

Wisconsin Horticulture Update Summary, August 07, 2015

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WI WEATHER REVIEW

Dry weather persisted as crops continued through the latter stages of reproduction. Minimal precipitation fell across the state during the week, although a few eastern Wisconsin locations such as Green Bay, Kenosha and Racine recorded 0.5-1.0 inches of rain on August 2 and 3. Growing conditions for Wisconsin crops remained mostly favorable, despite developing short-term dryness and localized hail damage resulting from severe early-week thunderstorms. Reproductive-to-filling soybeans continued to advance under below-normal temperatures and a lack of heat stress, and 49% of the crop was setting pods at the start of the week, a 21% increase over last week and 11 points ahead of the five-year average. Condition ratings for corn declined by two percentage points, but 80% of the crop is in the good to excellent category, eight percentage points better than the same time last year. (Issue No.16 of Wisconsin Pest Bulletin)

Average soil temperatures at 2" as of August 07, 2015: Hancock 74.4, Arlington 76.4
(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 1224 to 1916. Following is a list of DD as of Aug 05, 2015 for the following cities: Appleton-1595 Bayfield-1224; Beloit-1908; Big Flats-1711; Crandon-1293; Crivitz-1397; Cumberland-1534; Eau Claire-1728; Fond du Lac-1427; Green Bay-1494; Hancock-1711; Hartford-1530 Juneau-1660 LaCrosse-1916; Lone Rock-1827; Madison-1801; Medford-1402; Milwaukee-1482; Port Edwards-1652; Racine-1475; Sullivan-1530; Waukesha-1530; Wausau-1467. 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 events occur (Ohio State BYGL and <http://www.entomology.umn.edu/cues/Web/049DegreeDays.pdf>): Ural false-spirea, first bloom, 1,170; panicked golden-rain-tree, first bloom, 1251; Rose-of-Sharon first bloom, 1347; **pine needle scale egg hatch-2nd generation**, 1349; **euonymus scale-2nd egg hatch**, 1923.

WI CROP PROGRESS AND CONDITION

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

http://www.nass.usda.gov/Statistics_by_State/Wisconsin/Publications/Crop_Progress_&_Condition/2015/WI_08_09_15.pdf

INTRODUCTION

The host for today's WHU was Lyssa Seefeldt from Marquette County; PDDC Director Brian Hudelson was the specialist participant. Mark Renz of the UW-Madison/Extension Dept. of Agronomy sent two files and gave a Weed/Invasive Plant Update. Participants in today's discussions were representatives from the following counties: Douglas (Jane Anklam), Kenosha (Barb Larson), Milwaukee (Sharon Morissey), Outagamie (Ann Donnellan), Portage (Walt), Walworth (Chrissy Wen), Racine (Patti Nagai), Washburn/Sawyer/Burnett (Kevin Schoessow), Winnebago (Kimberly Miller).

HORTS' SHORTS

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

Marquette County: EAB has finally been confirmed here for the first time. We knew it was coming, it was just a matter of when. We are now getting much needed rain; it has been dry here on our sandy soils for several weeks.

Kenosha County: We are similar to Milwaukee County. We've had calls about worms in raspberries and SWD is suspected, but not confirmed. We have had a few calls about EAB and ash trees failing and dying. We are also seeing quite a few other woody plants dying back due to long term stresses such as the dry weather and cold damage.

Milwaukee County: Magnolia scale is really bad this year, but Japanese beetles are not too bad. We haven't really had to deal with drought yet, but we are a little dry now because the lawns are just starting to brown and they are usually dormant by now. There is little scab on crab apples.

Outagamie County: Activity has really slowed down and there is nothing much of interest to report.

Portage County: We are seeing scale on maples and oaks, and numerous dry trees. It is raining now, but it has been dry. There are many more monarchs seen this year.

Racine County: Questions have been all over the board: EAB and protecting ash trees, Japanese beetles, and magnolia scale (all the ones I have have been thoroughly infested). We have also had calls about apple tree decline with split bark and trunks. Other calls have been about plant ID and mulch.

Winnebago County: We are finally getting some rain today after 4+ weeks without any significant moisture. The Fox Valley has mostly been missed by the showers that have been coming through. Questions this week were about plant ID, continuing tree issues, blossom end rot and other miscellaneous concerns.

Walworth County: I have been seeing lots of monarchs and other butterflies this year. We had one call about skunk damage to a lawn. Maple leaf issues such as anthracnose, tar spot, and leaf browning due to the dry weather were also reported.

Washburn/Sawyer/Burnett Counties: We have not been dry. We just got over 2 inches of rain with more to come and the vegetation is lush. Foggy mornings have given perfect conditions for diseases such as tomato blights and anthracnose on woody ornamentals. We are still hearing about apple tree decline and other tree issues caused by the stress of the cold winter a couple of years ago. Someone called about a bee swarm. I have heard that it is a good year for honey and honeybees and there are lots of butterflies due to the flush of flowers.

SPECIALIST REPORT: Insect Diagnostic Lab Update

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 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

It has been busy week for leaf diseases on woody ornamentals. We are seeing some apple scab, but trees are not defoliated. We had a case of Guignardia Blotch in horsechestnut, and several species of Septoria on ironwood, Bishop's weed and tomato. I have never seen Septoria on ironwood before. We have diagnosed vascular wilts, with verticillium wilt on three flowered maple and Japanese tree lilac and several cases of oak wilt. We had a case of Nectria canker and a canker disease called Steganosporium on maples. We diagnosed pear scab in a pear from Douglas County. We also had a hosta sample from Brown County with obvious viral symptoms but it tested negative for Hosta Virus X as well as the other viruses we can test for in the clinic. I suspect it may be Tobacco Rattle Virus. Tobacco Rattle has been reported on hosta in the literature. Diplodia normally affects Austrian pine

and we had a case of that in Austrian pine, but this time we also saw it in spruce. All of the branch tips were wilted and drooped over and colonized by massive amounts of fruiting bodies which were causing a lot of dieback. For vegetables, we had a case of blossom end rot on squash. We had a tomato with a case of zippering, which is not a biotic issue, but a physiological issue that is weather related.

Guignardia Blotch on Horsechestnut

We saw Guignardia Blotch on horsechestnut around this time last year also. The disease causes large necrotic areas, often vein delimited.

[http://branchingout.cornell.edu/Back_Samples/20\(5\)/20\(5\)May31Insert.pdf](http://branchingout.cornell.edu/Back_Samples/20(5)/20(5)May31Insert.pdf)

Steganosporium Canker on Maple

People tend to remember this fungal pathogen because it produces copious amounts of dark colored spores in clusters on the branches. If the sample is brought in a plastic bag, the interior of the bag tends to be coated with the spores. It is somewhat opportunistic, attacking stressed trees where it can cause damage. It doesn't tend to be a problem just by itself.

Zippering on Tomato

This physiological affliction is weather related. You will see a brown line with cross hatching that extends from the blossom end to a sunken area of the tomato that looks just like a zipper on the skin. On the sample we received, there was a ruptured looking area with normal skin but kind of a pit or a crater where a line started and went to the blossom end.

<http://vegetablemdonline.ppath.cornell.edu/DiagnosticKeys/TomFrt/TomFrtKey.html#Zippering>

Questions

Broccoli Sample Diagnosis

Do you have any information on that broccoli sample we sent in?

It looked like crown gall, but there is no reference in the literature to it affecting brassicas. It is possible that the agrobacterium used in GMO to transform brassica genes could introduce genes that make it susceptible to that organism. I am waiting to speak with Amanda Gevens to get her take on it. She also said she had never seen it on that host, but there is a lot of literature on transformation of those vegetables that indicate that you could get crown gall on them. I will wait until she gets back to give you a final answer on it.

That is pretty interesting since it was a new All–America Selection.

Sometimes the All-America selections are not selected for disease resistance, but for other horticultural characteristics. Do you know if it was genetically engineered?

I don't know if it was. I makes me wonder what else is going on with it. I did give you the name of the variety.

I can do some digging to see if I can find out about it.

Heptacodium Diagnosis

Anything new on the heptacodium sample with possible vert?

I did talk with Patti about getting another sample from her.

I did talk with the client about giving another sample, but I don't know if he will.

Treating Scale on Maples and Oaks

Do have any recommendations to treat scale on maples and oaks?

You need to check in with PJ for scale insect questions.

Comment from Patti: PJ did say yesterday that timing the treatment to when the crawlers are emerging from the scale is the best time to control them. You can use multiple oil applications according to Phil, timed to when the crawlers are active, to smother them. I don't know if systemics work. Is there a fact sheet on it?

We have a fact sheet on magnolia scale. It is very important to make sure you are applying the oil when the crawlers are active or it won't be effective.

Dead Zinnias in Beds at West Ag Station

On the tour of the West Ag Station, I noticed that there were sporadic completely dead zinnias in the bed. It looked like Southern Blight? Did you see them and do you have a comment?

I didn't see them, but I know that the West Ag Station has a history of white mold. I could also check for the

I looked for sporulation and didn't notice any. Mature plants were completely dead. I was thinking it might be Southern blight, but didn't see the sclerotia.

My guess is that the sclerotia, which look like mouse droppings, will be inside the stems. Sometimes the sclerotia are on the outside of the stem. Were the stems bleached?

Yes, somewhat.

Tomatoes, petunias, soybeans, and green beans all get bleached stems.

Some of the cultivars in the bed didn't have it.

It could be just where the rot pathogen was in the bed. Breeding for resistance can be a challenge since it affects so many hosts.

SPECIAL TOPIC: Weed/Invasive Plant Update

Presented by Mark Renz, Dept. of Agronomy UW-Madison/Extension

Mark sent out 3 files that are meant to be a resource, but went through the powerpoint slides for his presentation. Mark is doing a lot of programming to get the word out. There will be several urban forestry workshops this fall which focus on invasives.

Review of NR40

In Slide 1, wild parsnip is public enemy number one closely followed by crown vetch this year.

NR40, the Invasive Species Rule, has just been updated this year. Because of the political climate, the change occurred quickly and because of the changes to the DNR, the DNR has not been able to do a lot of press releases about the update.

State law is very specific regarding the definition of an invasive species. Slide 2 of the powerpoint gives the specific definition, but in a nutshell an invasive species is a non-native species which is causing harm or potential harm to Wisconsin. Native weeds can be invasive, but they don't fit the definition. For instance, Aspen is weedy but not an invasive.

The reason for the rule is to prevent future impacts from occurring.

Impacts

Impacts from invasive species can touch different issues such economic, agricultural, or human health. Some potential impacts:

Toxicity: Toxic plants like poison hemlock can injure or kill livestock or animals that feed on it. If you haven't seen that plant, it is all over the roads in Illinois and Indiana.

Resource competition: Invasive plants like Canada thistle compete for resources with native plants.

Buckthorn and honeysuckle can slow down forest regeneration by 20 years. That is a dramatic impact to the forestry industry.

Cost: There is a financial burden to manage plants once they take hold. Insects and diseases are closely related to that invasive species. They can be host to overwintering diseases or insects, which compounds harm.

Environmental costs: It can be a challenge to assign a monetary value to the harm caused. For instance, spotted knapweed results in less grass growing. Without the grass, there is evidence that areas with high concentrations of spotted knapweed have reduced infiltration of water and increased run off and sedimentation.

Compromised nutrient recycling: Invasive brush species change nutrient recycling. Garlic mustard is associated with a reduction in mycorrhizal production, which is essential for regeneration in hardwood forests. That will be an additional stress on our hardwood forests.

Human health impacts: Japanese barberry (Yes, the same one in our yards!) is being touted as the next multiflora rose and is making dense stands. Research in the eastern US tells us this is the perfect habitat for ticks which carry Lyme disease. Wild parsnip causes phyto photo-sensitivity. Bush honeysuckle is well associated with the Lone Star Tick and its associated diseases, which is moving north.

Comment: The honeysuckle doesn't include the genus Diervilla does it? That is sometimes labeled as bushhoneysuckle (also sometimes called false or northern honeysuckle). No, the invasive plants are in the Lonicera genus, such as Amur honeysuckle, or L. maackii, or Morrow honeysuckle. All of these multiple species hybridize.

Listing Justifications

Invasive species may be listed as prohibited, restricted or split-listed.

- Prohibited: Control is required and it is illegal to spread it. The DNR has the right to access private property for control if the homeowner doesn't do it and send the homeowner the bill. This has not yet been done for plants, except some aquatic species. There aren't too many prohibited species on the list yet established in Wisconsin.
- Restricted: These species are the ones most people know. Preventing additional spread is desired, but it is recognized that eradication is not possible. Examples are wild parsnip, Canada thistle, and spotted knapweed. The DNR encourages removal, but does not require it. Plant propagules can't be knowingly spread to uninfested areas. For instance, a homeowner with a potted spotted knapweed that they know is spotted knapweed, can't sell or give the plant away.
- Split-listed (Prohibited.Restricted): Regional hot spots where it can't be eradicated, but there are efforts to contain the invasive to those areas. For instance, if a regional hot spot exists for an invasive species in the northern part of the state, we don't want it to spread to the southern part of the state where it isn't established.

Slide 7 shows the difference between prohibited and restricted species. Kudzu is a prohibited species because it isn't in the state and we are trying to keep it from entering the state compared to wild parsnip which is already well established here, even though we are trying to slow its spread.

NR40 Implementation and Compliance

New Species Listing

This May, the Invasive Species Rule was updated. Mark provided a document (WISCONSIN CH. NR 40 INVASIVE SPECIES LIST – PLANTS ONLY) with the newly listed plant species and it can be used as a resource. The document lists aquatic and terrestrial plants, but not animals or insects. There are 40 new prohibited species, 27 new restricted species, and 2 new split-listed species.

There are some ornamentals on the list; Black locust, Japanese and Chinese wisteria, Japanese barberry and burning bush are the two big ones. The ornamentals are regulated down to the cultivar level. For instance, all cultivars of burning bush are excluded from the list except 'Nordine'. It got on the list because of its prodigious seed production. Japanese barberry has many more cultivars that are restricted. The reason why you can still buy some of the other newer cultivars is because research has not yet shown how little or much seed production there is for other cultivars.

There was a lot of concern from the nursery industry because of the economic impact. To mitigate economic losses, the regulations allow a phaseout period: herbaceous and woody vines can be sold for 3 years from listing and trees and shrubs can be sold for 5 years from listing. Even some of the listed Japanese barberry varieties will be available for 5 years; it will be a slow process.

Slide 11 shows a Wisconsin map of the prohibited, restricted and split-listed species and some examples. For instance, Eurasian marsh thistle which is split-listed, is restricted in the northern counties but prohibited in southern counties.

Approaches to Prevent/Minimize Impact of Invasive Species

Slide 12 describes the multiple fronts to prevent and minimize impacts. Efforts are ongoing on the national, statewide, and local levels. National and statewide efforts focus on prevention, while early detection and eradication are most effective and sustainable for the long term when done on the local level.

The First Detectors Network recruits local people to help report sightings of invasive species. Why is early detection critical? One example is what happens when Amur and bush honeysuckle invade a forest. Research from Ohio shows that 10 years after invasion, the native herbaceous species seed bank declines. Seeds are still there but they decline. After 20 years, the seeds of native species are not even there. Early detection is critical because there is limited time to reverse the effects of invasive species.

Resources for Identification and Education

Mark's lab is there to assist with identification and control and provide resources. There are fact sheets on ID and control 36 species at the Learning Store and on the website. There are also Youtube videos which we have been working with MIPN; there is a new one on crown vetch and one in the works for garden valerian. The latter is a big problem up north and appears to be spreading southward. Mark also has a weed ID website which gets a lot of hits from Master Gardeners. Slide 14 lists the links to our resources.

Mark gave kudos to Kimberly Miller from Winnebago County who is on the planning committee for 6 urban forestry workshops to be conducted in throughout the fall, mid-September through October 2. Slide 15 gives details on the dates and locations where the 6 training sessions will be held. Mark, DNR staff, Tony Sommers, and Glenn Nice will be on hand for classroom and field demos. The cost is \$35-45 per person, but \$20 of that cost is for instructional material. There will be an iPod to donate and field guides for each individual. The workshops target municipal workers, but anyone with an interest in invasive species can attend. Some of the information covered will be basic, but there will be a lot of material covered. Anyone working with invasive plants will benefit from the workshops. Mark will be on Larry Meillor on the Monday prior to the start of the workshops to get the word out and increase turnout. Contact the local counties to register.

Comment from Kim: Registration is done directly with each location. There is no central registration site. Mark and his crew have put in

Question: Are the workshops connected to the First Detector Network?

They are loosely coordinated with that. We are inviting Wisconsin First Detector Network members to attend and they will get a discount on registration fees.

Reporting Invasive Species

The most important factor in preventing establishment of invasive species is to get people looking for them and reporting them before they become a problem, especially the new ones. Many times populations spring up and no one knows they are there. Slide 17 shows ways to report sightings.

- Contact Mark or the DNR
- Report the sighting on the Great Lakes Early Detection Network (GLEDN) website or using an Apple or Android app for either iPad or smart phone.

Using the mobile app is an easy process:

1. Pull up the app.
2. Take a picture of the plant.
3. Send the picture. The image gets transferred to Mark's Lab. The ID can be verified on the spot and gets incorporated into the database.

Mark asked if anyone had used the app and Jane said a Douglas County Master Gardener was going to start using it. A link to a good training video that tells how to do it through the First Detector Network is on Slide 23 and is copied below.

<https://www.youtube.com/watch?v=ZzTjEM0F6C0&index=2&list=PLLq7T9GBdf8wbGakjYDc7tYgrJ8x8HKgi>

It just takes a couple of clicks to get to the interactive map, put a “pin” in the location, and the GPS coordinates are auto-filled. Entering the location takes less than a minute. Advanced users can make a point or a polygon of the location. This week we got a report of a high concern insect and it took a couple of calls to people to verify the ID. It turned out not to be the invasive species, but it shows how quick the report and verify can be done. Mark’s group tries to verify each report, although they probably will not make a visit for garlic mustard.

All information is public and is shared with the public. If a location should be kept private, don’t report it. Reports do help with research to update and predict the spread.

Since the goal is to minimize impacts to agriculture and citizens, we want people to be educated and involved. One of the easiest ways to help is to report new infestations. All of the information provided in this presentation is available for outreach and education.

Questions/Comments

Border State Efforts

Are border states like Minnesota, Iowa or Illinois doing something similar in terms of regulating invasive species?

Wisconsin is the leader in this effort. Minnesota is not as advanced, but they are assessing Japanese barberry. They don’t have any regulations in place yet. Illinois is attacking the low hanging fruit and expect to have some legislation in place in 2-5 years. They are more dysfunctional in terms of their budget and my colleague there was just furloughed. Iowa isn’t doing anything yet. Michigan is just starting the process and expects to be ramping up in the next couple of years.

How is the Information Disseminated to the Nursery Industry

How do nurseries know about these changes? Do they have their own internal sources?

Getting the information out has been a challenge. They do have various associations. The DNR is trying to reach out to them and does a good job with the larger nurseries, but it is a struggle with smaller nurseries. Some of the smaller nurseries aren’t even getting the information. If Agents or Master Gardeners work with these people they can give them list and educate them or put them in touch with the right people.

Would DATCP be a good way to do that? They inspect all nurseries during the growing season, large and small. Maybe they could relay the list during their inspections.

That’s great point. DATCP has been involved with the rule making. You could bring it up with inspectors. I haven’t heard if inspectors are mentioning the rules during inspections.

Would it be appropriate to send the list to an eMail list of growers? I have a list of most of the growers and could send out the information as a resource. Is it too internal or is it okay to send as a list of resources?

You can send the powerpoint, too, but the key information is the two-page list of plants from the DNR. Probably not a lot of people in Kevin’s area know about it.

Is the list complete or just the newly listed species?

It is a complete list of plants, aquatic and terrestrial. For the ornamental side, that is the list they would want to see. It doesn’t include insects and animals.

Cooperative Weed Management Area Organization Interface

There are Cooperative Weed Management Area (CWMA) organizations like the St. Croix/Red Cedar CWMA popping up. Are you interfacing with them and are they another resource to tap into?

CWMAs or Cooperative Invasive Species Management Areas (CISMA) are groups of agency staff and partners who come together to share resources to manage areas. In the southeast there is CWIS, which received funding to control plants on roadsides or with mapping. In the north woods, personnel are actively going out in the field to physically control invasive populations, even on private property. The National Park Service, the DOT, and other

groups are all sharing resources. For instance, if one group has herbicide but no crew and the other group has a crew but no herbicide they can pool their resources. Another group may be able to help with printing outreach material. If you are interested, get involved with them or use them as a resource.

Is Eradication a Realistic Goal

At a public hearing, we heard that the goal was to control and eradicate. In nature, how do you eradicate? I suppose you could get rid of a slow moving species like a tree. I like to use the terms manage and control.

What is the definition of eradicate? It depends on the area of elimination. The bigger the area gets, the harder it is to eradicate a population. We have done that with a few species. If we get to the infestation early, it can be nipped in the bud. Whoever uses the term eradicate, should attach a geographic range to it. For instance, in Kevin's area there is garden valerian north of him, but not yet in the county. Will you choose to eradicate or let it invade certain areas? It is a challenge because eradication is not a one-time process. It is a multi-step process where the area is revisited and managed multiple times.

Elimination of Invasive Species in Homeowner Landscapes

For common landscaping plants that are now regulated, do people need to get rid of them? Do I have to get rid of my Nordine burning bush?

No, it is restricted. The key point is that it could be on your property, you just can't knowingly transport seed.

But I can't control the spread of the seed, so environmentally the right thing to do is to get rid of it?

That is the right thing to do, but Japanese barberry and burning bush are ubiquitous but the damage is already done. We are just trying to slow the spread. DNR is trying to do two things. One is to limit the spread of invasive species. The other is to set a precedent for the process so the nursery industry gets comfortable with that regulation process in the future. It isn't an easy conversation to have with people who enjoy their invasive species.

Or, another example is purple loosestrife. People point to it and say I don't see it anywhere else.

But you could point to the population in the ditch and say that could have come from your property.

We have a completely isolated courtyard with only one way in and crown vetch got a foothold in there. The only place it could have come from is the highway. We are in the process of chopping it down and hitting it with Round-up. I am sure it will be back next year.

That's a good example of unintended spread.

FINAL NOTES and ANNOUNCEMENTS

- On August 14, Scott Reuss from Marinette County will host and the special topic will be Novelty Fruits by Brian Smith of UW-River Falls.
- Lisa: On October 4-6, the Cut Flower Growers will hold a conference in Madison at the Sheraton Hotel. Roy Klehm, Brian, and PJ among others, will be on hand. There will also be a tour. You can find out about it at www.ascfg.org/
- Kevin: There is a twilight garden walk at the Spooner Ag Station on Aug. 18 from 4 pm until dusk.
- Walt: Ken Schroeder is doing veggie garden walks of home vegetable gardens in Portage County. If anyone is interested, email the extension in Portage County for a schedule.
- Urban Hort Field Day is August 15 from 10 am -2 pm at the West Madison Ag Station
- MGVs have a beautiful display at the State Fair in the DNR Natural Resources Park
- Douglas County MGVs will be at the Enbridge Health Fair on August 19. It's open to friends and family.

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 Newsletters #26 is available at <http://www.plantpath.wisc.edu/wivegdis/>

Topics in issue #26 (Aug 07, 2015) include:

- Early blight updates
- Late blight DSV accumulations and updates (Polk Co. first report)
- Cucurbit downy mildew updates
- Hop grower workshop agenda/directions
- Langlade Co. Field Day agenda

Please continue to communicate new detections of late blight to me or your county agent. My lab (as well as the UWEX clinic) can offer free diagnostics and genotyping. This information is very useful in better understanding the epidemic for best management.

PDDC UPDATE

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

*Brian Hudelson, Sean Toporek, Catherine Wendt, Claire Wisniewski,
and Ann Joy*

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 1, 2015 through August 7, 2015.

PLANT/SAMPLE TYPE	DISEASE/DISORDER	PATHOGEN	COUNTY
DECIDUOUS WOODY ORNAMENTALS			
Chokeberry	Root/Crown Rot	<i>Phytophthora</i> sp., <i>Rhizoctonia</i> sp.	Crawford
Crabapple	Apple Scab	<i>Venturia inaequalis</i>	Dane

Horse-Chestnut	Guignardia Blotch	<u>Guignardia aesculi</u>	Milwaukee
Ironwood	Septoria Leaf Spot	<u>Septoria sp.</u>	Calumet
Lilac (Japanese Tree)	<u>Verticillium Wilt</u>	<u>Verticillium sp.</u>	La Crosse
Maple (Three-Flowered)	<u>Verticillium Wilt</u>	<u>Verticillium sp.</u>	Dane
Maple (Unidentified)	Steganosporium Canker	<u>Steganosporium sp.</u>	Brown
	<u>Tubercularia/Nectria Canker</u>	<u>Tubercularia sp.</u>	Brown
Oak (Bur)	<u>Herbicide Damage</u>	None	Columbia
Oak (Red)	<u>Oak Wilt</u>	<u>Ceratocystis fagacearum</u>	Waukesha
Oak (White)	<u>Oak Wilt</u>	<u>Ceratocystis fagacearum</u>	Marathon
Oak (Unspecified)	<u>Oak Wilt</u>	<u>Ceratocystis fagacearum</u>	Dane
FRUIT CROPS			
Grape	<u>Root/Crown Rot</u>	<u>Pythium sp., Rhizoctonia sp.</u>	Marquette
Pear	<u>Pear Scab</u>	<u>Venturia pirina</u>	Douglas
HERBACEOUS ORNAMENTALS			
Bishop's Weed	Septoria Leaf Spot	<u>Septoria sp.</u>	Waukesha
Hosta	<u>Tobacco Rattle</u> (Suspected)	<u>Tobacco rattle virus</u>	Brown
NEEDED WOODY ORNAMENTALS			
Pine (Austrian)	<u>Diplodia Shoot Blight and Canker</u>	<u>Diplodia sp.</u>	Dane
Spruce (Norway)	<u>Diplodia Shoot Blight and Canker</u>	<u>Diplodia sp.</u>	Waukesha
Spruce (Unidentified)	<u>Diplodia Shoot Blight and Canker</u>	<u>Diplodia sp.</u>	Trempealeau
VEGETABLES			
Squash	<u>Blossom End Rot</u>	None	Dane
Tomato	Bacterial Speck	<u>Pseudomonas syringae pv. tomato</u>	Adams
	<u>Septoria Leaf Spot</u>	<u>Septoria lycopersici</u>	Burnett, Dane, Dunn, Jackson
	Zippering	None	Dunn

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