



Arkansas Plant Health Clinic Newsletter

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Holly

Frequently, the Plant Health Clinic receives samples of holly leaves with brown blotches that have been mistaken for disease. The Inkberry holly, *Ilex glabra*, is a popular hardy, evergreen species native to the eastern United States. It has narrow, glossy, spineless leaves and tiny black fruits. Inkberries have few problems when planted in moist but well-drained, organically rich soil in full sun. However, it is sometimes attacked by a species of tiny, leafmining fly. The Inkberry holly leafminer female, *Phytomyza glabricola*, typically lays eggs in the previous year's leaves. The eggs hatch and the first instar larva make a short linear mine. The second and third instar larvae make a blotch. They spend the winter inside the mine as a third instar larva or pupa. Adults emerge in early spring when the plant is putting on new foliage on which the adults feed. Extensive mining activity damages large portions of the leaves and can cause premature leaf drop, as well as being unsightly. There can be several generations a year. Control begins with good sanitation. Clean up all fallen leaves to prevent the larvae overwintering in them. For leaves

still on the plant, small numbers of leafminers can be controlled by pressing a leaf between your fingers and crushing the larva. Foliar insecticides may be applied as adults are emerging in the spring, followed by two subsequent sprays 7-10 days apart. Insecticides containing acephate, or spinosad, or imidacloprid, or bifenthrin, are among those that are effective. Homeowners may use Bayer Advanced Insect Control for Trees and Shrubs, or Merit, or Sevin. Follow label.

Holly- Inkberry Leafminer Damage- *Phytomyza glabricola*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension



Holly- Inkberry Leafminer Mine- *Phytomyza glabricola*



Photo by Sherrie Smith, University of Arkansas
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Holly- Inkberry Leafminer Larva- *Phytomyza glabricola*



Photo by Sherrie Smith, University of Arkansas
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Turf

We are seeing *Rhizoctonia* Large Patch starting to become active in turf samples. If you had a problem, last season with a patch disease in your lawn, now is the time to think about treatment this season. Large Patch is one of the most important diseases of turf. The causal agent is the fungus *Rhizoctonia solani*. It attacks Zoysia, Bermuda, St. Augustine, and Centipede. The damage occurs in the spring and fall when the pathogen is active. Stolons and basal leaf sheaths develop water soaked black to reddish brown lesions. Irregular circular patches develop that may be from several feet to more than 25 feet in diameter. Sometimes a smoke colored or orange halo may be observed early in the morning at the margins of the patch. Diseased shoots are easily detached from their points of attachment. Roots are discolored but not rotted. In the most badly affected turf, entire lawns may be blighted. Symptoms on Bermuda usually occur earlier in the spring than on Zoysia. Symptoms in Zoysia occur two to eight weeks after green up, or in the autumn. Sometimes symptoms slowly disappear during the growing season as surviving tillers start filling in the killed spots. Night irrigation, shade, and excessive amounts of nitrogen increase both severity and incidence of patch diseases. Complete fertilizers with time-release nitrogen should be used instead of quick release nitrogen. Apply 0.5 pound of nitrogen per thousand square feet approximately three weeks after the grass turns green in late May. No more than two pounds of nitrogen total should be applied per



growing season to Zoysia. A soil test is useful to see where fertility levels are. Good drainage is essential for a healthy lawn. The turf should be de-thatched if thatch accumulates to more than 0.5" thick. De-thatching should be done while grass is actively growing. Fungicides may be applied once in the spring between March 15 and April 15, and again in the fall between September 20 and October 10. Heritage, Prostar, Eagle, Instrata, and Bayleton are labeled for Large Patch. Soil test for pH and nutrients. Avoid night watering. Homeowners may use Spectracide Immunox Plus Insect Control for Lawns, Scotts Lawn Fungus Control, or Bonide Infuse Systemic Disease Control for Lawn and Landscape. Follow label for timing and rate.

Zoysia Large Patch-*Rhizoctonia solani*



Photo by Jim Robbins, University of Arkansas Cooperative Extension

Zoysia Large Patch-*Rhizoctonia solani*



Photo by Herb Ginn, University of Arkansas Cooperative Extension

Peach/nectarine

It is t too late to treat for Peach Leaf Curl in parts of the state where the trees have already leafed out. Once the tree leafs out and the symptoms of Peach leaf curl are evident, it is too late to spray during the current season. If the trees have not broken bud in your area, it is not too late to spray and should be done immediately. Spores from the fungus *Taphrina deformans* overwinters on twigs and bud scales. Infection occurs at bud break early in the spring during cool, wet weather. Blister-like



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swellings, curling, thickening, puckering, and discoloration of the leaves are the first symptoms of Peach leaf curl. Affected areas may turn pink, red or yellow. In severe cases, defoliation occurs along with substantial yield loss. Peach leaf curl is easily controlled with one well-timed fungicide application in the fall after 90% of the leaves have dropped, or very early in the spring before the buds begin to swell. Chlorothalonil or copper sprays are effective.

Durazno/nectarina

Es tarde para hacer aplicaciones para el control de la lepra o abolladura del durazno en algunas partes del estado, donde estos arboles ya han producido hojas. En el momento en que los arboles de durazno han producido hojas y los síntomas de esta enfermedad son evidentes, es tarde para hacer algún tratamiento químico para esta temporada. Si las yemas de los arboles no han brotado en su área, no es tarde para realizar un control químico. Las esporas del hongo *Taphrina deformans* sobreviven durante el invierno en las ramas y brotes. En la primavera las esporas infectan los nuevos brotes favorecidas por las bajas temperaturas y la alta humedad relativa. En la primavera, los primeros síntomas de la enfermedad se presentan como enrojecimiento y encrespamiento de las hojas y brotes nuevos. En casos severos las hojas pueden tornarse amarillas y caerse, afectando el rendimiento del árbol. La lepra o abolladura del durazno puede ser fácilmente controlada con una aplicación de fungicida en la otoño después de que el 90% de

las hojas se hayan caído o muy temprano en la primavera antes que las nuevas yemas hayan brotado. Los fungicidas recomendados son: fungicida de cobre o fungicidas que contengan Chlorothalonil.

Peach Leaf Curl-*Taphrina deformans*



Photo by Jason Osborn, University of Arkansas Cooperative Extension

Peach Leaf Curl-*Taphrina deformans*



Photo by K. Branch, University of Arkansas Cooperative Extension

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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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