

Wisconsin Crop Manager

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Bring your biggest weed to Farm Technology Days

Mark Renz; Extension Weed Specialist

Mild temperatures and ample rainfall have resulted in another year of rampant weed growth in Wisconsin fields. Did some of the weeds on your farm not get controlled? Are they now big? If so bring them to the Weed Doctor's Booth at Farm Technology Days on August 25-27 in Dane County.

At FTD we will be holding a contest for the Biggest Weed in Wisconsin. This annual event asks participants to bring no more than two plants (stems only please) of non-woody, non-poisonous plants cut at the soil surface.



Samples will be donated to the Weed Doctor Booth and placed on display throughout Farm Technology.

Weed Specialists will award a daily winner as well as a winner for the entire event. Past winners (plumeless thistle and common burdock) emphasize that to win weeds typically need to be both tall and wide. Tall weeds shouldn't be a problem in our corn fields this year, but looking for ones that are also wide may be a challenge in 2015!

This year you will have a chance to compete against UW Extension Weed Specialists as well as the UW Madison Weed Science and Crop Science teams. We have been cultivating plants all summer and have some good entries ready for harvest. See if you can beat our entries, and win a free copy of the 2015 Pest Management in Wisconsin Field Crops.

To enter the contest, bring your weeds to the UW-Extension Weed Experts booth in the Progress Pavilion before 3 p.m. on Tuesday, Wednesday, or Thursday during Farm Technology Days.

UW-Extension Weed Specialists and county faculty will also be available to help identify your weed species as well as give you management options for any weed problems you may have.

New this year we will be highlighting the importance of herbicide resistant weeds in Wisconsin. Graduate students will have live plants of weed species of high concern for development of herbicide resistance in Wisconsin. They will ask that you test your knowledge of herbicide resistance, by taking a weed id quiz. Participants who get at least 50% correct will also receive a free copy of the 2015 Pest Management in Wisconsin Field Crops.

Goss's Wilt Confirmed in Wisconsin in 2015

Damon Smith, Extension Field Crops Pathologist, Department of Plant Pathology, University of Wisconsin-Madison

Goss's wilt on field corn was confirmed for the first time in the 2015 season in Wisconsin this week in Grant County. Goss's wilt has been confirmed in past years in Wisconsin, including the 2014 field season.

Symptoms and Signs

Goss's wilt is caused by the bacterium *Clavibacter michiganensis* subsp. *nebraskensis*. First visual symptoms usually appear as gray or yellow stripes on leaves that tend to follow the leaf veins (Fig. 1). Often "freckles", or brown or green irregular spots, can be observed within the leaf lesions (Fig. 2). Freckles are an excellent diagnostic symptom to confirm Goss's wilt. Vascular tissue (Fig. 3), husks, and kernels can sometimes take on an orange hue. Occasionally, bacterial ooze or dried ooze can be observed on symptomatic leaves. This disease is often confused with northern corn leaf blight (NCLB), which is a fungal disease. Earlier this season I wrote an article on differentiating between NCLB and Goss's wilt. [You can visit that article by CLICKING HERE.](#)

Factors that Cause Disease Development

The Goss's wilt bacterium overwinters in old corn residue. The bacterium enters the plant through wounds or natural openings. Yield losses will depend on the suscep-



Figure 1. Foliar symptoms of Goss's wilt on a corn leaf.

Photo Credit: Larry Osborne, Bugwood.org.



Figure 2. "Freckles" on a corn leaf with Goss's wilt.

Photo credit: Larry Osborne, Bugwood.org.

tibility of the hybrid being grown. Factors that put corn fields at higher risk include:

1. Reduced Tillage
2. Continuous corn rotation
3. Planting a susceptible hybrid
4. Poor grassy weed control
5. Hail, wind, or severe weather events causing injury on corn plants

Storms with hail and wind were prominent this past weekend in areas of Wisconsin. Fields with wind and hail damage should also be monitored closely for Goss's wilt. This type of damage creates excellent entry points for the Goss's wilt pathogen.

Management

There is currently no research-based method of in-season management of Goss's wilt. There are some foliar products being marketed for the control of Goss's wilt, but university-based research has indicated that these products have little efficacy on Goss's wilt in the field. Because this disease is caused by a bacterium, the **application of fungicide WILL NOT control Goss's wilt.**

Planting resistant hybrids in fields with a history of Goss' wilt is recommended. Residue management and crop rotations should also be implemented in at-risk



Figure 3. Orange vascular tissue of a corn plant with Goss's wilt. Photo credit: Howard F. Schwartz, Colorado State University, Bugwood.org.

fields. Some grassy weed hosts can be alternative hosts for the Goss's wilt pathogen. Therefore, a sound weed management program in and around corn fields can be useful in managing Goss's wilt. Colleagues at Purdue University have developed an excellent fact sheet covering alternative grassy weed hosts of Goss's wilt. They also include some recommendations for controlling these weedy hosts. [You can download a PDF version of the fact sheet by CLICKING HERE.](#)

Additional Goss's Wilt Information

University of Nebraska – <http://pdc.unl.edu/agriculture-crops/corn/gosswilt>

Purdue University – <https://www.extension.purdue.edu/extmedia/bp/BP-81-W.pdf>

References

[Article modified from original version posted in 2014](#)

L.E. Clafin. Goss's Bacterial Wilt and Blight, in: Compendium of Corn Diseases, 3rd edition. Ed. D.G. White. APS Press.

Soybean Insects (and mites): Looking ahead

Bryan Jensen; UW Extension

Soybean Aphid: The most common question I've had lately is "Where are the soybean aphids?" What started out being a good year for several species of aphids has certainly done an about-face. Based on reports from DATCP's Wisconsin Pest Bulletin, conversations with crop consultants and county agents, soybean aphid numbers are down but not necessarily out. What we have in our favor is both time of the year and advanced crop stage. What we have working against us is temperature. A welcome return to cooler temperatures may positively affect aphid build up. Continue to scout fields over the next few weeks. The economic threshold is described as 250 aphids/plant on 80% of the plants AND the population is increasing. Increasing populations is an important concept of this economic threshold. It implies that a population that has plateaued at 250/plant for a period of time is not at an immediate risk for economic yield loss. To date, I have not heard of any field close to the economic threshold. Resist the temptation to prophylactically spray or to treat sub threshold populations. You may unintentionally flare twospotted spider mite populations and create a bigger problem than you had originally.



Early symptoms (stippling) of twospotted spider mite damage

Twospotted Spider Mites: A comment that Kevin Jarek, UWEX Outagamie County, recently made regarding the dry conditions in northeast Wisconsin made me think about spider mites. Spider mites may become an economic concern after periods of hot/dry weather. Spot-check for mite activity on field edges, sandy knolls as well as other field areas that are drought stressed. Tap leaves over a white sheet of paper and use magnification to verify the presence of mites. Also, scout for initial signs of mite damage which are small white/yellowish specks on leaves which is often described as "stippling". Don't be overly alarmed if mites are present. Low numbers are common during most growing seasons and natural enemies (predatory insects/mites and pathogens) often aid with control. However, twospotted spider mite populations can increase quickly if field conditions remain dry and temperatures high. Also consider that unnecessary insecticide applications will control these natural enemies and lead to mite resurgence. Which is why care and thought needs to be given to spider mite and soybean aphid control programs.

There are no established spider mite economic thresholds for soybean. Treatment may be needed if:

- Mites are present between bloom (R1) and pod fill (R5)
- 15% or more leaf area on soybean plants are discolored or stippled
- Live mites are present and actively increasing noted by presence of adult, immatures and eggs
- Hot, dry weather is expected to continue

Japanese Beetles: Continue to check for adult feeding over the next 2-3 weeks. Adults are mobile and feeding may be isolated within a field. The economic threshold is to treat reproductive soybeans when 20% defoliation occurs.

Vegetable Crop Update July 31, 2015

Amanda J. Gevens, Assistant Professor & Extension
Vegetable Plant Pathologist

The 25th issue of the Vegetable Crop Update is now available which includes:

- early blight updates
- late blight DSVs and updates (still - all late blight tested is US-23 in WI)
- cucurbit downy mildew updates
- basil downy mildew detected in WI
- report from the UWEX Plant Disease Diagnostic Clinic

[Click here to view this issue.](#)

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

Brian Hudelson, Sean Toporek, Ann Joy and Joyce Wu

The PDDC receives samples of many plant and soil samples from around the state. The following diseases/disorders have been identified at the PDDC from July 11, 2015 through July 17, 2015.

Plant/Sample Type, Disease/Disorder, Pathogen, County

Field Crops

Corn, Red Root Rot, *Phoma terrestris*, Dunn

Corn, Yellow Leaf Blight, *Phyllosticta maydis*, Dunn

Wheat, [Fusarium Head Blight \(Scab\)](#), *Fusarium graminearum*, Fond du Lac

Wheat, Weathering, *Miscellaneous fungi*, Fond du Lac

Forage Crops

Alfalfa, Common Leaf Spot, *Pseudopeziza medicaginis*, Columbia

Alfalfa, Downy Mildew, *Peronospora trifoliorum*, Columbia

Alfalfa, Stemphylium Leaf Spot, *Stemphylium Sp.*, Columbia

Vegetables

Kale, [Bacterial Soft Rot](#), *Pectobacterium carotovorum*, Dane

Potato, Stem/ Root Rot, *Rhizoctonia sp.*, *Pythium sp.*, Washburn

Snap Beans, [White Mold](#), *Sclerotinia sclerotiorum*, Dane

Tomato, Bacterial Speck, *Pseudomonas syringae pv. tomato*, Brown, Dane, Sauk

Tomato, Bacterial Spot, *Xanthomonas sp.*, Dane

Tomato, [Late Blight](#), *Phytophthora infestans*, Wood

Tomato, [Septoria Leaf Spot](#), *Septoria lycopersici*, Green, Washburn

Soil

Alfalfa Soil, Aphanomyces Seedling Blight, *Aphanomyces euteiches race 2*, Waupaca

Soybean Soil, Soybean Cyst Nematode, *Heterodera glycines*, Dunn, Eau Claire, Juneau, Outagamie, Trempealeau

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

2015 Wisconsin Winter Wheat Performance Trials

Shawn Conley, Adam Roth, John Gaska, and Damon Smith;
Departments of Agronomy and Plant Pathology

The Wisconsin Winter Wheat Performance Trials are conducted each year to give growers information to select the best-performing varieties that will satisfy their specific goals. The performance trials are conducted each year at four locations in Wisconsin: Arlington, Chilton, Fond du Lac, and Sharon. Trials include released varieties, experimental lines from University breeding programs, and lines from private seed companies. The primary objective of these trials is to quantify how varieties perform at different locations and across years. Growers can use this data to help select which varieties to plant; breeders can use performance data to determine whether to release a new variety.

[To read more, click here.](#)

Remember Crop Diagnostic Training Center Crop and Pest Management Workshop!

Registration is open for UW-Madison Integrated Pest Management Program's Crop & Pest Management Workshop and will be held August 13, 2015.

FAST and easy ONLINE registration by credit card:

<https://www.patstore.wisc.edu/ipm/register.aspx>

The workshop will be hosted at the Arlington Agricultural Research Station. Be aware that this is not a "traditional" field day. The training session is designed to be primarily in-field and hands-on. We advise that attendees come prepared to be in the field and ready for all types of weather. CCA CEU's are available as listed, but are subject to change pending approval from the Certified Crop Advisor Program.

Contact Dan Heider at 608-262-6491, or email djheider@wisc.edu

Crop & Pest Management Workshop

Date: August 13, 2014

Location: Arlington Ag Research Station

CCA CEU's: 1.0 Crop Management, 1.0 Nutrient Management, 2.0 Pest management

Fee: \$90

This workshop takes a multi-disciplinary and in-depth approach covering agronomic concerns ranging from identification of crop and pest production problems to management options within production systems.

Thursday – August 13, 2015

9:30 – 10:00 registration / introduction & orientation

10:00 – 12:00 sessions 1-2

12:00 – 12:45 lunch (provided)

12:45 – 2:45 sessions 3-4

Topics Covered:

Sampling for and interpreting plant nutrient analysis
–*Carrie Laboski, Extension Soils Specialist*

- Learn proper sampling techniques and how/why they change with crop maturity

- You have the test results, now what? Learn the uses and limitations of in-season plant nutrient testing results

Impacts of Hybrid Selection – *Joe Lauer, Extension Corn Agronomist*

- Seed costs have skyrocketed and seed traits have become increasingly complex and confusing. Making sense of it all
- will help you or your customers maximize their return on investment
- This session will help you to critically evaluate hybrids to make the best informed choice for your location

The trait game II – *Bryan Jensen, UW Integrated Pest Management Specialist*

- You know all the traits and their impact – or do you? This session begins with a brief but in-depth discussion on corn rootworm Bt traits, beetle scouting, root rating and more
- Much of this session will concentrate on the management decision process of when and how to incorporate Bt traits and soil applied insecticides.

Dandelion biology and control – *Mark Renz, Extension Weed Science Specialist*

- *Taraxacum officinale*, lions-tooth, blow-ball, dandelion – you know it by many names, but how well do you really know it?
- An in-depth discussion on the biology and growth/development of this difficult to control weed
- This session will look at control options in several crops and let you decide what works and what doesn't

[To view the flyer for the workshops click here.](#)

Wisconsin Pest Bulletin 8-6-15

Krista Hamilton, Entomologist, WI Dept of Agriculture, Trade and Consumer Protection

Issue No. 16 of the Wisconsin Pest Bulletin is now available at:

<https://datcpservices.wisconsin.gov/pb/pdf/08-06-15.pdf>

INSIDE THIS ISSUE

LOOKING AHEAD: Spotted wing drosophila problems increasing

FORAGES & GRAINS: Potato leafhopper counts still low to moderate

CORN: Western bean cutworm flight expected to subside soon

SOYBEAN: Soybean aphid densities remain below-threshold

FRUITS: Sharp increase in codling moth counts reported this week

VEGETABLES: UW reports first confirmed basil downy mildew case of the season

NURSERY & FOREST: Potato leafhoppers and dusky birch sawfly noted during nursery inspections

DEGREE DAYS: Growing degree day accumulations through August 5, 2015

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New Pest Management Network Focus on Soybean Seminar: SVN

Damon L. Smith, Extension Field Crops Pathologist, University of Wisconsin

A new Pest Management Network Focus on Soybean Seminar has been recently posted covering *Soybean vein necrosis virus*. There is a 5 min 29 sec executive summary or a full length presentation to choose from. To listen to the webinar, [visit the PMN page by CLICKING HERE.](#)

Soybean Vein Necrosis Virus
August 2015

By Damon Smith, Ph.D.
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Executive Summary
(5 min 29 sec)

Full Presentation
(21 min 51 sec)

PMN Focus on Soybean Seminar - Soybean vein necrosis virus