





Arkansas Plant Health Clinic Newsletter

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Soybean

Dectes Stem Borer

by Ricky Corder

Dectes Stem Borer, *Dectes texanus* LeConte (Insecta: Cerambycidae), is a native longhorn beetle that girdles and then feeds inside soybean stems. Its other hosts include weeds, such as cocklebur and giant ragweed as well as sunflower. Adult beetles are grey with long antennae and do not cause damage. The larval stage can be found inside hollow stems and they are a cream colored "worm" with prominent dark mouthparts.

Larval feeding within the stems occurs in late summer to fall and although the stem feeding does not directly lead to yield loss, the hollowing out of stems can cause lodging, which does directly affect yield. Dectes Stem Borer may be more of a problem in no-till fields because undisturbed soil provides protected areas for overwintering.

Chemical control is not recommended because larvae are protected within stems and adults emerge over an extended period, making the timing of applications difficult. Cultural methods such as fall tillage may be effective if plant material is buried at a depth greater than two

inches (51 mm). Crop rotation as well as weed control, especially around edges of fields, may also be an effective method of reducing population size. Timely harvest can reduce the amount of lodging.

Soybean Stem Borer adult-Dectes texanus



Photo by J.P. Michard, Kansas State University, Bugwood.org

Soybean Stem Borer larva-Dectes texanus



Photo by Sherrie Smith, University of Arkansas Cooperative Extension







Soybean Stem Borer larva-Dectes texanus



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Soybean Web Blight

Soybean Web Blight or Aerial Blight, caused by the fungus Rhizoctonia solani AG1-1A, can cause yield losses of 40-50% when conditions favor disease development. Leaf symptoms begin as water-soaked, grayish-green lesions that become tan and dry as the disease Infected leaves may become progresses. matted together by fungal mycelia. Reddishbrown lesions may form on infected petioles, stems, pods, and petiole scars. Soybean fields that follow rice are more susceptible to Web Blight as Rhizoctonia is also a pathogen on that crop. There is no good resistance to Web Blight. but some cultivars are less susceptible. Cultural practices such as practicing crop rotations with corn or grain sorghum for two-years and avoiding narrow row widths and high plant populations have been found to be helpful. Fungicides should be used at the first sign of disease. Use Quadris 2.08 SC, or Equation 2.08 SC, or Headline, or Quadris Top SB, or Quilt Xcel, or Approach Prima, or Stratego YLD, or Priaxor.

Soybean Web Blight (Aerial Blight)-Rhizoctonia solani AG1-1A



Photo by Kevin VanPelt, University of Arkansas Cooperative Extension







Soybean Web Blight (Aerial Blight)- Rhizoctonia solani AG1-1A



Photo by Kevin VanPelt, University of Arkansas Cooperative Extension

Chrysanthemum

Bacterial Blight, caused by Dickeya dadantii (formerly Erwinia chrysanthemi), can rapidly and dramatically cause serious losses in mum The first symptom is a grayish crops. appearance of one or more branches. Plants begin to wilt during the day but recover at night. Infected stems are easily flattened with finger pressure. As the disease becomes worse, the growing tips turn deep brown, collapse, and then become dry and brittle. The bacterium is easily spread from plant to plant on hands and pruning tools. Purchase culture-indexed cuttings that are free of disease. Use clean potting mix. Steam disinfection is useful. Disinfect propagation beds between crops.

Destroy infected cuttings. Some growers dip cuttings in streptomycin before sticking.

Chrysanthemum Bacterial Blight-Dickeya dadantii



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Tomato

Leaf Mold, caused by Passalora fulva (previously called Fulvia fulva or Cladosporium fulvum), is a disease found commonly in greenhouse tomatoes and less frequently in field-grown tomatoes. However, we do see it in the field in seasons with extended periods of high humidity and prolonged leaf wetness. The first symptoms on the leaves are small yellow spots on the upper leaf surface with corresponding olive-green to grayish-purple, velvety spots on the underside of the leaves. Leaves turn brown, crinkle up and die, falling from the plant prematurely. Fruit infections show as a black, leathery, stem end rot on both green and ripe fruits. The rot can encompass one-third of the fruit surface. Resistant







varieties are available, but this fungus mutates rapidly, so a previously resistant variety may prove susceptible in subsequent years. It is important to avoid overhead irrigation when watering the plants. If overhead irrigation cannot be avoided, do it early in the day so the leaves have a chance to dry. Do not overcrowd plants. Provide adequate row and plant spacing. After harvest, remove and destroy tomato debris. Practice crop rotation. Plant in an area that has not had tomatoes, potatoes, eggplant, or peppers planted in that spot the last three years. Fungicides such as Maneb, or Gavel, or Tanos, or products containing Chlorothalonil provide protection if applied weekly.

Tomato Leaf Mold-Passalora fulva



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Tomato Leaf Mold-Passalora fulva



Photo by Sherrie Smith, University of Arkansas Cooperative Extension







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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