



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.

## Dogwood

When a dogwood is injured or pruned in late winter or early spring before it flowers, bleeding can occur at the wound site. The tree brings sap to the injured area which seeps or flows from the tree at the site of the injury. The sap often becomes colonized by yeast and fungi, such as *Cryptococcus macerans*. These organisms are feeding on the sugar rich sap. *Cryptococcus macerans* is a fungus that stores energy in carotene-filled sacs, giving a startling orange color to the dogwood sap. Birches, maples, butternuts, and walnuts are among other species of tree on which these phenomena can occur. Dogwoods should not be pruned in April or May as this makes them more susceptible to borers. If the injury is borer related, then trees should be treated for borers. The wounds themselves should not be covered or treated, but allowed to heal naturally. The tree usually stops bleeding by early summer.

**Dogwood borers**, *Synanthedon scitula*, attack dogwood, pecan, hickory, elm, willow, and apple, among others. Adult Dogwood borers are clearwing moths that resemble small wasps. Larvae injure the tree by feeding in the inner bark of live dogwood trees. Symptoms are exit holes, premature leaf drop, peeling bark, swelling and cracking bark, dead limbs and branches. The foliage may turn red prematurely on individual branches infested by borers. Successive years of infestation can kill the tree. Larvae overwinter inside the tree. Most emerge as adults in May, but some continue to emerge until September. Borer sprays may be applied in May to the trunk. Repeat treatment at six week intervals two to three times during the growing season. Bifenthrin and permethrins are labeled for borer control. Borers are more likely to attack trees already weakened by other factors. Dogwoods are happiest planted in humus-rich soil with good drainage and afternoon shade.

## Dogwood with orange sap-injury sites colonized by *Cryptococcus macerans*



Photo, courtesy of Roselyn Gira

## Iris

Breasted irises are blooming all over Arkansas. The fragrance is heavenly! Irises are dependable, hardy plants that get by with a minimum of care. However, during periods of prolonged warm, wet weather, they are susceptible to Iris Leaf spot, caused by *Didymellina macrospora*, also known as *Heterosporium iridis*. Symptoms begin on the leaves as tiny, green to yellow, water-soaked spots, which become oval brown lesions with water-soaked yellow margins. After bloom, the spots enlarge to form large, irregular, dead areas. Old lesions become gray with reddish brown to dark brown borders. Tip dieback and leaf curl are common. Severely affected leaves may die completely. If this



happens frequently, it weakens the plant and reduces bloom quality. Daylily, freesia, gladiolus, and narcissus are also susceptible. Good cultural practices can help greatly in reducing this disease. All iris debris should be cleaned up in the fall, or before new leaves appear in the spring. During the growing season, diseased portions of the leaf should be removed from the plant and disposed of away from the planting. Irises are less prone to disease when planted in full sun in well-drained, rich loam soil. A pH of 6.0-7.0 is preferred. Overly crowded clumps should be divided and replanted in the fall. Sprinkler irrigation should be avoided and plants watered at ground level. Fungicide sprays may be applied when the new fan leaves are four to six inches, and repeated four or five times at 7 to 10 day intervals. Products containing chlorothalonil, or myclobutanil, or thiophanate-methyl, or mancozeb, or trifloxystrobin are effective. A spreader sticker should be added to enable the fungicide to stick to the waxy iris leaves.

### **Iris Leaf spot-*Heterosporium iridis***



Sherrie Smith University of Arkansas Cooperative Extension

### **Oak**

Oaks are subject to my kinds of insect galls. One of the most interesting is called Vein pocket gall, caused by the larval stage of tiny flies in the Cecidomyiidae family of gall midges. Symptoms are elongate, pocket-like swellings along veins and midribs of the leaves. In the spring, the female gall midge lays eggs on the newly emerging leaves. The maggots move to the leaf veins where they begin to feed. The feeding causes the plant to start forming galls around the feeding sites. Within a few days the maggots are entirely enclosed within the galls, where they remain protected from predators until they emerge as mature larvae about mid-spring. Upon emergence, mature larvae drop to the ground and remain there until next spring when they fly up to the newly emerging leaves as adult flies and begin the cycle again. Control is difficult and not usually necessary. However, since the mature larvae spend the majority of the summer in the ground, lawn insecticides may reduce the population.

### **Oak Vein pocket gall-gall midges Cecidomyiidae family**



Sherrie Smith University of Arkansas Cooperative Extension



## Oak Vein pocket gall-gall midge larvae Cecidomyiidae family



Sherrie Smith University of Arkansas Cooperative Extension

to form corrugated galls. When the aphids mature into winged adults, they migrate back to witch-hazel.

## Birch Spiny witch-hazel gall- *Hamamelistes spinosus*



Sherrie Smith University of Arkansas Cooperative Extension

## Birch

In the spring, it's not unusual for the Plant Health Clinic to receive samples of birch leaves with distorted corrugations or bumpy ridges. The distortions are caused by Spiny witch-hazel gall aphids, *Hamamelistes spinosus*. Infested leaves turn brown and fall from the tree. However, control is not usually warranted because healthy trees produce a new crop of leaves to replace those destroyed by the aphids. The life cycle of this interesting aphid takes two full years to complete. Eggs are laid on witch-hazel in June and July. The eggs hatch in the spring and the nymphs feed on the flower buds. The feeding activity causes a spiny gall to form on the affected witch-hazel. Winged aphids develop inside the spiny galls, then leave and fly to birch. This generation gives birth to a scale-like generation, which hibernates on birch until the following spring. At bud break the scale-like aphids feed on the new leaves, causing them