

**Problem:** Tomato spotted wilt virus



**Host Plants:** Tomato, pepper, plus many other vegetables and ornamentals.

**Description:** The **spotted wilt virus** also has a wide host range and can affect a number of ornamental plants as well as tomato. Early symptoms of spotted wilt on tomato are difficult to diagnose. Young, infected plants may show an inward cupping of leaves, and the foliage may appear off-color or have a slight bronze cast. As the disease progresses, plants may develop dark brown to black streaks on the main stem. Occasionally the top portion of the plant appears yellow and wilts.

The most characteristic symptom of spotted wilt appears on the fruit. On young fruit, white to yellow concentric rings, one-half inch in diameter, develop on the fruit skin. The area within the ring typically is raised, which gives the fruit a bumpy or warty appearance. The bright yellow rings on red, mature fruit are quite striking and are easily diagnosed as spotted wilt.

Seed transmission is not considered important for disease transmission. The spotted wilt virus is transmitted from plant to plant by several species of a small insect called a thrip. Thrips are less than one-quarter inch in length, light green to brown, and are extremely difficult to find on the plants. A large number of weedy hosts and ornamental plants may serve as alternate hosts for the virus.

**Recommendations:** Virus diseases cannot be controlled once the plant is infected. Therefore, every effort should be made to prevent introduction of virus diseases into the garden. Sanitation is the primary means of controlling virus diseases. Infected plants should be removed immediately to prevent spread of the pathogens. Perennial weeds, which may serve as alternate hosts, should be controlled in and adjacent to the garden. Avoid planting tomatoes next to peppers, or other vegetables and flowers

susceptible to these diseases. Control of insects, especially thrips, will help reduce the likelihood of spotted wilt.

Due to the extremely wide host range, all weeds should be controlled in a greenhouse situation before bedding plants are grown.

**References:**

1. [Tomato Spotted Wilt Virus](#), Cornell University Fact Sheet 735.90
2. [Wilt, Nematode, and Virus Diseases of Tomato](#). K-State Research and Extension, Publication L-723.

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