
IPMINFO

Integrated Pest Management for the Home Environment

TITLE

VERTICILLIUM WILT ON TOMATO

Cause: Fungus

Symptoms: Wilting, yellowing of leaves, defoliation

Hosts: Wide variety of woody and herbaceous plants

When it is a problem: Summer

IPM Techniques: Plant resistant varieties, sanitation

Introduction. Verticillium Wilt, one of the most widespread and destructive soil-borne diseases of plants, attacks a large number of woody and herbaceous species throughout the world. The causal fungus, *verticillium dahliae*, infects susceptible plants through the roots and invades and plugs the waterconducting tissues. Verticillium is especially damaging to tomatoes in California.

Symptoms. Early symptoms include yellowing of older leaves and wilting of shoot tips during the day. Later, leaf margins curl upward, and leaves often drop off. Diseased plants are stunted, and any fruit that is produced is usually small. When diseased plant stems are cut open with a knife and exposed, the water-conducting tissues usually appear streaked with a dark brown or black discoloration. Development of the fungus is favored by cool, moist spring weather, but wilting of foliage may not show up until sunny warm weather occurs and the plant is under stress.

Control. Soils where highly susceptible crops such as tomatoes, potatoes, cotton, strawberries, and various melons have been grown previously should be avoided if possible. Also, never dig up plants from areas where wilt has appeared, and transplant them into non-infected areas. Verticillium is soilborne and will probably be moved with the transplant. Planting verticillium resistant varieties-- indicated by the letter "V" following the name--is the most effective disease control measure. There is no fungicide available that can be used to control Verticillium Wilt once the plants have been infected.

Bibliography

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