



## Arkansas Plant Health Clinic Newsletter

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### Artillery Fungus

Shotgun fungi (genus *Sphaerobolus*), also called Artillery Fungi, get their name from the way in which they disperse their spores. These fungi are found in organic matter such as dung, decayed wood, and mulch. The dark brown spore packets sit atop little cups that accumulate water and cell contents. The cups invert and burst, throwing the spore packets (peridioles) up to twenty feet (6m) into the air. The fungi are light sensitive and direct their spores towards light. They make no distinction between direct and reflected light. As a result, they often land on light colored house siding or cars. The spore packets have natural glue that makes removal difficult once the glue dries. Scrubbing them off with water and soap is hard work and not completely satisfactory. When the Plant Health Clinic receives a sample, it is almost always either a mulch sample with funny little cups growing on it, or it is leaves of a garden plant with the peridioles stuck to the leaves. They do no real damage in themselves. Periodically replacing mulches helps reduce colony numbers.

### Tomato leaves with Artillery Fungus peridioles-*Sphaerobolus* spp.



Photo by Sherrie Smith, University of Arkansas  
Cooperative Extension

### Mulch Artillery Fungus- *Sphaerobolus* spp.



Photo by Sherrie Smith, University of Arkansas  
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## Mulch Artillery Fungus peridium- *Sphaerobolus* spp.



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Most often with fruit, there is enough calcium in the soil, but fluctuations in water prevent the plant from supplying the fruit with the necessary amount of calcium for healthy fruit. The fruit develops a light-tan water-soaked spot on the end of the fruit. These spots turn black and leathery. Occasionally, the rot occurs on the inside of the fruit instead of the outside. The best management for Blossom End Rot is good water management practices. Soil tests should be done at least every two years to make sure there is an adequate supply of calcium in the soil. Blossom End Rot can be alleviated during the growing season by applying a foliar spray of anhydrous calcium chloride. Several brands are available, including Tomato Saver and End Rot.

## Tomato

Both tomato leaves and tomato fruit can suffer from Calcium Deficiency, although it is relatively rare in the leaves themselves. Symptoms of Calcium Deficiency in the leaves appear at the top of the plant in the newest growth. Stunting, chlorosis, and interveinal necrosis are symptoms. Very similar symptoms may occur with Magnesium Deficiency. However, the symptoms will be on the oldest leaves instead of the newest leaves. Magnesium Deficiency is usually the result of too much water. Calcium Deficiency in tomato fruit is a localized deficiency in the distal end of the fruit that causes what is known as Blossom End Rot.

## Tomato Calcium Deficiency- Abiotic



Photo by Sherrie Smith, University of Arkansas  
Cooperative Extension



## Tomato Calcium Deficiency- Abiotic



Photo by Steve Vann, University of Arkansas Cooperative Extension

## Podocarpus (Yew Pine)

The Yew Pine, also called the Japanese Yew, is an attractive upright shrub or small tree. They may reach heights of more than 20 feet (6m) when trained as a tree but are readily kept smaller by shearing. They make excellent screens, as their foliage goes all the way to the ground. They are equally attractive as specimen plants. Podocarpus will grow in full sun to part shade but will grow faster with full sun. They like fertile, well-drained soils and are drought tolerant once they are established. Although an excellent landscape plant, Yew Pines are only winter hardy in zones 8b-11. The Plant Health Clinic receives only a few samples a year from the most southern parts of the state. Yew Pines are relatively pest free plants. However, they cannot tolerate soggy soils and

may develop root rot under those conditions. Occasionally the Clinic receives a sample with Phomopsis Twig and Leaf Blight. Symptoms are brown leaves with the black fruiting structures of the fungus imbedded in the tissue. Winter injury seems to predispose plants to infection. Prune out all damaged growth and remove it from the planting. Use an ornamental fungicide such as Spectracide Immunox, or Fertilome Liquid Systemic Fungicide, or Ortho Max Garden Disease Control, or Fertilome Liquid Fungicide, or Garden Tech Daconil Fungicide, or Green Light Fung-Away Fungicide, or Green Light Systemic Fungicide, or Fertilome Halt Systemic.

## Podocarpus Phomopsis Twig Blight-*Phomopsis* spp.



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

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## **Podocarpus Phomopsis Twig Blight-*Phomopsis* spp.**



**Photo by Sherrie Smith, University of Arkansas  
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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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