

Brown Marmorated Stink Bug

Brown marmorated stink bug (*Halyomorpha halys*; BMSB) is an introduced species from Asia that was first recorded in Illinois in 2010. BMSB can feed on over 300 species of plants. It can be a pest of fruits, vegetables, field crops and ornamental plants. In ornamental plants, this can include maples, oak, spirea, viburnum, rose and ornamental fruit trees, among many others. These insects have straw-like mouthparts that they use to suck fluids from plants. The resulting injury can look like discoloration or dead patches on leaves. In fruits and vegetables, injury can appear as discoloration, lesions or cat-facing.

In autumn, BMSB can also become a nuisance pest in homes. As the days shorten and temperatures cool, adult BMSB will begin to look for overwintering sites. While they would normally seek out crevices in the landscape, gaps in our homes can also provide shelter from the elements. They cannot reproduce inside homes but they can aggregate in homes and produce an unpleasant odor when they are roughly handled. Once they go dormant for the winter, they will not become active again until temperatures warm in the spring.



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Brown marmorated stink bug (Halyomorpha halys), Kristie Graham, USDA ARS, Bugwood.org

BMSB can be identified by the pale banding on their antennae, dark and light pattern along the edges of their abdomen and the smooth “shoulder” area near their head (image above). Many similar species have a saw-toothed or spiked shoulder area or lack the antennae banding.

Control in ornamental plants:

Hand picking insects from plants and netting susceptible fruits are the first line of defense for protecting ornamental plants from BMSB. Netting can be a good option for keeping BMSB from injuring vegetables or ornamental fruits. Netting should be placed over the plants prior to fruiting so this is something that can be done early in the season. Hand picking insects from affected plants and dropping them into soapy water can be done anytime and on any type of plant.

Control in and around the home:

The best way to prevent BMSB from entering homes is to focus on exclusion by sealing any gaps and repairing window screens. If BMSB find their way into homes, they do not cause damage and can be physically removed by vacuuming, dropping them into a cup of soapy water or smashing them. If aggregations on the outside of the house become a problem, pest control companies may be able to provide a perimeter treatment, though they must be timed correctly to be effective.

[\(Sarah Hughson\)](#)

Prepare for Chickweed Germination

Temperatures are finally cooling off and our cool season annual weeds are really starting to germinate. If you have not applied already, now is the time to get a preemergent herbicide down. Mulch also works well to prevent germination in landscape beds.

Common chickweed (*Stellaria media*) is a cool-season annual (also known as a winter annual) member of the Pink family (*Caryophyllaceae*) that reproduces by seeds. Normally, cool-season annuals germinate in the autumn, flower the following spring, and die soon after summer temperatures rise; common chickweed, however, may occasionally persist through summer in sites protected from heat and drought. Common chickweed occurs in cool, moist, shady, often compacted, fertile sites in spring and autumn.



Chickweed seedlings.

Common chickweed often forms large, dense patches in mowed areas but grows more upright in unmowed settings. The stems will often form mats over surrounding low growing plants. The stems are

softly hairy and can root at the nodes when lying prostrate. The roots are shallow and fibrous. Leaves are bright green, opposite, simple, broadly oval, and usually less than 1 inch long. Its small, spring-borne white flowers are approximately 1/2 inch in diameter, have five petals, and are star shaped. The 5 petals are deeply lobed and appear from a distance as 10 petals.



Mature chickweed growing in spring.

To control common chickweed without chemicals, maintain turf density and health by employing proper turf culture and mechanically remove the weed from the site. For chemical control, apply postemergence herbicides (for example, products containing 2,4-D, MCPP, dicamba, clopyralid, triclopyr, carfentrazone, florasulam, or penoxsulam) in midspring or mid- to late autumn during active growth; apply preemergence herbicides (for example, products containing benefin + trifluralin, dithiopyr, isoxaben, pendimethalin, prodiamine, or pronamide) before germination in late summer or early autumn. These lists are provided for reference and are not all-inclusive. Please carefully read and follow all label directions. Hand removal can also be used as this plant pulls easily.

A closely related plant is mouseear chickweed (*Cerastium vulgatum*). This weed has a similar growth habit, however it is a perennial which commonly roots at the nodes. The leaves are densely hairy and typically quite oblong. It occurs less commonly in a general turfgrass or landscape setting.

([Michelle Wiesbrook](#)), adapted from past HYG articles by Tom Voigt, Bruce Spangenberg, Luke Cella, and Michelle Wiesbrook.

Biscogniauxia Canker and Dieback

Biscogniauxia (pronounced Bisk-o-nee-ox-e-a) canker and dieback is a disease that takes advantage of stressed and weakened host trees. Outbreaks of the disease occur following stress events. These events may include growing seasons with intense heat, prolonged drought, or any injury to a tree's root system. While the disease is capable of infecting a variety of tree species, oaks within the red oak group are particularly susceptible. Over the past several years, I have observed numerous pin oaks in central Illinois succumb to this disease.

Biscogniauxia canker is a fungal disease caused by the pathogen *Biscogniauxia atropunctata* (formerly *Hypoxyton atropunctatum*). The fungus enters the tree through wounds and natural openings in the bark. In healthy trees, the fungus survives as small colonies in the bark and sapwood but is kept in check by the tree's natural defenses. Hot, dry conditions cause water stress within the host trees, allowing fungal colonies begin rapid growth. The fungus then causes a decay of sapwood, inner bark tissues, further disrupting the flow of water and nutrients through a tree. The early symptoms of the disease are consistent with drought stress. Branches often have wilting, yellowing, or smaller than normal leaves. Affected trees often have thin canopies with visible dieback. Large girdling cankers form as the disease progress down to the trunk, eventually killing the tree (Photo 1)

The best way to diagnose Biscogniauxia canker it to look exposed stromata (compact masses of mycelium) that typically appear the year after a severe predisposing event. Cushion-like fungal stroma form under the bark and exert pressure between the wood and bark of the tree. The pressure eventually causes the bark to slough off the tree, revealing a tan to brown colored fungal stroma (Photo 2). Later, the stroma turns silver in color, and finally black.

Unfortunately, there are no control measures for trees with extensive cankers and dieback. No chemicals are registered for Biscogniauxia canker and dieback on oaks. Management centers on prevention and sanitation. Avoid wounding trees, especially their root systems. Maintain good cultural practices such as proper fertilization and watering during hot, dry weather. Prune out dead or declining limbs from trees suspected to be infected with the disease. This may help to control the spread of the fungus on a tree. Severely infected trees should be promptly removed. Infected wood should be destroyed immediately to keep the disease from spreading.



PHOTO 1. ADVANCED BISCOGNIAUXIA CANKER AND DIEBACK ON OAK. STROMATA VISIBLE IN THE UPPER CANOPY AND LOWER TRUNK.

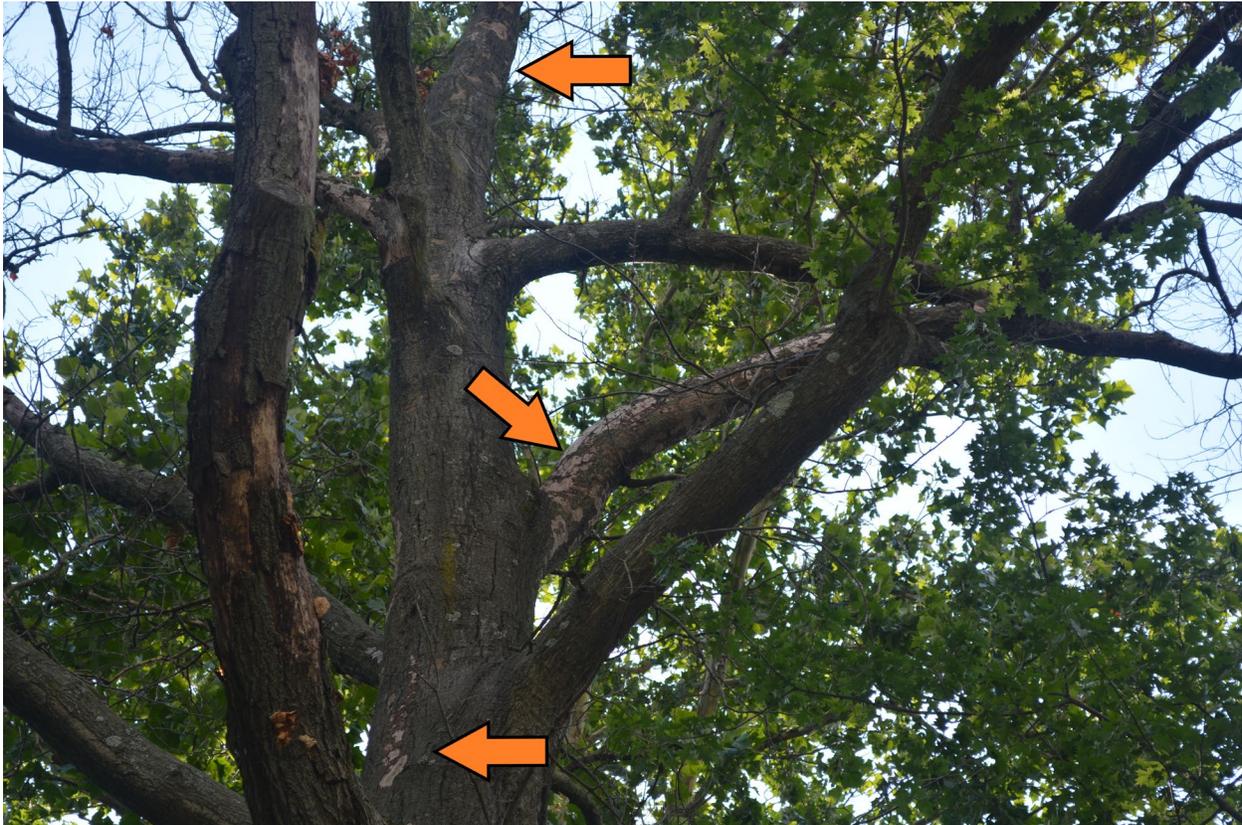


PHOTO 2. BISCOGNIAUXIA CANKER ON OAK. NOTE THE TAN COLORED STROMATA (ORANGE ARROWS)

Apple Scab Prevention for 2020

Has apple scab been a problem on your crabapples this year? At this point in the season, many apples and crabapples have lost most of their leaves and appear quite bare as a result of this disease. Apple Scab is an extremely common fungal disease of apple and crabapple caused by the pathogen *Venturia inaequalis*. Symptoms first appear as olive-green spots on the foliage. The spots often form along or near the leaf veins, eventually developing a dark, velvety appearance. Infected leaves also may appear curled or puckered. By mid-summer, infected leaves turn yellow, and prematurely drop from the tree. Apple scab will not kill a tree, but it has the ability to make a tree appear rather unsightly. Additionally, repeated defoliation may weaken a tree resulting in reducing growth, flowering, and increased susceptibility to other stresses. Fortunately, you have a variety of options to help reduce damage from apple scab for the 2020 growing season.



CRABAPPLES ALMOST ENTIRELY DEFOLIATED BY APPLE SCAB (OCTOBER 2019)

Start by removing leaf litter around your diseased trees. Fallen diseased leaves harbor the overwintering scab fungus that will infect next year's leaves. Dispose of leaves by raking and burning. In areas where raking is not practical, use a mulching mower help to the speed decomposition of fallen leaves. Fall turf fertilization practices will further help with the decomposition process.

Prune your trees to promote good air movement through the canopy. Ideally, the foliage on a properly pruned tree dry quickly, reducing the likelihood of infection. Proper pruning will also make it easier to obtain good coverage of canopy when applying fungicides.

Fungicide sprays effectively protect developing leaves on susceptible cultivars. Be ready to apply the first application early in the spring, when leaves just begin to emerge from buds (about 1/4 inch green). Repeat application will be necessary to maintain protection. Re-apply according to label intervals until 2 weeks after petal fall. If the tree is free of leaf spots at that point, further treatments are unnecessary.

Intervals between sprays depend on several factors. The product's label provides a range of days between sprays. Follow the shortest labeled spray interval during periods of frequent wet weather and in plantings that had severe scab infections the previous growing season. A longer interval is acceptable during dry weather and in plantings where scab has been less of a problem.

(Travis Cleveland)



Early symptoms of crabapple scab on Prairifire Crabapple.



Scab infected crabapple leaves changing to a yellow-orange color before falling from the tree.