

Barks Beetles take bite from landscape evergreens

By Lee Townsend



Several samples of bark beetle damage have come in recently. The approximately pencil-lead diameter holes mark the emergence holes of small dark beetles whose larvae can tunnel extensively beneath the bark. Stresses during the previous growing season(s) are often major contributing factors to these infestations. Unfortunately, there is no effective solution.

Dendroctonus borers are the most aggressive borers in pines and attack and develop in all species of yellow pine, eastern white pine, and spruces. They initially attack the mid and lower trunk but the infestation spreads up and down the tree over time. Females create S-shaped galleries and deposit eggs along the way. The larvae tunnel at right angles to the main gallery. Eventually, they move into the corky outer bark and eventually produce pupation chambers. They emerge through exit holes in the bark after transforming into the adult stage. Several overlapping generations are produced each year; this complicates the effective timing of preventive bark sprays.

Ips beetles, or engraver beetles, normally attack trees struck by lightning, or recently felled trees. However, when large numbers are present, they can attack and kill young, healthy pines and the tops of older trees. Problems in the home landscape tend to involve weakened or stressed trees that have been recently transplanted into unfavorable sites.

Engraver beetle galleries radiate in all directions but eventually tend to run parallel to the grain. They frequently appear as a "Y" or "I". Females lay eggs along the sides of the galleries and the legless, grub-like larvae

tunnel into the phloem. Mature larvae pupate in expanded areas or cells in the inner bark. There can be several generations each year.

Cultural Controls

- Proper watering and fertilization will promote tree health and generally reduce the chances of successful borer attack. Vigorously growing trees tend to be able to fight off borer attack.
- Examine plantings regularly and prune dead or damaged limbs as feasible.
- Protect trees from physical injury as much as possible. Any injury that causes pitch flow can result in attack by borers.
- Plant white pines with hardwoods or under a hardwood canopy to reduce attack by *Dendroctonus*.
- Plant only on medium soils, there should be no hard pan within three feet of the soil surface. This will allow root growth and promote general tree health.
- Remove and destroy trees killed by borers. Select replacement species carefully to avoid a repeat of the problem.
- Consider site selection and avoid putting replacement trees back into poor sites that will stress trees.
- In many cases, it is best to remove and destroy heavily damaged trees because they are unlikely to recover and will serve as a source of borers to attack other trees.

