



Colorado State Forest Service
5060 Campus Delivery
Colorado State University
Fort Collins, CO 80523-5060
970.491.6303; FAX 970.491.7736
<http://csfs.colostate.edu/>

NEWS

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Contact for reporters: Ingrid Aguayo
970.491.7282

Yellow, Dying Needles on Evergreen Trees May be a Sign of the Changing Seasons

Fort Collins, Colo. — The arrival of mountain pine beetle on the northern Front Range has generated anxiety about the health of area pine trees. It also has increased the number of calls the Colorado State Forest Service is receiving from concerned citizens about their trees. The symptom they often describe is yellow, dying needles. Although many fear that they're caused by the mountain pine beetle or some kind of disease, yellow, dying needles usually are just a sign of a tree's natural process of shedding needles in the autumn.

"People often are surprised and in disbelief when I tell them that the yellow, dying needles are a function of the normal shedding that happens every fall," says Ingrid Aguayo, forest entomologist for the Colorado State Forest Service. "But people tend to notice more variations in the appearance of their trees when they are concerned about a particular insect or disease."

In autumn, many types of evergreen trees shed their interior needles, which are the needles closest to the trunk. If a tree is stressed due to drought or other root damage, it may shed more needles than usual to keep the above-ground portion of the tree in balance with the root system. The needles turn yellow first, then a red-brown. Small branches with few needles on them also may die.

To distinguish between natural needle drop and tree health issues, look at the distribution of the dead needles. Is it random? Is it only on one side of the tree? Are the majority of the dying needles on the interior of the tree or at the tips of branches? Do the needles have black dots, horizontal stripes or small pin holes?

Distinct, consistent marks on needles may indicate the presence of a particular insect that feeds on needles or a needle disease; it also may indicate that roots are absorbing salts in the soil. If you're still unsure after conducting a visual inspection, take samples of the damaged needles and good-quality photos of the tree to someone with forest insect and disease knowledge for further identification.

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When a tree is infested with mountain pine beetle, the entire tree may turn an off-shade of green, or it may start to turn brown at the bottom and proceed up the tree. In addition to the changing needle color, bark beetle-infested trees also will show additional signs of attack such as fine cinnamon-colored sawdust at the base of the tree.

“If it’s autumn and the dying needles generally are clean and closest to the trunk, it’s just part of a tree’s annual growth cycle,” Aguayo said.

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