Sherrie Smith
Keiddy Urrea

Issue 22, July 10, 2017

Arkansas Plant Health Clinic Newsletter

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Southern Peas

Choanephora Blight

Flower and Pod Blight of Southern Pea (Choanephora Blight), caused by the fungus *Choanephora cucurbitarum*, is associated with high humidity and injury to flowers and developing pods. The disease is also common on okra, pumpkin, snap bean, and squash. It is most prevalent during periods of large amounts of rain and high temperatures. Choanephora Blight spreads by wind, water, on clothing, tools, garden equipment, and by insects. The newest foliage, flowers, and fruits are vulnerable. Foliar symptoms begin as water-soaked areas that darken and dry out with age. A dark gray to silvery fungal growth and rot becomes apparent in a matter of hours under environmental conditions conducive for disease. Pods and flowers develop a wet rot that becomes covered with a fuzzy, silvery mass of fungal growth. The disease is most severe in dense plantings and extended wet periods. Once drier conditions prevail, new infections decline. This disease is difficult to control with fungicides. Diseased plant parts should be removed from the planting. All crop residues should be cleaned up at the end of the season. Overhead irrigation should be avoided in favor of drip irrigation. It is helpful if fruit and flowers do not touch the ground.

Pumpkin Choanephora Blight-*Choanephora cucurbitarum*

Photo by Donn Johnson, University of Arkansas Cooperative Extension

Southern Pea Choanephora Blight-*Choanephora cucurbitarum*

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

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Squash Choanephora Blight-
Choanephora cucurbitarum

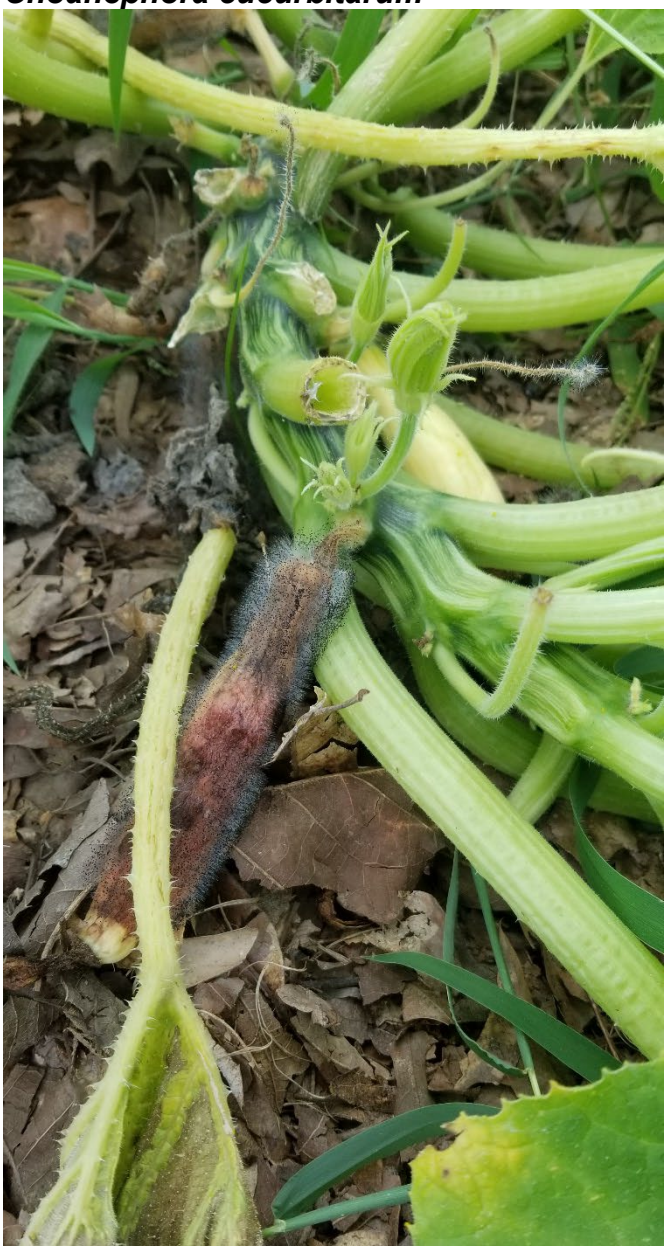

Photo by Jennifer Caraway, University of Arkansas Cooperative Extension

Cowpea Curculio

Insect injury has been linked to increased amounts of Choanephora Blight, particularly injury by the Cowpea Curculio, *Chalcodermus aeneus*. The adult weevils are black, about ¼ inch long with a prominent, and have "pits" over most of the body surface. Cowpea curculio overwinters as adults in weedy areas or refuse. In the spring, the adults emerge and begin feeding. They feed on seeds within pods by puncturing the pod with their snout. These punctures also provide a place for females to lay eggs. Larvae are grub-like and feed on seeds within the pod. Mature larvae chew through the pod and drop to the ground where they pupate. Insecticides available to homeowners include Ortho Bug B-Gon Insect Killer for Lawns and Gardens (bifenthrin 0.3% + zeta-cypermethrin 0.075%), carbaryl (various brands), and malathion (various brands). Always check label for rates and special instructions. Commercial growers may use those above as well as Baythroid XL (beta-cyfluthrin), Leverage 360 (beta-cyfluthrin + imidacloprid), Asana XL (esfenvalerate), Karate Z (lambda-cyhalothrin), and Mustang Maxx (zeta-cypermethrin).

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Cowpea Curculio Damage-
Chalcodermus aeneus

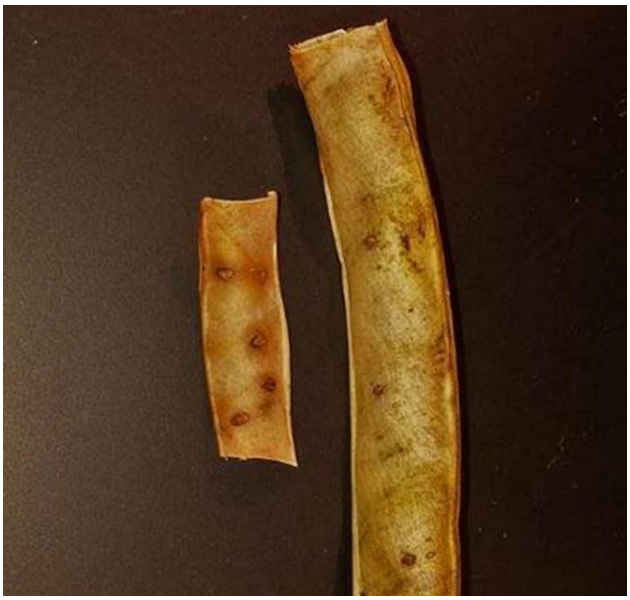

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Cowpea Curculio Larvae-
Chalcodermus aeneus

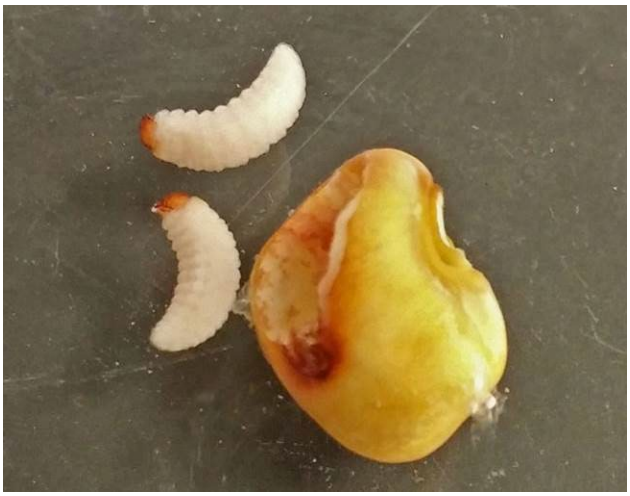

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Tomato

Tomato spotted wilt virus, (TSWV), is appearing across the state. More than 176 plant species are susceptible to TSWV, including tomato and pepper. Symptoms include stunting, wilting, and sometimes a one-sided growth habit. Young leaves often turn a bronze or black color with numerous dark spots. Growing tips may die back. Young plants with these symptoms will usually not produce fruit. Older plants will fruit, but the fruit will have chlorotic rings and necrotic spots. Potatoes, peppers, and eggplant are among the many plant hosts that are vulnerable to TSWV. There is no cure or treatment for any viral disease. Pull up all affected plants and destroy or remove them to prevent the disease from spreading to new plants by thrips. A few resistant tomato cultivars are available:

- **Amelia (determinate)**
- **Red Defender (determinate)**
- **Dixie Red (determinate)**
- **Health Kick (determinate)**
- **Mountain Merit (determinate)**
- **Sophya (indeterminate)**
- **Baby Cakes (determinate)**
- **Bella Rosa (determinate)**
- **Red Bounty (semi-determinate)**
- **Crista (determinate)**
- **Talladega (determinate)**
- **BHN 444 (determinate)**
- **Redline (determinate)**
- **BHN 602 (determinate)**
- **Top Gun (determinate)**
- **Tycoon (determinate)**

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- Tribeca (determinate)
- Mountain Glory (determinate)
- Fletcher (determinate)
- Finishline (determinate)
- Nico (determinate)
- Tribute (determinate)
- BHN 640 (determinate)

Tomato Spotted Wilt Virus-
Tospovirus

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Tomato Spotted Wilt Virus-
Tospovirus

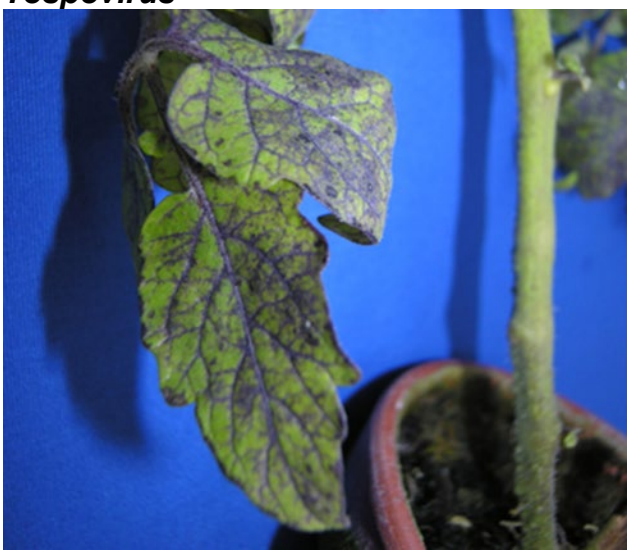

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Tomato Spotted Wilt Virus-
Tospovirus

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Pepper with Tomato Spotted Wilt Virus-*Tospovirus*

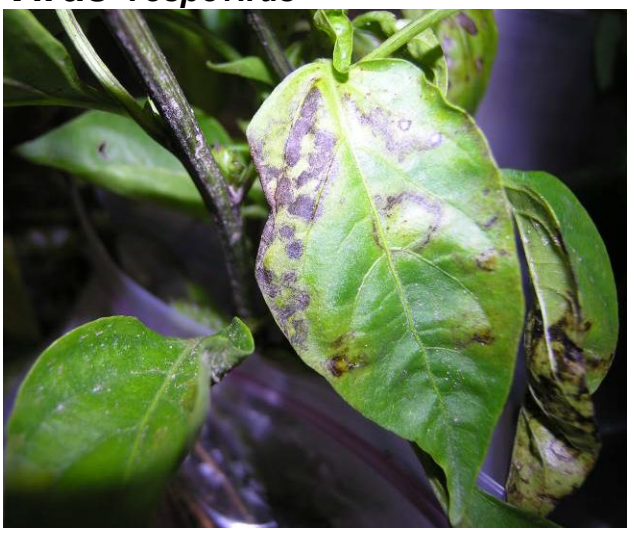

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Pepper with Tomato Spotted Wilt Virus-*Tospovirus*

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Bell Peppers Resistant to TSWV

- **Declaration**
- **Heritage**
- **Magico**
- **Monarch**
- **Plato**
- **Stiletto**

This bulletin from the Cooperative Extension Plant Health Clinic (Plant Disease Clinic) is an electronic update about diseases and other problems observed in our lab each month. Input from everybody interested in plants is welcome and appreciated.

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