



## BACTERIAL CANKER

This disease is caused by the bacterium *Pseudomonas syringae*, aka bacterial gummosis, bacterial blossom blast, blister spot and false fire blight. Young cherry trees are especially at risk. Peaches, plums, prunes, apricots and almonds are also susceptible, as well as apples and their rootstocks, crabapples, pears and blueberries, many ornamentals and vegetable crops.

**Appearance:** On young cherry trees bark becomes dark and watersoaked with a distinct margin between diseased and healthy tissue. Cankers surrounding dead spurs become elongated and exude quantities of gum laden with bacteria. Cambium at the canker dies and becomes discoloured, from it narrow brown streaks extend into healthy tissue above and below. Branches and trunks girdled with cankers die, preceded by yellowing and curling of the leaves above.

Beginning in February, buds may be killed in a progression upwards from lower limbs. Older leaves may have dark circular spots which die and drop out.

In fruit the blister spot phase first produces small raised blisters around the lenticels while older lesions are often reddish purple at the margins. Mutsu and Fuji apples are especially susceptible for about a month after petal drop.

Blossoms of cherries, peaches and almonds may be blasted, also those of pears as well as their spurs.

**Life Cycle:** The disease overwinters in canker margins and the vascular system. In summer it is carried on healthy buds, on leaf surfaces, even those of other species. It thrives best at 21 - 25 degrees C. Often it is more serious after extremely cold winters followed by prolonged spring rains and late frosts. Hosts are most vulnerable from wounds caused by pruning, leaf fall exposing leaf scars, frost damage, improper pH and nutrients, pests, infection with other diseases, early dormant season pruning.

**Control:** Old cherry trees, often a source of infection, should be removed before planting. Stressed trees are especially at risk. Weeds should be eliminated as they can harbour the disease on their surfaces; they also promote humidity and compete for water and nutrients. Diseased wood should be cut out 30 - 40 cm below a canker; small cankers should be cut out. Dormant pruning should be done in January and February, summer pruning when it is dry. Fixed copper sprays offer protection but not a cure. The first should be applied before fall rains, the second at leaf fall to take care of those leaf scars, with one or two more before bud burst in spring. Resistant sweet cherry varieties are Corum, Sam and Sue. The Mazzard F12-1 rootstock is resistant.