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TREE FARM BULLETIN

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Wet spring favors trees in seasonal bug wars...for the lentil-size adult bark beetles, pine pitch can be a lethal foe. From the tree's point of view that's a good thing. Just one successful bark beetle attack can introduce a tree-killing blue stain fungus. The fungus blocks the xylem which is the woody part of the tree's trunk that transports nutrients and water from the roots to the leaves. Meanwhile the beetles and their larvae damage the phloem which is the part of the inner bark that transports sugars from the leaves to the roots. Tree death from this double attack generally follows within a year or two of the initial beetle's entry. With extra moisture in the woods this year, foresters are seeing bark-beetle attacked trees fight back with vigor and plenty of pitch spitting out the invading bugs.

The adult bark beetle burrows into the tree's bark to reach the inner bark or phloem layer. If successful, the beetle will lay eggs there. Beetles and the larvae will feed on the inner bark creating a gallery of larger tunnels formed by the adult eating and smaller tunnels that widen as the growing larvae feeds.

When trees are successfully attacked, the needles will first yellow and then turn red. Often, nearby trees will be attacked by the generation of beetles that developed in the first tree. With recent drought conditions, this spread is generally faster than land managers can act to cut down and dispose of infected trees. Therefore foresters advise that the best defense for bark beetle attacks is to manage for resilient forests by reducing stand densities well before the bark beetles arrive. Or, perhaps, based on evidence this year, to have the beetles attack during uncommonly wet years when extra pitch weights the battle in the tree's favor.



Forest entomologist Tom Zegler with New Mexico State Forestry examines pitch tubes on a ponderosa pine tree which fighting off attacking bark beetles.

Bark beetle successfully exuded from tree. Pitch is the tree's first defense against attacking bark beetles. Healthy, vigorous trees with a good supply of pitch have a better chance of surviving beetle attacks.



Mary Stuever, NM State Forestry Division, Chama District Forester



FROM THE CHAIRMAN: We have been blessed with lots of precipitation this year. I have received over three inches at Hidden Lake since the snow stopped falling. I had lots of spring's spring up which included in my crawl space that was flooded for a while. My sump pump could not keep up. Our seasonal stream has run for the first time in several years. With all the precipitation the grasses are growing like crazy. That means a potential for fire if (when) it dries up. Please work on the defensible space around your structures and clean-up of ladder fuel, thin dense stands, as mentioned by Mary, and clean up dead and downed to mitigate the effects of a wildfire. I had a lightning strike on an adjacent lot that damaged a tree but could have ignited a fire if it had struck the downed material. Have a good summer.



