Wisconsin Horticulture Update Summary, August 21, 2015

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WI WEATHER REVIEW

Rain increased moisture for summer crops after an extended period of drier-than-normal weather. Across the state, the precipitation came early in the week and was accompanied by cooler and less humid conditions that eased stress on filling corn and soybeans following last week's heat. Weekly temperatures averaged near to below normal, with daytime highs on August 19 only reaching the mid-60s to lower 70s, which is 5-10 degrees below average for this time of year. Despite the showers, pockets of abnormal dryness and moderate drought persist in the southwestern counties where summer rainfall deficits currently range from 2-6 inches. Condition ratings for alfalfa, corn, potatoes and soybeans declined another 2-5 percentage points during the previous week and more rain will be needed as crops advance toward maturity. (Issue No.18 of Wisconsin Pest Bulletin)

Average soil temperatures at 2" as of August 21, 2015: Hancock 77.1, Arlington 85.0 (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 1471 to 2229. Following is a list of DD as of Aug 19, 2015 for the following cities: Appleton-1884 Bayfield-1471; Beloit-2229; Big Flats-2005; Crandon-1531; Crivitz-1664; Cumberland-1783; Eau Claire-2014; Fond du Lac-1719; Green Bay-1782; Hancock-2005; Hartford-1824; Juneau-1957; LaCrosse-2224; Lone Rock-2137; Madison-2114; Medford-1645; Milwaukee-1778; Port Edwards-1930; Racine-1773; Sullivan-1824; Waukesha-1824; Wausau-1723. 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 (http://www.entomology.umn.edu/cues/Web/049DegreeDays.pdf): Pine needle scale-2nd generation-hyaline stage (control target)-1500; Cooley spruce gall adelgid-2nd adults active (control target)-1500; Eastern spruce gall adelgid-2nd adults active (control target)-1500; Walnut caterpillar egg hatch, caterpillars-1600; Zimmerman pine moth-adult flight1700; Arborvitae leafminer-3rd generation-1700; Banded ash clearwing borer-adult emergence-1800-2200;Fall webworm-tents become apparent-1850; Euonymus scale-egg hatch - 2nd generation-1900; Magnolia scale egg hatch-1925.

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_23_15.pdf

INTRODUCTION

The host for today's WHU was Barb Larson from Kenosha County; PDDC Director Brian Hudelson and Insect Diagnostic Lab Director PJ Leisch were the specialist participants. Mark Dwyer, of the Janesville Rotary Gardens, gave a presentation on Butterfly Gardening. Participants in today's discussions were representatives from the following counties: Brown (Vijai Pandian), Kenosha (Barb Larson), Pierce (Diana Alfuth), Portage (Walt Rasmussen), Racine County (Patti Nagai).

HORTS' SHORTS

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

Brown County: We received quite a bit of rain this week, which was a welcome relief. It is a little cooler and grass is starting to green up again. We are getting reports of May-June beetle grub activity, with grubs up to 1 inch long. People are noticing lawn damage by skunks and raccoons bringing up the grubs. First and second instar Japanese beetle grubs are present as well, so we have all of those species present as grubs right now. We are also getting calls about plant ID. The rain has caused leaf diseases and we are seeing quite a bit of early blight on tomatoes and last week I saw my first case of tar spot on maple.

Kenosha County: We finally got some welcome rain this week, but it was hit or miss. The lawns are showing a little regrowth. We are getting calls about fruit not filling out, blossom end rots, lots of weed ID, and leaf diseases.

Portage County: I measured 3 inches of rain in my gauge this week. We had two verifications of late blight on potato and tomato in homeowner's gardens. SWD is still an issue and master gardeners are calling in about that.

Pierce County: We had 3.25 inches of rain on Tuesday. Late blight was diagnosed in St. Croix County and we have sent a suspected sample into Brian. The presence of late blight would be new in our county as we have not had it in years past. SWD is here. We are getting questions about weed ID. Our biggest weed contest at the county fair awarded a 12 foot tall weed. Powdery mildew and pollination problems on vine crops were also concerns.

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

- Magnolia scale is big this year. Timing control is everything. Right now the juvenile crawlers are starting to move. You can pluck the scales off and look for little brown moving dots to ascertain when the crawlers will be coming out, usually late August to mid-September. Crawlers can be controlled with a contact insecticide at that time. For a really aggressive case, next spring you can use dormant oil for control.

- Fall webworms are now showing up in tents in the tips of branches of trees. They aren't usually too bad, but we have seen outbreaks where acres may be defoliated.

- Wasp and yellowjacket colonies are now reaching peak size. Jeff Hahn in Minnesota, Laura Jesse from Iowa, and I have worked on revising a multi-state wasp and bee control fact sheet. We updated a few things and added pictures.
- http://www.extension.umn.edu/garden/insects/find/wasp-and-bee-control/

- We are still getting sporadic reports of Spotted Wing Drosophila (SWD).

- Strawberry root weevils are starting to come into houses. These brownish insects don't live or survive indoors. You can just vacuum them up. Seal up any cracks. There is no need to spray them for control.
- http://www.extension.umn.edu/garden/insects/find/home-invading-weevils/

- Foreign grain beetles are 1/8 inch reddish brown beetles which have a very strong association with brand new homes or home renovations. They are attracted to residual moisture in the lumber and eat the inert fungus which grows in the new contruction lumber. They begin to emerge in August, and their peak emergence, which can be high in number, is in September. The insects can show up anywhere in the house but don't damage it. Once the lumber dries out, the beetles die out. No control is necessary.
- http://www.extension.umn.edu/garden/insects/find/foreign-grain-beetles/

  Comment from Kristin-I have an 8-year old house and I still get these.

Questions/Comments

Pollinator Hydration in Drought

How does drought affect pollinator colonies? Should I put out water?

If there is no other source of water, they will go to birdbaths and swimming pools (which are not great because of the chlorine). You can put out a pan of water.

Should I keep it shallow?

I haven't heard any research on that, but keeping it shallow should keep the bees from drowning.

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

Vascular diseases were prevalent in the clinic this week, with oak wilt in several counties, and verticillium wilt on catalpa and smoke tree. It is not unusual to see verticillium on those two hosts. We have seen some Dutch elm disease around the state. Leaf diseases such as anthracnose and Tubakia leaf spot on oak trees as well as a fair amount of apple scab on crabapples were also diagnosed. We did get an apple sample with bitter pit/cork spot. We also had a grape sample from the West Madison Ag station with downy mildew. On evergreens, Diplodia shoot blight was diagnosed on both juniper and Austrian pine. For vegetables, late blight was confirmed on potatoes in LaCrosse and Portage Counties and late blight on tomatoes was confirmed in LaCrosse, Marathon, Portage, Walworth and Wood Counties. We also saw early blight on potato and Septoria on tomatoes, and Cercospora was picked up on potato. This fungus frequently moves in with early blight which it looks like, and was noticed because we were looking for the early blight sporulation. We had some sweet corn with stalk rot.

Bitter Pit on Apple

Bitter pit or cork spot is a disorder caused by a calcium deficiency. The internal tissue of the fruit can get brown spots or streaks and causes the apples to look unpalatable when cut open. There is a fact sheet available if you want to read more about this disorder.

Stalk Rot on Sweet Corn

This disease is normally associated with field corn, but it can go to sweet corn. Symptoms are discoloration near the base of the stem or on the outside of the stalk. If you cut open the stem there may be discoloration inside which is caused by a fungus called Colletotrichum which causes an anthracnose stalk rot and it also has a leaf phase. Another disease called Gibberela Stalk Rot is caused by Fusarium graminearum and can result in ear blight. The latter fungus can also cause a disease on wheat called scab or fusarium head blight.

Questions

Euonymus and Spirea as Verticillium Hosts

Are winged euonymus and Goldflame Spirea verticillium hosts?

Spirea is technically a host and I wouldn't be surprised at that, but I would have to check on it. I have never been able to get verticillium out of euonymus but it may be a species that can become infected but is difficult to culture. Last week I mentioned recovering verticillium from Dirca and we will be doing Koch's postulates on that. Last year we also had three new hosts; heptacodium, wafer ash tilia, and button bush (Cepholanthus). I still have not cultured verticillium out of Patti's heptacodium.

Comment from Patti: I was going to ask you about that since the tree is now at a stage where we will have to take it out.

If you do that, send me the bottom foot of the trunk. It is easier to culture verticillium from the base in some species, like Tilia. Sometimes I can't get it out of the branches but am more successful with the base of the trunk.

Does it mean the verticillium is only colonizing the base of the tree?

It could be very active in the bottom of the tree compromising the vascular tissue and resulting in dieback higher up. This is sometimes the case with oak wilt. If we get a negative in the branches we will ask for branches from somewhere else or a sample of the trunk because the wilt can come in from root grafts and we won't recover it from the branches but it will affect the vascular tissue at the base of the tree.

Armillaria in White Pine

If white pine is affected by armillaria, does the tree just die back or does it thin with a gradual yellowing and death?

Armillaria is a slow death. Trees get infected under stress like drought. When it rains the tree recovers and stabilizes until the next time it is stressed. Then the fungus starts growing again and the cycle repeats. Look for the honey mushrooms around the base of the tree and send them in for ID or peel back the bark low on the tree and look for the creamy white thin mycelial fans under the bark and the black rootlike rhizomorphs that go into the soil and contact other roots and infect them. Are you seeing rapid decline?

The situation was 4 young white pines near the down spout of a building. Two have already died and one is not looking good. Maybe it is just an issue with drainage and some other root rot. The remaining one is yellowing. It could be a siting issue.

Eventually you will see the honey mushrooms it if is armillaria. If the two dead ones are still there, check for those mycelial fans. If you aren't sure, send a picture to us. There are also some insects that can cause damage. Maybe it is a combination of root rots or armillaria, with an insect finishing the plants off.

SPECIAL TOPIC: Butterfly Gardening

Presented by Mark Dwyer, Director of Horticulture at the Janesville Rotary Gardens

Brian sent a powerpoint from Mark to accompany his presentation. Mark mentioned that this year at the Rotary Gardens they have a red, yellow, and orange theme. They also have a Thomas Jefferson collection, a Jungle Garden and a Smelly Garden.

The Children's Garden at Rotary Garden contained 200+ varieties selected to attract pollinators. Repurposed vertical planters provide visual interest as well as landing spots (Slide 15).

General Tips for Butterfly Gardening

Some general considerations for butterfly (and pollinator) gardening are (Slides 3-23):

- Minimize (or eliminate) chemical use and use the most selective and least toxic options. Don't spray the flowers. At Rotary Gardens, pesticides are the last resort for pest management. Your chemical cabinet doors should squeak from non-use. Be reactive, not pro-active, in pesticide application.
- Diversify flowers in terms of colors, forms and shapes. Mix flower architecture.
- Include native plantings, as the butterflies evolved with the flower colors, shapes and fragrances of the natives. Natives are 4 times as attractive as non-natives.
- Provide a progression of blooms, from late May through the summer.
- Blue, red, yellow and violet colors are very attractive to butterflies and other pollinators. (Slides 9-11)
- A lot of space is not necessary. Even small containers are effective, especially in urban centers. (Slide 48)
- Provide larval food sources. Most people are aware of the Monarch-Milkweed connection.
- Plant "Slam Dunk Annuals".

Numerous slides taken in the Rotary Gardens show the eye candy provided by butterflies on colorful flowers as well as compositional strategies for aesthetics using the principals above (Slides 14-24). We were definitely trying to attract bees and butterflies and whatever would wander in there.

Slides 19-20 feature the tropical Popcorn Cassia used as an annual in our Smelly Garden. It is named because the flowers smell like buttered popcorn. Slide 21 labeled "Planting Diversity" shows rudbeckia, veronicastrum, monarda and others as a specifically late summer shot showcasing not only plant diversity but bloom time diversity. Slide 22 is a shoreline planting with Joe-Pye-Weed, hibiscus and primarily native plants at the Chicago Botanic Garden. Bees were all over the place. Slide 23 is a shot taken at Olbrich Botanical Gardens with veronica and catmint showing that plants that are attractive to our pollinators can also be beautiful. Slide 24 is another shot of our "Pollinator's Paradise".

Slam Dunk Annuals

Slam Dunk annuals are non-natives that are very attractive nectar sources for butterflies, while being colorful, tough, and providing a long season of bloom. Keep in mind the maintenance requirements of annuals.

This year the Rotary Garden planted about 150,000 annuals comprised of 900 varieties. We focus heavily on verbenas and zinnias to bring in the butterflies. It is important for our educational programs to teach people about the importance of pollinators.

Slides 27-29: Verbena bonariensis blooms for 3 months. The flower head is comprised of many small flowers that are attractive to butterflies. It is very easy to grow and reseeds prolifically.

Slides 30-34: Tithonia or Mexican sunflower 'Torch' is 6-7 feet tall but only blooms from late July through August. This annual attracts the most monarchs of any flower, but bees also visit. 'Fiesta del Sol' is only 3 feet tall (Slide 34). This is a great annual for full sun

Slide 35: Ageratum or flossflower, comes in pinks, white, and blue and is excellent for a range of butterflies.

Slide 36: Gaillardia has a long bloom time and is one of the flatter composites that provide a good landing pad. They are short lived perennials that bloom until frost.

Slides 37-40: Salvia 'Summer Jewel' (Slides 37-39) comes in red, pink, and white and is 18 inches tall. The trumpet shaped flowers are good for hummingbirds. Salvia guaranitica 'Black and Blue' (Slide 40) or Brazilian sage is our number one hummingbird attractor. Ruby-throated hummingbirds work them over pretty well.

Slides 41-42: Agastache is a perennial, but hardy only to Zone 5. It has fragrant foliage. 'Golden Jubilee' (Slide 42) is yellow-foliaged cultivar with blue flowers. Much research has been done on these. These plants are visited by hundreds of bees, so be aware if you are allergic to bee stings.

Slides 43-44: Rudbeckia 'Italian Summer', 36 inches high, has very large flowers and blooms for 2.5 months. It is an annual variety. Another favorite of mine is 'Prairie Sun' with green centers and petals fading to white (Slide 44).

Slide 45: Cosmos has many varieties and last year we planted 50-60 varieties of them, with heights from 12 inches to 7 feet. Cosmos sulfureus 'Happy Ring' is good for butterflies.

Slide 46-47: Zinnia 'Zowie! Yellow Flame' has that flat architecture that makes a good landing pad.

Containers can be very effective for limited space gardens (Slide 48).

Perennnials

Perennials offer longevity, diverse flower architecture, and now there are more colors of native plant cultivars. (Slide 49)

Slides 50-54: Echinacea has had a burst of breeding activity, with 200-300 varieties now available. 'Flamenco Orange' (Slide 52) is good for butterflies. E. paradoxa is a native that is attractive to butterflies.

Slide 55: Rudbeckia 'Little Goldstar' is a perennial variety. Watch out for rampant growth in wetter soils. They have a long bloom time.

Slides 56-57: Coreopsis 'Zagreb' and 'Lightning Flash' at 4-5 feet with yellow foliage brings in plenty of butterflies.

Slide 58: Centranthus has good fragrance and bluish foliage.

Slide 59: Leucanthemum or Shasta saisy is a prolific reseeder, but the pure white illuminates the garden.

Slide 60: Perennial Agastache ‘Blue Fortune’ is shown in a mass planting at the Chicago Botanic Garden.

Slide 61: Achillea or yarrow can be cut down in mid-summer for a flush of rebloom. The flower head is great platform.

Slide 62: Sedums are just going into peak bloom right now and don’t need great soil. ‘Matrona’ has maroon foliage and pink flowers.

Slides 63-64: Fragrant Phlox is in peak bloom now and comes in a variety of colors, as well as variegated foliage. Select a mildew resistant variety.

Slides 65-66: Monarda or bee balm has mildew problems, but can be cut way back for a new flush of blooms. This species is in the mint family and can colonize. The Flower Factory in Oregon, WI has bred a mildew resistant variety called ‘Purple Rooster’ (Slide 66).

Slide 67-68: Veronica has a long bloom time.

Slides 69-74: Meadow blazing star or Liatris species are the most frequented perennials and we plant several species; L. spicata ‘Kobold’ (Slide 70); L. pycnostachya (Slide 70) is 4 feet tall; L. ligulistylis(Slide 71) is 6 feet tall; L. spicata ‘Alba’ (Slide 73) is a white variety. Butterflies love these.

Slide 75: Lavandula angustifolia needs very good drainage. It’s great if you can grow it.

Slide 76: Anemone has a long bloom time into October.

Slides 77-78: Solidago offers late season blooms. “Little Lemon’ (Slide 77) and ‘Fireworks’ (Slide 78) with its arching sprays are two different cultivars.

Slide 79-81: Asters are another good late season perennial, but plant mildew resistant cultivars.

Other Critical Elements

Larval Host Plants

It is important to include larval host plants as well as nectar sources for adults.

Slides 83-84: Milkweeds, both common A. syriaca (Slide 83) and A. tuberosa (Slide 84) are important larval host plants for Monarch butterflies.

Slides 85-89: Culinary herbs Parsley, dill, and fennel are food sources for swallowtails. Larval host plants can be placed where leaf damage can be tolerated.

Slide 90-91: Buddleia is not currently a problem in Wisconsin, but reseeding is a big problem further south. Breeding is focusing on seedless varieties.

Slide 92: Caryopteris or Blue Mist Spirea is a late season bloomer and attracts a wide variety of species.

Water

Water is a critical component in a pollinator habitat. Provide shallow containers and add stones so the water isn’t too deep. Consider providing bird baths, mud puddles or a dish filled with wet sand. Change the water often and sterilize the container.

Summary for Success

Slides 96-97 summarize the components necessary for success. Don’t forget to involve kids!

Visit www.pollinator.org/ for more information.

Questions/Comments

Annuals that Do Well in Shade

Do any of these annuals do well in semi-shade?

No, most of these annuals do best in full sun. The tithonia and verbena may give you some flowers but not many. Some of the perennials do well in part sun.

Smaller Butterfly Species

We hear a lot about monarchs and swallowtails, but what about some of the smaller butterflies? I have heard that red admirals or painted ladies are attracted to nettles. Are there any specific things we can grow for some of the less popular butterflies.

I will have to defer to other research. It is daunting to know how many species visit southern Wisconsin. I know that for spicebush swallowtail, the host plant is Lindera benzoin (spicebush) but it takes a bit of space. I am not knowledgeable enough to comment but the Extension has a lot of helpful resources.

FINAL NOTES and ANNOUNCEMENTS

- On August 28, Jane Anklam from Douglas County will host and the special topic will be Breeding Tasty Vegetables by Julie Dawson,
- August 25-27 is Farm Tech Days, held at the Statz Brothers Farm in Dane County this year.
- 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/

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 #27 and 28 are available at http://www.plantpath.wisc.edu/wivegdis/

Topics in issue #27 (Aug 16, 2015) include:

- Early blight updates
- Late blight DSV accumulations and updates (St. Croix Co. first report)
- Downy mildew updates
- Onion stemphylium
- Spotted wing drosophila updates
- Langlade Co. Field Day agenda

Topics in issue #28 (Aug 21, 2015) include:

- Early blight updates
- Late blight DSV accumulations and updates (first reports in La Crosse, Marathon, and Walworth Counties)
- Downy mildew updates (another report from Dane Co. on winter squash)

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 15, 2015 through August 21, 2015.

PLANT/SAMPLE TYPE	DISEASE/DISORDER	PATHOGEN	COUNTY
DECIDUOUS WOODY ORNAMENTALS			
Ash	Sphaeropsis Canker	Sphaeropsis sp.	Dane
Catalpa	Verticillium Wilt	Verticillium sp.	Dane
Cherry	Sphaeropsis Canker	Sphaeropsis sp.	Dane
Crabapple	Apple Scab	Venturia inaequalis	Dane
	Root/Crown Rot	Phytophthora sp., Pythium sp.	Dane, La Crosse
Elm (Unspecified)	Dutch Elm Disease	Ophiostoma sp.	Waukesha
Honeylocust	Cytospora Canker	Cytospora sp.	Dane
Oak (Red)	Oak Wilt	Ceratocystis fagacearum	Waukesha
Oak (White)	Anthracnose	Discula sp.	Dane
	Chlorosis	None	Dane
	Sphaeropsis Canker	Sphaeropsis sp.	Dane
	Tubakia Leaf Spot	Tubakia sp.	Dane
Oak (Unspecified)	Anthracnose	Discula sp.	Kenosha, Racine
	Oak Wilt	Ceratocystis fagacearum	Jackson, Marquette
	Tubakia Leaf Spot	Tubakia sp.	Kenosha, Waukesha
Smoketree	Verticillium Wilt	Verticillium sp.	Ozaukee
FRUIT CROPS			
Apple	Bitter Pit/Cork Spot	None	Polk

	Russeting	*None*	*Polk*
Grape	*Downy Mildew*	*Plasmopara viticola*	*Dane*
NEEDLED WOODY ORNAMENTALS			
Juniper	*Diplodia Shoot Blight and Canker*	*Diplodia sp.*	*Milwaukee*
Pine (Austrian)	*Diplodia Shoot Blight and Canker*	*Diplodia sp.*	*Waukesha*
VEGETABLES			
Potato	*Cercospora Leaf Blotch*	*Cercospora sp.*	*Dane*
	Early Blight	*Alternaria solani*	*Dane*
	Late Blight	*Phytophthora infestans*	*La Crosse, Portage*
Sweet Corn	*Anthracnose Stalk Rot*	*Colletotrichum graminicola*	*Rock*
	Gibberella Stalk Rot	*Fusarium graminearum*	*Rock*
Tomato	*Bacterial Speck*	*Pseudomonas syringae pv. tomato*	*Dunn*
	Late Blight	*Phytophthora infestans*	*La Crosse, Marathon, Portage, Walworth, Wood*
	Septoria Leaf Spot	*Septoria lycopersici*	*Florence, La Crosse*

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