Wisconsin Horticulture Update Summary, May 22, 2015

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WI WEATHER REVIEW

Brisk, occasionally rainy weather continued for a second week, slowing crop emergence and development. Below-normal temperatures prevailed and another late-season frost occurred across northern Wisconsin, where overnight lows on May 19 fell to the lower 20s and 30s. Northeast winds around 10 mph kept high temperatures on Tuesday in the lower to mid-50s across the state. Unseasonably cool conditions persisted through mid-week before milder weather returned, allowing planting of the last acres of oats and potatoes to proceed between rain showers. After a period of rapid planting earlier this month, over 85% of this year's intended corn acres have been sown, 51 percentage points ahead of last year and 32 points ahead of the five-year average. Statewide, more than 41% of the corn crop has emerged. Soybean planting advanced 25 points during the previous week to 50% complete, the second highest percent by mid-May in more than 35 years. (Issue No.5 of Wisconsin Pest Bulletin)

Average soil temperatures at 2" as of May 22, 2015: Hancock 62.2, Arlington 66.5.
(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 226 to 464. Following is a list of DD as of May 22, 2015 for the following cities: Appleton-327; Bayfield-226; Beloit-458; Big Flats-410; Cumberland-329; Crandon-266; Crivitz-247; Eau Claire-385; Fond du Lac-317; Green Bay-266; Hancock-410; Hartford-311; Juneau-366; LaCrosse-464; Lone Rock-449; Madison-429; Medford-306; Milwaukee-271;Port Edwards-389; Racine-268; Sullivan-311; Waukesha-311; Wausau-318. To determine the GDD of any location in Wisconsin, use the degree day calculator at the UW Extension Ag Weather webpage:

http://agwx.soils.wisc.edu/uwex_agwx/thermal_models/many_degree_days_for_date

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): 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**; flowering dogwood, first bloom, 263; red buckeye, first bloom, 265; blackhaw viburnum, first bloom, 269; **imported willow leaf beetle, adult emergence, 274**; Sargent crabapple, full bloom, 298; red horsechestnut, first bloom, 304; **pine needle scale, egg hatch - 1st generation, 305**; **cooley spruce gall adelgid, egg hatch, 308**; **eastern spruce gall adelgid, egg hatch, 308;** common lilac, full bloom, 315; 'Pink Princess' weigela, first bloom, 316; blackhaw viburnum, full bloom, 322; redosier dogwood, first bloom, 323; dwarf fothergilla, full bloom, 325; 'Winter King' hawthorn, first bloom, 328; **lilac borer, adult emergence, 330;** slender deutzia, first bloom, 338; Japanese kerria, full bloom, 342; common horsechestnut, full bloom, 344; red chokeberry, full bloom, 351; doublefile viburnum, first bloom, 353; Pagoda dogwood, first bloom, 363; red Java weigela, first bloom, 365; black cherry, first bloom, 368; common sweetshrub, first bloom, 371; **lesser peach tree borer, adult emergence, 372**; Ohio buckeye, full bloom, 374; **holly leafminer, adult emergence, 375**; Vanhoutte spirea, full bloom, 406; **euonymus scale (first generation), egg hatch, 406;** black cherry, full bloom, 419; Miss Kim Manchurian lilac, first bloom, 422; **locust leafminer, adult emergence, 437;** doublefile viburnum, full bloom, 444; black locust, first bloom, 467; common ninebark, first bloom, 478; **oystershell scale, egg hatch, 497**; and smokebush, first bloom, 501.

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_05_24_15.pdf

INTRODUCTION

The host for today's WHU was Christy Marsden from Rock County, PDDC Director Brian Hudelson and PJ Leisch, Manager of the Insect Diagnostic Lab, were the specialist participants. Christelle Guédot, UW Madison Department of Entomology was the special guest giving a strawberry insect update. Participants in today's discussions were representatives from the following counties: Columbia (George Koepp), Douglas (Jane Anklam) Eau Claire (Erin LaFaive), Jackson (Trisha Wagner), Marquette (Lyssa Seefeldt), Rock (Christy Marsden), Portage (Walt), Racine (Patti Nagai), St. Croix (Heidi Doering), Walworth (Chrissy Wen), Waukesha (Kristin Krokowski), and Winnebago (Kimberly Miller).

HORTS' SHORTS

Kimberly Miller preceded the discussion with a question about the slow response from the PlantDoc site. She reported that the delays are causing multiple postings of the same things. Brian responded that Jim Lauer managed that website and thought he might be the correct person to report the issue. His eMail address jglauer@wisc.edu.

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

Douglas: Asparagus beetles are out. Our apple trees are in full bloom. I have had a fair number of calls from people whose apples got desiccated last year and thought they might come back this year. Our moisture is okay here.

Eau Claire: It has been quiet here, maybe because of the cold, gloomy weather. Lilacs are in full bloom and spireas are starting to bloom, and dandelions are seeding. We have had questions about weed ID and apple trees. We are seeing a lot of gnats.

Columbia County: I got a call from someone in Dodge County who thought he had ninebark calligraphy beetles and also Japanese beetles. I don't have a picture of the calligraphy beetles so couldn't confirm that. PJ and I agreed that it was probably too early for Japanese beetles. We also had a report from a homeowner who found a clover weevil in his house. I was planting a tree last week and was astonished at how very dry the subsoil is. We really need a good soaking rain.

Jackson: My report is similar to Eau Claire. We are getting a few questions on apple trees and lot of complaints about the gnats and lake flies. It has been quite cold and frosty at night and windy so the bugs are sort of surprising.

Marquette: Garlic mustard and strawberries are blooming. We could also use some rain.

Portage: I just started back up and am happy to hear everyone again. Not too much going on. We had a call about tree bark sloughing, maybe due to winter burn or sunscald. We have a picture of cedar apple rust that looks just like the one on the fact sheet and a call of the lily leaf beetle. It has been found in Marathon County and in Marshfield. We also had a call about a beetle similar to Japanese beetle last year and PJ figured out that it was an emerald euphoria beetle (http://bugguide.net/node/view/5812). We had a pretty good frost both last week and this week.

Winnebago: Regarding the caller from Dodge County, he has also called here. Our Ag agent, Darrell McCauley, has been working with him, too. Two counties don't need to follow up with him; we can work with him. We had a little rain, but not enough to help plants. Invasives are coming out, including dame's rocket. We had pockets of frost last week. The apples made it through, but the magnolias were hit.

Walworth: The poison ivy is flourishing in the woodlands and seems to be doing better than usual. There is one dying ash tree that looks healthy because of the poison ivy covering it. I have seen swarms of lake flies and small flying insects. (PJ commented that he is not surprised about the bugs as he is getting lots of calls about swarms of flying insects, especially if there is a body of water nearby. It also could be swarms of flying ants.)

Racine: The off and on rain means we have had to water our teaching garden, so we could use more rain. Garlic mustard is seeding and crabapples are nearly done blooming and dropping their petals, which means that fruit tree spraying may be required. Most of the questions on the Plant Health Advisor line were about plant ID and turf. We have had very few insect questions. On a personal note, my struggling Heptacodium appears to be leafing out in a portion that looked dead. It still does look bare though. (Brian interjected that no verticillium was recovered from

the Heptacodium sample, but we will give it another week. If we don't find that organism, it will require much more work to figure out what is going on with it.)

Rock: We got a little rain, but it didn't soak through. The grass is green but is already looking a little stressed because of the lack of moisture. Lots of trees are leafing out. I have noticed much more dieback on ash trees from EAB this year compared to last year. Dandelions are all in seed. I have seen many invasive plants popping up and garlic mustard is seeding. Questions were mostly about plant ID. We have also had reports that poison ivy is having a good year.

Waukesha: I was out yesterday trying to kill poison ivy with Round-up. Dame's rocket is blooming on the sides of the road. We have been getting weed and turf questions.

St. Croix: We are officially out of our drought situation and have been getting regular rain. We did have significant damage to oat fields and blooming plants due to a hail storm a couple of weeks ago, but things are starting to recover. People are telling us this is the best the garden centers have done in 5 years, which is good for our horticultural industry. Mushrooms are out and people are hunting morels and bringing in the mushrooms they find for ID. I just send them on to experts. Dandelions and lilacs are blooming Wild parsnips are up. We have had calls about buckthorn removal, maple gall mites in multiple years are causing tree decline and maple tree bark peeling on trees that have been in the ground for 10 years. The Autumn Blaze or newer cultivars seem to be hardest hit. We are thinking that may be due to sun scald. On my personal note, I have not yet mowed my lawn and my neighbors are on their second mowing.

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*

Activity is picking up in the Insect Diagnostic Lab. Ticks are still very active; we picked almost 50 ticks off our two dogs after hiking in northern Wisconsin last week. There haven't been many reports of mosquitos yet, but we anticipate much higher populations in 7-10 days. There have been some reports of Eastern tent caterpillar and European pine sawfly activity. Butterflies are more active, with reports of Monarch butterfly sightings. We have had calls about lake flies and midges.

European Pine Sawfly

This week we also had reports of European pine sawfly.

http://www.extension.umn.edu/garden/insects/find/sawflies/

Pollinator Task Force

Last June, the president called for a pollinator task force. They have just released their report and have identified three major goals:

1. To reduce bee losses to sustainable levels.
2. To preserve monarch butterfly populations.
3. To increase and improve pollinator habitat.

Questions

Mosquitos

Do we have mosquitos yet?

I have seen a few, but not many. With the rains we have had, I am expecting an uptick in the next 7-10 days.

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

This week we have seen a lot of cases of evergreen diseases. We have been seeing rhizosphaera needle cast on several spruce tree species. This disease normally attacks blue spruce, but we have also seen in on Norway spruce, white spruce and Black Hills spruce (which is a variant of white spruce).

White Pine Blister Rust

This week we also had a sample of white pine with white pine blister rust. It was just starting to form the blisters with very good sporulation so we could pick that up easily.

Fusarium and Phoma on Asparagus

A sample of asparagus came in that had emerged with rotting tips and we isolated both fusarium and phoma.

Questions

Saucer magnolia leafing out poorly

We received a sample of about a 30 year-old saucer magnolia that had a very heavy bloom this year which got hit by frost while in bloom. It did not bloom last year. Although the cambium is alive and the buds look good and are consistent across the tree, it is not leafing out. Any ideas?

The overproduction of flowers can be stressful, especially if combined with other carry-over environmental stressors from the 2012 drought and 2013-14 cold winter. If the leaf buds are consistent across the tree, you can probably rule out verticillium which is a common disease of magnolias.

Dahlias from Rock County

Have you been able to find anything wrong with the dahlia samples we sent?

The dahlias had collapsed lower stems, but we have not recovered any root or stem rot pathogens yet. Our final reading on that sample is next week. It could be due to environmental factors.

SPECIAL TOPIC: Strawberry Insect Pests

Presented by Christelle Guédot, UW Madison/Extension Department of Entomology

Today I will just talk about some of the insects that affect strawberries, but I will be back in July to give an update about spotted wing drosophila. I forwarded a couple of files to Brian to include on the WHU site. One is the presentation that I gave to strawberry growers and the other is a very helpful workbook on strawberry IPM (Publication A4080). The latter publication gives good basic information on insects, diseases, and weeds of strawberries and is a good resource for homeowners. The information may be too basic for commercial growers.

Strawberry Pests

General Information

Slide 2 of the Strawberry Insect Management presentation lists the common strawberry insect pests comprising fruit and flower, root and crown, and stem and foliar pests. There are fifteen insect pests of strawberries although most growers do not see all of them. At the most, they may only deal with two or three of them. There is a complex of grub species (May beetles, June beetles, Japanese beetles) that feed on roots. The most important one is the tarnished plant bug while strawberry bud weevil or strawberry clipper is also one that more growers than not have had to deal with. Cyclamen mites, aphids, spider mites, leafhoppers, strawberry leaf rollers and spotted wing drosophila are less important.

These pests rarely reach damaging levels that would warrant treatment, either for commercial growers or homeowners.

Slide 3 indicates the phenology of the pests. Having information about when the pests should be monitored can guide the grower. For instance, field selection prior to planting is an important consideration. You will want to evaluate root feeding pests such as grubs and weevils which can be done by pulling up stunted plants and looking for larvae. Removing infested plants and putting the field farther away if the populations are too high is very

effective for weevil control since they are not very mobile. You can also plow the field under to rid of larvae. Both of these techniques work for both small and large scale plantings.

Once the field is established, it will be important to monitor for other pests such as cyclamen mites, aphids, spider mites, leafhoppers, and strawberry leaf rollers. Aphids are everywhere and there is usually a complex of them. More can be learned about them from the booklet.

Cyclamen mites can be a major problem and are very difficult to get rid of once you have them, but they are easily avoided by taking a few precautions. Purchase good plants from a reputable grower with a clean greenhouse. Also, take care to inspect plants prior to purchase so you don't bring the mites home.

Leafhoppers, like the potato leafhopper, are brought in by southern winds and there is not a lot we can do to prevent them from coming. Forecasting populations or planning ahead is difficult because they are weather dependent. They do not overwinter here.

Strawberry leaf rollers can be a problem.

Slide 4 shows the season of the strawberry plant and when you could expect the pests; pre-bloom, bloom, pre-harvest or post-harvest. The insects are color-coded: red ones are fruit feeding and green ones are stem and foliar feeders. There are quite a few, but most growers only deal with two or three of them. Homeowners might expect to deal with one or two pests.

Strawberry sap beetle is seen around harvest and is attracted to fermenting or rotting fruit. You can keep them away from the fruit by placing cups containing rotting fruit outside of the planting.

Slugs can be problematic and can be baited with commercial baits. You can discern if they are there by looking for the slime trails. They hide under mulch during the day and are active at night. Supposedly you can also put saucers of beer flush with the ground to lure them away from your plants. I don't know if one brand of beer is better than others, but that technique did not work for me.

Spotted wing drosophila (SWD) is listed at the bottom because its phenology doesn't match the strawberry phenology. Most of the strawberries are June bearers and are done fruiting by the time the first adults emerge at the end of June or early July. If people are growing everbearers or are using high tunnels, they may become an issue. So far, I have not heard of any strawberry growers having issues with SWD. If the phenology changes, we may have a problem since SWD do like strawberries.

Tarnished Plant Bug

The most damaging insect pest of strawberries is the tarnished plant bug. There are two or three generations per year and they overwinter as adults. The adults move outside of the strawberries to overwinter in protective plant debris, but they may still stay around the planting. They emerge when temperatures are approximately 50□F. We are at this temperature threshold this year already, but no one so far has said they have seen these bugs yet.

Although alfalfa is their preferred food, they are highly polyphagous.

Slide 6 shows how an adult feeds on the seeds of the strawberry, but nymphs also feed this way. Because the fruit of the strawberry is an achene, damaging the seeds causes the achene with the damaged seed to stop growing while undamaged achenes continue to grow. This results in deformed or stunted "cat-faced" berries with a concentration of seeds at the tip (a picture of a damaged berry is also on slide 6). Sometimes this looks a little bit like frost damage, but frost damage is only on the side exposed to frost.

Sweep sampling before bloom is suggested to monitor for tarnished plant bug. The economic threshold with this method is 4 adults/20 sweeps before spraying is warranted. A homeowner can tap the unopened flowers onto a tray with the threshold for control 1 adult for 1-4 flower clusters.

Since a favored food of the tarnished plant bug is alfalfa, when the hay is cut populations increase for adjacent strawberry fields. White sticky cards can monitor for tarnished plant bug movement into strawberry fields. Effective cultural controls are to leave an uncut alfalfa strip as a trap crop if the strawberries are in bloom or if there is early fruit set.

Another cultural strategy is to control broadleaf weeds that are more attractive to the bug and may harbor overwintering populations. Don't mow from bloom to early fruit set.

Chemical controls are broad spectrum. Slide 8 shows some chemicals that are registered for use on strawberries. One advantage to broad spectrum insecticides is that they are effective for multiple pests but the disadvantage is

they will kill a lot of things in the field. One or two applications are used. Endosulfan, an organochlorine like DDT, will be phased out completely by July 31, 2016 by EPA but strawberries are the last crop that it can be used on anyway.

Strawberry Bud Weevil

Strawberry bud weevil (aka strawberry clipper) has two black spots on the elytra and has the weevil snout. It is a strawberry flower bud feeder but brambles are an alternate host. There is one generation per year.

Slide 10 shows the way the weevil damages the flower. The female will bite a hole in the flower bud to feed then deposits an egg in the hole. She will then clip the flower so it just barely hangs on which stops its development and keeps it from opening. If the flower opened, the larva would be exposed to the sun which would kill it.

One question people are researching is whether or not the plant can compensate for the damage and there is some evidence it can. For most varieties, if the primary or secondary bud is damaged, the plant can put out more flowers or increase the size of the fruit and yield doesn't suffer too much. So don't panic if damage is seen. If the tertiary bud is damaged, production will suffer.

Although the weevils are small, the clipped flowers are pretty obvious and serve as a visual cue for monitoring pest populations. More than 1 weevil or 1 clipped flower per two feet of row is the threshold for control. Control can be cultural such as removing nearby wild brambles or planting a trap crop with an early variety on the perimeter, though I haven't heard of anyone doing the latter. Chemical control is also an option although all the insecticides are broad spectrum, just as for tarnished plant bug. Killing everything results in control.

Eastern Flower Thrips

Eastern flower thrips are also highly polyphagous. They do not overwinter here, but are brought in by southern winds. Timing of the infestation is dependent upon the southern winds. Once here, they produce multiple generations. They thrive in hot, dry conditions and are killed off by cold weather.

The insects feed on the flowers, the pollen, and the fruit. If they feed on the flowers, it will cause the flowers to wilt and drop. Fruit feeding results in small, russeted, tough berries that do not color up.

To sample for thrips, shake or tap the flowers into a tray or ziplock bag with a few drops of nail polish remover. This kills the insects and makes them easier to count. Yellow or blue sticky cards can be used. The threshold for pesticide application is 2-10 thrips/blossom or berry.

There are no cultural controls because of the way they arrive. There are no effective biological control even though there are some predatory thrips, but they may not be concurrent populations. There are similar chemical controls as for the other insects.

Other Insects

The rest of the slides describe other insects that attack strawberries, but in the interest of time will not be discussed.

Weather System Influences

Numerous pests are brought in by southern winds and the effect of normally high pressure on the eastern side of the state where the winds flow clockwise and normally low pressure on the western side of the state where the winds flow counterclockwise. When these two collide, it causes a swirl of wind, a pump that shoots the insects up north. Where the warm air meets the cold air, the insects drop out of the air. So, you can expect an infestation if there is a hot southern wind. Eastern flower thrips are only one of a group of insects that arrive up north this way. Slide 14 shows a list of "aerial plankton" such potato leafhoppers, corn earworm, black cutworm, etc.

Questions/Comments

Overwintering stage of strawberry clipper

Could you remind me how the weevil (strawberry clipper) overwinters?

The strawberry clipper overwinters as an adult, with one generation per year. They are a problem early in the season, but then they are done.

Tarnished plant bug damage

Do you expect tarnished plant bug damage all over the state and throughout the season because of its multiple generations? I have seen fruit with the tarnished plant bug damage, but we have never had one in the office not had anyone talk to us about the damage it causes.

I assume you can expect it everywhere, but I don't know if there are places it wouldn't be. Because it is highly polyphagous and if you are far from alfalfa and other crops, you might be safer. It is widespread throughout the country. It may depend on your neighbors and what crops they have.

I will keep a lookout for it. It could be our strawberry growers are just doing a good job controlling it.

I talk to growers a lot about SWD, but not so much other insects. My feeling is that they just spray on a calendar basis without questioning much. I don't feel that growers use IPM to scout for it. It may be that the people I talk to about insecticides and not on SWD, just spray 1-2 applications with a broad spectrum insecticide on a calendar schedule and kill everything. They don't spray a lot, but when they do, it is on a calendar basis once or twice a year and they call it good.

Informative strawberry pest presentation

Thank you for all the information about strawberry pests and sharing the strawberry booklet resource.

Please check out the book and don't hesitate to contact Christelle with any questions.

FINAL NOTES and ANNOUNCEMENTS

Next week, the host will be Kimberly Miller from Winnebago County and the special topic will be Hydroponics by Amy Charkowski from the UW-Madison Department of Plant Pathology.

Brian Hudelson: 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. There is a posting on the Wisconsin Horticulture Update for those sessions.

May 27 in Marathon County Extension in Wausau 8:45 am to 4:45 pm. Plenty of space available here.

We have the updated diagnostic center and resource brochure. I will bring plenty so people can take them.

Lynn Adams: I just want to let you know what us Range Master Gardeners are working on.

The Range Master Gardener Volunteer Association is pleased to have Will Allen of
"Growing Power" give a free program at the Ironwood Theatre.

We certainly hope that you will have representatives attend this program and *learn how to grow gardeners and future farmers and fight hunger and obesity in your community.*

Will Allen of "Growing Power" will be speaking at the Historic Ironwood Theatre in Ironwood, MI on Sunday, June 28th From 1-3 p.m. Check-in time starts at 12 noon.

"Growing Power" is an urban agriculture organization headquartered in Milwaukee, Wisconsin .Growing Power was started by Will Allen who bought the Milwaukee farm in 1993.- Allen, a former professional basketball player, grew up on a farm in Maryland. In 2008, he was awarded a MacArthur Foundation "Genius Grant" for his work on urban farming, sustainable food production and with Growing Power. In 2010, Allen, founder of the "Growing Power" farm and training center on Milwaukee's north side, was listed in "Time 100: The World's Most Influential People.

Instead of us charging a fee, please donate three items or a monetary donation to our local food pantries.

For reservations: https://rangemastergardenervolunteers1.shutterfly.com and to sign up or U-W Extension Iron County 715-561-2695 or call Lynn Adams 906-932-3509 or email her atxiaxia@sbcglobal.net or Zona Wick 715-561-3009 or email her at viczona@centurytel.net

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 #9 is available at http://www.plantpath.wisc.edu/wivegdis/

Topics in this issue include:

Late blight updates

Disease forecasting information (early blight, late blight, cucurbit downy mildew)

Please also note that the Veg Pathology website now offers an updated hop fungicide list which includes modes of action and fungicide resistance information. This can be found at:

http://www.plantpath.wisc.edu/wivegdis/pdf/2015/Hops%20fungicides%20for%20WI%202015_Gevens%20MOA.pdf

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 May 16, 2015 through May 22, 2015.

PLANT/SAMPLE TYPE	DISEASE/DISORDER	PATHOGEN	COUNTY
BROAD-LEAVED WOODY ORNAMENTALS			
Boxwood	*Volutella* Blight	*Volutella* sp.	Ozaukee, Waukesha
FRUIT CROPS			
Apple	Monochaetia Twig Blight	*Monochaetia* sp.	Jackson
Currant	Anthracnose	*Gloeosporium* sp.	Calumet
NEEDLED WOODY ORNAMENTALS			
Fir (Unspecified)	Rhizosphaera Needle Cast	*Rhizosphaera* sp.	Dane
Pine (White)	White Pine Blight Rust	*Cronartium ribicola*	Dane
Red Cedar	Cytospora Canker Phomopsis Tip Blight	*Cytospora* sp. *Phomopsis juniperovora*	Waukesha Waukesha
Spruce (Black Hills)	Winter Burn	None	Waukesha
Spruce (Blue)	Phomopsis Canker Rhizosphaera Needle Cast Stigmina Needle Cast	*Phomopsis* sp. *Rhizosphaera kalkhoffii* *Stigmina* sp.	Waukesha Dane, Ozaukee, Waukesha Dane
Spruce (Norway)	Rhizosphaera Needle Cast Winter Burn	*Rhizosphaera kalkhoffii* None	Ozaukee, Waukesha Waukesha
Spruce (White)	Rhizosphaera Needle Cast Spruce Needle Drop	*Rhizosphaera kalkhoffii* *Setomelanomma holmii*	Vernon Vernon
VEGETABLES			
Asparagus	Fusarium Stem Rot Phoma Stem Blight	*Fusarium* sp. *Phoma* sp.	Adams Adams

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