

Wisconsin Horticulture Update Summary August 30, 2013

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WI WEATHER REVIEW

For the week ending Aug. 25, 2013, much of the state received rain, but precipitation was spotty and light in most areas. Moisture received was offset by warmer temperatures, which were above normal statewide for the first time

in over a month. Average topsoil moisture fell, with 72% short to very short this week, compared to 59% last week. Crops across the board continued to lag behind normal development.

Across the reporting stations, average temperatures last week were 1° to 4° above normal. Average high temperatures ranged from 81° to 87°, while average low temperatures ranged from 57° to 64°. Precipitation totals ranged from 0.11" in La Crosse to 1.67" in Milwaukee. (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_{mod50} in Wisconsin ranged from 1409.0 to 2399.6. Following is a list of GDD as of Aug. 30, 2013 for the following cities: Bayfield 1409.0, Beloit 2399.6, Crandon 1620.8, Cumberland 1845.8, Dubuque 2278.9, Eau Claire 2069.3, Fond du Lac 1968.3, Green Bay 1871.1, La Crosse 2199.9, Madison 2217.8, Milwaukee 1938.3, Wausau 1770.1. 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

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, 2nd gen. 1923**; **magnolia scale egg hatch 1938**; **banded ash clearwing borer adult emergence 2195**.

INTRODUCTION

The host for today's WHU was Winnebago horticulture educator Kimberly Miller. PDDC Director Brian Hudelson, Insect Diagnostic Lab Director Phil Pellitteri and Rotary Gardens Horticulture Director Mark Dwyer were special guests. Participants in today's discussions were representatives from the following counties: Kenosha (Barb Larsen), Pierce (Diana Alfuth), Rock (Christy Marsden), Waukesha (Kristen Krokowski) and Winnebago (Kimberly Miller).

HORTS' SHORTS

Agents report the following issues to be of interest this week: Rain has been very spotty, leaving much of the state in droughty condition. Weed identification continues to be of common interest in all reporting counties, with wild cucumber being the primary plant in question. Strawberry root weevils seem to be invading homes all over Wisconsin with the concern they are drawing; in Winnebago Co., only the emerald ash borer has been drawing more attention since the pest put that county into quarantine last week.

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

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

Plant Disease Update

Verticillium wilt continued to be a key player in samples this week. It was found on a catalpa, Japanese tree lilac, maple and smokebush.

Oak wilt was detected on a sample from Dane Co., and Dutch elm disease was found on a Jefferson Co. sample.

In the past few weeks, samples from maples with branch dieback have been coming in. This week, additional submissions from Norway maples have come in. In some of the samples, opportunistic canker organisms have been found in the dead branches. The pathogens may have come in with the stress of last year's drought, but conditions such as poor planting may have been the original stress contributor. Vigorously growing trees probably would not have been susceptible to organisms such as *Steganosporium* that have been documented as a stress related organism in maples. In a similar situation, with a planetree exhibiting branch dieback, another opportunistic organism, *Massaria*, was found.

In fruit crops, an apple sample was heavily sporulating with **brown rot**. That disease, usually seen on stone fruits like plums and peaches, is occasionally seen on apples.

Stem and bulb nematode, also known as **bloat nematode**, was found on a garlic sample from Dane Co. Bloat nematode has been quite a problem out east in the past few years, but has not been prevalent here.

Leaf spots were numerous on vegetables this week. Variations on **Cercospora leaf spot** were found on melon and parsnip. Other vegetables had different leaf spot diseases.

Questions

Euonymus decline

Is Euonymus decline due to *Verticillium*? Can the disease spread?

Euonymus decline is not an uncommon problem, but tests have not recovered *Verticillium* in samples. The decline may likely be due to **crown rot or root rot**. If due to rots it could possibly spread, especially if the conditions in which the rots are growing weaken plants. Canker diseases on trees and shrubs are often found on stressed plants.

Verticillium Wilt (UWEX):

http://labs.russell.wisc.edu/pddc/files/Fact_Sheets/FC_PDF/Verticillium_Wilt_of_Trees_and_Shrubs.pdf

Oak Wilt (UWEX): http://labs.russell.wisc.edu/pddc/files/Fact_Sheets/FC_PDF/Oak_Wilt.pdf

Brown Rot (UWEX): http://labs.russell.wisc.edu/pddc/files/Fact_Sheets/FC_PDF/Brown_Rot.pdf

Bloat Nematode (Cornell): <http://www.hort.cornell.edu/expo/proceedings/Onions%20&%20Garlic/Abawi%20bloatSum.pdf>

Root and Crown Rots (UWEX): http://labs.russell.wisc.edu/pddc/files/Fact_Sheets/FC_PDF/Root_and_Crown_Rots.pdf

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

Insect Update

Typical for this time of year are **wasp** concerns. Although it is late for them this year, they should be expected to be around for another three weeks. Their population appears to be lower than normal.

Photos of various **spiders**, especially orb-weavers, fishing and wolf spiders, were sent for identification. It's their time to shine in the public's eye right now.

Some cases of **fall webworm**, well past their active period, have come in after people noticed the activity in the tents.

Questions

Ground bee control

Ground bees are nesting at the edge of a porch in the middle of a large juniper. How can a dust application be made into the entry hole? Is there some other way to manage them? Should they be left alone if they are a useful pollinator?

There are two colonizing bees that live underground, bumble bees and paper wasps. **Ground bees** are mostly predators, although they may do some nectaring. Pets, children, or outdoor activities may disturb the bees, which will in turn cause stinging problems. If their presence will cause a potential problem, dusting the entrance with appropriate insecticides is the best method of management. If the nest is located where it won't be disturbed, nothing needs to be done. The ground bees will die out naturally in about five weeks as temperatures drop.

To treat the nest if the entrance is not evident, it may be best to try to wear protective clothing and use a stick to lift the juniper branches to find the entrance and dust it. Liquids are not effective because they tend to get bound up. Aerosol sprays are not useful. Foaming wasp sprays paralyze the wasps on the exterior, but do not affect the ones in the nest.

Ground bees do not reuse their old nests. They will build new nests in old gopher burrows or other washed out areas. Next year look for those habitats and plug them up to reduce opportunities for queens to build nests in them around early June. When first building the nest, the numbers of bees active around the nest will be low, but numbers will increase during the summer and become noticeable in late summer.

Bumble bees in basement

There have been calls about fuzzy bees in basements. Why would they be entering the basements and how should they be managed?

The fuzzy bees are most probably bumblebees. They may be nesting along the foundation, in a birdhouse, or some place that gives them access into a wall void. Their exit hole has probably been plugged up or they have gotten confused if the exit was pinched off by shrubs, causing them to enter the house. The worst action is to seal the nest entrance and force them into the basement. It is more productive to walk around the house and look for the center activity, particularly around vents and other openings. Dust that area in the evening. Most nests do not require treatment if they can enter and leave with no problem. Again, the colony will die out naturally in a few weeks when the weather turns cold.

Wasp and Bee Control (UMN): http://labs.russell.wisc.edu/pddc/files/Fact_Sheets/FC_PDF/Root_and_Crown_Rots.pdf

Spiders in and Around the Home (UMN): <http://www1.extension.umn.edu/garden/insects/find/common-spiders-in-and-around-homes/>

Webworms (UWEX): http://labs.russell.wisc.edu/pddc/files/Fact_Sheets/FC_PDF/Webworms.pdf

SPECIAL TOPIC: Perennials for Foliage

Presented by Mark Dwyer, Director of Horticulture, Rotary Botanical Gardens, Janesville, WI mark.dwyer@rotarygardens.org

Foliage is an important component in any garden. It can improve a garden's composition by the nuances in texture and color. Subtleties in foliage combinations can carry interest just as well as flower combinations can, and the interest will last longer because most perennial flowers are limited in their bloom period during the growing season.

Horticultural advisers can increase the gardening public's awareness of the impact of foliage in garden design.

The Value of Foliage

- In a garden combination, or a container composition, foliage may be a primary ornamental feature.
- Foliage may be a secondary feature of a plant primarily chosen for its flower.

- Foliage should always be a textural contribution, both visually and tactilely.
- Foliage may be a foil to emphasize other components of a composition.
- Foliage combinations should be chosen using plants of similar cultural needs.
- Foliage combinations should make the other plants look better.
- Foliage may extend the season of interest beyond the flowering period and late into the growing season.

Value of Texture

- Variations in texture offer visual interest, essential in creating successful combinations.
- Combining textures is as important as combining colors.
- Texture may be visual and/or tactile.

Foliage Considerations

- Many foliage plants undergo subtle seasonal transitions as colors change from spring through fall.
- Some foliage plants feature bright fall coloration.
- Colored foliage may provide impact both during bloom and independently.
- Foliage plants should be placed where optimal coloration will make the foliage pop, both culturally and design wise.
- Choose foliage that is insect and disease resistant, not prone to browning, and not susceptible to browsing.

Foliage characteristics

- Color
- Glossiness or pubescence
- Seasonal color changes
- Visual weight
- Tactile characteristics

Some Perennial Foliage Plant Choices

Gernanium sanguineum flowers in early summer. Long after the blossoms have faded, the foliage takes on a new life as it turns fiery red. Tip: Shear this plant back after flowering to promote new tidy foliage growth.

Alchemilla sp., or Lady's Mantle, is prized for its characteristic of holding dewdrops on its foliage.

Salvia argentea looks like Lamb's Ears on steroids. The large, silvery leaves are covered with whitish hairs. Many foliage plants may be chosen for such tactile characteristics.

Crambe maritima is edible as well as being an interesting foliage plant. The silvery blue foliage is crispy and curled.

Sedum 'Postman Pride' is one of the darkest upright stonecrops. It features deep burgundy foliage from early May to late October. Use it to create depth. Tips: Cut back upright sedums severely in May to keep tidy. Plant stonecrop in lean soils to prevent them from flopping.

Heliopsis 'Lorraine Sunshine' has variegated foliage that looks crisp before it blooms, during flower and until frost. Tip: It may reseed and seedling may be totally green or variegated.

Irises are usually chosen for their flowers, but variegated leaf types keep looking great without bloom. *Iris pallida* 'Albo Variegata' and *Iris p.* 'Aureo Variegata' offer color before, during and after bloom along with strong architectural interest.

Tradescantia 'Sweet Kate' offers illumination in the garden with its golden grass-like foliage. The foliage color contrasts the lovely blue flowers.

Phlox 'Shockwave' has a crisp variation of yellow and green in its leaves throughout the growing season, and pink flowers in summer.

Amsonia hubrechtii offers fine visual texture May through October, but it also changes its foliage color from green in spring, to chartreuse in summer, to shades of gold and orange in fall. The light blue star-flowers on this American native last about two weeks in spring.

Heuchera, as a genus, has leaves that change color during the season, and sports flowers of green, cream, pink or red. They all need moist, well-drained soils and some sun for best growth. The coral bell hybrids are being extensively bred for leaf color and texture but some may have some difficulty performing well if perfect growing conditions are not maintained and mulched in fall. *Heuchera villosa* 'Caramel' and *H. v.* 'Mocha' are exceptional foliage plants for their coloration, size, texture, disease resistance, and they are more reliable than many of the hybrids.

Fallopia japonica 'Variegata' has creamy blotches of variegation on a green. Tip: Fallopias should be used with the understanding they can spread.

Brunnera macrophylla 'Jack Frost' and *B. m.* 'Looking Glass' are just two of the many cultivars of variegated false forget-me-nots. There are silver and gold variegations available. They bloom with blue flowers in spring, but the strong foliage carries the interest through frost. Great in part-shade, they are also deer resistant.

Pulmonaria have silver and green foliage with spring flowers of pink, raspberry, white or blue. The foliage is insect and deer resistant. Tip: They may be used as a pseudo groundcover when planted in groups.

Epimedium foliage may have tinted patina in spring when they emerge, turning green during the season and may exhibit fall color. The foliage is beautiful until frost. It sports tiny flowers of white, yellow or pink in spring. Tip: Leave foliage up until spring.

Aruncus aethusifolius has ferny foliage all season before, during and after its creamy white blooms.

Dicentra spectabilis 'Goldheart' has bright golden foliage that remains eye-catching until the plant dies down.

Ligularia species have large architectural leaves, some in burgundy shades. They have yellow flowers in late summer. It is a species that may be grown in shade to part-shade. Tip: This genus needs lots of water.

Kirengeshoma have giant maple-like leaves all season, and unusual yellow waxy bell-shaped flowers in late summer. It is a zone 5 plant.

Rodgersia are another group having large, leathery and heavily textured leaves all season. *Rodgersia* foliage may have a purplish tinge in spring, turning green in summer. Flowers of cream or pink are featured in early summer for about two weeks.

Hosta, plants most commonly regarded for their foliage, are available in a variety of leaf shapes, sizes and colors. The flowers are often not regarded as important because the leaves are so dramatic. Tip: Consider choosing flowers for fragrance.

Lamium g. 'Herman's Pride' has a variegated white and green leaf that illuminates a garden in a rounded shrub-like form. Grow in sun, part-sun to deep shade. Tip: Do not purchase *Lamium* 'Variegatum', a spreading garden thug.

Ferns are available in a variety of colors. Their fine texture can be used to contrast many bold-leaved plants in shade compositions. *Athyrium niponicum* 'Silver Falls' has bright silver foliage that glows in the shade garden.

Grasses are offered in a variety of textures, form, sizes and colors. Some may go through color changes during the season. Tip: They need to be divided periodically, especially *Miscanthus*. This feat is often difficult but necessary when the centers open up.

- *Miscanthus* s. 'Variegatus' is a large arching grass with variegated white blades demanding of attention.
- *Miscanthus* s. 'Gold Bar' has yellow horizontal bars on the grass blades.
- *Panicum amarum* 'Dewey Blue' has a dusty blue coloration.

- *Panicum* v. 'Senandoah' and *P.* v. 'Cheyenne Sky' develop red tips in mid-summer that brighten as the season progresses.
- *Hakonechloa* 'Aureola' is a dramatic yellow variegated grass with a very graceful habit.
- *Carex elata* 'Bowles Golden' will brighten up a shady area with its yellow grass-like blades and intense color.

ANNOUNCEMENTS

Urban Forest Health Workshop: September 24, 8:30 AM – 3:30 PM. Muskego. Old Muskego Settlement Center

FINAL NOTES

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

Next week's Wisconsin Horticulture Update will feature Jill Anklam as host and Joe Van Rossum as special guest speaking on composting.

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:

2013 Imprelis® Update

From Dr. Laura Jull comes a link to the 2013 Imprelis® Update from Purdue University:

<http://www.ppdل.purdue.edu/PPDL/pubs/briefs/ImprelisUpdate2013.pdf>

Vegetable Crop Update

Vegetable Crop Update #18 (Aug. 27) includes the following topics:

- Invitation to growers to observe and rank potato varieties from fresh market trial at HARS-SRF
- Late blight updates and late season management
- Early blight updates
- Cucurbit downy mildew updates
- Cucurbit powdery mildew management

Vegetable Crop Updates may be found at: <http://www.plantpath.wisc.edu/wivegdis/>

EAB Update

Two new communities, both in already quarantined counties, have been added to the list of communities with emerald ash borer confirmations. The complete list is available at

<http://datcpservices.wisconsin.gov/eab/articleassets/ConfirmedEABFindInWisconsin.pdf>.

Communities newly added are:

Fond du Lac County - Town of Osceola

Milwaukee County - City of West Allis

These counties are among the 20 under quarantine for EAB.

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 August 24, 2013 through August 30, 2013.

PLANT/SAMPLE TYPE	DISEASE/DISORDER	PATHOGEN	COUNTY
BROAD-LEAVED WOODY ORNAMENTALS			
Catalpa	Verticillium Wilt	<i>Verticillium</i> sp.	Waukesha
Elm	Dutch Elm Disease	<i>Ophiostoma ulmi</i>	Jefferson
	Sphaeropsis Canker	<i>Sphaeropsis</i> sp.	Green Lake
Horse Chestnut	Leaf Blotch	<i>Guignardia aesculi</i>	Milwaukee
Lilac (Japanese Tree)	Verticillium Wilt	<i>Verticillium</i> sp.	Dane
Maple (Japanese)	Verticillium Wilt	<i>Verticillium</i> sp.	Dane
Maple (Unidentified)	Steganosporium Canker	<i>Steganosporium</i> sp.	Sauk
	Verticillium Wilt	<i>Verticillium</i> sp.	Dane
Oak (Red)	Chlorosis	None	Dane, Rock
	Tubakia Leaf Spot	<i>Tubakia</i> sp.	Dane
Oak (Unidentified)	Oak Wilt	<i>Ceratocystis fagacearum</i>	Dane
Smokebush	Verticillium Wilt	<i>Verticillium</i> sp.	Dane
FRUIT CROPS			
Apple	Brown Rot	<i>Monilinia</i> sp.	Columbia
Grape	Berry Rot	Miscellaneous yeasts	Vernon
	Bird's Eye Rot	<i>Sphaceloma ampelinum</i>	Vernon
	Blue Mold	<i>Penicillium</i> sp.	Vernon
Raspberry	Anthracnose	<i>Sphaceloma necator</i>	Pierce
	Root/Crown Rot	<i>Phytophthora</i> sp., <i>Pythium</i> sp., <i>Fusarium</i> sp., <i>Cylindrocarpon</i> sp.	Dane, Lincoln
HERBACEOUS ORNAMENTALS			
Astilbe	Root/Crown Rot	<i>Phytophthora</i> sp.	Ozaukee
Impatiens	Downy Mildew	<i>Plasmopara obducens</i>	Dane
Spiderwort	Root/Crown Rot	<i>Fusarium</i> sp., <i>Colletotrichum</i> sp.	Waukesha
NEEDED WOODY ORNAMENTALS			
Spruce (Blue)	Rhizosphaera Needle Cast	<i>Rhizosphaera kalkhoffii</i>	Milwaukee, Waukesha
Spruce (Unidentified)	Spruce Needle Rust	<i>Chrysomyxa ledicola</i>	Rusk

VEGETABLES			
Garlic	Stem and Bulb/Bloat Nematode	<i>Ditylenchus dipsaci</i>	Dane
Melon	Alternaria Leaf Spot	<i>Alternaria</i> sp.	Crawford
	Cercospora Leaf Spot	<i>Cercospora</i> sp.	Crawford
	Fusarium Wilt	<i>Fusarium oxysporum</i>	Waushara
Parsnip	Pseudocercospora Leaf Blight	<i>Pseudocercospora</i> sp.	Crawford
Tomato	Septoria Leaf Spot	<i>Septoria lycopersici</i>	La Crosse
Zucchini	Fusarium Wilt	<i>Fusarium oxysporum</i>	Green Lake

SPECIALTY CROPS			
Hop	Gray Mold	<i>Botrytis</i> sp.	Dodge

For additional information on plant diseases and their control, visit the PDDC website at pddc.wisc.edu.