**Verticillium albo-atrum**  
**Verticillium dahliae**

**SIGNS & SYMPTOMS:**

- Verticillium wilt can easily be confused with Fusarium wilt and other wilt diseases of tomato and pepper.

- Infected plants usually show mild to moderate wilt during the warmest part of the day, but recover at night.

- Lower leaflets or leaves may show characteristic V-shaped lesions, with yellowing in a fan pattern that narrows down from the leaf margins.

- Vascular discoloration is evident in lower stems when they are cut open longitudinally.

- This discoloration is said to be a lighter shade of brown than Fusarium wilt diseases, but in our experience, this is not a reliable characteristic for diagnosis.

**DISEASE CYCLE & EPIDEMIOLOGY:**

- Verticillium wilt is a cool weather disease. It occurs in southern Florida during the winter months when daytime temperatures are 68-75°F.

- *Verticillium* can survive in soil for up to 8 years as microsclerotia (hard, resting structures).

**FIELD SIGNATURE:**

- Look for wilted plants that recover at night.

**PHOTOS:**

**Figure 1.** Symptoms of wilting of tomato plant due to Verticillium infection. Courtesy of: FDACS.

**Figure 2.** V-shaped lesions characteristic of Verticillium wilt of tomato. Courtesy of: FDACS.

**Figure 3.** Vascular browning associated with Verticillium wilt of tomato. Courtesy of: University of California Statewide IPM Program.
DISEASE MANAGEMENT: Verticillium Wilt

CULTURAL CONTROLS:
- Crop rotation may be helpful but limited because of the wide host range of these two species.

CHEMICAL CONTROL:
- Fumigation with broad-spectrum chemicals (mostly methyl bromide/chloropicrin) has been the major means of controlling Verticillium wilt.

RESISTANT CULTIVARS:
- Resistant cultivars are available for race 1 of *V. albo-atrum*, but "new" races have been identified. See pgs. 10-12 for resistant tomato cultivars.

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REFERENCES:


Figure 4. Symptoms of wilting of tomato plant due to Verticillium infection. Photograph by: UF/IFAS.

Figure 5. Chlorosis of tomato seedling infected with *Verticillium albo-atrum*. Photograph by: FDACS/DPI.