

Plant Disease Notes

Tobacco Etch Virus

ANR-869

Tobacco etch virus (TEV) infects tomatoes and peppers along with other plants in the Solanaceae family.

Symptoms. Leaves of infected plants are severely mottled, puckered, and wrinkled, and plants infected at an early age are severely stunted. Fruit from infected plants are mottled and never achieve marketable size. The younger plants are at time of infection, the greater the reduction in yield.

Persistence and Transmission.

The occurrence of TEV in tomato fields is closely associated with other infected solanaceous crops, especially pepper, and natural weed hosts, which serve as virus reservoirs. Thistle, lamb's-quarter, sicklepod, jimsonweed, and black nightshade, among others, can act as alternate hosts for TEV. The virus can be transmitted by at least 10 species of aphid in the nonpersistent manner, meaning the aphids need to feed on a TEV-infected plant for only a few seconds to pick up the virus. There are no reports of seed transmission in any host plant.

Control. TEV can be controlled by the following strategies:

- Eradicate all biennial and perennial weeds and wild reservoir hosts in and around fields. Maintain a distance of at least 30 yards between susceptible crops and weeds or other susceptible plants, including those in ditch banks, hedge or fence rows, and other locations.

- Plant earlier to avoid high aphid populations that occur later in the season.

- Plant late settings as far as possible from fields used to produce early tomatoes and peppers. These areas can act as sources of viruses and aphids for subsequent crops.

- Scout fields for the first occurrence of virus disease. Where feasible, pull up and destroy infected plants but only after spraying them thoroughly with an insecticide to kill any insects they may be harboring.

- Use reflective mulches to repel aphids, thereby reducing the rate of spread of aphid-borne viruses.

- Monitor aphid populations early in the season and apply insecticide treatments when needed.



Your Experts for Life

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For more information, call your county Extension office. Look in your telephone directory under your county's name to find the number.

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