



## Arkansas Plant Health Clinic Newsletter

Follow us on social media



### Red Tip Photinia

Photinias are no longer one of the landscape plants we recommend. They are extremely prone to a debilitating and unsightly leaf disease. Unfortunately, many cultivars are extremely susceptible to Entomosporium leaf blight caused by *Entomosporium mespili*, synonym *E. maculatum*. New infections first appear as tiny red specks on either surface of the leaf. The bright red spots may coalesce into large maroon blotches. Older spots may have gray centers with dark purple halos. Infection can spread to twigs causing cankered areas on branches. Severe infections may result in heavy leaf drop and weakening or death of the plant. Cultural controls consist of avoiding overhead irrigation, improving air circulation, and cleaning up fallen leaf/stem debris. Homeowners may use Fertilome Broad Spectrum Lawn and Garden Fungicide, (chlorothalonil), or Hi-Yield Vegetable, Flower, Fruit, and Ornamental Fungicide, (chlorothalonil) or Ortho Maxx Garden Disease Control, (chlorothalonil), or Ortho Disease B Gon Garden Fungicide, (chlorothalonil), or Garden Tech Daconil Fungicide, (chlorothalonil), or Bonide Fung-onil Multipurpose Fungicide, (chlorothalonil), or

Spectracide Immunox Plus, (myclobutanil & permethrin), or Bonide Rose Rx Systemic Drench, (tebuconazole), or Bayer Advanced Garden-Disease Control for Roses, Flowers, Shrubs, (tebuconazole), or Bayer Advanced Garden-All-in-One

Fungicide/Insecticide/Fertilizer, (tebuconazole & imidacloprid), or Fertilome 2-N-1 Systemic Fungicide, (tebuconazole & imidacloprid), or Bonide Infuse Systemic for Turf and Ornamentals, (thiophanate-methyl), or Ortho Rose and Flower Insect and Disease Control, (triticonazole & acetamiprid).

### Photinia Leaf Spot-*Entomosporium mespili*



Photo by Olivia Foster, University of Arkansas Cooperative Extension

The University of Arkansas System Division of Agriculture offers all its Extension and Research programs to all eligible persons without regard to race, color, sex, gender identity, sexual orientation, national origin, religion, age, disability, marital or veteran status, genetic information, or any other legally protected status, and is an Affirmative Action/Equal Opportunity Employer.



## **Photinia Leaf Spot-*Entomosporium mespili***



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

## **Indian Hawthorn Leaf Spot-*Entomosporium mespili***



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

## **Impatiens**

Impatiens Necrotic Spot Virus (INSV) is an insect vectored virus that infects hundreds of species of plants. Common garden and landscape plants that are susceptible include tomato, pepper, lettuce, African violets, Anemone, Aster, Begonia, Calceolaria, Chrysanthemum, Cineraria, Coleus, Cyclamen, Geranium, Gerbera, Gladiola, Gloxinia, Impatiens, Kalanchoe, Marigold, Nasturtium, Peony, Periwinkle, Petunia, Phlox, Primula, Ranunculus, Snapdragon, Stock, Verbena, and Zinnia, among others. INSV is vectored by the Western flower thrips, *Frankliniella occidentalis*. Thrips feed on infected plants as larvae, acquiring the virus which they pass on to new hosts as adult insects. Symptoms are necrotic spots on leaves and flowers, stunting, wilting, and plant death. Plant viruses are not curable. Infected plants should be destroyed. Practice good weed control to limit hosts. Sticky traps may help monitor thrips populations. Many insecticides are labeled for thrips control. Insecticidal soaps and products containing imidacloprid, abamectin, acephate, cyfluthrin, and spinosad, among others are recommended for thrips control.

### **Impatiens** by Keiddy Urrea

El virus de la mancha necroticas del impatiens (INSV, por sus siglas en ingles), es transmitido por insectos a varias especies de plantas. Algunas de estas plantas son: Tomates, Pimentones, Lechuga, Violeta Africana, Begonias, Calceolaria, Crisantemo, Cineraria,



**Sherrie Smith**  
**Keiddy Urrea**

Coleo, Ciclamen, Geranio, Gerbera, Gladiolos, Gloxinia, Impatient, Kalanchoe, Calendula, Capuchina, Peonía, Bígaro, Petunia, Polemonio, Primavera, Ranúnculo, Boca de Dragon, Alhelí, Verbena y Zinnias entre otras. El virus INSV es transmitido por los trips conocidos como trips de las flores del oeste, *Frankliniella occidentalis*. Las larvas de los trips adquieren el virus alimentándose de plantas infectadas y en el estado adulto infectan plantas sanas. Los síntomas de INSV se expresan como manchas necroticas en las hojas y flores, decaimiento, marchitamiento, y muerte de la planta. Las enfermedades causadas por virus no se pueden curar, por lo tanto se recomienda destruir en material infectado con el virus. Se recomienda tener un buen control de las malezas, usar trampas para monitorear la población de trips, usar insecticidas jabonosos o insecticidas que esten registrados por trips. Algunos de los insecticidas recomendados son: imidacloprid, abamectin, acephate, cyfluthrin y spinosad.

### **Coleus Impatiens Necrotic Spot Virus (INSV)-Tospoviridae**



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

### **Coleus Impatiens Necrotic Spot Virus (INSV)-Tospoviridae**



Photo by Keiddy Urrea, University of Arkansas Cooperative Extension

The University of Arkansas System Division of Agriculture offers all its Extension and Research programs to all eligible persons without regard to race, color, sex, gender identity, sexual orientation, national origin, religion, age, disability, marital or veteran status, genetic information, or any other legally protected status, and is an Affirmative Action/Equal Opportunity Employer.



## **Impatiens Necrotic Spot Virus (INSV)-Tospoviridae**

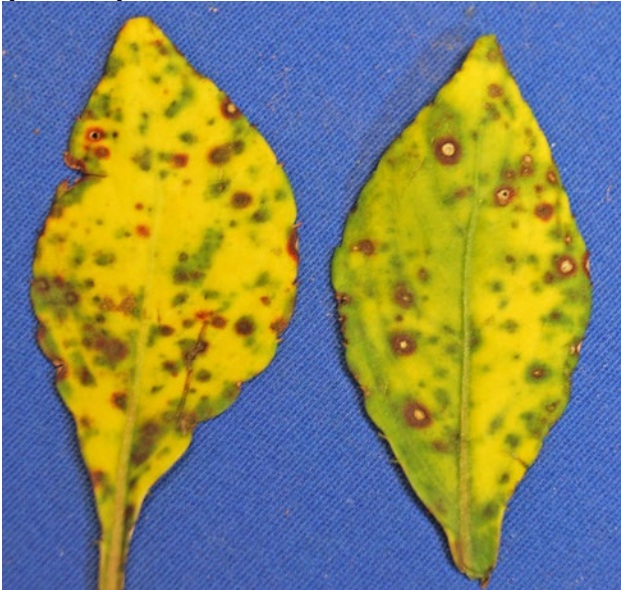


Photo by Sherrie Smith, University of Arkansas Cooperative Extension

## **Impatiens Necrotic Spot Virus (INSV)-Tospoviridae**



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

## **Onion**

Typically, onions are set out in February and March in Arkansas. Although easy to grow in most locations, on ground with a history of White Rot losses may reach 100%. All members of the Allium family are susceptible to White Rot, caused by *Sclerotium cepivorum*, including chives, shallots, leeks, onion, and garlic. Crop losses can be severe in fields with a history of the disease. Infected plants are usually stunted with yellowed foliage. White fluffy mycelial growth on the stem plate extends around the base of the bulb, moving up the bulb and inward through the storage leaves, causing a soft rot. Small, black, poppy seed-sized sclerotia form in the dying tissues. The sclerotia can remain dormant in the soil for up to 15 years until the roots of host plants begin to grow nearby. Sclerotia then germinate, and the mycelia typically grow up to several inches through the soil to attack the roots and bulb of the plant. However, sclerotia have been known to cause bulb decay when located as deep as 12 inches below the bulbs. Sclerotia can be spread throughout a planting area by flood water, equipment, or on plant material. This is a difficult disease to control. Fungicides provide only marginal control when inoculum levels are high, and conditions are conducive for disease development. Rovral 75WG and Folicur 3.6F are labeled for use in commercial fields. Wider spacing between plants can slow the spread of White rot. Homeowners with small plots may consider replacing the soil altogether. Soil solarization may have some benefits. The area to be solarized should be raked clean, thoroughly wetted, and transparent plastic



**Sherrie Smith**  
**Keiddy Urrea**

placed over the area. The plastic should be left in place for 4-6 weeks. Warm season flooding of the soil has been found to reduce the number of sclerotia as this is a cool season pathogen. Boots and tools should be cleaned to prevent accidentally moving the pathogen to new areas. Gardeners who grow onions in infected soils have less infection by planting seed instead of onion sets. This is because the seedlings have a smaller root mass, thus fewer chemical signals, at the time temperatures are optimal for disease development.

### **Onion White Rot-*Sclerotium cepivorum***



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

### **Onion White Rot-*Sclerotium cepivorum***



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.

"This work is supported by the Crop Protection and Pest Management Program [grant no. 2017-70006-27279/project accession no. 1013890] from the USDA National Institute of Food and Agriculture."