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University of California Statewide Integrated Pest Management Program

How to Manage Pests

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Peppers

Tomato Spotted Wilt Virus

Pathogen: Tomato spotted wilt tospovirus (TSWV)

(Reviewed 8/07, updated 6/08)

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SYMPTOMS

Symptoms on plants infected with *Tomato spotted wilt tospovirus* include overall yellowing (chlorosis), dead (necrotic) spots on leaves or terminal shoots, and general stunting. Fruits show chlorotic spots, red and/or green areas surrounded by yellow halos, and concentric rings that may become necrotic.

COMMENTS ON THE DISEASE

Tomato spotted wilt tospovirus is transmitted by various species of thrips, including western flower thrips (Franklinella occidentalis), onion thrips (Thrips tabaci), and chili thrips (Scirtothrips dorsalis). Tomato spotted wilt tospovirus also infects the thrips vector. If nymphs acquire Tomato spotted wilt tospovirus by feeding on infected plants, they will retain the ability to transmit the virus for the remainder of their lives. Tomato spotted wilt tospovirus can be passed from infected females through the eggs to her offspring. In addition to infecting its insect vectors, Tomato spotted wilt tospovirus has an extremely wide host range among plants, including many weeds as well as crop hosts. It is one of the few plant viruses whose host range includes broadleaf and grassy plants (including onions). Tomato spotted wilt tospovirus is widespread and can cause significant losses in greenhouse-grown peppers. Field-grown peppers generally are less severely affected, though instances of significant crop loss have occurred.

MANAGEMENT

No effective control strategies are currently practiced in California as the occurrence of *Tomato spotted wilt tospovirus* is very sporadic. No resistant cultivars are available, but sources of resistance have been identified.

PUBLICATION



UC IPM Pest Management Guidelines: Peppers

UC ANR Publication 3460

Diseases

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