetles, at which point another type of pheromone is released which discourages further occupation. If enough beetles are not nearby to cause a massive take-over, it's possible that a healthy tree can eject beetles by producing more pitch, which raises the pressure of the pitch and "pitches out" the beetles before invasions begins. At this early stage the only evidence is a very fine dust at the base of the tree where the females have entered through the bark.

If the tree is overcome, then mating occurs and the females construct long, winding passages in the cambium layer between the bark and the wood. They fill these with boring dust and eggs, which hatch in about a week and begin further digging. Meanwhile, the adults may leave the tree and move on to another. This stage can be most easily recognized by the pitch tubes on the bark. These are the numerous and noticeable accumulations of pitch on the outside bark, with a tiny hole running through them, usually visible for the bottom twenty feet or so of the trunk. Not all infected trees have them. If you suspect a tree is infected (due to light-colored needles or nearby infected trees), you may confirm their presence by inserting a small knife in the base and prying off the bark. Those familiar, S-shaped passageways are proof positive of infection. Like many boring beetles, the Pine Beetle carries with it a blue stain fungus that hastens the demise of the tree by further clogging the vascular system.

There are some controls that are used to protect Pines against Beetles. The sprays works by soaking the bark with an insecticide so that entering beetles are killed. There are also some pheromone-based products that have recently had some success. Contact Boutte Tree to discuss controlling Pine Beetles. There is no control for infected trees.

It is recommended that infected trees be removed at once, and that all nearby trees be inspected. If all infected trees are removed from a location, and nearby trees are sprayed or removed, then the danger of widespread infection is minimal. It's very seldom necessary to remove all the trees within 50 feet of the infected tree; that is a practice that might be recommended for owners of large tracts of forest, but in the city among mature trees, where there is wide spacing between trees, it's an overzealous policy.
