

Treating Ips Infected Pinyon

Damage—Trees that have been attacked are fairly obvious. The initial phases of attack are notable for the large amounts of resin or “pitch” that readily flow from the attack site. This pitch flow constitutes a major component of the host tree’s defense system, and the phenomenon of mass attack that is driven by pheromone release serves to attract enough beetles to exhaust this defense. Periods of low moisture availability mean that less resin is produced by the tree, thus decreasing the tree’s defenses.

Like other bark beetles, pinyon ips can operate in either an endemic or epidemic fashion. Most of the time, populations of this insect are sparse, and the insects persist in pinyon stands by attacking damaged or stressed host trees. Mechanical damage, fire injury, drought, and stress created by other damaging agents (particularly black stain root disease) often increase host tree susceptibility. Human activity that results in tree damage to any portion of the trees, including roots and branches, can create habitat suitable for the beetles. In addition to the stress created by damage to host trees, mechanical wounding of trees releases volatile compounds found in tree resin that are particularly attractive to *Ips* spp. beetles. Small outbreaks of the beetle are often initiated by thinning, road or structural construction, or other similar activities.

Management—Over the long run, the most economical and efficient means of protection is maintenance of pinyon trees and stands in as thrifty a condition as possible. **Reduced stocking and thinning and removal of damaged or diseased trees will reduce the chance that pinyon ips can build up in susceptible hosts and then emerge to attack additional trees.** Ips beetles are attracted to damaged or cut trees. This can be a way of luring them into an area and if the piles of trees are chipped or burned within a week or two, this will help control future outbreaks. However, if cut trees are left for long periods of time this will create breeding grounds for them to spread to other areas.

As soon as resin is evident or the trees show signs of dead needles, they should be cut and removed (chipped or burned). The best time to cut the trees is late fall and winter.

High-value trees in landscaping and recreational settings can be protected by using a chemical protective spray. Care must be taken to ensure complete coverage of the tree, as insufficient treatments will result in the death of the tree. During periods of drought, supplemental watering may also provide a degree of protection to stressed trees.