

# Wisconsin Horticulture Update Summary July 19, 2013

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## WI WEATHER REVIEW

For the week ending July 15, 2013, heat and some light rains boosted growing degree-days, surpassing normal in most locations for the first time this 2013 season. Some low areas are still drowned out, or showing signs of nitrogen deficiency; other areas are exhibiting some signs of drought.

Across the reporting stations, average temperatures last week were 2° to 4° above normal. Average high temperatures ranged from 82° to 87°, while average low temperatures ranged from 62° to 67°. Precipitation totals ranged from 0.06” in Eau Claire to 1.66” in Madison. (WI Crop Report)

### Growing degree days (GDD)

Growing degree days is an accumulation of maximum and minimum temperature averages as related directly to plant and insect development. This week, the GDD<sub>mod50</sub> in Wisconsin ranged from 826.9 to 1558.8. Following is a list of GDD as of July 19, 2013 for the following cities: Bayfield 826.9, Beloit 1558.8, Crandon 1052.8, Cumberland 1156.5, Dubuque 1463.6, Eau Claire 1294.3, Fond du Lac 1246.9, Green Bay 1167.9, La Crosse 1385.5, Madison 1416.2, Milwaukee 1210.0, Wausau 1131.3. To determine the GDD of any location in Wisconsin, use the degree day calculator at the UW Extension Ag Weather webpage [http://www.soils.wisc.edu/uwex\\_agwx/thermal\\_models/degree\\_days](http://www.soils.wisc.edu/uwex_agwx/thermal_models/degree_days)

Growing degree days is an accumulation of maximum and minimum temperature averages as related directly to plant and insect development. This week, the GDD<sub>mod50</sub> in Wisconsin ranged from 667.6 to 1366.3. Following is a list of GDD as of July 12, 2013 for the following cities: Bayfield 667.6, Beloit 1366.3, Crandon 883.8, Cumberland 975.9, Dubuque 1278.0, Eau Claire 1104.5, Fond du Lac 1063.3, Green Bay 981.9, La Crosse 1193.0, Madison 1227.8, Milwaukee 1023.6, Wausau 957.8. To determine the GDD of any location in Wisconsin, use the degree day calculator at the UW To put it in perspective, following is an abbreviated list of plant and insect phenological stages in relation to GDD accumulations at which the events occur. Common lilac first bloom 207; common flowering quince full bloom 208; Sargent crabapple first bloom 213; wafaring tree viburnum first bloom 227; **elm leafminer adult emergence 228**; Koreanspice viburnum full bloom 233; eastern redbud full bloom 254; common horsechestnut first bloom 260; **pine needle scale egg hatch 1st generation 277**; Sargent crab full bloom 282; **eastern spruce aldehyd egg hatch 283**; wayfaringtree viburnum full bloom 287; blackhaw viburnum first bloom 301; redosier dogwood first bloom 311; common lilac full bloom 323; **lilac borer adult emergence 324**; Vanhoutte spirea first bloom 329; common horsechestnut full bloom 344; **lesser peach tree borer adult emergence 362**; **oystershell scale egg hatch 363**; blackhaw viburnum full bloom 370 pagoda dogwood first bloom 376; redosier dogwood full bloom 408; Vanhoutte spirea full bloom 429; black locust first bloom 455; pagoda dogwood full bloom 486; smokebush, first bloom 501; common ninebark first bloom 507; arrowwood viburnum first bloom 534; **bronze birch borer adult emergence 547**; black locust full bloom 548; **potato leafhopper adult arrival 568**; **juniper scale egg hatch 571**; common ninebark full bloom 596; arrowwood viburnum full bloom 621; multiflora rose full bloom 643; northern catalpa first bloom 675; **black vine weevil first leaf notching due to adult feeding 677**; Washington hawthorn full bloom 731; **calico scale egg hatch 748**; **greater peach tree borer adult emergence 775**; northern catalpa full bloom 816; **cottony maple scale egg hatch 851**; panicle hydrangea first bloom 856; **fall webworm egg hatch 867**; fuzzy deutzia full bloom 884; **winged euonymus scale egg hatch 892**; chickory full bloom, **squash vine borer adult emergence 900**; **Japanese beetle first emergence 970**; littleleaf linden full bloom 1117; Rose-of-Sharon first bloom 1347; **pine needle scale egg hatch, 2<sup>nd</sup> gen. 1923**; **magnolia scale egg hatch 1938**; **banded ash clearwing borer adult emergence 2195**.

## INTRODUCTION

The host for today's WHU was Spooner Area Agriculture Development Agent Kevin Schoessow. PDDC Director Brian Hudelson, Insect Diagnostic Lab Director Phil Pellitteri and Centennial Gardens Director Ed Lyon were special guests. Participants in today's discussions were representatives from the following counties: Brown (Vijai Pandian), Burnett/ Sawyer/ Washburn (Kevin Schoessow), Columbia (George Koepp), Fond du Lac (Mike Rankin), Kenosha (Barb Larsen), Marquette (Lyssa Seefeldt), Milwaukee (Sharon Morrissey), Outagamie (Jill Botvinik), Portage (Sophie Demchik), Racine (Patti Nagai), Rock (Christy Marsden), and Waukesha (Ann Weid, Kristin Krokowski).

## HORTS' SHORTS

Agents report the following issues to be of interest this week: Hot, humid weather the past week has been responsible for increases in powdery mildew and downy mildew, as well as drought symptoms of browning lawns and wilting plants. Other diseases of note were black rot on grapes, Septoria leaf spot on tomatoes, fireblight, plum pockets, root rots and other fungal diseases. Maple tree decline was a condition of concern in Brown Co., as reported by urban foresters. Chlorosis continued to be an issue in plants in various areas. Japanese beetle populations seem to be light in the southeast and central areas. Earwigs and their damage have been noticed in many of the reporting counties. Other insects of note were squash vine borer adults, emerald ash borer adults, aphids, wooly alder aphids in particular, spider mites, and indoor nuisance pests. Lush growth of weeds has been keeping offices busy with weed ID and control measures; wild parsnip and ragweed were abundant in eastern counties. Area farms and gardens soil moisture varies from dry to very wet around the state.

## SPECIALIST REPORT: Plant Diagnostic Disease Clinic

Presented by Brian Hudelson, Sr. Outreach Specialist, UW-Plant Pathology and Director of the UW-Extension Plant Disease Diagnostics Clinic (PDDC) [bdh@plantpath.wisc.edu](mailto:bdh@plantpath.wisc.edu)

The PDDC update is attached to the end of this summary.

### Verticillium Wilt

A pattern for Verticillium wilt, especially on catalpa, has emerged this summer. Two catalpa samples tested positive and three more trees potentially have the disease. Verticillium wilt is characterized by sectional dieback in trees.

Verticillium Wilt (UWEX):

[http://labs.russell.wisc.edu/pddc/files/Fact\\_Sheets/FC\\_PDF/Verticillium\\_Wilt\\_of\\_Trees\\_and\\_Shrubs.pdf](http://labs.russell.wisc.edu/pddc/files/Fact_Sheets/FC_PDF/Verticillium_Wilt_of_Trees_and_Shrubs.pdf)

### Leaf Spots

Another pattern that has developed shows fungal leaf spots on various trees and shrubs. **Anthracnose**, **Tubakia leaf spot**, and **Monochaetia leaf spot** were tested positive on oaks. **Septoria leaf spot** was found on coneflower and Shasta daisy; this is a variant of the disease seen on tomato, causing defoliation from the bottom up.

Anthracnose (UWEX): [http://labs.russell.wisc.edu/pddc/files/Fact\\_Sheets/FC\\_PDF/Anthracnose.pdf](http://labs.russell.wisc.edu/pddc/files/Fact_Sheets/FC_PDF/Anthracnose.pdf)

Tubakia Leaf Spot(UWEX): [http://labs.russell.wisc.edu/pddc/files/Fact\\_Sheets/FC\\_PDF/Tubakia\\_Actinopelte\\_Leaf\\_Spot.pdf](http://labs.russell.wisc.edu/pddc/files/Fact_Sheets/FC_PDF/Tubakia_Actinopelte_Leaf_Spot.pdf)

Septoria Leaf Spot (UWEX): [http://labs.russell.wisc.edu/pddc/files/Fact\\_Sheets/FC\\_PDF/Septoria\\_Leaf\\_Spot.pdf](http://labs.russell.wisc.edu/pddc/files/Fact_Sheets/FC_PDF/Septoria_Leaf_Spot.pdf)

Leaf Spot Diseases of Trees and Ornamentals (Missouri): <http://soilplantlab.missouri.edu/plant/diseases/leafspot.aspx>

## Fruit Diseases

An apple sample came in with a leaf having distinct round spots but no sporulation in the spots. **Frogeye leaf spot** was the probable disease. The organism, *Botryosphaeria* species, causes branch cankers and fruit rot, but when it infects the leaves, it leaves a necrotic area with a dark border, but no reproductive spores.

Grape with **downy mildew** had clusters with only one or two developing fruit and others remaining at 1/8" in diameter. The problem was attributed to poor pollination.

Another grape sample came in with odd diffuse spotting on the leaves. Initially it was thought to be herbicide damage, but Patty McManus suggested it was **Rupestris Speckle**, a genetically inherited disorder occasionally seen on grapes.

Many raspberry samples have been tested in the clinic this year. George Koepf's client seems to have **Phytophthora root rot**, but it is possible the problem could be due to some other organisms causing similar symptoms, such as Rhizoctonia, Fusarium, Verticillium, or fire blight. Fresh samples to test would be needed to determine which organisms are causing the problem. The treatments would not be the same. Chemical treatments are available to treat Phytophthora on fruit crops such as raspberries and strawberries. For high populations of non-water molds, the only options are to live with it or start a new patch with new plants in a new location. Root and crown rot organisms can be carried on plants.

Frogeye Leaf Spot, Black Rot and Canker on Apple (U Kentucky):

[http://www2.ca.uky.edu/agcollege/plantpathology/ext\\_files/ppfshtml/ppfs-fr-t-3.pdf](http://www2.ca.uky.edu/agcollege/plantpathology/ext_files/ppfshtml/ppfs-fr-t-3.pdf)

Downy Mildew (UWEX): [http://labs.russell.wisc.edu/pddc/files/Fact\\_Sheets/FC\\_PDF/Downy\\_Mildew.pdf](http://labs.russell.wisc.edu/pddc/files/Fact_Sheets/FC_PDF/Downy_Mildew.pdf)

Rupestris Speckle (Xtension): <http://www.extension.org/pages/31611/rupestris-speckle>

Root Rots in the Garden (UWEX): [http://labs.russell.wisc.edu/pddc/files/Fact\\_Sheets/FC\\_PDF/Root\\_Rots\\_in\\_the\\_Garden.pdf](http://labs.russell.wisc.edu/pddc/files/Fact_Sheets/FC_PDF/Root_Rots_in_the_Garden.pdf)

## Vegetable Diseases

**Black rot** was diagnosed on cabbage.

**Bacterial spot** on peppers showed leaves covered with lesions. *Xanthomonas* was found in that.

A garlic sample had very discreet salmony-orange spots on the foliage and scapes. The sporulation was of the *Colletotrichum* species; we are calling it **anthracnose**. The vegetable compendium describes a disease on onion called **twister**, causing distortion on leaves and salmony-orange sporulation on leaves and scapes; that would seem to be relevant to garlic also.

Black Rot on Crucifers: [http://labs.russell.wisc.edu/pddc/files/Fact\\_Sheets/FC\\_PDF/Black\\_Rot\\_of\\_Crucifers.pdf](http://labs.russell.wisc.edu/pddc/files/Fact_Sheets/FC_PDF/Black_Rot_of_Crucifers.pdf)

Bacterial Spot of Peppers (Cornell): [http://vegetablemndonline.ppath.cornell.edu/factsheets/Pepper\\_BactSpot.htm](http://vegetablemndonline.ppath.cornell.edu/factsheets/Pepper_BactSpot.htm)

Onion Disease Guide (Seminis): <http://www.seminis.com/SiteCollectionDocuments/Onion-Disease-Guide.PDF>

## Disease of Ornamentals

A sunflower was diagnosed with **downy mildew**.

We have received two samples of hickory with **brooming**, one from Kenosha Co., another from Dane Co. This is the first time this has been seen in the lab. The Dane Co. sample had swelling on the branches. It is possible that the cause is a phytoplasma disease called bunch disease on hickory; there are other bunch diseases on different hosts. The tissues are being tested now, but they are looking negative so far. Fresh samples of leaves and fibrous roots, shipped overnight, may need to be tested again to assure viable organisms. Roots are necessary to test because sometimes the organisms congregate in the roots. Phytoplasma have been a neglected organism; it may be surprising to see how much of it is causing problems we have noted. If the tests are negative, the brooming may be due to herbicides.

Downy Mildew (UWEX): [http://labs.russell.wisc.edu/pddc/files/Fact\\_Sheets/FC\\_PDF/Downy\\_Mildew.pdf](http://labs.russell.wisc.edu/pddc/files/Fact_Sheets/FC_PDF/Downy_Mildew.pdf)

Witches Broom (Missouri Botanical Gardens): <http://www.missouribotanicalgarden.org/gardens-gardening/your-garden/help-for-the-home-gardener/advice-tips-resources/pests-and-problems/diseases/witches-broom.aspx>

## Questions

### Witches Broom

*A client brought in a tatarian honeysuckle with brooming which I assumed was caused by a virus. Sooty mold was present. Is the lab seeing a lot of brooming?*

Check for aphids on that honeysuckles, especially because of the sooty mold; it is not uncommon in that host. There has been a fair amount of brooming this year. A lilac just came in with ash yellows brooming. It could be carryover from last year's extraordinary number of leafhoppers carrying phytoplasma; the organisms are expected to still be around.

Honeysuckle Witches Broom aphid (Colorado state): <http://www.colostate.edu/Depts/CoopExt/4DMG/Pests/honaphid.htm>

### Venturia on poplars

*Last week we spoke about a client having poplar seedlings with blackened tips. Has a diagnosis been made?*

The samples are still in the moist chamber; they did not sporulate very well. The symptoms were consistent with *Venturia*.

Aspen and Poplar Leaf Blights (Colorado State): <http://www.ext.colostate.edu/pubs/garden/02920.html>

## SPECIALIST REPORT: Insect Diagnostic Lab Update

Presented by Phil Pellitteri, Distinguished Faculty Associate, UW-Madison Department of Entomology and Director, UW-Extension Insect Diagnostic Lab [pellitte@entomology.wisc.edu](mailto:pellitte@entomology.wisc.edu)

### Spotted Wing Drosophila

Spotted wing drosophila appears to be heading for a significant outbreak. There have been reports of it in Minnesota, and comments around the state about worms in raspberries suggest it is already here. Next week Christele Guédot will be a special guest on Wisconsin Horticulture Update to discuss this topic.

Spotted Wing Drosophila in Wisconsin (UW-Madison): <http://labs.russell.wisc.edu/swd/>

Spotted Wing Drosophila (OSU): [http://www2.ca.uky.edu/agcollege/plantpathology/ext\\_files/ppfshtml/ppfs-fr-t-3.pdf](http://www2.ca.uky.edu/agcollege/plantpathology/ext_files/ppfshtml/ppfs-fr-t-3.pdf)

### European Chafer

The first state record of European chafer was made this week. This June beetle-like creature was found defoliating a red maple in Door County. It is an annual grub, similar to the Japanese beetle in that it is a turf pest. However, it prefers poorly kept turf, not golf course greens like the Japanese beetle. The adult is not an aggressive foliar feeder, but in high populations it can cause problems. The European chafer has been in Michigan for some time.

European Chafer (MSU): <http://www.turf.msu.edu/european-chafer>

### Woolly Aphids

Woolly aphids have been getting a lot of attention, in particular the woolly alder aphid. Their honeydew has been causing a mess on cars and decks. As with other aphids, a predator of some sort will knock the populations down. If the problem had been anticipated, there is a preventative systemic insecticide that could have been used, but it is now too late to treat.

Woolly Alder Aphids (UMN): <http://www.entomology.umn.edu/cues/Web/223WoollyAlderAphid.pdf>

## Questions

### Earwigs

*Are there a lot of earwigs around the state this year? We have been seeing what appears to be earwig damage on many plants; irregular holes on leaves, including veins; slugs tend to leave veins.*

It would be expected that numbers are high because of this year's lush growth, but they seem not to be in large populations. As with many insects, they were probably stressed heavily last year, and started out this year with low numbers. With different conditions, it would probably be many times worse that it is now.

We are getting complaints from the northern sections of the state, but that is because earwigs are new to that area. They have been in Bayfield-Ashland for about 3 years. They are following the pattern of so many of the invasive insects, where the first two years show intense problems and then they ebb. They do not do well on sand unless it is irrigated and plants are lush. They prefer damp shade.

One good indicator plant to tell whether slugs or earwigs are in the area are marigolds. Earwigs eat marigolds to the ground, whereas slugs tend to leave them alone.

Controlling Earwigs (UWEX): <http://www.entomology.wisc.edu/diaglab/hilites/a3640.pdf>

## SPECIAL TOPIC: Ornamental Grasses

Presented by Ed Lyons, Director of Allen Centennial Gardens, Dept. of Horticulture, garden writer and author of upcoming Timber Press book, *Midwest Gardening Guide* (2014). Allen Centennial Gardens <http://www.allencentennialgardens.org>

### Shade Grasses

Most plants that can grow in shade, especially grasses, really prefer to be grown in full sun and do not love shade, but merely tolerate it. The ideal conditions for optimal flowering and vigor are full sun, but they may tolerate some shade and perform adequately.

#### *Molinia* species

*Molinia* will achieve its full glory in full sun, but is a nice grass in shade. There are a number of varieties available. The smallest one, *Molinia caerulea* 'Variegata', may not be hardy in northern WI. It is a lovely little grass but will be mowed down by bunnies.

#### *Deschampsia cespitosa*

The Tufted Hair Grasses are nice, small, clumping grasses that tolerate a fair amount of shade and still flower well. A number of varieties have come out of Germany; Roy Diblik (Northwind Perennial Farm) has brought us *Deschampsia c.* 'Goldtau'.

Northwind Perennial Farm: <http://northwindperennialfarm.com/main.html>

#### *Calamagrostis brachytricha*

Many are familiar with *Calamagrostis acutifolia* 'Karl Foerster', a common grass found in commercial applications, but not many are familiar with *Calamagrostis brachytricha*, the Korean Reed Grass. It will take full sun to part shade; in full shade it will not flower, but still has beautiful structure. The flowers are not as rigid and upright as *Calamagrostis a.* 'Karl Foerster', but instead are fluffy and open with a pink cast. This grass is especially nice when placed against the western sunlight for effect.

#### *Hakonechloa macra*

Japanese Forest Grass has become more recognized since *Hakonechloa m.* 'Aureola' became perennial plant of the year in 2013. The straight species is a larger grass,  $\frac{2}{3}$  larger than most of the cultivars. At Chicago Botanic Gardens, the species gracefully stands about 3' tall. Older cultivars of the species are quite robust, such as 'Albostriata' and 'Aureola'. The species does not tolerate clay and heavy soils; it is very shallow rooted and will heave during our freeze and thaw cycles in winter and spring. It requires adequate drainage and lots of compost to

grow well. If homeowners call to ask why they have lost this grass, it is usually not due to the cold, but to soil conditions.

*Hakonechloa m.* 'Old Gold' is the most robust form of the Japanese Forest Grass outside of the straight species. It will grow twice as fast as 'Aureola'. Many of the newer cultivars are weak and do not do well; 'Beni-Kaze', 'Stripe It Rich', 'Nikolas', and 'Naomi' have not been good growers. The older cultivars of this species that have stood the test of time are better plants. After the introduction of 'Old Gold', nothing else has proven substantial.

### *Chasmanthium latifolium*

The Northern Sea Oats are shade tolerant, and offer nice flat-sided seeds for fall interest. Although it is a nice plant in form and flower, along with the variegated variety, *Chasmanthium l.* 'Rivers Mist', these plants are known to seed profusely, with seedlings found far from the original plant. Seedlings of the variegated form are plain green. *Chasmanthium* is to be used with caution for this reason.

### *Seslaria species*

One of most under-utilized grasses, they thrive in the nastiest, driest conditions, tolerate deep shade, and are well controlled. *Seslaria autumnalis* is doing beautifully planted under a purple white ash in Allen Centennial Gardens. Jeff Epping (Olbrich Gardens) and Roy Diblik are both excited about these grasses, and are showcasing their usefulness in display and homeowner gardens.

Olbrich Botanical Gardens: <http://www.olbrich.org>

## Sun Grasses

### *Miscanthus sinensis cultivars*

*Miscanthus* may comprise 60% of the ornamental grass market since Oehme and van Sweden used them in the New American Garden. This workhorse of ornamental grasses cultivars can be found from 2' to 18' tall. They have been used extensively around the country, but in Maryland and areas of the east coast, they are becoming a massive invasive: powerline rights-of-ways are often solid *Miscanthus*. They may become a problem here as well because of their dominance in the market. Allen Centennial Gardens, Olbrich Gardens and Rotary Gardens have become proactive in showcasing the later-blooming Japanese Silver Grasses that will not go to seed. For instance, *Miscanthus s.* 'Variegatus' is such a late bloomer, it may not flower in some years, but 'Purpurea' is the first to bloom and seed. There are many forms and sizes of *Miscanthus*; when discussing these plants with clients, make them aware of the potential long-term issues.

Rotary Botanical Gardens: <http://rotarybotanicalgardens.org>

### *Saccharum ravennae* (formerly *Erianthus ravennae*)

Ravenna Grass may look like the invasive grass, *Phragmites*, but it is a well-behaved, clumping, hardy pampas grass. It may not get the spectacular white plumes of the true pampas grass, but over time it is a lovely upright plant with good flowers that can be used for impact because of its stature.

### *Pennisetum alopecuroides cultivars*

There are many cultivars of the Chinese Fountain Grass. 'Hamelm' and 'Little Bunny' are small versions that have been around for some time. 'RedHead' is about 3' high, with fluffy flowers having a reddish cast; the blades are bluish, making a lovely combination. The fluffy flowers on *Pennisetum* shatter at the end of the season, so winter interest is a bit reduced.

### *Festuca glauca* 'Elijah Blue'

The most common question on this plant is why does it not last in gardens. Blue Fescue wants to be in sandy, well-drained soils. If not, it will heave like a *Heuchera* (coral bells) over winter. When planted in heavier soils, the plant should be dug up and re-set every two to three years so the crown is not exposed and popping out of the soil. It does not like the crowding and moisture often found in residential gardens. The best examples of Blue Fescue

can be found in commercial landscapes like the xeriscape garden at Garfield Park Conservatory City Garden in Chicago.

Garfield Park Conservatory City Garden: [http://www.garfieldconservatory.org/outdoor\\_gardens.htm](http://www.garfieldconservatory.org/outdoor_gardens.htm)

### *Panicum virgatum*

Switchgrass is often promoted because it is native to our area. Very adaptable to soil pH, it does especially well in alkaline soils. There are now many cultivars, ranging in height from 2' to 7'. Selections are being made to find the bluest foliage. *Panicum* v. 'Dallas Blues' has been one of the more popular switchgrass, but it can be aggressive, reseeding and spreading at will.

### *Calamagrostis x acutifolia*

*Calamagrostis* x a. 'Karl Foerster' has been used in many commercial landscapes because it is such a tough grass, taking heat and drought in stride. The variegated cultivars, 'Avalanche' and 'Overdam', have not been overwhelmingly popular because the variegation is so fine it cannot be noticed from a distance, offering only a silvery cast to the foliage.

### *Schizachyrium scoparium*

Little Bluestem is a lovely grass, but it has a tendency to lodge when used in ornamental landscape applications, especially where soils are enriched. *Schizachyrium* s. 'The Blues' has a nice color, but still flops. 'Carousel', a Chicagoland Grows® introduction, is especially nice, holding up to snow and heavy watering. Roy Diblik introduced 'Little Luke', a short, rigid form that does not flop.

Chicagoland Grows®: <http://www.chicagolandgrows.org/index.php>

### *Sorghastrum nutans*

The straight species of the native Indian Grass is a good plant for prairies, but it is not particularly ornamental. A blue form, 'Sioux Blue', is very rigid, tall and very blue; it holds up to wind very well. This underutilized plant is tough but not invasive.

### *Sporobolus heterolopsis*

Prairie Dropseed flowers have a distinct scent that may be loved or hated. The drooping form is very nice. Roy Diblik introduced 'Tara', a small, stiff, upright grass.

### *Leymus species*

Gardeners need to be made aware of the aggressive habit of this plant. Like *Phalaris* a. 'Feesey' (Ribbon Grass), this plant will easily get out of control. The beautiful blue colored foliage is best used in a container.

### *Imperata cylindrical*

The Japanese blood grass barely survives in Wisconsin, but in warmer areas it has become very invasive. In Florida where growers raise these plants, it is now banned. It probably will not become invasive here as long as it remains delicately hardy. When grown in well-drained soils, the fall color will be spectacular red.

### *Helictotrichon sempervirens*

This grass looks like an over-sized Blue Fescue, and its cultural requirements are the same. The blue oat grass requires well-drained soils, and probably will need to be re-set in the ground every other year if it is expected to come back. It likes its own sunny, dry space with no competition.

### *Carex species*

This is a large group of grass-like plants. There are sedges for almost any application, sun, shade, wet or dry. The group is so large it requires its own presentation.

## Questions

*How do we find out what grasses have an invasive tendency so we can avoid recommending them to clients who ask us for information? Whether it is an aggressive spreader by rhizomes or seeding, where do we go for that information? It would be helpful just to know what experienced growers have found out, even if university-based research has not been carried out.*

Unfortunately, there is no centralized reporting mechanism for aggressive perennial plants. Methods for reporting, handling, selling and plants differ from state to state. There are invasive shrubs such as burning bush and barberry that are known to be invasive, but are nevertheless being sold in garden centers. There may be references to well-known problematic grasses like *Phalaris*, but how many people are aware of the potential for the Dallas Blues switchgrass to spread as it has in our display garden.

*I had a 5-year old *Panicum* v. 'Dallas Blues' that died out in the center, leaving only a ring of growth. Other grasses in the same area are full. I also lost a *Hakonechloa*. What may have happened?*

Snow or excess water this past winter and spring may have been the culprits. Generally *Panicum* do not die out in the middle as *Miscanthus* does. They are not tolerant of heavy, winter moisture. Nancy Nedvik (Flower Factory) commented that it was too wet, and soils held too much moisture, this winter.

Flower Factory: <http://www.theflowerfactorynursery.com/index.asp>

## ANNOUNCEMENTS

July 30: WI Turfgrass Field Days. AJ Noerr. For general information on Turfgrass Field Days: [http://www.wisconsinturfgrassassociation.org/Field\\_Day.htm](http://www.wisconsinturfgrassassociation.org/Field_Day.htm)

August 1: WI Commercial Flower Growers Assn. summer meeting at West Madison Ag Research Station

August 7: Trial Garden and Plant Health Field Days at Boerner Botanical Gardens  
<http://counties.uwex.edu/waukesha/files/2010/12/2013-PHFD-Brochure-small.pdf>

August 7: UW Day at the Fair, State Fair Park, Milwaukee

August 8: WNA Field Day <http://www.wgif.net/wna-wisconsin-nursery-association.aspx>

August 20: Annual Twilight Garden Tour, Spooner Agriculture Research Station

August 20 – 22: Diagnosing Tree/Shrub Diseases & Pests Workshops sponsored by Winnebago, Outagamie and Brown Co. UW -Extensions. [http://winnebago.uwex.edu/files/2010/05/2013-Insect\\_Disease-Brochure.pdf](http://winnebago.uwex.edu/files/2010/05/2013-Insect_Disease-Brochure.pdf)

## FINAL NOTES

The full audio podcast of today's and archived WHU conferences can be found at <http://fyi.uwex.edu/wihortupdate/>

Next week, Diana Alfuth will host the program. Phil Pellitteri and Christelle Guédot will present an update of spotted wing drosophila and marmorated stinkbug in Wisconsin.

## UW LINKS

Wisconsin Horticulture webpage <http://hort.uwex.edu>

UW Plant Disease Diagnostics webpage <http://labs.russell.wisc.edu/pddc/>

UW Insect Diagnostic Lab <http://www.entomology.wisc.edu/diaglab/>

UW Turfgrass Science <http://turf.wisc.edu/>

UW Vegetable Pathology Webpage <http://www.plantpath.wisc.edu/wivegdis/>

UW Vegetable Entomology Webpage <http://www.entomology.wisc.edu/vegento/people/groves.html#>

UW-Extension Weed Science <http://turf.wisc.edu/>

UW-Extension Learning Store <http://learningstore.uwex.edu>

UW Garden Facts <http://labs.russell.wisc.edu/pddc/fact-sheet-listing/>

## WHU “OFF THE AIR”

During this past week specialists have commented on these issues off the air:

### New EAB Confirmations Announced

EAB was found at Mirror Lake State Park. Sauk Co. has now been placed in quarantine.

[http://content.govdelivery.com/attachments/WIDATCP/2013/07/15/file\\_attachments/225281/EABSaukCounty.pdf](http://content.govdelivery.com/attachments/WIDATCP/2013/07/15/file_attachments/225281/EABSaukCounty.pdf)

Communities newly added this week in counties already in quarantine:

- Village of Holmen, LaCrosse County
- City of Racine, Racine County
- City of Elkhorn, Walworth County
- Town of Randall, Kenosha County
- Town of East Troy, Walworth County
- Village of Genoa City, Walworth County

Sign up for EAB alerts (DATCP): [http://datcp.wi.gov/Gov\\_Delivery/EAB/](http://datcp.wi.gov/Gov_Delivery/EAB/)

Confirmed EAB Finds in WI by county and municipality:

<https://datcpservices.wisconsin.gov/eab/articleassets/ConfirmedEABFindsInWisconsin.pdf>

### Vegetable Crop Updates

Vegetable Crop Update #12 and Supplement #4 are available at <http://www.plantpath.wisc.edu/wivegdis/>

Topics in the newsletter include:

- DSVs/Blitecast for late blight management
- PDays for early blight management in potato
- Cucurbit downy mildew status
- Spotted Wing Drosophila (SWD) alert in fruit
- Announcement for WI Seed Potato Certification Open House (July 19)
- Announcement for Hoop House Construction workshop (from Farley Center)

Supplement #4 is to provide growers and consultants with information to help develop a fungicide program for potato late blight control in the conventional, commercial crop.

The list of 2013 Wisconsin fungicides for late blight control in potato is also available on the UW Vegetable Pathology website.

As a reminder, newsletters and several fact sheet items in Spanish are available at the UW Vegetable Pathology website. Spanish versions are hyperlinked and available at newsletter and late blight tabs.

UW Vegetable Pathology now has additional online information sharing through Facebook, and Twitter.

Facebook at: <https://www.facebook.com/UniversityOfWisconsinPotatoVegetablePathology>

Twitter at: <https://twitter.com/ajanegevens>

# PDDC UPDATE

## UW-Extension/Madison Plant Disease Diagnostic Clinic (PDDC) Update

Brian Hudelson, Ann Joy, Erin DeWinter and Joyce Wu, Plant Disease Diagnostics Clinic

The PDDC receives samples of many plant and soil samples from around the state. The following diseases/disorders have been identified at the PDDC from July 13, 2013 through July 19, 2013.

PLANT/SAMPLE TYPE	DISEASE/DISORDER	PATHOGEN	COUNTY
<b>BROAD-LEAVED WOODY ORNAMENTALS</b>			
Catalpa	<a href="#">Verticillium Wilt</a>	<i>Verticillium</i> sp.	Dane
Hydrangea	<a href="#">Anthracnose</a>	<i>Colletotrichum</i> sp.	Dane
	Phyllosticta Leaf Spot	<i>Phyllosticta</i> sp.	Dane
Lilac	<a href="#">Root/Crown Rot</a>	<i>Phytophthora</i> sp., <i>Pythium</i> sp.	Sawyer
Maple (Unidentified)	<a href="#">Purple-Bordered Leaf Spot</a>	<i>Phyllosticta minima</i>	Chippewa
Oak (Bur)	<a href="#">Oak Wilt</a>	<i>Ceratocystis fagacearum</i>	Green
Oak (White)	<a href="#">Anthracnose</a>	<i>Discula</i> sp.	Dane, Waukesha
	Chlorosis	None	Waukesha
	Monochaetia Leaf Spot	<i>Monochaetia</i> sp.	Waukesha
	<a href="#">Oak Wilt</a>	<i>Ceratocystis fagacearum</i>	Dane
	Tubakia Leaf Spot	<i>Tubakia</i> sp.	Waukesha
<b>FRUIT CROPS</b>			
Apple	Frogeye Leaf Spot	<i>Botryosphaeria obtusa</i>	Lafayette
Blueberry	Anthracnose	<i>Gloeosporium</i> sp.	Waukesha
Grape	Anthracnose	<i>Sphaceloma ampelinum</i>	Dane, Jefferson
	<a href="#">Downy Mildew</a>	<i>Plasmopara viticola</i>	Jefferson
	Poor Pollination	None	None
	Rupestris Speckle	None	Dane
Pear	<a href="#">Anthracnose</a>	<i>Gloeosporium</i> sp.	Waukesha
Strawberry	<a href="#">Root Rot</a>	<i>Pythium</i> sp., <i>Fusarium</i> sp.	Marathon
<b>HERBACEOUS ORNAMENTALS</b>			
Coneflower (Purple)	Septoria Leaf Spot	<i>Septoria</i> sp.	Columbia
Shasta Daisy	Septoria Leaf Spot	<i>Septoria</i> sp.	Ozaukee
	Stem Rot and Wilt	<i>Fusarium oxysporum</i>	Ozaukee
Succulent (Unidentified)	<a href="#">Root Rot</a>	<i>Pythium</i> sp., <i>Fusarium</i> sp.	Barron
Sunflower	<a href="#">Downy Mildew</a>	<i>Plasmopara halstedii</i>	Washington
	Fusarium Stem Rot and Wilt	<i>Fusarium oxysporum</i>	Washington
<b>NEEDED WOODY ORNAMENTALS</b>			

Spruce	<a href="#">Root Rot</a>	<i>Fusarium</i> sp., <i>Cylindrocarpon</i> sp.	Door
Yew	<a href="#">Root Rot</a>	<i>Fusarium</i> sp., <i>Cylindrocarpon</i> sp.	Waukesha
<b>VEGETABLES</b>			
Cabbage	<a href="#">Black Rot</a>	<i>Xanthomonas campestris</i> pv. <i>campestris</i>	Outagamie
Garlic	Twister/Anthracnose	<i>Colletotrichum gloeosporioides</i>	Washburn
Horseradish	Fusarium Root Rot	<i>Fusarium</i> spp.	Dunn
Pepper	Bacterial Spot	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i>	Columbia

For additional information on plant diseases and their control, visit the PDDC website at [pddc.wisc.edu](http://pddc.wisc.edu).