
Prunus Necrotic Ringspot Virus

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I. Introduction: Prunus necrotic ringspot virus infects and can cause disease in sweet and sour cherry, peach, and plum. It causes tatter leaf in sweet cherry and may enhance symptoms of sour cherry yellows in 'Montmorency' sour cherry (in conjunction with prune dwarf virus). Fruit yields may be decreased by 40 to 50 percent, depending on conditions. Prunus necrotic ringspot virus is also a serious problem in the nursery, causing poor bud "take" (reduced 50-90 percent), poor scion "take", and reduced growth of trees.

II. Symptoms: Symptoms first appear on only one or a few branches in the first year. The following year, other branches may show symptoms while the original branch may not. Symptoms appear in acute or shock years, then commonly disappear. In early spring, foliation and blooming of infected branches may be delayed, with leaves remaining small with depressed fine lines (etching) and partial-to-complete rings on the upper surface. Areas of symptomatic leaves may become necrotic and fall out, giving those leaves a tattered look (photo 2-73). Green fruit may show arcs and rings. Leaves unfolding later in the season often have no symptoms. Terminal and lateral shoots are often irregular in length, stunted, or die back at growing points. Occasionally, large areas of bark are killed and show gumming. Severely affected limbs are more susceptible to winter damage.



III. Disease Cycle: Movement of virus in the orchard occurs through transmission by pollen to seed and to pollinated plants. The virus spreads especially rapidly in sour

cherry. Once transmission occurs, symptoms appear in two weeks to two years. On older, well-established trees, the infection may remain latent, with no apparent symptoms. Symptom severity depends upon the age and general condition of the planting, and on temperature, with leaf symptoms developing best between 68 to 75 F (20-24 C), and shoot dieback being more severe at higher temperatures.

IV. Monitoring: Be aware of symptoms of this disease. No routine monitoring required.

V. Management: This disease is rarely a problem because of nursery certification programs.

TEXT PREPARED BY R. WELLIVER AND E.V. PODLECKIS

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