Slime Flux

O & T Guide OD-2

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Hosts: Slime flux, also known as bacterial wetwood, is a disease that can be caused by several different species of bacteria. These bacteria can infect many different species of woody trees. Some of the most commonly affected species in New Mexico include: elm, willow, cottonwood, and mulberry.

Symptoms: The most noticeable symptom of slime flux is ooze flowing down the trunks or branches of infected trees. It first causes the bark to appear moist (thus the name wetwood) and eventually dries to a whitish color. The ooze may be white, slimy and frothy and possess a foul odor. This bacterial exudate is attractive to insects and large numbers may be found in the ooze of actively sliming trees. Branches on affected trees may wilt and dieback. The slime is toxic to the bark and to plants growing under the tree. Bark killed by the ooze, especially around the exit wound, may become loose and may eventually slough from the tree.

Conditions for Disease: The bacteria that cause slime flux are ubiquitous in the environment and are commonly found in soil. They are spread by wind, soil and insects.

The bacterium enters the plant through wounds or natural growth cracks. Once inside the tree, the bacteria raise the internal gas pressure in the tree. As a result, the bacteria are forced back out of the tree in the form of ooze. The most common entry wounds are made by improper pruning cuts, other mechanical injuries, and insects. Fast growing trees produce growth cracks which may become entry points for the bacteria. Trees damaged by environmental stresses such as freezing temperatures, wind and sunburn are especially susceptible to the disease.

Cherry tree with slime flux. Photo: N. P. Goldberg, New Mexico State University.

White, frothy, slime produced by a bacterial infection. Photo: Utah State University.

Dried ooze on Chinese elm. Photo: N. P. Goldberg, New Mexico State University.

Management: If the infection is restricted to a lateral branch, the limb should be removed using proper pruning techniques. When infection is present in the trunk, there is little that can be done to help the plant other than providing adequate water and nutrients. Well-managed trees will produce less slime and are less likely to go into decline. Washing the slime off the tree with a hard spray of water will help to reduce the toxic effects. However, care must be taken to avoid washing the slime onto other plants. To help prevent infection in healthy trees, avoid injuries to the trunk and roots and follow good pruning practices which promote rapid healing of wounds. With proper care (appropriate water and fertilizer), infected trees can live for many years, however weak limbs should be removed if they become hazardous. Trees in severe decline should be removed.