



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.

## Strawberry

Lygus bugs are insect pests that often cause extensive damage to strawberry fruit. They damage the berries by puncturing individual seeds. The berry stops developing in the immediate area of the damaged seed, resulting in raised areas on the fruit resembling buttons, hence the name Button berry. Three species of Lygus bugs attack strawberries: *Lygus lineolaris* (Tarnished plant bug), *Lygus hesperus* (Western plant bug), and *Lygus elisus* (Pale legume plant bug). They overwinter as adults on weeds and winter crops. Adults move to strawberries in the spring and establish populations. Damage can be confused with poor pollination, boron deficiency, or phytoplasma infection. However, although these issues cause distorted fruit, the typical enlarged hollow seeds and buttons are specific to Lygus bug feeding injury. Treatment is recommended when sampling reveals one lygus bug per 20 plants with ripening fruit. Sevin 4F, Danitol 2.4EC, Rimon 0.83EC, and Athena are labeled for Lygus bug control. Chemicals are more effective against nymphs. Nearby weed hosts should be eliminated. Special vacuums have been used with some success to remove Lygus bugs feeding on the strawberries.

### Strawberry Button berry-*Lygus* spp. injury



Sherrie Smith University of Arkansas Cooperative Extension

### Strawberry Button berry-*Lygus* spp. injury



Sherrie Smith University of Arkansas Cooperative Extension

### Tarnished plant bug-*Lygus lineolaris*



University of Georgia Archive, University of Georgia, Bugwood.org





## Heuchera

Heuchera rust, caused by *Puccinia heucherae*, is a disfiguring foliar disease of Heuchera and Saxifraga. Heuchera rust is found only on members of the Saxifragaceae family, and will not transfer to other perennials in the garden. Spots on the upper surface of the leaves may be observed first as small, circular, chlorotic indentations that become raised bumps. On the underside of the leaves raised orange-yellow to brown pustules may be found. Masses of spores develop within the pustules and are disseminated by wind and rain. Large numbers of pustules may cause the leaves to be puckered, or deformed. Rust is favored by warm, humid conditions. Affected leaves should be removed from the plant and destroyed. Overhead irrigation should be avoided if possible, and air circulation improved. Fungicides containing azoxystrobin, or propiconazole, or triadimefon or myclobutanil, or flutonil or chlorothalonil may be applied.

### Heuchera rust pustule underside of leaf-*Puccinia heucherae*



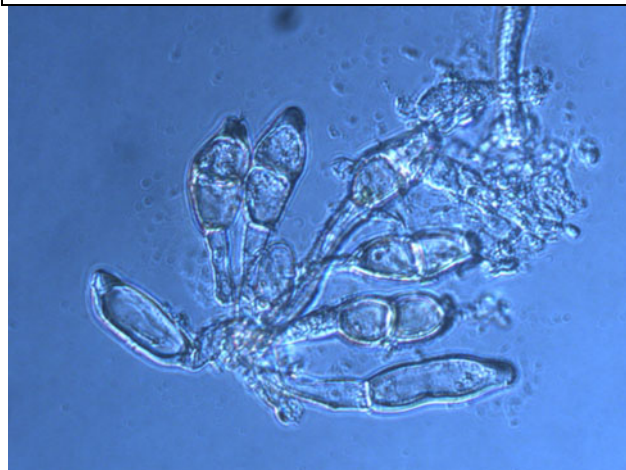
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### Heuchera rust-*Puccinia heucherae*



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### Heuchera rust teliospores- *Puccinia heucherae*



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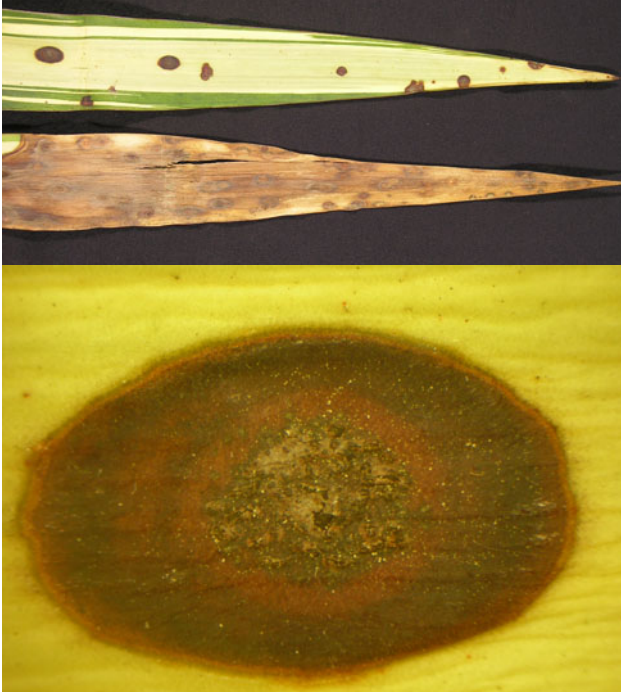




## Yucca

Yucca plants are valued for their ability to thrive in hot, dry, sunny locations, and for their strong vertical interest when added to the perennial border. When the Plant Health Clinic receives a sample of Yucca, the complaint is often brown spots on the leaves. Brown spot of Yucca is caused by the fungus *Coniothyrium concentricum*. Brown spot occurs most often after periods of prolonged wet, humid weather. The first symptoms are tiny, clear spots on older leaves. The spots enlarge, turn yellow, and then brown with a purple to black border. Old lesions can appear nearly black. The lesions are oval to elliptical with black pimples (fruiting bodies of the fungus) in the center of the lesion. Lesions may grow together to blight large sections of the leaves. Control consists of cleaning up diseased foliage, avoiding overhead irrigation, and the use of fungicides. Copper based fungicides and Mancozeb are effective when combined with good cultural control.

### Yucca Brown spot-*Coniothyrium concentricum*



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### Yucca Brown spot-*Coniothyrium concentricum*



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## Cicada

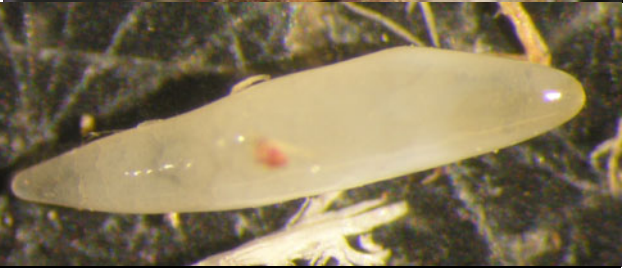
Cicadas injure the twigs of many different species of trees and shrubs when they lay their eggs. The female cicada uses her bladelike ovipositor to insert rows of eggs into twigs which produces a splintering type wound. Nymphs emerge from these eggs 6-10 weeks later, drop to the ground, and begin feeding on roots. They remain underground for 13-17 years, depending on species, before emerging and molting into the flying adult stage. Chemical control is not generally recommended, as damage is minor except on the smallest trees. Small





trees and shrubs may be protected with netting when cicadas are emerging and breeding.

### Cicada eggs inside arborvitae



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### Cicada damage on arborvitae



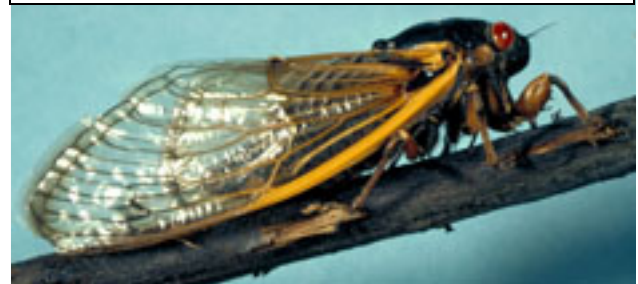
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### Cicada damage on lirodendron



Tim Tigner, Virginia Department of Forestry, Bugwood.org

### Female cicada laying eggs



John H. Ghent, USDA Forest Service, Bugwood.org