

# Wisconsin Crop Manager

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## Alfalfa Weevil Update

Bryan Jensen  
UW Extension and IPM Program

Judging by degree day accumulations, most areas of the northern Wisconsin are at the point where scouting for alfalfa weevils should begin and peak feeding is occurring in southern Wisconsin. Good news is that harvest is well underway and I haven't had reports of extensive feeding. Our typical recommendation is to scout second crop regrowth for those fields which were heavily infested during first crop. A concern is that harvest was well ahead of peak feeding and those fields with heavy damage may have gone unnoticed because larvae were small and damage was easy to miss.

If those larvae survive, you could get significant feeding on either the crown/stem buds and or new foliage. A suggestion would be to spot check fields just to determine what, if any feeding, is occurring. With recent rains, alfalfa should bounce back and regrowth should be occurring. If not, check around the crown to make sure weevils are present. You will find the larvae under leaf litter, and hiding at the juncture between stubble and soil. If regrowth is not occurring 4-5 days after harvest, you've had sufficient rainfall and larvae are present your best option is to treat.

Additionally, check regrowth for signs of feeding. During second crop regrowth the economic threshold is bumped up to 50% of the stems showing signs of feeding. Before treating consider size of larvae present. If all are 4th and final instar (approx. 3/8 inch) you may not be able to prevent enough damage to pay for an insecticide and the loss of beneficial insects. To confirm this suspicion, scout for the presence of pupae.



Alfalfa weevil pupae

# What is happening in the corn plant during the month of June?

Joe Lauer, Corn Agronomist, UW-Madison

Corn planting was nearly complete by the end of last week. As we head into the month of June, the corn plant changes from a juvenile to more of an adult. The seminal roots that originated in the seed are dying and the nodal roots are becoming the dominant root system which will eventually occupy a cylindrical volume roughly 5-6 feet in diameter and 5-7 feet deep depending upon soil characteristics.

Another change is occurring on the leaves. Juvenile leaves have cuticular and epicuticular wax on the surface giving the leaf a bluish cast. The V5-V7 leaves have decreasing amounts of epicuticular wax leaving only the glossy green cuticular wax commonly seen on adult leaves. By V8 the transition from juvenile blueish cast to adult glossy green wax is complete.

By V6 (about 24-30 days after emergence - 475 GDU) all plant structures have developed on the growing point. All plant parts are present. The growing point and tassel, differentiated in V5, are above the soil surface. The stalk is beginning a period of rapid elongation getting taller. The determination of kernel rows per ear begins and is complete by about V10-V12. This yield component is strongly influenced by hybrid genetics. Tillers (suckers) begin to emerge at this time. Lower leaves degenerate and are torn from the stalk as it expands. During early June there is a new leaf emerging (V-stage) about every 3 days.



June is the time to apply nitrogen (up to V8) before rapid uptake period in corn. Precise fertilizer placement is less critical. Lodging can often occur during this time since brace roots have not appeared. Rootworm eggs will soon hatch and larvae begin feeding on root systems. Defoliation from hail, wind, and leaf feeding corn borers may decrease row number on the ear. If a frost would occur during June there would be 100% yield loss caused from plant death and killing of the growing point. Hail can cause up to 53% yield loss when completely defoliated. Short-term flooding can cause severe yield loss if the growing point is below the water surface.

By V12 (42-46 days after emergence - 815 GDU) potential kernel rows are determined. The number of kernel rows is set. The number of ovules (potential kernels) on each ear and size of ear is being determined and is strongly affected by environmental stresses. During late-June there is a new leaf emerging every 2 days and brace root formation begins stabilizing the upper part of the plant. The plant is utilizing 0.25 inches of water per day. Nutrient deficiencies, will reduce the potential number of kernels and ear size. Large amounts of nitrogen, phosphorous, and potassium are being utilized at this stage. Early hybrids- progress faster through growth stages and usually have fewer leaves and smaller ears than late hybrids.

For most of Wisconsin hybrids (~100 day), each plant typically develops 20-21 leaves. The rate of plant development for any hybrid is directly related to temperature, so the length of time between the different stages will vary as the temperature varies. Environmental stress may lengthen or shorten the time between vegetative and reproductive stages. The length of time required for the yield components of ear density, kernel number,

kernel weight varies between hybrids and environmental conditions.

Ears per unit area, kernel number per ear and kernel weight all contribute to yield. These yield components of corn are determined early in the life cycle of the corn plant with some established by the end of June.

## Wisconsin Winter Wheat Disease Update

Damon L. Smith, Extension Field Crops Pathologist, University of Wisconsin-Madison, Brian D. Mueller, Graduate Research Assistant, University of Wisconsin-Madison

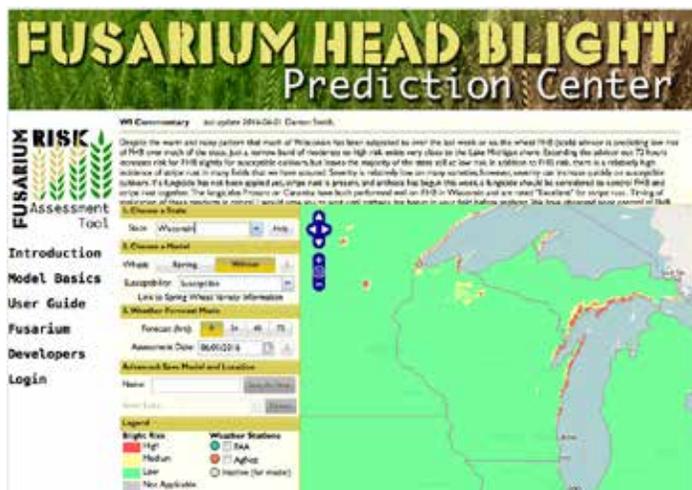


Figure 1. [FHB Advisor website](#)

Despite the warm and rainy pattern that much of Wisconsin has been subjected to over the last week or so, the wheat FHB (scab) advisor is predicting low risk of FHB over much of the state (Fig. 1). Just a narrow band of moderate to high risk exists very close to the Lake Michigan shore. Extending the advisor out 72 hours increases risk for FHB slightly for susceptible cultivars, but leaves the majority of the state still at low risk.

In addition to FHB risk, there is a relatively high incidence of stripe rust in many fields that we have scouted. The Wisconsin Field Crops Pathology Crew scouted Winter Wheat Variety trials and commercial fields near Chilton and Fond du Lac on May 27th. At both locations, wheat ranged from boot stage to heading. Anthesis will occur sometime this week or is occurring as we speak in many of the varieties.

The primary disease at the Fond du Lac location was stripe rust. Incidence (less than 10% across varieties) and severity (less than 5% on F1 or F2 leaves) was generally low in most varieties. One variety in the small plot variety

trial had stripe rust present on very old tillers. In fact, stripe rust had been active for a while as telia (pathogen structure) were forming. I suspect that stripe rust may have over-wintered on this variety at Fond du Lac considering our mild winter.

At the Chilton location, stripe rust incidence was much higher (25-30%) however, severity was generally low (less than 5% on F1 leaves). However, there were several hot spots of stripe rust present in the variety trial and also commercial wheat surrounding the trial. Growers will need to watch this situation carefully. I fear that stripe rust will be increasing dramatically this week with our rainy and humid weather.

If a fungicide has not been applied yet, stripe rust is present, and anthesis has begun this week, a fungicide should be considered to control FHB and stripe rust together. The fungicides Prosaro or Caramba have both performed well on FHB in Wisconsin and are rated "Excellent" for stripe rust. Timing of application of these products is critical. I would urge you to wait until anthesis has begun in your field before applying. We have observed poor control of FHB where application of these effective fungicides was made before anthesis. In fact, we have observed improved control of FHB and lower levels of DON in finished grain where fungicide application was delayed 4-5 days after the beginning of anthesis, compared to applications at the start of anthesis. Also, remember that application of fungicides should be made no later than 6-7 days after the start of anthesis. After this time, fungicide efficacy on FHB is much reduced.

## New video: Winter Wheat Disease Management Part III

Damon Smith, Wisconsin Extension Field Crops Plant Pathologist, talks about in-season fungicide use on winter wheat. <https://youtu.be/8cvtiTqFnMg>



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## Crop Diagnostic Training Center Workshops for 2016

Registration is open for UW-Madison Integrated Pest Management Program's two Crop Diagnostic Training Center workshops for 2016. The Diagnostic Troubleshooting Workshop will be held July 26, 2016. The Crop & Pest Management Workshop will be held August 9, 2016.

FAST and easy ONLINE registration by credit card:

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

### Crop & Pest Management Workshop

Date: August 9, 2016

Time: 9:30AM- 2:45PM (lunch provided)

Location: Arlington Ag Research Station

CCA CEU's: 1.0 Crop Management, 3.0 Pest Management,

Tiered fee: \$75 before 8/1/16, \$90 after 8/1/16

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

### Diagnostic Troubleshooting Workshop

Date: July 26, 2016

Time: 9:00AM-2:15PM (lunch provided)

Location: Arlington Ag Research Station

CCA CEU's: 4.0

Tiered fee: \$75 before 7/15/16, \$90 after 7/15/16

Topics Covered: This Workshop gives you the opportunity to fine tune your crop diagnostic skills in a fun and interactive setting. Small groups will rotate through field problems with UW Specialists role playing as farmers. Through digging up plants, asking questions and consulting references participants will make a diagnosis of the problem being observed and a recommendation for correction. Each participant will experience 8 separate diagnostic scenarios.

Flyer attached.

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## Wisconsin Pest Bulletin, Vol 61 Issue No. 6

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

LOOKING AHEAD: True armyworm larvae appearing in corn

FORAGES & GRAINS: Alfalfa weevil leaf tip feeding above-threshold in a few fields

CORN: Obliquebanded leafroller larvae and slugs common in corn this week

SOYBEAN: First soybean aphids of the season found on June 1

FRUITS: Sharp increase in codling moth emergence noted in apple orchards

VEGETABLES: Colorado potato beetle egg laying under way

NURSERY & FOREST: New invasive viburnum leaf beetle active in Milwaukee Co.

DEGREE DAYS: Growing degree day accumulations as of June 1, 2016

Read the full PDF issue >>>

<https://datcpservices.wisconsin.gov/pb/pdf/06-02-16.pdf>

or visit the website

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

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## Wisconsin Fruit News: Volume 1 Issue 4 – May 27, 2016

The 4rd issue of Wisconsin Fruit News is now available. Click on the link below to view this newsletter:

<https://fruit.wisc.edu/wp-content/uploads/sites/36/2016/05/Wisconsin-Fruit-News-vol1-issue4.pdf>

All newsletters will also be posted onto at the Wisconsin Fruit website, available at [www.fruit.wisc.edu](http://www.fruit.wisc.edu). There you will also be able to search by category or tag, to find crops and/or subject material of interest to you on a particular day.

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

Brian Hudelson, Sean Toporek, 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 May 21, 2016 through May 27, 2016.

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

#### Fruit Crops

Apple, Black Rot, *Sphaeropsis sp.*, Dane

Apple, Cytospora Canker, *Cytospora sp.*, Dane

Blueberry, Fusicoccum Canker. *Fusicoccum sp.*, Winnebago

Cherry, Sooty Mold, None, Dodge

Grape, [Herbicide Damage](#), None, Pierce

#### Weeds

Blindweed, [Root Rot](#), *Fusarium oxysporum*, Stephenson (IL)

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

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## Vegetable Crop Update May 27, 2016

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

The 9th issue of the Vegetable Crop Update is now available.

In this issue we address:

- national late blight updates, early season late blight symptoms (inoculum sources), and management
- link to potato blackleg webinar through Focus on Potato (Plant Management Network)
- cucurbit downy mildew national updates
- hop updates for Wisconsin

Click on the link below to view this update:

<http://ipcm.wisc.edu/download/vgu/VegCropUpdate-May-27-2016.pdf>

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## Vegetable Crop Update May 27, 2016

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

The 10th issue of the Vegetable Crop Update is now available.

In this issue we address:

- the first PDay and DSV calculations for the season, with explanations for use of this information for preemptive early blight and late blight disease management of potatoes.

Click on the link below to view this update:

<http://ipcm.wisc.edu/download/vgu/VegCropUpdate-May-27-2016.10..pdf>

# Diagnostic Troubleshooting Workshop



## July 26, 2016

This workshop gives you the opportunity to fine tune your crop diagnostic skills in a fun and interactive setting.

For this workshop, small groups will rotate through field problems with UW Specialists role playing as farmers. Through digging up plants, asking questions and consulting references, participants will make a diagnosis of the problem being observed and a recommendation for correction. Each participant will experience eight separate diagnostic scenarios. Participants tell us this is one of the most challenging, useful and fun workshops they have ever attended!

**Thursday – July 26, 2016, 9:00-2:15pm**

**Lunch is provided at noon.**

Fee: \$75 (Tiered fee: \$90 after 7/15/16)  
Location: Arlington Ag Research Station  
Date: July 26, 2016  
CCA CEU's: 4.0

**FAST and easy ONLINE registration by credit card at- <https://www.patstore.wisc.edu/ipm/register.aspx>**

or if NOT using credit card online: Mail registration form below to Dan Heider, UW-IPM Program, 1575 Linden Drive, Madison, WI 53706

Name: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Affiliation: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

email: \_\_\_\_\_

**Diagnostic Troubleshooting Workshop, July 26**  **\$75 / \$90**  
(\$90 if registration received after July 15)

**Crop & Pest Management Workshop, Aug 9**  **\$75 / \$90**  
(\$90 if registration received after Aug 1)

**Total enclosed** .....

**Checks payable to: University of Wisconsin-Extension**

# Crop & Pest Management Workshop, August 9, 2016

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.

## Soybean stress symptoms, and a new replanting app, Shawn Conley, Extension Soybean Agronomist

- Learn to evaluate soybean stress and relate the resulting symptoms to yield
- Have you ever been through the agonizing decision of whether to re-plant? Did you know this decision can be as easy as taking a picture? Introduce yourself to the soybean replant app and evaluate it on several different populations.

## Corn & Soybean Diseases – Damon Smith, Extension Plant Pathologists

- This session will concentrate on both root and stem diseases of soybean as well as foliar diseases of corn.
- Learn Identification and management tactics for multiple crop diseases.

## Herbicide Injury & Mode of Action – Dan Heider, UW Integrated Pest Management Specialist

- Tank contamination, drift and miss-application rates can leave behind some interesting crop injury symptoms
- Learn how to differentiate those symptoms and identify the true culprit in herbicide injury.

## Residual Herbicide Use and Limitations – Mark Renz, Extension Weed Science Specialist

- Looking to reduce costs in the wake of current commodity markets? Should you be attempting to reduce costs with decreased herbicide use?
- This session will look at residual herbicides to evaluate their worth in your production systems

## Schedule:

**Thursday – August 9, 2016**

**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**

Fee: \$75 (Tiered fee: \$90 after 8/1/16)

Location: Arlington Ag Research Station

Date: August 9, 2016

CCA CEU's: 1.0 Crop Management, 3.0 Pest management

Workshops begin in the **Public Events Facility** of the Arlington Agricultural Research Station. Be aware that this is not a "traditional" field day. Training sessions are designed to be in-field and hands-on. Therefore we advise that you come prepared for all types of weather.

