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Arkansas Plant Health Clinic Newsletter

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Fiddle Leaf Fig

One of our most popular and reliable houseplants is the Fiddle Leaf Fig, *Ficus lyrate*. This member of the fig family can grow up to 12 feet in height and 6 feet wide. They prefer moderate to bright light and moderate amounts of water. Bacterial leaf spots caused by *Xanthomonas Campestris* typically cause tan-brown, dry looking lesions with irregularly shaped margins and a darker reddish border. The lesions tend to become tattered as the lesions age. Control measures are based largely on sanitation, avoidance of leaf wetness, avoidance of high rates of nitrogen, and the use of bactericides. Streptomycin sulfate (Agri-strep), Kocide, and Mancozeb have some efficacy against bacterial diseases when combined with good cultural methods. Both anthracnose leaf spot and dead margins caused by lack of water can cause similar looking lesions.

Fiddle Leaf Fig Bacterial Leaf Spot-*Xanthomonas campestris* pv. *campestris*



Photo by Sherrie Smith, University of Arkansas
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Fiddle Leaf Fig Bacterial Leaf Spot-*Xanthomonas campestris* pv. *campestris*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Lantana

Lantana comes in an array of color combinations, pink, red, yellow, orange, and white. They are great plants for the sunny border as they thrive in the heat and bloom all summer until frost. Lantana lace bugs, *Teleonemia scrupulosa*, can cause severe

damage during the growing season. Symptoms are speckling and mottling on the leaves as the insects feed on the sap. Their dark tar-like droppings may be observed on the underside of leaves. Adult lantana lace bugs are small, brown, elongate-oval bugs, appearing slightly expanded near the middle, and bluntly rounded at their rear. At low magnification, most specimens bear a somewhat obscure dark brown "X" pattern on the forewings, usually flanked by a pair of variably shaped brown spots on the swollen middle area of each forewing. The antennae are 4-segmented, cylindrical, and with the third segment nearly twice as long as the other three segments combined. Nymphs are dull-colored and spiny. Insecticidal soaps, Sevin, and permethrins, are labeled for lace bugs.

Lantana Lace Bug-*Teleonemia scrupulosa*, frass on underside of leaf



Photo by Sherrie Smith, University of Arkansas Cooperative Extension



Lantana Lace Bug Feeding Injury -*Teleonemia scrupulosa*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Lantana Lace Bug Adult- *Teleonemia scrupulosa*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Lantana Lace Bug Nymph- *Teleonemia scrupulosa*



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Iris

The Iris Borer, *Macronoctra onusta*, is the most destructive insect pest of iris. The adults are large, night flying, brown moths with a wingspan of up to 2 inches. In late summer to early fall, the moths lay eggs on old iris plants and iris debris. The eggs hatch in the spring into tiny caterpillars that climb up the new foliage and chew pinprick size holes. The holes allow the caterpillars access where they tunnel inside the leaves towards the rhizomes. Leaves with the caterpillars inside, develop tan or water-soaked streaks. The tips of the leaves eventually turn brown and die. When the caterpillars reach the rhizome, they have grown to 1 ½ to 2 inches in length. Once in the rhizome, they destroy it with their feeding activity. This damage to the rhizome often allows the entry of a bacterial soft rot pathogen. Infected rhizomes become soft, slimy, and foul smelling. Late in the summer, the caterpillars move into the soil where they pupate. Adults emerge in the fall to start the life cycle over again. Sanitation is the single most important method of control. After the first frost, all old leaves and debris should be cleaned up. Any plants with leaf symptoms should be dug up and examined in the fall for caterpillars in the rhizome. Those rhizomes should be destroyed. Insecticides applied in the spring when new leaves are 4 to 6 inches in length, and 10 to 14 days later helps reduce caterpillar numbers. Admire or Merit, manufactured by Bayer, can be applied as a soil drench. Young larvae feeding in the leaves in early summer may be crushed by pressing that section of the leaf between your fingers.

Iris Borer Damage-*Macronoctra onusta*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension



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Iris Borer Pupa-*Macronoctra onusta*



Photo by Sherrie Smith, University of Arkansas
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Iris Borer Larva-*Macronoctra onusta*



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Potato

Powdery Scab of potato is a common disease of potato, and is caused by a completely different pathogen, *Spongospora subterranean* f. sp. *Subterranean*. Powdery scab is also found in most of the potato growing regions of the world. The pathogen proliferates under soil conditions found at planting time in the spring when soil temperatures are less than 68°F. Poorly drained soils are ideal for the swimming

zoospores. The most favorable infection conditions are soil temperatures of 55 to 65°F with soil moisture over 15 percent. The pathogen is tolerant of a pH range from 4.7 to 7.6. High soil moisture early in the season, which is common in Arkansas, encourages the development of the disease. Potatoes are susceptible one week before tuber set when more than 50 percent of the stolons have tips swollen to at least 3/16 inch in diameter. Symptoms are limited to the underground parts of the plant: roots, stolons, young shoots, and tubers. Infections on roots and stolons begin as small necrotic spots. These lesions develop into milky white to tan galls, which turn brown, and rupture, releasing the sandy masses of resting spores. The resting spores germinate, releasing zoospores. Severe infections can cause wilting and death of the plant, although that is uncommon. On the potato tuber, initial infections are manifest as purplish brown lesions, which may be sunken. The lesions become tan, pimple or wart-like swellings that eventually enlarge, breaking the periderm, and exposing powdery, sandy looking, tan to brown masses of spores. Other symptoms may include a russet-like scurfing, and lesions that remain sunken instead of the typical raised pimples or warts. The biggest problem with Powdery scab is that it causes infected potatoes to dry out and shrivel in storage. Control of Powdery scab is not easy. Clean disease-free seed should be used. Never use tubers for propagation that have scab. Don't plant in contaminated, poorly drained fields. Practice a 3–10-year crop rotation out of infested fields, as the resting spores can survive in the soil for longer than six years. Do

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not use tomato as a crop in rotation with potato. Control solanaceous weeds such as nightshade. Avoid using manure that came from animals that consumed contaminated tubers, as the spores survive through the animal's intestinal tract. Choose resistant cultivars. In general, russet varieties are more resistant than yellow, red, or white varieties.

Potato Powdery Scab-*Spongospora subterranean* f. sp. *Subterranean*



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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.

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