

Wisconsin Horticulture Update Summary, May 2, 2014

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WI WEATHER REVIEW

For the week of April 21 to April 27, 2014

Snow was finally leaving the north as rain fell across the state. Little gardening could be done due to overall wet conditions.

Across the reporting stations, average temperatures last week were 1° below to 4° above normal. Average high temperatures ranged from 54° to 63°, while average low temperatures ranged from 37° to 41°. Precipitation totals ranged from 0.21" in Milwaukee to 1.82" in La Crosse. (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 13.0 to 153.0. Following is a list of GDD as of May 2, 2014 for the following cities: Bayfield 13.0, Beloit 153.0, Crandon 22.0, Cumberland 40.0, Dubuque 139.0, Eau Claire 68.0, Fond du Lac 65.0, Green Bay 38.0, La Crosse 103.0, Madison 102.0, Milwaukee 67.0, Wausau 36.0. 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 (Ohio State BYGL): Silver maple, first bloom, 34; Cornelian cherry dogwood, first bloom, 40; silver maple, full bloom, 42; red maple, first bloom, 44; speckled alder, first bloom, 52; northern lights forsythia, first bloom, 58; Japanese pieris, first bloom, 60; red maple, full bloom, 75; star magnolia, first bloom, 83; border forsythia, first bloom, 86; **eastern tent caterpillar, egg hatch, 92**; Manchu cherry, first bloom, 93; northern lights forsythia, full bloom, 94; Norway maple, first bloom, 116; border forsythia, full bloom, 116; chanticleer callery pear, first bloom, 123; sargent cherry, first bloom, 127; **larch casebearer, egg hatch, 128**; Japanese pieris, full bloom, 129; saucer magnolia, first bloom, 133; common flowering quince, first bloom, 137; Bradford callery pear, first bloom, 142; **European pine sawfly, egg hatch, 144**; weeping Higan cherry, first bloom, 145; P.J.M. rhododendron, first bloom, 147; chanticleer callery pear, full bloom, 149; Norway maple, full bloom, 149; **inkberry leafminer, adult emergence, 150**; sargent cherry, full bloom, 151; star magnolia, full bloom, 151; Allegheny serviceberry, first bloom, 153; Manchu cherry, full bloom, 155; spring snow crabapple, first bloom, 155; apple serviceberry, first bloom, 159; **spruce spider mite, egg hatch, 162**; Bradford callery pear, full bloom, 164; Allegheny serviceberry, full bloom, 169; saucer magnolia, full bloom, 174; P.J.M. rhododendron, full bloom, 178; **boxwood psyllid, egg hatch, 179**; weeping Higan cherry, full bloom, 179; Koreanspice viburnum, first bloom, 185; regent serviceberry, first bloom, 186; Japanese flowering crabapple, first bloom, 189; eastern redbud, first bloom, 191; **gypsy moth, egg hatch, 192**; Koreanspice viburnum, full bloom, 205; **azalea lace bug, egg hatch, 206**; 'Spring Snow' crabapple, full bloom, 209; common flowering quince, full bloom, 214; **birch leafminer, adult emergence, 215**; 'Coralburst' crabapple, first bloom, 217; **elm leafminer, adult emergence, 219**; common chokecherry, full bloom, 221; **alder leafminer, adult emergence, 224**; **honeylocust plant bug, egg hatch, 230**; sargent crabapple, first bloom, 230; common lilac, first bloom, 234; Ohio buckeye, first bloom, 245; common horsechestnut, first bloom, 251; **hawthorn lace bug, adult emergence, 253**; **hawthorn leafminer, adult emergence, 260**.

INTRODUCTION

The host for today's WHU was La Crosse Co. agent Steve Huntzicker. PDDC Director Brian Hudelson, Insect Diagnostic Lab manager P. J. Liesch, Turfgrass Extension Specialist Doug Soldat and Turfgrass Diagnostic Lab director Paul Koch were special guests. Participants in today's discussions were representatives from the following counties: Brown (Vijai Pandian), Columbia (George Koepp), La Crosse (Steve Huntzicker), Rock (Christy Mardsen), Winnebago (Kim Miller).

HORTS' SHORTS

Agents report the following issues to be of interest this week:

It has been cold and rainy throughout the state, but spring is progressing, albeit slowly. Forsythia is blooming in Columbia Co. and La Crosse Co., and lilacs are budding. Lawns continue to green up, except at roadside and sidewalk edges where excessive salt build-up had accumulated; many questions have been raised on how to care for the dead turf areas. Timing for fruit tree pruning and spraying were on some homeowner minds. How to maintain winter burned evergreens was a hot topic. Household insect pests remained an issue. Emerald ash borer

is a concern, especially in newly confirmed counties. Soil samples continue to be submitted. All, in all, homeowners are just anxious about starting gardens.

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.

Greenhouse

Edema

More greenhouse-grown plant samples were coming in with edema. *Pelargonium* is a commonly susceptible crop, but pepper was also a possible plant affected this week.

Edema, a water imbalance in plants, is often associated with dim lighting (cloudy skies), cool air and high soil moisture in the greenhouse. Plants take up all the water internally, but they unable to eliminate it all of it through regular transpiration. The imbalance creates a condition where the plants will push cells out of the leaf surface that eventually encrust and die. Symptoms of edema include scaly-looking material on the bottom of the leaf surface, spotting, yellowing, and in severe cases, large areas of dead tissue. Edema, especially when found on greenhouse geraniums, may have the appearance of bacterial blight to growers, but no evidence of that has been found in the submitted samples. With sunnier, warmer weather, less edema should be a problem in greenhouses.

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

Water [imbalance] (APS): <https://www.apsnet.org/publications/apsnetfeatures/Pages/Water.aspx>

Ethylene toxicity

A condition causing premature leaf loss and occasionally distorted growth can be attributed to ethylene gas generated by heating systems in the greenhouse. Ornamentals and tomato were affected in a greenhouse heated by propane gas and wood burning. A backdraft from the propane heater was noticed. When propane is not burned completely, ethylene can be a by-product. Ethylene is one of the gases typically produced from burning wood.

Avoiding ethylene problems (MSU): <http://www.flor.hrt.msu.edu/assets/Uploads/Avoidingethyleneproblems.pdf>

Conifers

Rhizosphaera needle cast samples have been coming in. Often a disease found in blue spruce, it may be seen in other spruce, but less likely. This week it has been diagnosed in blue spruce and white spruce.

Rhizosphaera needle cast (UWEX):

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

SPECIALIST REPORT: Insect Diagnostic Lab Update

Presented by P. J. Liesch, Interim Assistant Faculty Associate, UW-Madison Department of Entomology and Interim Manager of the UW-Extension Insect Diagnostic Lab pliesch@wisc.edu

Household insect pests

Household ants, pantry pests, centipedes and domestic beetles continue to be problems faced by homeowners this week.

What to do about household ants (UW): <http://labs.russell.wisc.edu/insectid/files/2014/03/HouseholdAnts.pdf>

Kitchen insects (UW): http://www.entomology.wisc.edu/insectid/in_kit.php

Outdoor insect invaders (UW): <http://www.entomology.wisc.edu/insectid/outside.php>

Household and structural insect pest identification (VT): <http://www.insectid.ento.vt.edu/insect-id/identify-pests/>

Carpenter ants

First observations of carpenter ants have come in from the southern part of the state. As outdoor temperatures have slowly increased, carpenter ants nesting in trees may be venturing out to start new colonies.

Controlling carpenter ants (UWEX): <http://learningstore.uwex.edu/Assets/pdfs/A3641.pdf>

Lone star tick

A lone star tick was submitted from Fond du Lac. The tick was brought in to a physician by a patient who had recently vacationed in Kentucky for a golf trip. Most likely the tick was brought in from another location on this occasion. Last year, twelve adults of the southern tick species were found in Wisconsin, suggesting it may be becoming established here. UW Medical entomologist Susan Paskewicz has already seen two cases of lone star tick in her lab. It should be watched for.

WI ticks -- *Amblyomma americanum* (Lone star tick) (UW): <http://labs.russell.wisc.edu/wisconsin-ticks/wisconsin-ticks/amblyomma-americanum-lone-star-tick/>

Brown marmorated stink bug

An insect invader, the brown marmorated stink bug (BMSB), was found at a Janesville food processing plant this week. At this time it is unsure if it came up in a shipment of vegetables from Georgia or whether it was from a local source. BMSB was found in Rock Co. last year. Suspected BSMB should be reported to DATCP.

Brown marmorated stink bug (UWEX):

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

Stop BSMB (USDA): <http://www.stopbmsb.org>

Brown marmorated stink bug (PSU): <http://ento.psu.edu/extension/factsheets/brown-marmorated-stink-bug>

International stars

Travel the world, meet new bugs! Photos of very interesting insects were sent from international travelers to the lab this week. One photo, that of a beautiful black and orange caterpillar with white spots, was of the oleander hawk moth caterpillar. The second photo, from Ireland, was of a snakefly.

Daphnis nerii (wiki): http://en.wikipedia.org/wiki/Daphnis_nerii

Snakeflies (Bugnet): <http://bugguide.net/node/view/233370>

SPECIAL TOPIC: Turf establishment and care

Presented by Doug Soldat, Associate Professor of turfgrass, soils, nutrient management, soil testing and irrigation
djsoldat@wisc.edu

Not much differently from last year, spring has been coming in slowly. Soil temperatures in Madison are 45° - 46°. Forsythia are in full bloom, an indicator that now is an optimal time to apply pre-emergent herbicides. Active in the soil for six to eight weeks, they will provide a good window of control.

Grass has been actively growing, especially in the southern part of the state. Soil nitrogen mineralized over the winter provides a sufficient amount of nutrient for the spring flush of green growth. The recommendation for the first application of lawn fertilizer is Memorial Day. Unfortunately, most pre-emergent herbicides are being applied as a fertilizer combination.

Roadside lawn damage is the worst ever seen this year. Due to the tremendous amount of salt spread on roads and sidewalks during numerous snowfalls, with no melting, grass edging roads and walks are dead. Typically roadside grass has very little soil, is heavily compacted, is drought-stressed in summer and salt-killed in winter. It is no wonder it is very vulnerable to injury. Also showing injury is new sod laid last fall. Expect many lawn establishment questions this season. Salt causes desiccation and kills plants in its path, but it does not remain in the soil to cause long-lasting problems, so it is acceptable to re-seed the dead area. There is no perfect grass seed to use under such difficult conditions. Tall fescue may be used but it has limitations. Being a bunch grass it does not spread, and it tends to die with cool temperatures or under ice accumulation. The only plants that tend to thrive in drought-stressed, heavily-compacted roadside soils are knotweed and crabgrass.

Re-seeding damaged lawns will pose some challenges this spring. Cool temperatures do not support Kentucky bluegrass germination. It takes Kentucky bluegrass about 21 days to germinate, and during that time, many weed seeds can blow in and will germinate quicker. Very few herbicides can be used during seeding; the most commonly recommended is Siduron. An expensive product, it is difficult to find, often only through internet sources.

Slit seeding has its advantages over regular seeding because it minimizes soil disturbance and weed encroachment. It is practical for large lawn areas, but it is usually not feasible for the damaged lawn bordering roads and sidewalks.

Lawn re-establishment by seeding is most successful in fall when weed encroachment is lower.

Lawn establishment and renovation (UWEX): <http://learningstore.uwex.edu/assets/pdfs/A3434.pdf>

Specialist Report: Turf lab update

Presented by Paul Koch, Assistant Professor of plant pathology and director of Turfgrass Diagnostic Lab
plkoch@wisc.edu

Snow mold has been common this year. It does not destroy the plant but it does kill the leaf blades. Lawns that were covered with snow mold tend to be thinner, and more vulnerable to weed encroachment. It may be more important this year to apply pre-emergent herbicides to allow lawns to fill in without weed competition.

Due to cold, wet conditions this spring, leaf spot activity has been high, and red thread will probably be active on fescue lawns soon. Neither of the diseases will kill turf, but there may be temporary cosmetic issues. Lawns should grow out of those problems quickly as it warms up.

The turf diagnostic lab (TDL) has been seeing samples come in of leaf spot and snow mold. It will now be easier to submit sample forms to the TDL though online submission forms on the website. The form will be ready to accompany its sample when it arrives. It is important to make sure the sample is identified in a way to correspond to the submission form, as simple as having the same address on the return address sticker.

Lawn diseases quick reference (UWEX): http://hort.uwex.edu/sites/default/files/Lawn_Disease_Quick_Reference.pdf
(turf) Disease keys (UW): <http://labs.russell.wisc.edu/tdl/disease-keys/>
TDL website: <http://labs.russell.wisc.edu/tdl/>

Questions

Dog urine damage on lawns

What is the best way to repair dog urine spots on the lawn. Some homeowners try re-seeding but won't mow for three or four weeks so not to disturb the seed. Is there some other way to treat the spots? This is a very common question, but unfortunately there is not an easy answer. Some preventative measures entail following up with a bucket of water on fresh urine, or training the dog to use only one area. Anecdotally, people have said supplementing the dog's diet with tomato juice lessens the potential to kill the grass, but to such suggestions we respond by telling folks to check with their veterinarian first. Urine strength is variable with different dogs, some causing a circle of death while others cause relatively no damage. If the lawn is basically Kentucky bluegrass, the grass will eventually recover by filling in with rhizomes spreading in from the outer edges. If seeding is the choice for repair, mowing over the area is acceptable, but avoid walking on the seeded area. DIY lawn repair kits usually use perennial rye and some nurse crop for short-term fill-in. Eventually the Kentucky bluegrass will fill in.

Dog urine damage on lawns (Colorado State): <http://www.ext.colostate.edu/mg/Gardennotes/553.html>

Gypsum as a soil amendment

Garden stores promote the use of gypsum to aerate turf soil. Is it useful for Wisconsin soils? Gypsum, or calcium sulfate, is primarily used to displace high sodium. Sodium is almost non-existent in our soils unless salt has been applied directly to the soil, as happens with winter salting. An inexpensive product, it can be used to reduce salinity on roadside edges damaged by salting. As a general amendment for any other application, it has very little use. Suggestions that it helps soil structure and de-compacts soils are not applicable for soils that do not have high sodium content.

The myth of gypsum magic (WSU): http://puyallup.wsu.edu/~linda%20chalker-scott/Horticultural%20Myths_files/Myths/Gypsum.pdf

Is there a role for gypsum in Midwest agriculture (IAState):

<http://www.agronext.iastate.edu/soilfertility/info/IsThereaRoleforGypsuminMidwestAgriculture.pdf>

ANNOUNCEMENTS

Responding to Horticultural Inquiries

The 2014 Responding to Horticulture Inquiries will feature update sessions, an “Answering Horticultural Inquiries in County Offices” session and more. These will be open to UW-Extension agents, educators, office staff and plant health advisors. RSVP Brian Hudelson bdh@plantpath.wisc.edu

<http://fyi.uwex.edu/wihortupdate/2014/04/19/responding-to-horticulture-inquiries-2014/>

The program will be offered at the following locations:

Brown Co., Brown Co. Extension Office, Green Bay May 22, 2014, 8:45 AM - 4:55 PM

Eau Claire Co., Expo Center May 28, 2014, 8:45 AM - 4:45 PM

Turfgrass Field Day

As usual, the last Tuesday in July is WI Turfgrass Association Summer Field Day. This year it will be held July 29 at the OJ Noer Research and Education Facility. The morning session will feature programs on general lawn and sports turf. The afternoon session will be on golf greens. Lunch will be provided. County agents are invited to attend without charge. RSVP Doug Soldat. djsoldat@wisc.edu

http://www.wisconsinturfgrassassociation.org/Field_Day.htm

FINAL NOTES

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

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 Diagnostic Lab <http://labs.russell.wisc.edu/tdl/>

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 <https://fyi.uwex.edu/weedsci/>

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:

Vegetable Crop Update

Vegetable Crop Update #3 is now available at <http://www.plantpath.wisc.edu/wivegdis/>

This newsletter provides information on early season hops, considerations for organic late blight control in potato and tomato, and an advertisement for an upcoming high tunnel workshop.

New Emerald Ash Borer Confirmations

On May 2, 2014, DATCP sent the following:

Three new communities have been added since the last update:

Jefferson County - Town of Cold Spring

Vernon County - Town of Bergen

Washington County - Town of Jackson

These counties are among the 21 counties under quarantine for EAB. We expect to continue finding new locations within the quarantined counties. We will continue to issue press releases when we first find EAB in a county and quarantine it. In most cases, subsequent findings in quarantined counties will be announced here rather than by press release. We did issue a press release this morning about the Jefferson County finding, because it was the first confirmation of EAB in that county. The county had previously been quarantined because of an infestation found just over the line in Walworth County last summer.

Wisconsin EAB information source: <http://datcpservices.wisconsin.gov/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 April 26, 2014 through May 2, 2014.

PLANT/SAMPLE TYPE	DISEASE/DISORDER	PATHOGEN	COUNTY
HERBACEOUS ORNAMENTALS			
Miscellaneous Greenhouse Plants	Ethylene Injury	None	Clark
	Pythium Root Rot	<i>Pythium</i> sp.	Clark
Pansy	Gray Mold	<i>Botrytis cinerea</i>	Jefferson
NEEDED WOODY ORNAMENTALS			
Spruce (Blue)	Rhizosphaera Needle Cast	<i>Rhizosphaera kalkhoffii</i>	Iowa
Spruce (Green)	Rhizosphaera Needle Cast	<i>Rhizosphaera kalkhoffii</i>	Waukesha

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