



NURSERY NEWS

New Pest Alert: Bur Oak Blight

Iowa State University researchers have determined that *Tubakia iowensis* is the cause of Bur Oak Blight (BOB), a recently-recognized leaf disease of bur oak that has been confirmed in the Midwest. At least five species of *Tubakia* are known to infect bur oak, but only BOB shows such dramatic symptoms and is potentially fatal to the tree. BOB has been found most widely in Iowa, Minnesota, and Wisconsin and in small numbers in Nebraska, Kansas, Missouri and Illinois.

Primary infection occurs in early spring, but symptoms may not appear until August or September. Multiple, brown leaf spots will appear on the leaves as necrosis or browning along the

veins of the leaves. Eventually the leaves curl up and turn brown. Symptoms intensify year to year as the infection progresses up the



Lesions develop on the underside of the leaf along the veins.

tree. Black fruiting bodies overwinter on the leaf petioles and may also be harbored in the acorns. Leaves left hanging in the tree over the winter is a good indication of BOB.

Not all bur oaks are affected by BOB, and resistance varies widely among individual trees. Trees that are severely affected year after year can die. Secondary pests, such as the two-lined chestnut borer and root rots, further weaken the trees. Since the infected

leaf petioles hang on the tree,



Fruiting bodies on leaf petiole cleaning up fallen leaves is not effective management. Early studies indicate that fungicide injections of propiconazole in late spring may reduce symptoms.

Suspect samples should be sent to the NDSU Plant Diagnostic Laboratory. The NDSU PDL can be contacted at nds.pdl@nds.edu.



Dead leaf tissue and scorched look as a result of BOB.



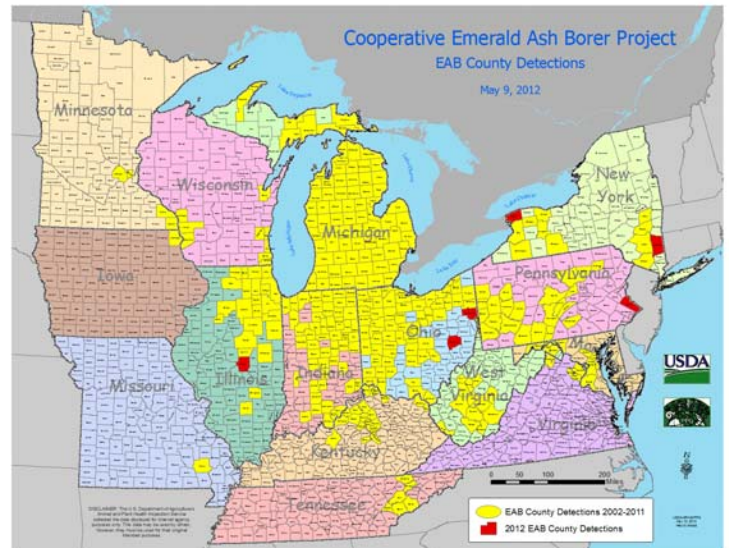
Variability in resistance. Affected tree stands next to unaffected tree.

Photos and information courtesy of Tom Harrington, Iowa State University and Jill Pokorny, USDA Forest Service.

Emerald Ash Borer Update

The 2012 emerald ash borer detection trapping campaign is underway. More than 500 traps – nearly double the number in 2011 – will be placed in ash trees across the state using a new sampling protocol. Traps will be placed at sites identified by a new USDA APHIS/US Forest Service trapping model as well as at high risk sites in cities, rest areas, campgrounds and state parks. NDDA, ND Forest Service, USDA-APHIS, and city foresters from around the state are assisting in the trapping effort.

The North Dakota Department of Agriculture, the North Dakota Forest Service and the North Dakota State University Extension Service conducted first detector training workshops in Carrington, Riverdale, and Hettinger in March. The training focused on the background and biology of EAB, the roles of a first detector, regulatory response and the National Plant Diagnostic Network (NDPN). Trainees bark-peeled ash logs provided by the city of Fargo, finding many ash pests but no EAB. For those unable to attend this training, NDPN provides an excellent short course in



This map shows the 2012 EAB new county discoveries in red and all other positive counties in yellow. This map is provided by USDA-APHIS.

EAB at <http://cbc.at.ufl.edu/>.

Using local sources of firewood remains the best means of preventing introduction of EAB. Visit www.nd.gov/ndda/pest for more information about EAB.

Emerald Ash Borer Awareness Week

Gov. Jack Dalrymple has proclaimed May 20-26 as Emerald Ash Borer Awareness Week in North Dakota to increase public awareness of the threat of EAB.

Educational posters will be tied with neon green ribbon to ash trees in city parks and along streets in Bismarck, Bottineau, Carrington, Devils Lake, Fargo, Hettinger, Jamestown, Grand Forks, Lisbon, Mandan, Minot, New Rockford, Valley City, Wahpeton, West Fargo and Williston. The posters will also be displayed in state parks.

EAB Awareness week has been organized by the North Dakota Department of Agriculture, the North Dakota Forest Service, and the North Dakota State University Extension Service.



Nonhardy List Update:

North Dakota Department of Agriculture staff have already found several non-hardy violations during early inspections of the 2012 nursery shipping season. Non-hardy nursery stock most commonly appearing include emerald arborvitae, dwarf Alberta spruce, Japanese flowering cherries, peaches, eastern redbud, flowering dogwood, privet, holly, and double-file viburnums. The 2012 list has been modified slightly to make it more user-friendly. The non-hardy list can be found at www.nd.gov/ndda/program/nursery-program.

New Pest Alert: Boxwood Blight

Although not widely planted in North Dakota, hardier cultivars of boxwood are used in landscaping here, so it is important to be aware of boxwood blight (*Cylindrocladium buxicola*). Possibly of European origin and first discovered in the U.S. late last year on the East Coast, boxwood blight has been since been reported in North Carolina, Virginia, Connecticut, Maryland, Rhode Island, Massachusetts, New York, and Oregon.



Typical leaf spot of boxwood blight



Boxwood blight infection of single plant

The disease reportedly affects all *Buxus* species and cultivars as well as pachysandra (*Pachysandra terminalis*). The most common boxwood cultivars available in North Dakota nurseries include Green Mountain, Green Gem, Green Velvet, Winter Gem and Chicagoland. Pachysandra appears on a limited basis in the state.

Boxwood blight affects all parts of the plant above ground. The first symptoms are brown spots with dark borders on the leaves. Once foliar symptoms develop, defoliation occurs rather quickly. The fungus also shows up on the stems as dark brown to black lesions with a diamond-like pattern.

Under ideal conditions, boxwood blight can rapidly spread and possibly kill a large planting within a year. Wholesale nurseries are especially concerned about the disease, since plants are usually close to one another. Nurseries should be on the lookout for such symptoms, especially on plants coming from suppliers in affected states. If you suspect any plants to be affected with boxwood blight, please contact North Dakota Department of Agriculture.

Photos courtesy of the Connecticut Agricultural Experiment Station.



Boxwood blight can kill entire landscape plantings.

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Brown Marmorated Stink Bug

The brown marmorated stink bug (BMSB) is an exotic pest first introduced to the United States from Asia in 1996. Since then, it has been reported in 35 states including Minnesota. Since the pest easily hitchhikes, spread is inevitable. The stink bug is very mobile and can quickly switch hosts, moving from early-ripening crops to later maturing ones. Nearly any plant is at risk. BMSB can affect garden crops like peppers, tomatoes, blueberries, raspberries, grapes and many more as well as agronomic crops like corn and soybeans. In fall, BMSB can become an indoor pest congregating inside much like boxelder beetles.



Adult BMSB; Photo courtesy of Forestry Images: Doug Inkley



Like other stink bugs, BMSB has a shield-shaped body. The body is a mottled gray and brown color. BMSB can be distinguished from other stink bugs by alternating light and dark colored bands on their antennae.

Any suspect insects should be reported to the ND Department of Agriculture or NDSU Extension Service.



BMSB Feeding injury on apple; Photo courtesy of Forestry Images: Doug Inkley

Daylily Leafminer

In the past few years, leafminer damage to daylilies (*Hemerocallis* spp.) has been reported in several states. Last year, the culprit was identified as *Ophiomyia kwansonis*, previously known to occur only in Japan and Taiwan.

Daylily leafminer is easily identified by long, wandering trails or mines on leaf blades caused by the larval feeding. The pest disfigures

leaves, giving infected plants an unappealing look, but does not appear to be fatal to the plants. No reliable control methods are known at this time.

The daylily leafminer has been found in Florida, Maryland, Alabama, Georgia, Louisiana, North Carolina, New York, South Carolina, Texas and Virginia.



Daylily Leafminer Damage.

Information courtesy of Gaye Williams, Maryland Department of Agriculture and photo by Sharon Galloway.