



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.

## Pea

White Mold, also known as Sclerotinia Rot is caused by the soil-borne fungal pathogen *Sclerotinia sclerotiorum*, and can attack over 400 plant species. Susceptible plants include cabbage, beans, celery, lettuce, radish, rutabaga, turnip, rhubarb, peas, sunflowers, lentils, alfalfa, chickpeas, coriander, cucumber, lettuce, melon, squash, soybean, canola, sunflower, tomato, pepper, potato, and strawberry, among others. Above ground symptoms are stunting, chlorosis, wilting, and death of the affected plant. The dense, white cottony growth of the fungus rapidly involves stems and can swiftly progress to engulf leaves and pods. Black, flat sclerotia develop in the white mycelial growth and inside the infected stems. The use of chemical fumigants in commercial fields, and the immediate removal of plant debris may help to reduce the incidence and spread of this disease. A three year crop rotation to cereals helps reduce numbers of sclerotia. Homeowners should immediately remove affected plants, along with the soil around the plant.

## Pea White Mold- *Sclerotinia sclerotiorum*



Sherrie Smith University of Arkansas Cooperative Extension

## Pea White Mold- *Sclerotinia sclerotiorum*



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## Tomato White Mold- *Sclerotinia sclerotiorum*



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## Hellebore

Hellebores, also known as Lenten roses, are a long-lived shade perennial. They have the advantage of being deer and vole resistant and blooming in late winter to early spring when little else is in flower. Hellebore requires moist, shady, locations with plenty of organic matter. They bloom in shades of white, red, plum, rose, black, and green. Some cultivars have double blooms. These plants are easy to care for, but the Clinic receives samples this time of year with the complaint of reddish lesions on the old foliage. Although the fungus botrytis is often found on the old foliage, it is normal for last year's foliage to look this way. The recommendation is to cut the old foliage and stems to the ground in the spring, leaving all the new growth. This will not affect flowering.

## Hellebore natural leaf senescence



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## Spinach

Don't be afraid that your spinach has a disease problem if you see little clear drops on the undersides of the leaves. In the absence of insects, you are probably

seeing oxalic acid. Oxalic acid is found in greens such as spinach, Swiss chard, beet tops, lambs quarters, sorrel, parsley, and rhubarb. It is also found in almonds, cashews, buckwheat, tea, coffee, chocolate, and textured soy protein, among others. Older plant tissue has higher concentrations and can have a bitter taste as a consequence. Foods high in oxalic acid will not harm you although people prone to kidney stone formation should probably not consume copious amounts of such foods. For normal, healthy individuals, foods such as spinach with its high levels of iron and beneficial vitamins are part of a healthy diet.

## Oxalic acid exudate on the underside of spinach leaf.



Ricky Corder University of Arkansas Cooperative Extension



## Euphorbia

African Milk Tree, *Euphorbia trigona*, is grown as a houseplant in areas colder than zone 10. It loves full sun and heat and is easy to grow and care for when its needs are met. It cannot tolerate freeze or soggy soils, and during times of high relative humidity may get Powdery Mildew, caused by *Microsphaera euphorbiae*, or *Erysiphe euphorbiae*. Symptoms are grayish-white patches on both the tops and undersides of the leaves. Other symptoms are yellowing of affected leaves and stunted growth. The most important control method for powdery mildew is excellent air circulation and full sun. African Milk Tree does poorly without at least ½ a day of sun. Fungicides labeled for ornamentals are useful in suppressing powdery mildew.

## African Milk Tree Powdery Mildew-*Microsphaera* or *Erysiphe* spp.



Ricky Corder University of Arkansas Cooperative Extension

## 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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