



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.

Photinia

Entomosporium leaf spot, caused by *Entomosporium mespili*, is a disease of Photinia, Juneberry, Flowering quince, Loquat, Firethorn, Indian hawthorn, and Mountain ash. Leaf spots start as tiny raised dots on either side of the leaf. The spots become bright red with gray centers. Small black specks may be observed in the centers of the spots with a hand lens. Lesions may enlarge, blighting large portions of the leaf. Blighted leaves take on a purple cast and eventually fall prematurely. Repeated infections can seriously weaken the plant. Entomosporium leaf spot is a major nuisance of Photinia. There is no real resistance to the disease. Plants that are already stressed by poor planting locations and severe pruning seem to suffer the most from Entomosporium infections. New foliage is the most susceptible. Protective applications of fungicides started at bud break in the spring and repeated at 10-14 day intervals gives good control. Chlorothalonil (Daconil), thiophanate-methyl (Halt, Green Light Systemic), and myclobutanil (Immunox) are labeled for Photinia.

Photinia Entomosporium



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Elm

Elm black spot, sometimes called Elm anthracnose, has symptoms very similar to other shade trees with anthracnose disease. The causal agent is the fungus *Stegophora ulmea*. Symptoms begin as small yellow spots on the upper leaf surface as leaves unfold in spring. On susceptible trees, the spots may rapidly expand and coalesce to blight the entire leaf. Spots may also girdle petioles and succulent shoot growth, causing twig death. Twig blighting in successive seasons may cause the formation of witches'- brooms. Repeated infections in early summer result in premature defoliation. Leaves are most susceptible in spring and early summer as they are expanding. This disease is not considered a serious problem in mature elms, although it can be unsightly. Immature trees of susceptible cultivars may suffer substantial injuries from repeated infections. It is helpful to remove fallen leaves and dead twigs in the fall. Applications of suitable fungicides, at bud break in the spring, until foliage has hardened are recommended for vulnerable trees. Apply at 10-14 day intervals. Follow label. Products such as Mancozeb, or Fore, or products containing myclobutanil (Immunox), and Systhane are effective.

Elm black spot



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Oak

Slime flux, or bacterial wetwood, is a bacterial disease of trees such as Oak, Ash, Elm, Aspen, Mulberry, Cottonwood, Poplar, Box elder, and other trees. Bacteria associated with wetwood are common in soil and water and probably enter trees through wounds. Symptoms of Slime flux include a yellow-brown discoloration of the wood, generally confined to the central core of the tree. Affected wood is wetter than surrounding wood and is under high internal gas pressure. Pressure and high moisture content cause an oozing or bleeding of slime from wood and branch crotches, hence the common name. The ooze often is foul-smelling and slimy, because it has been colonized by yeast organisms and additional bacteria when exposed to air. The slime attracts insects which feed on the ooze. Sap beetles, bees and wasps are particularly attracted to trees with Slime flux. The insects themselves do no harm to the tree. When the slime dries, it leaves a light gray to white crust on the bark. The slime is toxic to the cambium and other tree parts it contacts. It will kill leaves and twigs it drips onto, as well as killing any plants under the tree that it contacts. There is no real control for Slime flux. It occurs most often on trees suffering from drought or other stresses. Trees afflicted with the disease should be kept well watered. Nutritional deficiencies may be a factor. A soil test and a fertilizer program may be helpful. The condition is often not fatal, and sometimes spontaneously resolves itself.

Slime flux



William Jacobi, Colorado State University, Bugwood.org

Slime flux



Mark Brawner University of Arkansas Cooperative Extension

Heuchera

Heuchera is one of our most reliable shade plants. They are grown both for their spires of flowers, and their colorful foliage. They are generally quite trouble free. However, in confined greenhouses with overhead irrigation and crowding, they may develop Botrytis blight. Botrytis species attack a wide range of crops. The disease is also known as Gray mold because of the gray fuzzy masses of spores and spore producing mycelia. Symptoms are brown, water-soaked spots on leaves. Brown-gray masses of fungal growth cover the spots when they dry out. Flowers wilt and drop. Plants may develop a stem blight that progresses down the stem, leaving just a stub. Plants should be spaced for good air



circulation. It is best to water plants with drip irrigation rather than an overhead system. Diseased stems, leaves, and flowers should be removed and destroyed. Many fungicides are labeled for control of Botrytis. Homeowners may use Daconil or another ornamental fungicide containing chlorothalonil. Commercial growers may use Decree 50WDG, or Heritage, or Chipco, or Medallion, or Daconil WeatherStik, or Contrast.

Botrytis blight



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Botrytis blight



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Blueberry

Blueberry growers should be scouting for Mummyberry at this time. Mummyberry is a fungal disease that can cause severe crop losses, depending on environmental conditions, cultivar susceptibility, and amount of inoculum present. The causal agent is *Monilinia vaciniicorymbosi*. Mummyberry damage is caused by the blighting of flowers, leaves, and twigs, resulting in fruit losses. The first symptom is wilting of developing leaves and shoots in the spring, followed within 24 hours by browning of the upper side of bent shoots, midribs, and lateral veins of leaves. Infected shoots, leaves, and flowers are killed within 3 days after discoloration appears. Dead tissue eventually drops off the plant. Plants are then free of symptoms until berries start to ripen. Berries that are infected become cream to salmon pink, then tan or whitish-gray. The mummified berries shrivel and harden, and then drop to the ground. These mummies are called pseudosclerotia. They germinate to form apothecia which resemble tiny mushrooms. The apothecia produce the ascospores that infect new tissue in the spring. Conidiophores and conidia are produced on the tissue infected by ascospores and cause secondary infections of berries. Control of Mummyberry needs to be a combination of good cultural practices and fungicide treatments. In the fall, before leaf drop, shallowly cultivate to bury mummies. In early spring around budbreak, destroy developing apothecia by raking or cultivating soil. Some growers pile soil from between the rows at the base of the bushes and between the bushes in order to bury the mummies. They rake soil back into the rows later in spring after apothecia are gone. Practice good weed control and plant tolerant cultivars. Lime sulfur applied during the dormant season helps control Mummyberry. Captan, Ziram, Captevate, Abound, Cabrio, Pristine, Indar, and Switch are labeled for Mummyberry control during the growing season. Applications should begin at green tip and pink bud stage. Read labels for complete directions.



Mummyberry apothecia



R.D. Milholland, APS Image Library

Mummyberry blight



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