



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.

## Rosemary

The three rules for growing healthy rosemary are: excellent drainage, full sun, and good air circulation. Rosemary cannot endure prolonged soggy soil conditions, and will rapidly develop root rot. Poor circulation leaves the plants prone to powdery mildew. These are the most common problems we see in rosemary samples that arrive at the Plant Health Clinic. A rarer problem is bacterial galls on the stems. The pathogen appears to be a *Pseudomonas* spp. that enters through wounds. This type of gall is very difficult to control. The galls may be pruned out back to healthy tissue, followed by applications of copper fungicides. Dip pruning tools in a 10% bleach solution between cuts (one cup bleach to 9 cups water). Be aware that the galling often re-occurs.

## Rosemary Bacterial Gall- *Pseudomonas* spp.



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## English Ivy

English Ivy, *Hedera helix*, is a perennial evergreen vine popular throughout the United States. Although common English ivy has dark green foliage, some varieties have attractive gold or variegated foliage. Ivy grows well in part to full shade and tolerates poor soils and air pollution. It is used mostly as a shade groundcover, growing from 6-8 inches high and forming a dense mat. When offered support such as a tree or wall it will climb to as much as 80 ft. It climbs by using root-like structures on the stems called holdfasts or feet. It doesn't climb by twining as do honeysuckles and clematis. Contrary to popular belief, ivy doesn't kill large trees that it uses as a support. However, it can eventually damage brick and stucco walls. Ivy is very hardy and easy care. Generally, it only has a few disease problems. Perhaps the most common disease problem of English ivy is Bacterial leaf spot caused by *Xanthomonas campestris* pv *hedera*. This bacterial disease is most severe in nurseries and landscapes with high humidity. Lesions appear on the lower surfaces of leaves as water-soaked spots that turn reddish brown to black colored, usually with a bright yellow halo. Sometimes orange-red bacterial oozing from the lesions may be observed during prolonged moist conditions. The spots can expand to large lesions 2-10 mm in



diameter. Older lesions will dry and crack during dry periods. Infected stems and petioles will get elongated dark lesions. When a stem is girdled wilting occurs. Bacterial infections are spread by overhead irrigation, rain splash, and contaminated tools. Kocide is the chemical treatment of choice but must be used in conjunction with minimizing overhead irrigation, and the use of resistant cultivars.

immediate soil should be removed from the planting. Peonies should not be replanted in that location until drainage issues are resolved and infested soil has been replaced. Peonies have few serious disease problems when planted in a sunny location in good garden soil with adequate drainage. They require at least six hours of direct sun, and prefer a pH of 6.5-7.0. When offered ideal conditions, peonies can live for decades, some reaching one hundred years.

### **English Ivy Bacterial Leaf spot-** *Xanthomonas campestris pv hedera*



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### **Peony Phytophthora stem canker-** *Phytophthora cactorum*



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### **Peony**

Many parts of Arkansas have seen large amount of rain the last several months. As a result, Peonies planted on heavy clay soils have started coming into the clinic with Phytophthora Root rot and stem blight, caused by *Phytophthora cactorum*. Symptoms begin as small water-soaked spots on emerging shoots, stems, petioles, buds, or leaves. The spots become dark brown to black, leathery elongated lesions. A wet rot occurs when crowns and roots are infected, causing the collapse and death of the entire plant. Once symptoms are noticed, chemical treatments are usually not effective. All parts of the infected plant, and the



**Request for help from Dr. Robbins:**

Root knot nematode populations are needed for our Arkansas species study. I am a nematologist in the department of Plant Pathology in Fayetteville. My student and I are trying to amass populations of as many species of Root knot nematode (*Meloidogyne* sp.) as possible for species identification using molecular techniques. At present no root knot species in Arkansas have been identified using molecular technology. We are interested in receiving populations from home gardens, shrubs, flowers, trees and grasses. For samples we need about a pint of soil and feeder roots in a sealed plastic bag that is plainly identified by plant host, location (City County, physical address, collector and date of collection). Please send samples to us at the follow address:

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