

# Wisconsin Crop Manager

Volume 21 Number 27 --- University of Wisconsin Crop Manager --- September 4, 2014

## Insects and Mites

Wisconsin Pest Bulletin 8/28/14.....98

## Plant Disease

Plant Disease Diagnostic Clinic (PDDC) Update ..... 98

Stem Canker Prevalent in Wisconsin Soybean Fields ....99

Soybean Vein Necrosis Virus .....99

## Crops

Vegetable Crop Update 8/30/14 ..... 100

Do Not Plant Saved Wheat Feed This Fall! ..... 100

CCA Internship Report ..... 100

Corn, Southern Corn Leaf Blight, *Bipolaris maydis*, Jo Davies (IL)

Soybean, Brown Spot, *Septoria glycines*, Iowa

Soybean, Downy Mildew, *Peronospora manshurica*, Dane

Soybean, Phyllosticta Leaf Spot, *Phyllosticta* sp., Dane

Soybean, Phytophthora Root and Stem Rot, *Phytophthora* sp., Lafayette

Soybean, Pod and Stem Blight, *Phomopsis* sp., Dane

## FRUIT CROPS,

Apple, Sphaeropsis Canker, *Sphaeropsis* sp., Lincoln

Blackberry, Septoria Leaf Spot, *Septoria rubi*, Vernon

Cranberry, Bitter Rot, *Colletotrichum acutatum*,  
*Colletotrichum gloeosporioides*, Jackson

Cranberry, Blotch Rot, *Physalospora vaccinii*, Jackson

Cranberry, Early Rot, *Phyllosticta vacinii*, Wood

Cranberry, Tobacco Streak, *Tobacco streak virus*, Wood

Grape, Downy Mildew, *Plasmopara viticola*, Milwaukee

Grape, Rupestris Speckle, None, Dane

Pear, Sphaeropsis Canker, *Sphaeropsis* sp., Racine

## VEGETABLES,

Pepper, Tomato Spotted Wilt, *Tomato spotted wilt virus*,  
Columbia

Squash (Acorn), Root Rot, *Pythium*, Monroe

Sweet Corn, Northern Corn Leaf Blight, *Exserohilum turcicum*, Columbia

Potato, Cercospora Leaf Blotch, *Cercospora* sp., Columbia

Potato, Early Blight, *Alternaria solanit*, Columbia

Potato, Late Blight, *Phytophthora infestans*, Portage

Tomato, Early Blight, *Alternaria solanit*, Columbia

Tomato, Late Blight, *Phytophthora infestans*, Marinette,  
Waukesha

Tomato, Septoria Leaf Spot, *Septoria lycopersici*, Columbia,  
Dane

Tomato, Sour Rot, *Geotrichum* sp., Dane

## Wisconsin Pest Bulletin 8/28/14

A new issue of the Wisconsin Pest Bulletin from the Wisconsin Department of Agriculture, Trade and Consumer Protection is now available. The Wisconsin Pest Bulletin provides up-to-date pest population estimates, pest distribution and development data, pest survey and inspection results, alerts to new pest finds in the state, and forecasts for Wisconsin's most damaging plant pests.

Issue No. 17 of the Wisconsin Pest Bulletin is now available at:

<http://datcpservices.wisconsin.gov/pb/index.jsp>

<http://datcpservices.wisconsin.gov/pb/pdf/08-28-14.pdf>

## Plant Disease Diagnostic Clinic (PDDC) Update

Brian Hudelson, Ann Joy, Joyce Wu, Tom Hinsenkamp, and Catherine Wendt, Plant Disease Diagnostics Clinic

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 23, 2014 through August 29, 2014.

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

### FIELD CROPS,

Corn, Common Rust, *Puccinia sorghi*, Jo Davies (IL)

Corn, Root Rot, *Pythium* sp., Dane

## SOIL,

Alfalfa Soil, Aphanomyces Seedling Blight, *Aphanomyces euteiches* race 2, Buffalo, Marathon, Scott (MN)

For additional information on plant diseases and their control, visit the PDDC website at [pddc.wisc.edu](http://pddc.wisc.edu).

---

## Stem Canker Prevalent in Wisconsin Soybean Fields

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



Figure 1. Northern stem canker lesion on soybean main stem

While traveling to soybean fields around Wisconsin this past week, we have noticed quite a bit of stem canker showing up. The UW Disease Diagnostic Clinic has also received several samples of soybean in which the disease has been confirmed.

### Stem Canker Pathogens

There are actually two different types of stem canker caused by related, but different fungi. The fungus *Diaporthe phaseolorum* var. *caulivora* causes northern stem canker, while southern stem canker is caused by *Diaporthe phaseolorum* var. *meridionalis*. These two pathogens are part of the larger Diaporthe-Phomopsis complex, which consists of Phomopsis seed decay, pod and stem blight, and stem canker. In Wisconsin, northern stem canker is the most common stem canker disease, however, southern stem canker has been found.

### What Conditions Favor Northern Stem Canker?

Cool, wet conditions in the spring and early summer favor infection by the northern stem canker fungus. The symptoms of the disease become apparent later in the season. Considering the cool and rainy weather that has been prevalent over much of the state this season, it isn't surprising that northern stem canker is prevalent.

### What Does Northern Stem Canker Look Like?

Initially symptoms of northern stem canker appear as small reddish-brown lesions near nodes. As lesions expand, they can become more brown or gray, but the red border will remain. Eventually lesions of northern stem canker will get large enough to girdle the stems (Fig. 1) and may be confused with Phytophthora root and stem rot. The best way to tell these two

diseases apart is to look for the location of the lesion. Generally with northern stem canker, lesions begin at nodes away from the soil line on the main stem and move upward. Phytophthora stem lesions will progress upward from the soil line. Northern stem canker can also occur in patches and damage plants in wide swaths (Fig 2). Northern stem canker can also be confused with white mold when diagnosing above the canopy. Because the lesions can girdle stems, leaf flagging and death can resemble that of white mold damage. Therefore, careful scouting and inspection of the lower canopy and stems is necessary to tell the difference between white mold and northern stem canker.



Figure 2. Patches of soybean plants killed by stem canker.

### Management of Northern Stem Canker

Spores of the stem canker pathogen originate mostly from soybean debris from the previous crop. Therefore, severity of northern stem canker can be higher in fields with minimal tillage. Burying debris can help reduce the severity of the disease. Stem canker can also be more prevalent in fields with high fertility and high organic matter. Stem canker-resistant varieties are also available. Choose varieties with the highest resistance rating possible within the appropriate maturity group for your area. Soybeans rotated with alfalfa may also have a higher incidence of the disease, because alfalfa is an alternate host of *Diaporthe*. Fungicide application is not recommended for this disease.

---

## Soybean Vein Necrosis Virus

Kiersten Wise, Daren Mueller, Iowa State, and Damon Smith, Wisconsin

Soybean Vein Necrosis Virus (SVNV) causes a virus disease in soybean that has been observed across the North Central U.S. in the last few years. The following video describes how to accurately diagnosis SVNV and distinguish this disease from other common soybean diseases.

Symptoms caused by this virus include light green patches or mottled green and brown speckled areas associated with veins. As symptoms progress, affected leaf tissue may die, and leaves will appear scorched.

SVNV is a virus that is vectored by tiny, winged insects called thrips. Thrips do not commonly cause economic damage to soybeans in the Midwest. Although farmers may be tempted to apply an insecticide to reduce thrips populations “just in case,” at this point in time we do not recommend insecticide applications in response to detection of SVNV since we don’t know what, if any, effect disease may have on yield. For now, we will continue to keep an eye on this disease, and assess its potential impact so that we can make more informed future management recommendations.

Check out some videos on SVNV at the links below or click on the images:

<http://www.youtube.com/watch?v=uMtyO8DliEI>

<https://www.youtube.com/watch?v=2diQwO0Was>



## Vegetable Crop Update 8/30/14

The 20<sup>th</sup> issue of the Vegetable Crop Update is now available. This issue contains information on the new storage research manager hired at the Hancock ARS, Late blight updates, P-Days and DSVs for early/late blight disease forecasting, Cucurbit downy mildew updates - Green Lake Co. confirmation, Plant Disease Diagnostic updates, and a cost share funding opportunity for certified organic growers in WI. Click [here](#) to view this issue.

## Do Not Plant Saved Wheat Feed This Fall!

Shawn Conley, Soybean and Wheat Extension Specialist

The race to turn the 2014 wheat crop into 2014/15 seed is on and early lab samples confirm that the percent germination from on farm sampled wheat is low. The Wisconsin Crop Improvement Association has received over 100 samples to date and over 30% have exhibited visual signs of Fusarium Head Scab (FHB) or scab. The % germ from the infected samples range from 53 to 98% (variety dependent) with an average % germ of 79%. First class certified wheat requires a minimum % germ of 85%. Furthermore invest in a wheat fungicide seed treatment this fall. Seed applied fungicides can increase % germination. On a small sample size (N = 4) the average percent germination from the addition of a seed applied fungicide increased average germination from 76 to 93%. Lastly all signs point to a late wheat establishment season. With that in mind remember to plant certified or private new seed, use a fungicide seed treatment and starting increasing your seeding rate after October 1. For more information on wheat establishment please see: Top 7 Recommendations for Winter Wheat Establishment in 2014.

## CCA Internship Report

Haley McLampy, Arlington Ag Research Station



Haley McLampy assisting with GPS marking and staking of a proposed waterway.

The Wisconsin Certified Crop Advisers Board of Directors sponsored a Crop Scout internship this summer. This internship, in its second year, was received by Haley McLampy from Ann Arbor, Michigan. Haley is a college student studying Environmental Studies and Forest and Wildlife Ecology at the University of Wisconsin-Madison.

Haley received crop scout training from several CCA members including Mike Bertram and UW Weed Science graduate student Dan Smith at the UW Arlington Agriculture Research Station and Carl Nachreiner of the Landmark Services Cooperative. Training focused on crop pest scouting, crop development staging, weed identification and other

components such as agriculture safety and equipment operation. Haley also worked with the Great Lakes Bioenergy Research Center assisting in biofuel research at Arlington Ag Research Station as well as work in the WI Integrated Crop Rotation Systems Trial. Other duties encompassed in the Certified Crop Adviser internship include chemical application for weed control, “Weed Garden” maintenance, forage moisture sampling and soil sampling.

Haley also had the chance to compete on the UW Weeds Team in the North-Central Weeds Science Society’s Weed Contest held in Johnston, Iowa by DuPont Pioneer and DuPont Crop Protection this July.

A very special thanks to the Wisconsin Certified Crop Advisers Board of Directors for sponsoring this internship. Future plans will continue to be discussed as the CCA Program supports the educational development and profession experience of new crop consultants entering the industry.

---

### Follow us on

