



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.

Pyracantha

Pyracanthas are grown primarily for their decorative red or orange berries. They are very attractive trained in espalier form against a wall. The most serious disease of Pyracantha is Scab, caused by *Spilocaea pyracanthae* (*Venturia enaequalis*). Scab is most noticeable on infected berries during the fall and winter months. Instead of being the normal red or orange color, the berries are covered with dark brown to black lesions. Infected fruit may drop. On leaves, velvety greenish-sooty areas appear on the underside of the leaves. Badly affected leaves may turn yellow and be shed prematurely. Twigs may be girdled and killed. On susceptible cultivars, preventative applications of chlorothalonil, or maneb, or Captan, or thiophanate-methyl, give good control if timed right. Begin spraying in the spring at bud break and at 7-10 day intervals until two weeks after petal fall. Pyracanthas are also susceptible to Fire blight, caused by *Erwinia amylovora*. All members of the rose family are susceptible, including pyracantha, pears, apples, crabapples, photinia, cotoneaster, quince, hawthorn, roses, blackberries, and raspberries. Infection occurs during bloom, as insects carry the bacteria from blossom to blossom, and from plant to plant. Blooms wilt and die a few weeks after infection. Infections spread down the twig, sometimes into a main branch. Young infected shoots form a typical shepherd's crook as they wilt. The dead tissue turns either brown or black depending on the species of plant involved. For instance, the dead tissue is brown in pyracantha and apples, and black in pears. Susceptible trees should be sprayed at green tip, at 5% bloom and at 50% bloom with Agri-strep, Agri-mycin or a copper fungicide such as Kocide. All dead tissue should be pruned out 10 – 12 inches below the damage. Cutting tools should be dipped between cuts in a 10% bleach solution, (nine cups water to one cup bleach) or in 70% alcohol. Apache, Fiery Cascade, Rutgers, Teton, and Shawnee have resistance to both Scab and to Fire Blight.

Pyracantha Fire blight-*Erwinia amylovora*



Sherrie Smith University of Arkansas Cooperative Extension

Pyracantha Scab-*Spilocaea pyracanthae*



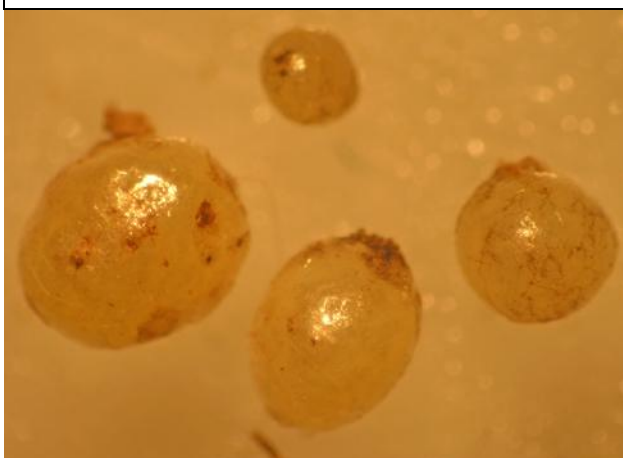
Sherrie Smith University of Arkansas Cooperative Extension



Turf

Ground pearls, *Margarodes* spp, are subterranean scale insects that feed on the roots of bermudagrass, bahiagrass, carpetgrass, St. Augustinegrass, and zoysiagrass, but prefer centipedegrass. They may be associated with low pH soils. Above ground symptoms are irregular or circular patches of turf that appears sickly, and begins to thin out and die. The grass turns yellow, browns, and dies, especially in hot, dry weather. Adult females have pinkish sac-like bodies, about 1.6mm long, with well-developed front legs and shorter second and third legs. Males are tiny white to pinkish gnat-like insects. Mature females emerge from their overwintering cysts in late spring, and crawl to the soil surface where they mate with the tiny winged males (they can also reproduce without mating). Once they have mated, the females dig back into the soil where they lay a cluster of 20 to 100 eggs in a mass of waxy strands. The eggs hatch into crawlers. The crawlers, attach themselves to grass roots, and begin to cover themselves with a yellowish to light purple wax, producing the diagnostic pearl-like shape. Unfortunately, insecticides are ineffective against Ground pearls. Damage can be minimized in some cases, by proper fertilization, mowing height, and watering during dry periods.

Ground pearls-*Margarodes* spp.



Sherrie Smith University of Arkansas Cooperative Extension

Geranium

Cycocel and Citadel, active ingredient chlormequat chloride, are plant growth regulators. These products are commonly used on greenhouse grown crops such as Geraniums and Poinsettias to reduce stem elongation. However, concentrations exceeding 1,500 ppm, especially on sensitive cultivars, can cause yellow spotting, or discoloration of new leaves. The damage is usually apparent 3-5 days after the spray application. The yellowing is the result of chloroplast damage. Usually, leaves will recover within a few weeks.

Geranium Cycocel Toxicity



Sherrie Smith University of Arkansas Cooperative Extension

Oak

There are hundreds of species of Cynipid wasps that produce galls on oaks. For the most part gall wasps do very little real damage to the tree. Control is nearly impossible as an insecticide has to be timed for the



adults. Once a gall is formed the larvae are protected from chemicals and most predators. Galls may be pruned out and destroyed if the tree is not too large and heavily infected to make this impractical. Galls come in a wide and sometimes bizarre variety of shapes and sizes, depending on the species of gall wasp.

Oak Ball Galls-*Callirhytis* spp.



Sherrie Smith University of Arkansas Cooperative Extension

Oak Jumping gall- *Neuropterus saltatorius*



Sherrie Smith University of Arkansas Cooperative Extension

Oak Fuzzy Bead Gall-*Acraspis nubila*



Sherrie Smith University of Arkansas Cooperative Extension



Oak Gouty Gall- *Callirhytis quercus punctata*



Randy Jackson University of Arkansas Cooperative Extension

Oak Apple Gall-*Amphibolips* spp.



Steven Katovich, USDA Forest Service, Bugwood.org

Oak Horned Gall-*Callirhytis cornigera*



A. Steven Munson, USDA Forest Service, Bugwood.org

Oak Vein Pocket Gall-*Macrodiplosis erubescens*



Sherrie Smith University of Arkansas Cooperative Extension

The Oak Vein Pocket Gall is caused by a small member of the fly family instead of a gall wasp.