Wisconsin Horticulture Update Summary, April 17, 2015

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WI WEATHER REVIEW

The Wisconsin weather review will return next week when the WI Pest Bulletin starts its 60th anniversary of publication. Stay tuned!

Average soil temperatures at 2" as of April 16, 2015: Hancock 51.4, Arlington 56.4. (http://agwx.soils.wisc.edu/uwex_agwx/awon/awon_seven_day)

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 59 to 155. Following is a list of GDD as of April 16, 2015 for the following cities: Appleton-89; Bayfield-79; Beloit-155; Big Flats-123; Cumberland-99; Crandall-59; Crivitz-60; Eau Claire-120;Fond du Lac-90; Green Bay-67;Hancock-123; Hartfield-95;Juneau-105; LaCrosse-153; Lone Rock-144; Madison-135; Medford-76; Milwaukee-81; Port Edwards-113; Racine-81; Sullivan-95; Waukesha-95; Wausau-80. 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; Corneliancherry 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**.

WI CROP PROGRESS AND CONDITION

Copy and paste the following link into your browser to find weather review and reports from around the state.

http://www.nass.usda.gov/Statistics_by_State/Wisconsin/Publications/Crop_Progress_&_Condition/2015/WI_04_20_15.pdf

INTRODUCTION

The host for today's WHU was PDDC Director Brian Hudelson. David Drake, UW-Madison Department of Forest Ecology and Wildlife was the special guest. Participants in today's discussions were representatives from the following counties: Brown (Vijai Pandian), Columbia (George Koepp), Dane (Kris Gabert and Lisa Johnson), Eau Claire (Erin LaFaive), Racine (Patti Nagai), Rock (Christy Marsden), Walworth (Chrissy Wen) Winnebago (Kim Miller) and Wood (Peter Manley).

HORTS' SHORTS

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

Brown County: Crocus are in full bloom and other things are budding. Star magnolias are starting to bloom, apple buds are starting to swell, and crabapples are starting to leaf out. Our soil temperatures are in the 40□F range. We are getting questions about lawns such as controlling moths in lawns and how to prevent crabgrass.

Columbia County: We are greening up slowly due to the rains we had last week. We have had some questions on crabgrass, but not too much else.

Dane County: Apples and crabapples are budding and forsythia is in full bloom but starting to fade a little. There have been some questions on crabgrass and when to apply pre-emergents, as well as soil temperature and whether it is too early to transplant cuttings. Scilla, bloodroot, and magnolias are blooming.

Eau Claire: Forsythia is in full bloom and lilac buds are starting to swell and green up. Everything seems to be about two weeks ahead of our normal schedule. Questions are kind of random.

Racine: Forsythia has been in full bloom for about a week and crocus, dwarf iris and early daffodils are also blooming. Winter aconites have faded. Cherries and crabapples are starting to come on and show color. We haven't done any soil temperature readings, but our soil is quite moist due to all of the rain we had. It looks and feels like spring.

Rock: Forsythia has been in bloom for about two weeks and the garlic mustard is up in woodland areas. Trees are budding out. We haven't had much moisture and there are already some patches of drought. We have had questions on preventative tree treatments, and crabgrass.

Winnebago: The weather is nice. Apples and mock oranges are budding and forsythia is in full bloom. There have been some questions on wildlife, ladybugs and some observations of black knot on trees with people bringing in samples.

Wood: Some trees are budding, but it is still a mix of green and brown. We haven't received too many questions. We really need some moisture here on the sand barrens.

Walworth: Early tulips are blooming. We have noticed that the gypsy moth egg masses have hatched on the shrubs on the south side but not on the trees. We saw a picnic beetle already which is not good news for the oaks.

SPECIALIST REPORT: Insect Diagnostic Lab Update

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

There was no Insect Diagnostic Lab Update this 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.

We have had some greenhouse samples come in, such as alyssum, scaveola, gaura, and an orchid. We have had some root rot samples come in, as well as branches affected by dieback and canker. The latter two are likely a continuation of last year's winter problems still affecting trees. We received a number of hoophouse and greenhouse grown vegetable samples; stored carrots with root rot, bacterial soft rot on lettuce from a hydroponic setting, scab on potatoes, spinach with a combination of fusarium wilt and root rot that showed a lot of yellowing on the lower leaves.

Botrytis in Greenhouse Crops

The greenhouse crops mentioned appeared to be affected by botrytis. This can be an opportunistic disease in greenhouses due to all of the humidity and moist conditions. It can cause damping off, stem blights and even leaf symptoms if it is wet enough.

Verticillium in Boxwood

We received a boxwood sample with branch dieback and thought it was winter injury, however we did recover verticillium from that sample. We do see this occasionally in boxwood. If you are seeing branch dieback in boxwood check to see if you are seeing uniform yellowing across the canopy or whether it is sectional dieback. Sectional dieback could very well be a symptom of verticillium.

Rhizosphaera and Stigmina in Needled Species

In needled woody ornamentals, rhizosphaera and stigmina needle cast disease both have round black fruiting bodies that arise from the stomata in the needles and are visible with a hand lens. The two can be distinguished because rhizosphaera has round black blobs, whereas stigmina has black blobs arising from the stomata with hyphae projections containing spores. The difference is distinctive enough to be seen under both a microscope and a hand lens. The treatment is similar for the two diseases, so confusion of the two can still result in disease management.

http://www.ag.ndsu.edu/cpr/forestry/needle-cast-diseases-of-spruce-diagnosis-and-treatment

Cladosporium Leaf Spot in Spinach

A spinach sample also came in that had cladosporium leaf spot which tends to be localized and is less of a concern than the systemic fusarium. Although cladosporium is mainly a cosmetic issue it can cause marketability issues if it covers the whole plant. If it is just the lower leaves, those can just be stripped off and the rest of the plant looks fine.

Cladosporium fact sheet. http://www.ipm.ucdavis.edu/PMG/r732100311.html

Questions

Disease Diagnosis

Were you able to complete the diagnosis for the Rock County sample?

That sample was diagnosed as Stigmina and the report has already gone out. The sample was a good teaching opportunity for the graduate students as it not that common. Rhizosphaera is much more common.

Soil Temperature

Do you know what the soil temperature in Dane County is?

The PDDC does not monitor that so I don't know.

SPECIAL TOPIC: Wisconsin Wildlife

Presented by David Drake, Department of Forest Ecology and Wildlife, UW-Madison

Now is a great time to watch wildlife in Wisconsin. Many of the migratory birds are coming through and starting to breed and mammals are waking up and becoming active. The soil is thawed so mole tunnels are becoming visible again. A lot is happening right now with wildlife, but not everyone is happy with all of that activity.

Burrowing Rodents

Groundhogs (or woodchucks), chipmunks and 13-lined ground squirrels are now active. These rodents all hibernate to some extent but have woken up.

Chipmunks and 13-lined ground squirrels have burrow holes that are about 2 inches in diameter, whereas groundhog burrows are about 1.5 feet across with soil mounded in the front.

These animals can be managed by trapping. Keep in mind that it is illegal to live trap an animal and release it onto public or private property without permission.

Groundhogs

To live trap diurnal groundhogs, place a trap baited with a quartered apple or plum tomato at the mouth of the burrow where you see the mounded soil; this is the primary entrance and exit. Cover the trap with burlap or some other material to simulate the burrow and make it dark. Animals are more likely to enter a space that is enclosed, which makes them feel more secure. Open the trap first thing in the morning to catch the animal when it is active and close it at night to avoid catching raccoons or skunks or something else.

Chipmunks and Ground Squirrels

To live trap chipmunks or ground squirrels, you can use peanut butter or peanut butter mixed with sunflower seeds as bait. It is often more humane to kill trap rather than live trap and release the animal into an unfamiliar territory. You may have to continue the trapping program throughout the growing season as these animals are quite prolific.

To kill trap, use a rat trap baited with peanut butter or peanut butter mixed with sunflower seeds. Or you can use either carbon dioxide (CO_2) or aluminum phosphide gas cartridges. Remember not to gas the burrow if it is under a home as the poisonous gas can seep into the home since the soil is porous. For gas to be effective, all openings to the burrow must be sealed and plugged to concentrate the gas and prevent the animal from exiting. If you are using a CO_2 cartridge, the cylinder is lit like a flare and dropped into the burrow and you must be careful when lighting the cylinder as well as it can be a fire hazard. We typically don't recommend using these if there are buildings around.

Moles and Voles

Moles

The most common mole in Wisconsin is the Eastern or common mole. Moles will make raised tunnels in the dirt which collapse when you walk on them. The easiest way to control moles is to use a harpoon trap. There are explicit directions for using this kind of trap on the package. Find the longest and straightest tunnel; if it has too much meandering it may be a side tunnel rather than the main tunnel.

http://wildlifedamage.uwex.edu/pdf/Mole.pdf

Voles

Meadow voles will make surface runways in the grass and the damage is usually cosmetic. Once the grass starts growing again, the rhizomes fill in the runways. They can cause a lot of winter damage on trees and shrubs due to gnawing on the cambial layer. Most of that damage will have already occurred since voles are active all winter long.

To manage these animals, you can use trapping or a rodenticide bait station that targets this species. For trapping, use a mouse trap baited with peanut butter and put the trigger of the trap in the surface runway.

Rabbits

Rabbits do a tremendous amount of damage in the winter browsing on woody ornamentals. Sometimes the damage is so extensive that it kills the plant. The easiest way to prevent damage is to put some fencing around the plants to protect them.

Birds

Many of the migratory birds are back in Wisconsin. I just saw a yellow-rumped warbler. Phoebes, towhees, swallows, bluebirds, waxwings are now here. Robins have been back for a while.

Nesting issues

As the birds begin building their nests, some issues may arise. Swallows may begin building nests in the eaves and cardinals may nest close to doors. Robins and cardinals may become territorial and start dive bombing people if they get too close to the nest. If a nest is still unoccupied, it can be moved or destroyed. If you remove the nest, the birds will rebuild, often in the same location. If you keep removing it, they will eventually be forced to go elsewhere. Once there is even one egg in the nest, the egg and the nest are protected and cannot be disturbed without a permit.

Woodpeckers

Woodpeckers start drumming to attract mates and defend territory and may damage wood siding. You want to remove any nearby food source, such as suet, to discourage them. You can staple up heavy duty plastic or mylar strips during the breeding season to protect your home. If using mylar to harass them, staple the strips about every five feet and make sure it covers the damage. If you use harassment or exclusion, be sure to monitor all around your house to make sure the bird didn't just move to another spot on your house.

Wildlife Damage Website

We have a wildlife damage website that has fact sheets with species specific information such as how to recognize which species are causing the damage and how to remedy the situation. The fact sheets have free downloadable PDF files. There is also a fact sheet on wildlife laws and fact sheets on some of the principles of managing wildlife which were discussed today. I have been talking to master gardeners about how to stop the damage quickly and efficiently.

www.wildlifedamage.uwex.edu

Questions/Comments

Comment on adding a link to the wildlife damage website on the WHU site

A link to the wildlife damage website will be added to the WHU site, too.

Comment on wildlife fact sheets

I am glad there are fact sheets because we take many calls regarding woodpeckers damaging houses. Recently we have taken calls regarding birds flying into windows and it would be nice to link to one-page fact sheets that give mitigation information.

Definitely refer people to that website, although most of our fact sheets are four to six pages, with a few longer ones. For the woodpecker sheet, all of the Wisconsin woodpeckers are there with pictures and information on how to identify them. I talked about food sources for woodpeckers and wanted to mention that if there is any wood rot on your house with insect infestations, that will attract them. If you repair the wood, that will get rid of the insects and deter the woodpeckers as well.

For birds flying into windows, there are a couple of things to keep in mind. If you have windows that align through a space, you may want to shut the blinds on one window to keep them from thinking it is a clear space to fly through, hang something up or put decals on the windows. You just want to break up at the reflection.

EAB insecticide and woodpeckers

Does the insecticide used to treat EAB affect woodpeckers if they eat larvae from treated trees?

I don't know. The package label should have explicit warnings about the impact on wildlife. I do want to mention that woodpeckers won't eat dead larvae so if the insecticide kills the larvae quickly, the woodpeckers wouldn't ingest any contaminated larvae. I suppose it is a gray area for the interval between larvae ingesting the insecticide and actually dying, but I don't know what the insecticide is. I would be surprised if an insecticide that was dangerous to other wildlife was being used. If people are concerned about it, mylar tape can be hung around the tree or a barrier put on the tree to keep the woodpecker from boring into the tree.

Comment on woodpeckers and EAB treated trees publication

There is a publication out there concerning this issue. They are finding that the woodpeckers eat the mature larvae that overwinter on the outer bark are not exposed to the systemic insecticide. The larvae on the tree's interior that are exposed to the insecticide, die quickly, are desiccated and decompose. There is little data that suggests the woodpeckers feed on those dead larvae.

Website: http://extension.entm.purdue.edu/eab/PDF/potentialSideEffectsofEABInsecticidesFAQ.pdf

Yes, typically the woodpeckers will only eat live insects and larvae. The information about the mylar tape or other tree barrier on treated trees is in the woodpecker fact sheet.

If you think of more questions, you are welcome to contact me and I will be as responsive as possible.

Status of campus foxes

What is the status of the foxes on campus? I saw one walking to work today, about a block from my home approximately 1.5 miles from campus.

For everyone else on the line who doesn't know, we have a radio collaring project for foxes in the Madison area and there was a pair denning on campus. Unfortunately, the male we had collared was killed by a car last week on University Avenue. We have seen the female bringing food back to the den and fortunately the kits are old enough now that she can leave them alone temporarily to go hunting. She is still nursing them. The same thing happened last year when the male was killed about this time of year and we think it was the same vixen, who was able to finish raising the young by herself. We are calling her the black widow of the foxes, because she breeds the males and somehow manages to kill them off.

The Middleton building on campus has some roped off areas and the foxes are denning underneath there on the east side of the building. The foxes typically come out in the evening after dark, but occasionally you will see them during the day. The radio collared male who was killed was moving around in a seven mile territory. We also have radio collared male who lives about 1 mile west of campus and that might have been the one you saw, or it could have been the female hunting.

We have been trapping a lot of foxes and coyotes in yards. The first thing everyone wants to know is if we are going to hurt them because they do keep the rabbit population down.

White nose fungus in bats

What is the status of white nose fungus in bats in Wisconsin?

Monitoring is ongoing. For anyone that isn't familiar with white nose syndrome, it is a disease that attacks cave dwelling bats. There are seven native bat species in Wisconsin and four of the seven winter here and do hibernate. It is the hibernatory species that are susceptible to the white nose fungus. The fungus occurs in caves.

An infected bat was found in Grant County in March 2014 in a cave. Luckily, they also found live bats in this cave. In some of the caves out east, 100% of the bats have been killed by the disease.

The DNR is monitoring the spread but it is not yet completely known how it is transmitted. The fungus appears to be contained in southwest Wisconsin and has not yet spread through the state, although that is probably inevitable. The DNR has been aggressively pro-active to monitor and contain it and has good cooperation from the spelunking community to keep from transferring it to other caves. The DNR has some specific guidelines on how to clean equipment, shoes, and clothing.

All seven species of bat, hibernatory and migratory, are here and active now.

http://dnr.wi.gov/topic/wildlifehabitat/documents/wns_deconprotocols.pdf

FINAL NOTES and ANNOUNCEMENTS

Next week, the host will be Erin LaFaive from Eau Claire County and the special topic will be given by P.J. Leisch on neonicotinoids and pollinators.

Christy Marsden (Rock County): I manage the Wisconsin Garden facebook page for the WI Hort Team. If anyone writes regularly about horticultural topics for a webpage or a newspaper, please send the articles to Christy and she will make them a regular feature on the Wisconsin Garden.

Brian Hudleston: There will be two sessions on answering horticultural questions in May. These sessions are for anyone who answers questions at county offices such as agents, plant health advisors, or master gardeners. P.J. Leisch will give a presentation on insects, Mark Renz will give an update on weeds and invasives, and either Paul Koch or Bruce Schweiger will give information on turf and I will give an update on diseases. If you would like to attend either session, let me know and I will get you on the list.

May 14 in Walworth County at the Geneva National Resort in Lake Geneva 8:45 am to 4:45 pm

May 27 in Marathon County Extension in Wausau 8:45 am to 4:45 pm

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: None

Vegetable Crop Update

Vegetable Crop Update Newsletter #4 is available at http://www.plantpath.wisc.edu/wivegdis/

Topics covered in the issue include:Late blight reminders and updates
Update on basil downy mildew

PDDC UPDATE

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

Brian Hudelson, Sean Toporek, Ann Joy and Joyce Wu

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 January 1, 2015 through April 17, 2015.

PLANT/SAMPLE TYPE	DISEASE/DISORDER	PATHOGEN	COUNTY
BROAD-LEAVED WOODY ORNAMENTALS			
Boxwood	Verticllium Wilt	Verticillium sp.	Rock
	Volutella Blight	Volutella sp.	Ozaukee
Oak (Black)	Charcoal Disease	Biscogniauxia mediterranea	Rock
Privet	Gray Mold/Botrytis Blight	Botrytis cinerea	Jefferson
FRUIT CROPS			
Apple	Phomopsis Canker	Phomopsis sp.	Eau Claire
Cherry	Bacterial Canker	Pseudomonas sp.	Dane
	Brown Rot	Monilinia fructicola	Dane
Pear	Sphaeropsis Canker	Sphaeropsis sp.	Waupaca
HERBACEOUS ORNAMENTALS			
Alyssum	Root Rot	Pythium sp.	Brown
Guara	Gray Mold (Botrytis Blight)	Botrytis cinerea	Dane
Orchid (Phragmipedium)	Cymbidium Mosaic	Cymbidium mosaic virus	Dane
Ponytail Palm	Fusarium Leaf Spot	Fusarium sp.	La Crosse
Scaveola	Gray Mold (Botrytis Blight)	Botrytis sp.	Dane
NEEDLED WOODY ORNAMENTALS			
Juniper	Cytospora Canker	Cytospora sp.	Ozaukee
Spruce (Blue)	Stigmina Needle Cast	Stigmina sp.	Rock
Spruce (White)	Rhizosphaera Needle Cast	Rhizosphaera kalkhoffii	Waukesha
VEGETABLES			
Carrot	Bacterial Soft Rot	Pectobacterium carotovora	Fillmore (MN)
Lettuce	Root Rot	Pythium sp.	Ozaukee
Potatoes	Common Scab	Streptomyces scabies	Oneida
Spinach	Cladosporium Leaf Spot	Cladosporium variabile	Dane
	Fusarium Wilt	Fusarium oxysporum	Dane
	Root Rot	Pythium sp.	Dane
Watermelon	Seed Rot	Rhizopus stolonifera	Winneshiek (IA)

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