



## Arkansas Plant Health Clinic Newsletter

Follow us on social media



### Pyracantha

Pyracanthas are grown mostly for their decorative red or orange berries. They are susceptible to Fire Blight, caused by *Erwinia amylovora*. All members of the rose family except stone fruits are susceptible, including apples, blackberries, cotoneaster, crabapples, hawthorn, pears, photinia, pyracantha, quince, raspberries, and roses. 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. 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, Shawnee, and Teton have resistance to both Scab and Fire Blight.

### Pyracantha Fire Blight-*Erwinia amylovora*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

### Lisianthus

Lisianthus or *Eustoma* are herbaceous annuals that are native to North American prairies, as well as areas of northern South America. The nursery trade has developed many color varieties as well as double flowering cultivars. Although they tolerate hot, dry conditions, they perform best in rich, moist soil. A disease commonly found on Lisianthus is Cercospora Leaf Spot, caused by the fungus *Pseudocercospora eustomatis*, synonym *Cercospora eustomatis*. Leaves develop circular, yellowish tan-brown spots that become almost felt-like with masses of spores. Spores are approximately 20-60  $\mu\text{m}$  long and 3.5-6  $\mu\text{m}$  wide. Products containing azoxystrobin, or chlorothalonil, or kresoxim-methyl, or myclobutanil, or propiconazole, or



pyraclostrobin, or triadimefon, or trifloxystrobin, or triflumizole may be used. Homeowners may use Spectracide Immunox; or Fertilome Liquid Systemic Fungicide; or Ortho Max Garden Disease Control; or Fertilome Liquid Fungicide, or Green Light Fung-Away Fungicide, to name a few.

### **Lisianthus Cercospora Leaf Spot-*Pseudocercospora eustomatis***



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

### **Lisianthus Cercospora Leaf Spot spores-*Pseudocercospora eustomatis***



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

### **Pecan**

Phylloxerans are tiny, cream-colored to pale-yellow insects related to aphids. Their feeding activity stimulates the plant to produce galls on leaves, stems, and nuts. There are three species of Phylloxerans found on pecans in Arkansas. The most damaging species is *Phylloxera devastatrix*. They produce large, green galls on stems, twigs, petioles, midribs, and nuts. When the galls are opened, this species is found to have wings. The Pecan Leaf Phylloxera, *P. notabilis*, produces small galls next to midribs or secondary veins of the leaflets. The galls are globular to ovoid, open on the underside of the leaf, are green on top, and are usually reddish beneath when first formed. *P. notabilis* is also winged. The third



species, the Southern Pecan Leaf Phylloxera, *P. russellae* forms small, round, flattened galls between the secondary veins on the leaf surface. The galls are open on the underside of the leaf and have a reticulated pattern on their surface. The opening has dense, short, white hairs. These Phylloxerae are not winged.

The galls of all three species turn brown as they age. A single egg overwinters within the body of a dead sexual female. These eggs begin hatching about the time the buds begin opening. The nymphs move to the open buds and begin feeding. A gall forms around the feeding insect. When the female reaches maturity, she begins laying eggs within the gall. When the eggs hatch, they feed within the gall, developing into wingless and winged females. They emerge from the galls and are dispersed within the tree and to nearby trees. They lay eggs both on the upper and lower leaf surfaces. These eggs hatch into both males and females. They mate almost immediately, and a single egg forms within the body of the dying female. The egg hatches the following spring to repeat the cycle. Control of Phylloxerans must start at bud break. Products containing imidacloprid are effective. Commercial growers may use Centric 40WG, or Lorsban, or Movento, or Provado 1.6 F, or Trimax Pro, or Warrior. Control is usually not practical for homeowners.

## **Pecan Phylloxera-*Phylloxera devastatrix***



**Photos by Sherrie Smith, University of Arkansas Cooperative Extension**



## Sycamore

The most damaging disease of sycamore is Sycamore Anthracnose, caused by the fungus *Apiognomonia veneta*. Symptoms appear on new leaves as they unfold. Black to brown lesions occur along veins, eventually enlarging to cover the entire leaf. Twigs may be killed back 8 to 10 inches. Sunken cankers may develop on the main trunk and limbs. During cool, wet weather in the spring, these cankers become active and produce spores that infect new leaf buds. Death of individual twigs and limbs occurs when a canker girdles them. Repeated twig death results in a witch's broom type of growth, with a mix of dead and live twigs in clusters. Treatment begins in the spring as buds begin to swell. Fungicides containing chlorothalonil, or thiophanate methyl, or copper should be applied at 7-14-day intervals if cool, wet weather persists. It is difficult to treat large trees. Planting resistant cultivars and species is the best option. The American sycamore is extremely susceptible. Susceptibility varies among cultivars of the London plane tree with, Bloodgood, Columbia, and Liberty having resistance to Anthracnose.

## Sycamore Anthracnose- *Apiognomonia veneta*



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."