

Weekly Ag Report
Craig Hemphill, Agricultural Commissioner's Office
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Good Morning. I'm Craig Hemphill from the Lassen County Agriculture Commissioner's Office with this week's Ag Report. Although pine trees are comparatively drought tolerant, there comes a point where even hardy trees become stressed by lack of water. Stressed pines frequently exhibit symptoms such as thin, slightly yellowish canopies, or roots that "spider" across lawns. By the time pine trees begin turning brown, they are usually dying, but with some precautions, many trees can be saved before they reach this point.

California has a number of native bark beetle species that individually do only minor damage as they bore through the outer bark to reach the inner bark and wood surface. Bark beetles are relatively small insects; most species are smaller than a grain of rice. When their population densities are low, these beetles typically attack only the most stressed pines. However, when their population densities are high, they attack and kill healthier trees. If drought conditions continue and beetle populations grow, the beetles can attack in numbers large enough to overwhelm tree defenses.

Healthy pines "pitch out" beetles by filling their tunnels with white to tan covered sap. Sap production requires water, and if water is scarce, the beetles may succeed. A successful beetle attack is often marked by a small, pinkish, volcano-shaped pitch tube at the entrance or small excreted bits of coarse boring dust (frass) trapped in bark fissures and piled at the base of the tree. Pines typically do not die if there are only a few successful boring tunnels, and the color of the pitch tube will usually fade with age to crystalline white. Deep-red fresh sap around open tunnels typically indicates that a more serious invasion is in progress. Severely stressed trees cannot fight back, and may produce little or no sap at all. Instead, all you may find are piles of frass in the bark fissures or on the ground. Regardless of whether the tree is defending itself or not, little can be done to stop an infestation once the beetles are in the tree.

Consider removing heavily infested trees while they are still green. Once the trees have turned red, most of the bark beetles will have already emerged. However, if the tree poses a risk to life or property it should still be removed. If the tree is part of a larger forest or is otherwise far away from people or structures, consider retaining it for wildlife value. Animals that need dead trees for homes may find this old dead tree the perfect place to raise a family.

Since little can be done to treat a bark beetle infestation, preventive measures are the best practice. The care a pine receives can have a significant impact on its survival when bark beetle populations are on the rise. If the tree is of high aesthetic value, consider irrigating it in late spring or early summer. Place a soaker hose just inside the dripline, cover it with mulch if possible, and run the hose until the soil is moist to a depth of 12 inches. Wait until the upper 12 inches of soil is dry before irrigating again.

Thinning weak, diseased, deformed, and beetle-infested trees from a stand can reduce competition for water among remaining trees. If using this approach, try to retain a variety of tree ages and sizes. Remove downed trees and clean up brush piles that can serve as “ladder” fuels in the event of fire. Finally, and only if necessary, prophylactic applications of insecticides to the bark surface can be used to protect high value trees from bark beetle attack.