

I. Deciduous Orchard Diseases

a. Biology

1. Bacterial spot (*Xanthomonas campestris* pv. *pruni*); plum

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During 1993, two orchards of Japanese plum var. Friar, one in Canyon county, Idaho, and the other in Malheur county, Oregon were found infected with bacterial spot caused by *Xanthomonas campestris* pv. *pruni*.

The disease caused symptoms on leaves, twigs and fruits. Symptoms on leaves initiated as water-soaked, translucent, greasy, angular lesions which were apparent more readily on the lower side of the leaves. The lesions later turned brown and necrotic, and sometimes the dried necrotic tissue in the center of the spots fell off, giving a shot hole or tattered appearance to the affected leaves. Shoot symptoms started at the nodes or between nodes as oily, dark green lesions on the bark of young shoots which split open longitudinally developing into deep, tan cankers, sometimes with fine, granular, dried bacterial exudation in the open canker. Shoots with numerous cankers appeared knotty or gnarled and showed die back. Symptoms on young fruit started as small, circular and greasy spots which developed into large, sunken, black, necrotic lesions with cracks, as the fruit enlarged. Often, several lesions on the fruit coalesced, causing disfigured fruit which fell off the tree.

Isolations from infected tissues on standard bacteriological media yielded lemon-yellow, raised, glistening colonies typical of *Xanthomonas*. Based on bacteriological characters and pathogenicity to leaves and fruits of plum cv. Friar, the bacterium was identified as *X. campestris* pv. *pruni*.

This is the first report of occurrence of bacterial spot of plum in Idaho, and possibly in the Pacific Northwest.