

Integrated Pest Management for the Home Environment

TITLE

FUSARIUM WILT ON TOMATO

Cause: Fungus

Symptoms: Wilting, yellowing of leaves, death of plant

Hosts: Wide range of herbaceous plants

When it is a problem: Summer

IPM Techniques: Plant resistant varieties

Introduction. Fusarium wilt is caused by the fungus *Fusarium oxysporum*. This pathogen, like *Verticillium*, invades the host plant through the roots and plugs the water-conducting tissue. Fusarium wilt can cause serious plant losses, especially in areas where soil and air temperatures are 80° to 90° F during much of the season.

Symptoms. In seedling plants, Fusarium wilt causes drooping and downward curvature of the oldest leaves, usually followed by wilting and death of the plant. Older plants are infected at all stages of growth, but disease symptoms generally become most evident when the fruits begin to mature

Yellowing of the lower leaves occurs first, with often the leaves on only one side of the stem turning yellow. As the disease progresses, yellowing and wilting continue up the stem until the foliage is killed and the stem dies. A reddish-brown color develops to the woody stem, which can be seen when the stem is cut open lengthwise. Any fruit produced on infected plants is usually of poor quality.

Control. Once a tomato plant becomes infected by either *Verticillium* or *Fusarium*, nothing can be done to control the disease. Disease resistant tomato varieties must be planted to prevent infection. Some recommended varieties include Early Pak VF, Packmore VF, Ace 55 VF, Royal Ace VF, VFN Bush, V FNB, and Cal mart V FN. The letters "V," "F," or "N" following the names of the tomato varieties indicate resistance: "V" for verticillium wilt, "F" for Fusarium wilt, and/or "N" for root-knot nematodes.

Bibliography

<u>Vegetable Gardening. Growing Tomatoes</u>. Leaflet 2642, Division of Agricultural Sciences, University of California, 1977.

About Tomatoes, Ortho Book Series, 1976.