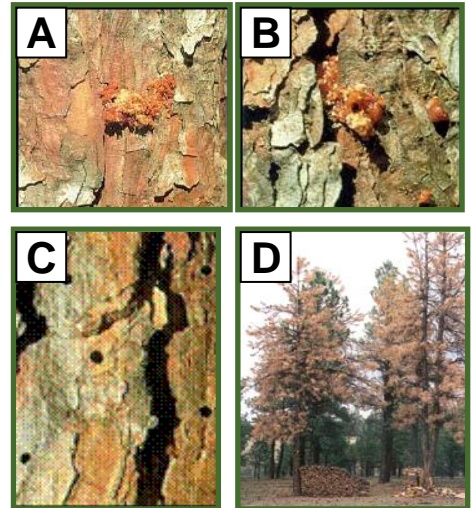


There are numerous species of *Ips* and *Dendroctonus*, bark boring beetles, infesting conifers throughout North America. Adults bore through the outer bark and then tunnel and lay eggs in the soft inner bark. The development of larvae and pupae is completed in the outer bark. Adults develop from pupae and emerge by boring out through the bark. Many generations can be produced in any given year.

Symptoms of infestation are listed as follows: the presence of reddish boring dust, multiple pitch tubes, beetle exit holes, and yellowing foliage. The beetles commonly attack drought stressed trees, causing heavy vascular damage and/or death.



PHOTOS:

Top: Adult *Ips* Beetle

Symptoms Prioritized: **A** shows the reddish boring dust, **B** shows the pitch tubes, **C** shows the beetle exit holes, and **D** shows the yellowing of foliage.

These pictures and more information can be found here:

www.na.fs.fed.us www.ext.colostate.edu

WHAT TO DO:

Arborjet is developing a new trunk injectable insecticide to control bark beetle infestation. Our research results from 2004 to present, have shown high efficacy of this new insecticide against pine bark beetle. This new trunk injectable product, along with other Arborjet products, are used with the Tree I.V. The Tree I.V. uses low pressure to deliver formulation and enough pressure to overcome the resinous flow of many conifers. Call Arborjet for more details at 1-866-272-6758.

WHEN TO DO IT:

Generally, the best seasons for Micro-infusion™ are fall and spring. The environmental conditions that favor uptake are moderate temperatures, adequate soil moisture, and high humidity. 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. Uptake occurs when trees are transpiring. Soil temperature should be above 40 degrees for Micro-infusion™. Tree health will influence uptake time. A heavily infested tree 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 diagnose pine beetle infestation as early as possible. It is the responsibility of the arborist or tree custodian to assess tree health and its potential for recovery before undertaking treatment. Pine bark beetle infestation is associated with drought stress. Watering prior to injection will improve the distribution and diffusion of the treatment in the tree.

“We have been using the Arborjet Tree I.V. system to combat turpentine and southern pine bark beetle on our exclusive golf course customers with excellent success.” Neal Howell, Emerald Tree, Atlanta, GA



Photos:

*Healthy Ponderosa pine taken by
Dave Powell USDA posted at
www.forestryimages.org*



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