

Wisconsin Horticulture Update Thursday, August 14, 2008

Conference Code: 8213#....this will be the conference code for the season

Key Topics:

Emerald Ash Borer Insecticide for Homeowners:

<http://www.entomology.wisc.edu/emeraldashborer/EAB%20Homeowner%20Insecticide%20Guide%20Final%202008.pdf>

Garden Center Pesticide list:

<http://www.uwex.edu/ces/wihort/landscape/GCPesticides.htm>

Moles: <http://learningstore.uwex.edu/Mole-Control-P447C0.aspx>

Septoria leaf spot: <http://www.plantpath.wisc.edu/pddc/factsheets/SeptLSLC.pdf>

Japanese beetle: <http://www.uwex.edu/ces/wihort/gardenfacts/X1062.pdf>

Wasp and bees: <http://www.extension.umn.edu/distribution/horticulture/DG3732.html>

Black widow spider: <http://ohioline.osu.edu/hyg-fact/2000/2061A.html>

White grubs: <http://learningstore.uwex.edu/Turfgrass-Disorder-White-Grubs-P450C0.aspx>

Mummy berry: <http://ohioline.osu.edu/hyg-fact/3000/3200.html>

Anthrachnose: <http://www.plantpath.wisc.edu/pddc/factsheets/AnthAcerLC.pdf>

Cabbage looper: <http://ohioline.osu.edu/hyg-fact/2000/2201.html>

Gypsy moth: <http://learningstore.uwex.edu/pdf/A3738.PDF>

Japanese beetle: <http://www.uwex.edu/ces/wihort/gardenfacts/X1062.pdf>

White mold: <http://www.plantpath.wisc.edu/pddc/factsheets/whitemold.doc>

Fruit Tree Management: <http://learningstore.uwex.edu/Growing-Apples-in-Wisconsin-P413C88.aspx>

Apple scab: <http://ohioline.osu.edu/hyg-fact/2000/2201.html>

Codling Moth: <http://learningstore.uwex.edu/Apple-Pest-Management-for-Home-Gardeners-P424C89.aspx>

Cornell's Fruit Crop Diagnostic Program:

<http://www.hort.cornell.edu/departments/faculty/pritts/BerryDoc/berrydoc.htm>

County Roll Call

Bayfield, Dane, Eau Claire, Iron, La Crosse, Marinette, Outagamie, Polk, Portage, and St. Croix.

Weather Report for 2008

Growing Degree Report by District

For the period from 04/01/2008 to 08/13/2008

District	GDD	GDD
	43 Base	50Base
Southwest	2244.8	1582.5
South Central	2339.6	1648.0
Southeast	2297.2	1611.9
West Central	2215.6	1557.2

Central	1984.8	1388.0
East Central	2280.4	1590.5
Northwest	2036.1	1388.2
North Central	2012.5	1359.9
Northeast	2142.4	1468.5

Growing Degree Report by County

For the period from 04/01/2008 to 08/13/2008

County	GDD	
	43 Base	50Base
Adams	2538.2	1800.7
Ashland	1780.5	1166.0
Barron	2226.8	1551.1
Bayfield	1929.9	1296.4
Brown	2398.3	1679.1
Buffalo	2425.5	1734.5
Burnett	2196.7	1532.7
Calumet	1835.4	1300.1
Chippewa	2268.9	1572.4
Clark	0.0	0.0
Columbia	2154.4	1610.7
Crawford	2666.0	1881.5
Dane	2406.7	1699.9
Dodge	2383.0	1671.5
Door	2176.2	1463.6
Douglas	1803.9	1202.6
Dunn	2268.0	1563.5
Eau Claire	2372.6	1678.5
Florence	0.0	0.0
Fond Du Lac	2380.4	1667.7
Forest	1822.3	1224.3
Grant	2538.8	1791.5
Green	2277.2	1592.4
Green Lake	0.0	0.0
Iowa	2337.3	1610.7
Iron	0.0	0.0
Jackson	2460.5	1772.0

County	GDD	
	43 Base	50Base
Marathon	1135.3	768.1
Marinette	2212.0	1565.2
Marquette	2403.2	1697.2
Menominee	0.0	0.0
Milwaukee	2209.9	1545.4
Monroe	2233.7	1569.2
Oconto	2240.3	1585.0
Oneida	2001.4	1351.6
Outagamie	2315.2	1613.5
Ozaukee	2216.7	1529.6
Pepin	0.0	0.0
Pierce	87.5	52.0
Polk	2369.2	1679.5
Portage	2401.1	1697.4
Price	2297.8	1584.4
Racine	2567.3	1831.0
Richland	1041.8	723.3
Rock	2122.8	1449.9
Rusk	2071.5	1389.0
Sauk	2328.8	1643.7
Sawyer	2151.5	1490.0
Shawano	2352.9	1669.8
Sheboygan	2140.0	1465.9
St. Croix	2266.4	1563.4
Taylor	2088.0	1401.5
Trempealeau	0.0	0.0
Vernon	2343.8	1651.6

County Reports

Eau Claire County--Lots of mole problems. Several other counties have also reported a similar problem with moles. <http://learningstore.uwex.edu/Mole-Control-P447C0.aspx>

Dane County--As far as turf goes rust is a big problem.

La Crosse County--We have rust and insects and tree problems and moles, and quite a wide assortment. Since Emerald Ash Borer (EAB) has been reported on the east side of

the state, several questions on the Emerald ash borer this week, people thinking they have it. That and the Japanese beetle.

Portage County--We have a lot of tomato problems, tree problems, it's very dry here, so the trees are starting to wilt from the two years of drought we had before this, and a lot of assortment of different things, too. We also have the Emerald ash borer questions that are coming in now.

Q. What kind of tomato problems are you seeing?

The lower leaves have completely turned brown and fallen off. We're also seeing tomatoes that they just don't have a lot of tomatoes, they only got a couple tomatoes and they're not ripening.

Yes, the leaf problem that you're probably having, is the Septoria leaf spot fungus <http://www.plantpath.wisc.edu/pddc/factsheets/SeptLSLC.pdf>, would be my guess. If you start to see any lesions on the fruits, I would love to see those, because that may be a bacterial problem. The Pathology Clinic will do a diagnosis on those free of charge. The reason we're doing that we're looking for, we have a collaborative project with one of the professors in the department, and she's developing a new technique for detecting bacterial pathogens, and so we're trying to collect as many as we can.

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

Brian Hudelson, Ann Joy, Amy Gibbs, and Brooke Weber, Plant Disease Diagnostics Clinic

PLANT	DISEASE/DISORDER	PATHOGEN	COUNTY
EVERGREENS			
Douglas-Fir	Swiss Needle Cast	<i>Phaeocryptopus gaeumannii</i>	Dane
Juniper	Diplodia Canker	<i>Diplodia</i> sp.	Washington
	Root Rot	<i>Pythium</i> sp.	Washington
Pine	Diplodia Tip Blight	<i>Diplodia pinea</i>	St. Croix
Spruce (including Black Hills, blue)	Phomopsis Canker/Tip Blight	<i>Phomopsis</i> sp.	Dane, Ozaukee
	Rhizosphaera Needle Cast	<i>Rhizosphaera kalkhoffii</i>	Dane, La Crosse, Ozaukee, Sheboygan
Yew	Macrophoma Needle Blight	<i>Macrophoma</i> sp.	Brown
FRUIT CROPS			
Apple	Fire Blight	<i>Erwinia amylovora</i>	Marathon
Blueberry	Cytospora Canker	<i>Cytospora</i> sp.	Jackson
Cranberry	Heat/Water Stress	None (Environmental)	Sauk
Grape	Black Rot	<i>Guignardia bidwellii</i>	Marathon
HERBACEOUS ORNAMENTALS			
Christmas Cactus	Stem Rot	<i>Fusarium</i> sp.	Dane
Lamium	Root Rot	<i>Pythium</i> sp.	Milwaukee
Lily-of-the-Valley	Root Rot	<i>Pythium</i> sp.,	Dane

		<i>Cylindrocarpon</i> sp.	
Nepeta	Anthracnose	<i>Colletotrichum</i> sp.	Jefferson
Sunflower	Stem Rot	<i>Fusarium</i> sp.	Ozaukee
Vinca	Macrophoma Blight	<i>Macrophoma</i> sp.	Milwaukee
	Root Rot	<i>Rhizoctonia solani</i>	Milwaukee
VEGETABLES			
Garlic	Basal Plate Rot	<i>Fusarium</i> sp.	Dane
Lima Bean	Bacterial Brown Spot	<i>Pseudomonas syringae</i> pv. <i>syringae</i>	Fond du Lac
Onion	Anthracnose	<i>Colletotrichum</i> sp.	Green Lake
	Downy Mildew	<i>Peronospora destructor</i>	Dane
	Purple Blotch	<i>Alternaria porri</i>	Green Lake
	Sour Skin	<i>Burkholderia cepacia</i>	Waushara
	Stemphylium Leaf Blight	<i>Stemphylium</i> sp.	Dane
Pea	Root Rot	<i>Pythium</i> sp.	Trempealeau
Potato	Shoot Blight	<i>Rhizoctonia solani</i>	Jefferson
Snap Bean	Bacterial Brown Spot	<i>Pseudomonas syringae</i> pv. <i>syringae</i>	Sauk
Tomato	Anthracnose	<i>Colletotrichum coccodes</i>	Green Lake
	Leaf Mold	<i>Fulvia fulva</i>	Green Lake
	Root Rot	<i>Pythium</i> sp.	Green Lake
	Septoria Leaf Spot	<i>Septoria lycopersici</i>	Dane

WOODY ORNAMENTALS			
Ash (including White)	Verticillium Wilt	<i>Verticillium</i> sp.	Dane
Boxwood	Phomopsis Canker Volutella Blight	<i>Phomopsis</i> sp. <i>Volutella</i> sp.	Milwaukee Milwaukee
Crabapple	Apple Scab	<i>Venturia inaequalis</i>	La Crosse
Honeysuckle	Phomopsis Canker	<i>Phomopsis</i> sp.	Milwaukee
Japanese Barberry	Cytospora Canker	<i>Cytospora</i> sp.	Milwaukee
Maple (including Sugar)	Anthracnose Cytospora Canker Girdling Root Nectria Canker	<i>Gloeosporium</i> sp. <i>Cytospora</i> sp. None (Physiological) <i>Nectria</i> sp./ <i>Tubercularia</i> sp.	Iowa, Dickinson (MI) Dane, Dickinson (MI) Dane Dane
Elm	Anthracnose Dutch Elm Disease	<i>Asteroma</i> sp. <i>Ophiostoma ulmi</i>	La Crosse Dane, Green Lake
Horse-Chestnut	Chlorosis Root Rot	None (Nutritional/pH) <i>Pythium</i> sp.	Milwaukee Milwaukee
Japanese Tree Lilac	Bacterial Blight Verticillium Wilt	<i>Pseudomonas syringae</i> pv. <i>syringae</i> <i>Verticillium</i> sp.	Marathon Milwaukee
Mulberry	Nectria Canker	<i>Nectria</i> sp./ <i>Tubercularia</i> sp.	La Crosse
Oak (including Bur, Red, White)	Anthracnose Chlorosis Oak Wilt Sphaeropsis Canker Tubakia Leaf Spot	<i>Gloeosporium</i> sp. None (Nutritional/pH) <i>Ceratocystis fagacearum</i> <i>Sphaeropsis</i> sp. <i>Tubakia</i> sp.	Dane, Racine, Sauk Dane, Rock Dane, Rock Rock Racine
Prunus	Bacterial Canker Root Rot	<i>Pseudomonas syringae</i> <i>Pythium</i> sp., <i>Fusarium</i> sp.	Eau Claire, Rock Dane
Redbud	Verticillium Wilt	<i>Verticillium</i> sp.	Dane, Walworth
Rhododendron	Root Rot	<i>Phytophthora</i> sp., <i>Pythium</i> sp., <i>Rhizoctonia</i> sp.	Dane, Waukesha
Viburnum	Root Rot	<i>Rhizoctonia solani</i>	Sheboygan

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

WIDATCP Report: Krista Hamilton, DATCP Entomologist 05/16/2008

See <http://pestbulletin.wi.gov/aboutus.jsp> for details.

Fruits

APPLE MAGGOT - The emergence of apple maggot flies has been widespread, but not particularly heavy this season. Counts ranging from 1-8 moths per trap were reported this week. <http://learningstore.uwex.edu/Apple-Pest-Management-for-Home-Gardeners-P424C89.aspx>

CODLING MOTH - The second flight of codling moths has declined at most orchards, with the exception of high pheromone trap counts ranging from 37-92 moths reported near Dodgeville, Hill Point and Bayfield. The peak of the second flight has occurred in areas of the state where 1,577 degree days (base 50°F) were recently surpassed. <http://learningstore.uwex.edu/Apple-Pest-Management-for-Home-Gardeners-P424C89.aspx>

OBLIQUEBANDED LEAFROLLER - Large flights of moths were registered in southwest and south central apple orchards in the past 7-14 days, suggesting that growers should inspect fruits for larval hatch in the week ahead. Larvae of the summer generation are commonly found on terminal and older leaves near fruit clusters. <http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7473.html>

Vegetables

CABBAGE LOOPER - Counts ranging only as high as 24 moths have been reported since July 23. A total of 24 moths were registered on the evenings of July 28-29 at the Bourbonnais, IL trap location. Cabbage growers should continue to monitor fields for new egg masses and small larvae. <http://ohioline.osu.edu/hyg-fact/2000/2201.html>

IMPORTED CABBAGEWORM - Fairly substantial numbers of adults were observed in southeastern Dane County on August 14, indicating that larvae should begin to appear in commercial fields and home gardens containing cole crops in about 1 week. <http://learningstore.uwex.edu/Caterpillar-Pests-of-Cole-Crops-P565C104.aspx>

Woody Ornamentals

ASTER YELLOWS - Inspectors report symptoms of this disease on Echinacea 'Big Sky', 'Sunrise' and 'Ruby Star' at nurseries in Polk and St. Croix counties. Aster yellows is caused by an organism known as a phytoplasma and transmitted by leafhoppers, principally the aster leafhopper. Symptoms of infection include abnormal flowers, irregular stem growth, and ray and disk petals that are green and much smaller than petals on uninfected plants. These diagnostic indicators are more apparent now that plants are in full bloom. The aster yellows phytoplasma persists in both wild and cultivated coneflowers and other perennial or biennial host plants over the winter, thus infected plants may act as reservoirs. Removal and destruction of infected plants is recommended. <http://learningstore.uwex.edu/Aster-Leafhopper-P388C0.aspx>

JAPANESE BEETLE - Heavy infestations are present in yards and home gardens in Dane County, and orchards in Kenosha and Racine counties are reporting large

numbers of these beetles. Infestations likewise have been severe in nurseries in Jefferson County. Trapping in residential areas generally attracts more beetles than normally would be present, and is not recommended unless areas are isolated from other Japanese beetle breeding sites or if mass trapping is used.

<http://www.uwex.edu/ces/wihort/gardenfacts/X1062.pdf>

Specialist Reports:

Phil Pellitteri, Department of Entomology, Insect Diagnostic Clinic

Well I guess things are starting to wind down, although we've got quite a bit of fall web worm out there getting some people's attention. But other than that, Japanese beetle <http://www.uwex.edu/ces/wihort/gardenfacts/X1062.pdf> is now picked up as far as Barron County, so that's probably as far north as we've started to see significant feeding, but not totally surprising. Lot of wasp calls

<http://www.extension.umn.edu/distribution/horticulture/DG3732.html>, both the big cicada killers, and there's one that we sometimes refer to as the giant black wasp, which is a predator. And just the sheer size of these solitary wasps is scaring people, but they are really pretty docile creatures. And I've had probably the biggest run of black widow spiders <http://ohioline.osu.edu/hyg-fact/2000/2061A.html> I've seen in my career. I don't think it's anything unusual because we've always known the spider is here, it's just for some reason the last couple of weeks people have been finding them a little bit more often. But other than that, it's been historically if I look at my records, this has been a somewhat down insect year. They are usually found outdoors in rock piles, and a couple of times some equipment shipped on various things. We just got one from We Energy on some of their electrical equipment, and so we don't know if it's from Missouri or from Wisconsin. But it looks like a northern Wisconsin type. I just don't see them indoors. You really have to go hunting for them, and they are very secretive. Usually if they see you coming, they're going to go back in their retreats.

One of my colleagues actually makes a hobby of trapping Japanese beetles, and last year he noticed populations probably three to four times greater at the peak than he saw this year. Do you attribute that to the dry, kind of the drought we had in July, or is there a good explanation on why we'd be seeing lower populations in Madison here?

No, in fact to be honest we were anticipating higher populations because the 15 inches of rain in August made a lot of the turf that would have not been good breeding sites very, very good. It was a mild winter, relatively speaking, we had good moisture. So, I've noticed the same thing. In fact has shared with me his graphs of catches. You know, it's a little hard to reference because people have not seen it before and it's moving into new areas, and so we're getting a lot of complaints, but I've noticed similar things in my own property as far as numbers of beetles and not sure. One thing that we've been hopeful of, there is a protozoan disease that has been showing up in Michigan and elsewhere, and although I don't know if anybody has documented it here, we could be seeing some natural enemy activity that might knock it down, but we were anticipating higher numbers, I know Chris Williamson had found turf infestations as high as 75 grubs per square foot over on a golf course on the east side of Madison, and so I was really expecting it to be more intense than last year.

Brian Hudelson, UW Extension Pathology Clinic

I do have an email from Chris sending his apologies for not being able to participate today, but he said "I would like to let folks know that this is one of the worst years that I have experienced regarding Japanese beetle populations. I anticipate a bumper crop year for Japanese beetle larvae, and consequent feeding damage as well as animal root damage due to foraging for larvae and grubs by animals. As always I refer folks to my fact sheet on 1) Japanese beetles, and 2) white grubs <http://learningstore.uwex.edu/Turfgrass-Disorder-White-Grubs-P450C0.aspx>. Otherwise this has been a fairly quiet year for turf grass insects." And from my perspective, just to announce that you should have received via email a copy of a new fact sheet on Emerald Ash Borer Insecticide for Homeowners <http://www.entomology.wisc.edu/emeraldashborer/EAB%20Homeowner%20Insecticide%20Guide%20Final%202008.pdf>.

In terms of what I've been seeing in the clinic, a lot of root rot issues on a variety of plants, both woody and herbaceous, and in particular a lot of herbaceous plants showing issues with both Pythium and Rhizoctonia. Interestingly, we did have a sample with a different variant of a root rot, it's called black root rot, which is a filamentous fungus. If any of you have ever seen My Master Gardener talk, I show a picture of some of spore that they call tootsie-roll spores, large, black multi-cell, the cells actually break up off like the segment of a tootsie-roll, that's the filamentous fungus. That actually came in from a greenhouse grown sample from out of Illinois, and the person was so happy with what we did with the samples, he sent 25 more plants for us to work on, so that's what we're doing right now. We had a bumper crop of samples, there were 55 that came in yesterday. We're also seeing quite a bit of downy mildew, we saw an example of that on sunflower. Usually it's kind of an off-white sort of fuzzy layer again on the under surface of the leaf. You tend to see kind of necrotic spots on the upper surface of the leaf. Often times, kind of veined, and then if you flip the surface area, then you'll see this kind of off-white form of sporulation on the bottom surface. Lots of vegetable problems as well, pumpkins with verticillium wilt and root rot, some downy mildew on onion, and a lot of tomato problems, particularly bacterial spot, which is the Pseudomonas disease that will cause little, small spots on fruit, it will also cause kind of kind of angular leaf spot on leaves. We are seeing lots of verticillium on all kinds of plants, ash, catalpa, red bud, etc. The interesting host that we saw that on this time around was boxwood, and that's a first for me to isolate it from that particular host. And typically when we try to do isolation of verticillium from that shrub, we end up getting a lot of Volutella Blight out which does cause a blight on boxwood, and it grows a lot faster than verticillium, so we may be missing some of the verticillium that we're seeing on that particular plant. And then also just yesterday we had a tenant diagnosed some verticillium on a cherry tree, which is a little unusual.

Q. Iron County, a person brought in blueberries and the leaves and I think it's mummy berry. Do you need one of those samples at all?

That would be, actually if you've got mummified berries if you wouldn't mind sending me some. I use that as a demo for some of my teaching.

They're starting to turning redder to pink, and then they just start getting really dried up and ugly.

Some of those cut them open. With mummy berry you should see the fruit filled with fungal mycelium. <http://ohioline.osu.edu/hyg-fact/3000/3200.html>

And that's kind of white looking?

Yes, white and fuzzy in the inside. That's a diagnostic tool. It's a very common disease on blueberry. Definitely if you've got some of those if you wouldn't mind spending the postage to getting them to me, it would be great. We use that as, I do a signs and symptoms lab, and I actually did this for a group of upper level master gardeners in the Milwaukee area, kind of the

southeast, and I used that as a symptom to show people, so that's great to have in my collection.

And also cedar apple rust sometimes on some trees make them funny shaped, too.

Are you seeing any leaf symptoms of rust on the leaves of the tree?

I'll check. He didn't bring me that, and then they're moving so I don't have a phone number, but I will have them bring in leaves, too.

I'd be a little bit skeptical that it do that often on apple fruit, it's more a problem on hawthorn fruit. It's certainly something to keep in mind, sometimes scab will cause deformations if it occurs really, really early in fruit formation, but the only way we'd know for sure is to send some sample in, and I would send that one in to Phil first. I'm betting it's probably an insect problem of some kind.

Yes, I think you'd probably be right. If we have apple maggot, there's often an indentation, but you can usually see a spot in the middle of that indentation, but the plum curculio sometimes they in the second infestation, where the larvae will move from the fruit that it was laid on, and that's where we see the scar, but as it moves in, it'll usually burrow in on the calyx end on the apple, and in their feeding they'll cause some abnormalities. Cut the apple open and you'll be able to find sometimes the larvae culprit. As to affecting one tree and not the other, I noticed what quite common. I was looking at a row of trees with about four different selections for a homeowner, and what was interesting is that one variety was just inundated with that type of problem, and I suspect it has to do with the time of flowering of the plant, and what stage of growth and development it was at when the plum curculio did its egg laying, and some of the other either later or earlier flowering plants were not as impacted, so you can definitely see that. They were all the same type of apple trees.

Then it was affecting one and not the other?

Yes. He should be happy. And what I did was, as you were talking about the Emerald ash borer, they have found it in Keywano now in the Upper Peninsula. That's like 170 miles from Hurley, so it's here already close by.

Doug Soldat, UW Extension Soil/Turf Specialist

So what are we getting into, this is mid August already. We're really dry here in Madison. A lot of brown lawns, but I expect if we get some rain here in the next few weeks, temperatures are definitely cool. I don't know if we even hit 90 all year, but it's been dry. So I'm guessing the lawns will start to come back, people will start mowing again, and then now we're thinking about the fall application of fertilizer; that's important if you do it in September your main goal should be recovery from any damage, an increase in density, but if you hold off until late September or late October, that's more of a increase the roots over the winter and prepare the grass to come out looking good in the spring. -----So those are the two fall application times for fertilizer. One pound of nitrogen per thousand square feet is the maximum amount that's recommended, and then John Stier not here, but it's also time to start thinking about weed control for perennials in the fall. So the best time to sometime around or just about the first frost of the season, which we generally don't get until sometime in October. But the common broadleaf perennials that's the time to get them. Any specific questions about fertilization or weeds or water or anything else out there?

On the grub issue, do you just want to comment on that? I suspect, as Chris pointed out, we have more Japanese beetle adults, so we're going to have more grub activity and the reports of moles in the lawn and other types of animals harvesting those grubs.

For the beetles, right now is not the recommended time for control. Actually we're probably a little bit late. Usually here July is the time for grub control, but if people have missed that window, maybe now would be a good time, because what happens is the grubs will start to go down deeper and they're getting bigger so they get harder to control as that happens. So you

want to get them right when they're small, but if we're seeing lots of grubs, maybe treatment now is still an option.

This is Liz in Portage County. We have a lot of homeowners who have underground sprinklers, and in the spring when it was cool and wet they were still running them everyday, even when we were getting rainfall, so they're having a lot of problems in their lawns with different fungus and different things coming on. What kind of a recommendation should we provide, because it is sand so the grass does not need to be watered more often, but obviously doesn't need to be watered every day, so what kind of watering recommendations should we be giving these people?

Usually what we say is an inch per week, and you can do that with a tuna can, but if you have sandy soil, that might not work. The ideal situation is to have a moisture sensor installed that the controller runs off of, so when the soil moisture hits a certain level, it'll kick on the sensor. That technology is starting to become really common now, but if this system has been in for a while, it's almost certainly not there. So there are those options that are coming on, there's also some new sensor that will download weather data from the satellite automatically and then schedule the irrigation, so that's another similar environment-based recommendation. So probably what you have in Portage County is these irrigation controllers where you set when it goes on by hand, so the homeowner needs to know something about how much their lawn needs, and if you're on a typical soil I'd say an inch per week, and you can get by with one, maybe two waterings for a week, but if you have sandy soil, you might want to still go with that inch per week, but may [set out] over at every other day or something like that when it's not raining.

Right, we have people they've generally set, they go off every morning no matter what.

Yes, that's way too much.

It's on a timer, so that seems to be where they're really running into problems.

Even on the sand, if you're mowing the grass at 2½-3 inches, even on the straight sand, you can get by with irrigating every three days. So convince them to try to make that frequency a little less, and it depends on how many minutes they're running the system. Just encourage people to take a tuna can out there and time how long it takes to fill it up to get an idea of how much water is going out. They might be putting on two inches in the sand every day, and that's just extremely wasteful.

Plus the water holding capacity of sand is about ¼ of an inch, so if you put on an inch, ¼ of that is just going to soak down into the ground, so that's why we suggest keeping in mind the water holding capacity maybe watering ½ inch every 3 days or something like that.

That's what I would say, ½ inch twice a week.

And also the thing is that they are doing is this watering every day, does that affect how much fertilizer they should be putting on, because what they do is they water every day and then they're mowing a lot more, but then their lawn starts getting depleted very quickly.

Right, and then have also low nutrient holding capacity. And they're fertilizing these lawns a lot?

A lot of them have these services that come just on a regular schedule and so it seems like they don't fertilize, but then they continue with the watering and the mowing, and so the grass just becomes worn out, I think after a while.

That's absolutely true, and then the other thing is that if they put out the fertilizer and they're overwatering, they probably leeching a certain portion of the fertilizer out of the root zone, so the amount the plant actually sees is a lot lower than what they applied.

I'll give you my wisdom of 22 years of lawn maintenance. Highly watered lawns have shallow rooted grasses. I don't care how much you feed them, water stress on them any little bit of heat will dry them right out.

That's true. There is a recent study that came out from Kansas, they're watering fall fescue at different rates of irrigation, so based on the evapotranspiration, so 80 percent of

evapotranspiration (ET) the turf looked really good and healthy, but it had much lower root mass than the grass that was watered at only 20 percent of evapotranspiration. So definitely [increasing] irrigation can lead to better looking leaves, but it does inhibit the root system. One thing we've been doing working on similar stuff for watering golf greens grown on sand down here in Madison using a similar philosophy is that we can get pretty healthy, good looking grass by irrigating it at 30 percent of ET, so that means that if we have an inch of evapotranspiration, we're only putting down 1/3 of an inch, and the grass has a healthy root system and looks pretty good. We have to use wetting agents to do that, but that's because of the very sandy system, and the wetting agents improve the water distribution, the water uptake. So hopefully that's what we want to get people to do is start thinking about watering turf based on the amount of evapotranspiration because that allows them to put down the right amount that the grass needs, and even increase the root system by watering it less than the grass needs.

Jim Kerns, O. J. Noir Turf Grass Pathologist.

I called in a little bit late, so I might have missed the updates, but to just give you an idea on diseases that we're seeing out there. Basically necrotic ring spot, summer patch, a little bit of red thread, powdery mildew, and rust. However, this year my first summer here has been rather slow. I think we're about 100 to 150 samples behind normal, so it really hasn't been that exciting of a disease year, and so if you have any questions I'd be happy to answer them right now.

What can you do about summer patch if they do have it?

The main thing is what Doug was mentioning earlier, and I think Lynn from Portage was the landscape version, they usually greatly over-fertilize their lawns in the springtime, and that's when the pathogen is active, so you're actually fostering a better environment for the pathogen to infect. And then the symptoms show up during the summer during the hot, dry conditions. So the best method is to actually aerating the soil, and then to limit spraying fertilization to probably one application. If we start getting over that, it just makes the perfect environment for summer patch. The nice thing is, as long as they don't use any fungicides, summer patch tends to go away after four to six years in a home lawn.

And it just kind of runs the course of it, and then it's done?

Yes, the pathogen is not a very good soil occupier, so it tends to be outcompeted by other bacteria or anything that gets on the root and the turf. So it's a phenomenon that's pretty common in turf, especially when you spot summer patch and more of a golf course disease]. They're more prevalent in younger turf, and then over time the symptoms get progressively less and less, and eventually they end up going away.

As far as rust on turf, do you usually recommend people apply a fungicide?

I don't usually recommend it because rust is really a cosmetic disease. It doesn't do that much damage for the plant. You do in rare cases to start to see thinning. If I were to see that I would recommend a fungicide application, but really the best thing to do is when the fungus is active, right about now we start seeing the orange, collect the clippings and remove them from the site, because all they're doing is spreading more of those spores out to the grass. Other than that, typically rust just makes your shoes orange, and makes the lawn mowers orange, which [you] probably don't like and then it goes away with very little damage done to the turf.

Good, because that's what I've been recommending to people, but I wasn't quite sure.

No, that's the perfect recommendation. Now a lot of times rust comes in when the turf is really young or deficient in nitrogen or nitrogen is overly abundant, and then the watering issue. Rust needs at least 8 hours of leaf wetness to infect the grass, so if they do what Doug was talking about and try to limit those irrigation events, that would really help to control with rust as well.

Bob Tomesh, UW Extension Horticulture Specialist

Our heat unit accumulation for the year is a little bit lower than usual. All season long we've been running about 7 to 10 days behind our average. This is quite evident in fruit ripening. I had received calls in early July that the raspberries hadn't ripened, and they had reported that they had already been picking raspberries by the end of June, so the first part of July they were still waiting for those to ripen. In the grapes this is also evident, Valiant, which is usually one of our earlier varieties to ripen, usually right around the 25th of August has just started to turn color, and so that's an indication that things are a little later in ripening due to lack of heat. I would guess that when we do sugar analysis on the various grape varieties this year, and this is usually quite important from the wine standpoint, we're going to see lower sugars at ripening, simply because we have not had the heat to produce sugars in the fruit. Also, our water has been spotty. It's been heavy rains when we've had it, but they have not been that consistent. One inch per week. I would encourage people to monitor their rain gauge as we move on through the rest of the growing season, our gardens are in quite high production right now, as well as any of our landscape trees that have a need for water, so if we have a heavy rain of 2 inches, and then we figure that's good for 2 weeks, it doesn't work that way. So we should be monitoring that one inch per week. In fruit, in terms of ripening purple and black raspberries and blackberries are all ripening. There is a very good blueberry harvest reported in northern Wisconsin, especially in the Bayfield area. In apples, people are starting to look at the apples because they're start turning color. Also they're also starting to observe problems such as scab and insect issues. Those warty type apple fruit are all causes of various insect activity during the growing season where that insect larvae has destroyed cell tissue within the apple, and when that cell tissue is destroyed, there is no longer an enlargement of that cell tissue, and so we end up with indentations on the outer surface. Still, Japanese beetles being reported, although, we're on the downside end of that. I suspect we'll probably see them for another three weeks and then that adult feeding cycle is going to be over.

In vegetables, I received calls this week, with people starting to harvest vegetables such as beets, carrots, etc., and scab being prevalent on potatoes, I had a sample of beet come in. Usually this disease problem is more prevalent where we've had higher soil pH or fresh animal manure that has been applied to the garden in the spring prior to planting. Also, if they are using compost and that hasn't completely gone through the decomposition process, or taking green manures where they have grown a green manure crop, and then try to till it in and then try plant immediately after, not allowing ten days or so for some of that green manure to decompose. Some of these things can lead to increase infections by some of the soil scab diseases. Also, a lateness of tomatoes, peppers, and other solanaceous fruit ripening being reported. Again, we're low in heat units this year, and so this is being equated back out in terms of that late ripening of some of those type of fruit crops.

With flowerbeds, it's a good time to start perennial bed renovations, and cutting back, thinning down some of those plants that have kind of taken over, and this would be for those spring and early summer blooming types of plants.

Turf grass just a couple things we're starting to uncover that, we're looking at our fall feeding, which should begin around Labor Day weekend. Also, our insect management, and we're nearing the end of that as soils start to cool off, and the grubs begin to work deeper, our insecticides are not working as well. In terms of broadleaf herbicide control, again wait until the first frost period, depending on your area. If you're in northern Wisconsin, probably the frost date is around mid-September. If you're in the southern part of the state, we're looking at sometime maybe around mid-October.

Trees, quite a few questions now that the Emerald ash borer has surfaced in Wisconsin. Chris has done a very good job with putting together or making available different types of two-page handouts, which seem to be working very well. He just put one out on insecticide use this week. There is a very good ash tree identification as we're having people bring in everything

from box elder samples and everything else saying they've got an ash tree with a problem. And then there's a very good one on Emerald ash borer ID. And I'll highlight those three bulletins in the Wisconsin hort update, and so you can just click on that if you have not seen them already. Also, maples and some of those types of trees are starting to show, a bit of color, as result of stress, and I would guess as primarily been to water stress. We had those heavy rains, we think we've had plenty of rain, but we've gone two to three week periods without rain, and the maples are very sensitive. I'm seeing some of the reds showing a little bit of color, as well as some of the sugar maples showing some of their yellows, so those types of things will be showing up this coming week will be coming more prevalent. Especially the watering of trees that have been transplanted within the last three years is important. Develop a definite watering schedule from now until the soil freeze-up to keep those trees in good condition and prepare them for the winter that's coming. And this is going to be a very important stage with any of our landscape trees and shrubs to keep them well watered during this latter portion of the growing season. So with that, I'll open it up to any questions people might have.

General Questions

Announcements

Eileen Nelson, UW Horticulture Herbaceous Ornamental Specialist has initiated the Wisconsin Ornamentals Newsletter. Check out the web site for more information:
<http://www.wisconsinornamentals.com/> .

Michigan State University has an Integrated Pest Management web site.
<http://ipm.msu.edu/cat08veg/v05-21-08.htm> . Visit it to preview their information.

Twilight Walks at the West Madison Agriculture Research Station.

- **David Drake**, Extension Wildlife Specialist – August 26, 5:30 p.m. - Urban Wildlife – A Walk with the Wildlife at West Madison Research Station
- **John Hendrickson**, Center for Integrated Agriculture - September 16, 5:30 p.m.– Cover Crops for the Home Garden: Buckwheat, Clover, Oats, Peas, Soybeans.

Fall Horticulture Field Day Events

Aug 26, 2008

2008 Fruits, Flowers and Vegetables Twilight Tour at the Spooner Agriculture Research Station is set for Tuesday, August 26 from 4:00-7:00 PM. Phone: 715-635-3506.

Mini-fact sheets <http://www.hort.wisc.edu/mastergardener/>

See web site <http://www.hort.wisc.edu/mastergardener/> for other county events

Check the **Events Calender** of this web site <http://www.hort.wisc.edu/mastergardener/> for more event happenings.

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For suggestions or responses, please refer them to:

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