Sherrie Smith
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Southern Plant Diagnostic Network
Issue 18, July 1, 2019

Arkansas Plant Health Clinic Newsletter

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Pecan

We are seeing pecan samples with wilted new growth. This time of year, samples of hickory and pecan with Hickory Shoot Curculio damage are being diagnosed. The adult is a beetle, *Conotrachelus aratus*. The time to spray is when the first leaf on the new growth starts to unfurl all its leaflets. Once the wilting, flagging twigs are observed, it is too late this season for chemical controls. The larvae are legless grubs that tunnel into new buds, stems and shoots f hickory and pecan. Their feeding and tunneling activity cause early leaf drop and death of affected twigs. This insect rarely causes serious damage to a well-managed orchard, where insecticides applied for more serious pecan pests also keep the Hickory Shoot Curculio in check. However, un-managed orchards next to wooded areas containing native hickory and pecan may see more than half of the new shoots in the spring infested. If practical, affected twigs should be pruned out and destroyed as soon as they are observed.

Pecan Hickory Shoot Curculio- *Conotrachelus aratus*

Photo by Jerry A. Payne, USDA Agricultural Research Service, Bugwood.org

Pecan Hickory Shoot Curculio- *Conotrachelus aratus*

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

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Tomato

The Plant Health Clinic has received numerous samples of tomato with severe leaf damage. Septoria Leaf Spot caused by *Septoria lycopersici* is one of the most damaging diseases of tomato foliage. Septoria is favored by warm temperatures and high humidity. Symptoms of Septoria generally appear on the lower leaves after the first fruit sets. Lesions are circular, about 2.6mm in diameter, with dark brown margins with tan to gray centers. A narrow yellow halo may often be observed around the lesion. Small black fruiting bodies of the fungus (pycnidia) may be observed in the centers of the lesions using a hand lens. Lesions may coalesce to form large, blighted areas. Foliage turns yellow, then brown and dry. The plant has an almost burned appearance. There are no resistant cultivars available. Control measures include crop rotation with a non-host, control of weeds in tomato crops, removal of all crop debris, and avoidance of night watering and overhead irrigation. Protective fungicides at regular intervals during the growing season will be necessary for most growers. Quadris, Cabrio, Flint, Bravo, Mancozeb, and Gavel are labeled for Septoria leaf spot control. Homeowners may use Ortho Garden Disease Control, or Fertilome Liquid Fungicide, or Bonide Fung-onil Multipurpose Fungicide Concentrate, or Garden Tech Daconil Fungicide Concentrate, or Bonide Mancozeb Flowable w/Zinc, or Hi-Yield Maneb Garden Fungicide, or Green Light Tomato and Vegetable Spray. Organic Gardeners may try Bio Advanced Natria Disease Control, or Bonide Liquid Copper Fungicide Concentrate, or Kaligreen, or Bonide Remedy, or Bonide Copper Dust, or Hi-Yield Bordeaux, or AgraQuest Serenade.

Tomato Septoria Leaf Spot-*Septoria lycopersici*

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Tomato Septoria Leaf Spot Spores-*Septoria lycopersici*

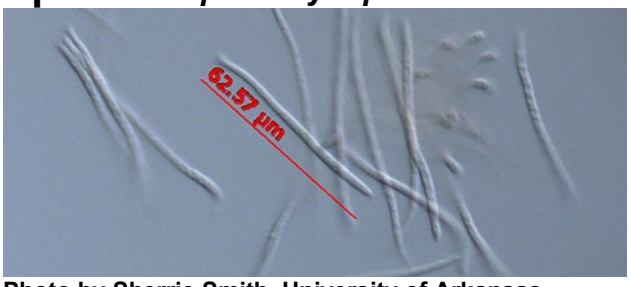

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

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Tomato Septoria Leaf Spot-
Septoria lycopersici

Photo by Rick Wimberley, University of Arkansas Cooperative Extension

Tomato Septoria Leaf Spot-
Septoria lycopersici

Photo by Keith Gresham, University of Arkansas Cooperative Extension

Corn Crazy Top

Crazy top, caused by *Sclerophthora macrospora*, only occurs in the presence of excess water. We see Crazy top where fields have been flooded shortly after planting or before plants are at the four to five leaf stage. Water trapped in the whorl of young plants can also lead to infection. Soil or leaf saturation for 24-48 hours is enough for infection to occur. Symptoms of Crazy top depend at what stage of growth the corn was infected, and the severity of the infection. The most common symptoms are excessive tillering (six to ten tillers per plant), rolling and twisting of the upper leaves, and leafy proliferation of the tassel. Leaves may be stunted, strap-like, leathery, and chlorotic. There are no chemical controls for Crazy top. Good soil drainage is the only preventative.

Maíz by Keiddy Urrea

La enfermedad conocida como Punta loca del maíz, es causada por el hongo *Sclerophthora macrospora* se presenta únicamente cuando hay exceso de agua en el cultivo de maíz. Comúnmente se observa esta enfermedad en campos que han estado inundados después de plantarlos o antes de que las plantas lleguen al estado de 4 o 5 hojas. Agua acumulada en la espira de la planta también puede favorecer la infección de Sclerophthora macrospora. Con suelos y hojas saturadas de agua por 24 – 48 horas, son suficientes para que el patógeno empieze la infección. Los síntomas de esta enfermedad dependen del estado fisiológico

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de la planta. Los síntomas más comunes son excesiva producción de macolllos (de 6 a 10 macollos por planta), enrollado de las hojas superiores y proliferación de las hojas en la inflorescencia masculina. Las hojas pueden verse cloróticas y malformadas. No hay control químico recomendado para esta enfermedad. Manejo adecuado de la humedad en el suelo es recomendada como una manera de prevenir las condiciones ideales para la enfermedad.

Corn Crazy Top-*Sclerophthora macrospora*

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Corn Crazy Top-*Sclerophthora macrospora*

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Corn Kernel Abortion

It is not unusual to see kernels abort at the tip of the ear since they are the youngest and the farthest from the incoming food source. This occurs in the blister or early milk stages. Occasionally, kernels may abort in 2 or 3 columns that run the entire length of the ear. Basically, any kind of stress that reduces the photosynthate supply may cause kernel abortion. Drought stress is a major culprit.

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Corn Kernel Abortion-Abiotic

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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