

# Wisconsin Crop Manager

Volume 22 Number 14 --- University of Wisconsin Crop Manager --- June 4, 2015

## What's new?

Summer CCA Exam Registration Deadline .....	60
UW Crop Diagnostic Training Center workshops for 2015 .....	63
Congratulations! Twenty year anniversary for CCA's and CPA's .....	64

## Crops

A Tank Full of Sugar Helps the Profits Go Down. ....	62
Vegetable Crop Update 6-1-15.....	61

## Plant Disease

Plant Disease Diagnostic Clinic .....	65
Wisconsin Winter Wheat Disease Update 6/3.....	65

## Insects and Mites

True Armyworm.....	60
Wisconsin Pest Bulletin .....	66

## Summer CCA Exam Registration Deadline

Bryan Jensen  
UW Extension

The registration deadline for the August 7 CCA exam deadline is rapidly approaching. You must register no later than June 26, 2015 to be able to take the summer exam(s). Online registration is available at

<https://www.certifiedcropadviser.org/exams/registration> and instructions can be found at <https://www.certifiedcropadviser.org/files/certifiedcropadviser/online-cca-reg-directions.pdf>

You are not required to take both the International and State exam on the same date. Although passing both exams, signing a code of ethics and acquiring the minimum level of experience is required to become certified, you may obtain the experience after you pass the exams.

Exam dates are only schedule for the first Friday in August and February. For more information please contact the American Society of Agronomy, [certification@agronomy.org](mailto:certification@agronomy.org) (P) 608-273-8085.

## True Armyworm

Bryan Jensen  
UW Extension

Survey staff for DATCP's Wisconsin Pest Bulletin have reported significant flights of true armyworm adults in several Wisconsin locations. What should we be doing?

First let's review some basic information. True armyworm is the approved common name. However in Wisconsin we usually refer to them as "armyworms" because we rarely have other species of armyworms causing damage to field crops. Armyworm larvae may grow up to 1 ½ inch long. Coloration is variable, but commonly they have a lighter colored underside, orange stripes with white borders on each side and darker striping on their "backs". Armyworm heads are tan w/ a network of veins that are easily recognizable. Especially on older instars.

Armyworm do not overwinter in Wisconsin. Instead, they migrate to the Midwest on spring weather fronts. Blacklight traps are an important monitoring tool because the timing and intensity of flights



Armyworm feeding damage

are unpredictable. High trap catches do not always correlate with field activity but they do give us enough forewarning to prepare for field scouting.

We usually have 2 generations/growing season. Larval damage resulting from the migrating adults will often be spotty and locally severe as compared to the summer generation which tends to be more wide spread. Understanding insect behavior can help fine-tune our field scouting activities. But please keep in mind we have a difficult time understanding human behavior let alone insect behavior. Adult females are attracted to grasses to deposit small white eggs which are usually laid in rows or clusters. Therefore concentrate your early scouting efforts in corn fields planted into grass cover crops or those with early season grassy weeds. Another helpful hint to focus on, are those corn fields no-tilled into alfalfa. Whether the alfalfa was fall or spring killed, both situations can have significant armyworm damage. Small grains are also attractive egg laying sites. Particularly those fields with high plant density or in areas that are lodged. Soybean and alfalfa, both broadleaf crops, generally escape damage, although larvae may feed on grassy weeds within a field.

Armyworm larvae do not like to feed during daylight hours. You commonly find them feeding nocturnally and/or in shaded areas like corn whorls. Look for frass (fecal material) in the whorls, ragged leaf feeding on the leaf margin or occasional ragged holes in the emerged leaf.

Consider treating wheat or other small grains when you find more than 3 larvae/square foot and you have significant leaf feeding. Be aware that larvae can also switch from leaf feeding to head clipping as plants mature. Feeding injury in wheat (and corn) may be variable, sometimes making spot treating and/or edge treatments practical.

In corn, treatment can be suggested when 25% of the plants have two or more larvae/plant or when 75% of the plants have one larvae/plant. Small larvae are much easier to kill than the later instars. Treatment may not be suggested if larvae are greater than 1 ¼ inch in length because of reduced mortality and the fact that the majority of defoliation has already occurred.



Armyworm Larvae

## Vegetable Crop Update 6-1-15

The 11th issue of the Vegetable Crop Update is now available.

I'm sending out a newsletter early this week as we've reached/exceeded Blitecast (late blight forecasting tool) threshold of 18 DSVs at multiple locations for potatoes in Wisconsin. Preventive fungicide applications are warranted at this time. I know that this seems very early (~one month earlier than typical early blight fungicide recommendations), however, Blitecast tells us that weather conditions have been favorable for late blight development. While no late blight has yet been detected on seed potatoes or on tomato transplants, the pathogen can be harbored in volunteers, seed potatoes, cull piles, and compost piles.

Additionally, we have had important updates on spotted wing drosophila and irrigation & conservation practices in WI vegetable production that are timely and ready for release.

Topics in this newsletter include:

disease forecasting updates

spotted wing drosophila updates in fruit crops

irrigation and conservation practices in WI vegetable production – summary

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

## A Tank Full of Sugar Helps the Profits Go Down

While in attendance at the 2015 Commodity Classic I was a bit dismayed at the number of featured speakers expounding upon the incredible in-season benefits of applying sugar to field crops. I have been sitting on this article for a few months now waiting for the right time to relaunch the below article originally entitled “Do Foliar Applications of Sugar Improve Soybean Yield”. I waited a bit too long as my colleagues at the University of Nebraska beat me to the punch with their articles linked here “[Sugar Applications to Crops – Nebraska On-Farm Research Network Results](#)” and “[Research Results: Sugar Applications to Crops](#)“. I guess I shouldn’t feel too bad though as this is the first time the Corn Huskers have beat the Badgers in anything for a long time....

\*\*\*UNL article spoiler alert\*\*\* In short the University of Nebraska team did not find a consistent yield increase in corn or sorghum and averaged 0.8 bu per acre in soybean (FYI: average cost of ground application is \$7.55 and aerial is \$10.60; [2015 Iowa Farm Custom Rate Survey](#) and the average yield loss caused by sprayer [wheel track damage in soybean](#) in rows less than 20 inches is 1.9 or 1.3% with a 90 or 120 foot boom, respectively).

I also want to give credit to my colleague Chad Lee also wrote a nice article entitled “[Could Sugar Help Drought Stressed Corn?](#)” that discusses sugar rates, biological activity and actual costs of product.

I am certain this article will stir up severe indignation, however when the local cash bids are averaging \$8.88 ROI is more important than ever.

### Do Foliar Applications of Sugar Improve Soybean Yield (Originally published: June 14th, 2011)

High commodity prices have led growers to consider many novel soybean inputs. One input that has garnered considerable attention is the foliar application of sugar products to increase soybean yield. The objective of this research was to evaluate soybean yield in response to various sources of foliar-applied sugar across four states in the Midwest. Field research studies were conducted at Arlington, Wisconsin; Urbana, Illinois; St. Paul, Minnesota; and West Lafayette, Indiana in 2010. The four sources of sugar evaluated in this study were:

1. granulated cane sugar
2. high fructose corn syrup
3. molasses
4. blackstrap molasses.

All treatments were applied at the equivalent rate of 3 lb sugar a<sup>-1</sup> and applied at 15 to 20 gal a<sup>-1</sup>. The treatments consisted of an untreated check, all four sources of sugar applied at V4, granulated cane sugar and blackstrap molasses applied at R1, granulated cane sugar applied at V4 and R1, and blackstrap molasses applied at V4 and R1.

No positive or negative (phytotoxic) effects were visually observed on the soybean foliage at any location within 10 days following foliar applications (data not shown). Furthermore, sugar did not increase soybean yield within location (data not shown) or across locations [ $P = 0.60$  (Figure 1)], regardless of source. While this study cannot conclusively prove foliar applications of sugar will not increase soybean yield, the authors conclude that other management strategies to improve soybean yield should take precedence over applying sugar.

The source of this data is:

Furseth, B. J., Davis, V., Naeve, S., Casteel, S., and Conley, S. P. 2011. Soybean Seed Yield Was Not Influenced by Foliar Applications of Sugar. [Crop Management](#). Accepted: 6/1/11.

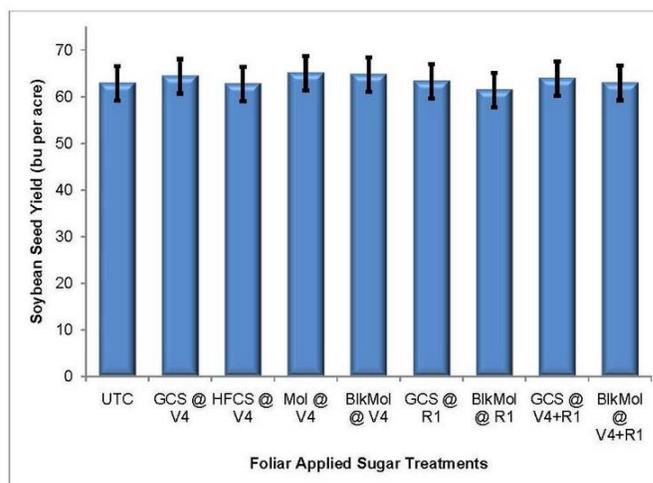


Figure 1. Soybean seed yield for nine foliar sugar applications averaged across four field trials located in West Lafayette, Indiana; Urbana, Illinois; Arlington, Wisconsin; and St. Paul, Minnesota in 2010. Abbreviations: untreated check (UTC), granulated cane sugar (GCS), high fructose corn syrup (HFCS), molasses (Mol), and blackstrap molasses (BlkMol). Vertical error bars represent the standard error of the mean.

## UW Crop Diagnostic Training Center workshops for 2015

Registration is open for UW-Madison Integrated Pest Management Program's two Crop Diagnostic Training Center workshops for 2015. The Diagnostic Troubleshooting Workshop will be held July 30, 2015. The Crop & Pest Management Workshop will be held August 13, 2015.

**FAST and easy ONLINE registration by credit card:**

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

Both workshops will be hosted at the Arlington Agricultural Research Station. Be aware that this is not a "traditional" field day. These training sessions are 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](mailto:djheider@wisc.edu)

### Diagnostic Troubleshooting Workshop

Date: July 30, 2015

Location: Arlington Ag Research Station

CCA CEU's: 4.0

Fee: \$75 (Tiered fee: \$90 after 7/15/15)

Topics covered: 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. Year after year, participants tell us this is one of the most challenging, useful and fun workshops they have ever attended!

Thursday – July 30, 2015

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

9:30 – 12:00 sessions 1-5

12:00 – 12:45 lunch (provided)

12:45 – 2:55 sessions 6-8

### 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: \$75 (Tiered fee: \$90 after 8/1/15)

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](#).

## Congratulations! Twenty year anniversary for CCA's and CPAg's

Bryan Jensen  
UW Extension

Please join the Wisconsin CCA Board in congratulating several CCA's and CPAg's who have recently completed 20 years of certification. As impressive as this list is, so is the time commitment and impact they have had on Wisconsin agriculture. Take a moment to read through the lists and congratulate them when you see them or call/email them when you get a chance. This is a very impressive milestone in their professional career!

### Wisconsin CPAg's Achieving Their 20 Year Anniversary in 2015

Steven Hanvold, Wausau  
Thomas Perlick, Sarona  
John Sudbrink, Cascade

### Wisconsin CCA's Achieving Their 20 Year Anniversary in 2015

Chris Allen, Lodi  
Steven Almich, Chippewa Falls  
Bruce Andersen, Cedar Grove  
Eric Anderson, Suring  
Byron Aspenson, Viroqua  
Dennis Ball, Columbus  
Gary Brandt, Darlington  
Joseph Brown, Milton  
Timothy Brussow, Loyal  
David Buss, Waterloo  
Randall Cherney, Stevens Point  
Scott Christensen, Wisconsin Dells  
Kevin Erb, Green Bay  
Jon Erickson, Eau Claire  
Shawn Esser, Black Earth  
Jeffrey Frase, Osseo  
Donald Genrich, Adams  
Kevin Giese, Elk Mound  
Douglas Gray, Marshfield  
Jim Gulke, Oostburg  
Michael Haedt, Green Bay  
Joel Hagen, Fall Creek  
Jeremy Hanson, Appleton  
Steven Hanvold, Wausau  
Karl Harpstead, Plymouth  
Perry Hickey, Wautoma  
Kenneth Jahnke, Prairie du Chien  
Scott Jerabek, New Richmond  
Joseph Kapral, Wild Rose  
Joey Kennicker, Cuba City  
Allen Klug, Cottage Grove  
Kevin Knudtson, Juda  
Jeffrey Kopp, Juda  
Benjamin Koss, Kewaunee  
Kirk Langfoss, Wausau  
Daniel Langkamp, Darlington  
George Leroux, Malone  
Terrance Licht, Cadott  
Edward Liegel, Loganville  
Donald Lininger, Twin Lakes  
Duane Marty, Neillsville  
Christine Mason, Whitewater

Frank Masters, Janesville  
Mark Matthias, Chilton  
Gary Mayne, Bloomington  
Mike McClyman, Friendship  
Steve McElroy, Dalton  
Alan McGuire, Brodhead  
Dennis McGuire, Brodhead  
Vernon Meinholz, Loganville  
Paul Merry, Antigo  
Robert Mickelson, Fall River  
Bradley Mikelson, Nelson  
Steve Miller, Beaver Dam  
Michael Mleziva, Shawano  
Thomas Murphy, Neshkoro  
Bryan Nugent, Muscatine  
Bruce Ostenson, Barron  
Diane Ott, Brillion  
Thomas Overby, Durand  
Warren Pickar, West Salem  
Jeffrey Plenty, Delavan  
Stephen Prouty, Hillpoint  
Linda Rather, Ripon  
Steven Rosenthal, Plover  
Stuart Rymph, Mazomanie  
Timothy Sanders, Clinton  
Kevin Shelley, Deerfield  
Paul Simon, Stitzer  
Mark Stangel, Kewaunee  
Phillip Stern, Bonduel  
Paul Sturgis, Vesper  
David Sumnicht, Bonduel  
Joseph Terando, Burlington  
Lori Vogeltanz, Kewaunee  
Gary Vondrachek, Kiel  
Dale Walz, Granton  
William Weisensel, Evansville  
Jamie Wetzel, Gillett  
Kevin Williams, Beaver Dam  
Glen Zierl, Arkansaw  
Allen Zirk, Waunakee  
Jeff Zutz, Valders

## 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 May 13, 2015 through May 29, 2015.

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

#### Forage Crops

Alfalfa, Root Rot, *Fusarium sp.*, Richland

#### Fruit Crops

Apple, Cytospora Canker, *Cytospora sp.*, Lafayette  
Apple, Nectria/Tubercularia Canker, *Tubercularia sp.*, LaFayette  
Apple, Sphaeropsis Canker, *Sphaeropsis sp.*, Marquette

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

## Wisconsin Winter Wheat Disease Update 6/3

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

We have scouted wheat from South of Madison, Wisconsin up through to near Fond du Lac this week. Most winter wheat we have looked at has headed and quickly approaching anthesis. The winter wheat variety 'Kaskaskia' was at early anthesis today. Now is the time to make a decision on spraying for Fusarium head blight (FHB). The Fusarium Head Blight Prediction Center

(<http://www.wheatcab.psu.edu>) has the majority of Wisconsin listed at low risk for a susceptible winter wheat variety. However, clicking the box to run the prediction for a 'very susceptible' winter wheat variety changes much of the state to medium risk and some areas at 'high risk' for FHB (Fig 1). With the warm and dry weather this week, the question has been "Should I spray for FHB?" In short, I think the answer to this question is 'yes' especially for farms and fields that have had a history of FHB.

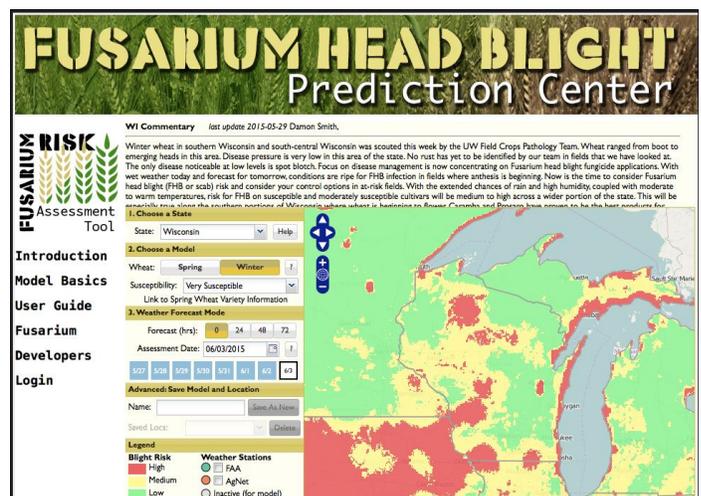
If we consider the biology of the fungus and the epidemiology of FHB, the past, present, and future weather patterns are all important. Weather over the past couple of weeks has been rainy and wet. This has served to 'prime' the FHB fungus to make spores. Even with the dry weather this week, there is bound to be spores of the FHB fungus present and blowing around. Now if we consider the weather over the next few days, it looks like a pretty good chance for on-and-off rain with warm conditions; weather just ripe for FHB. Considering the conditions and the fact that anthesis is occurring this week, I think spraying is a good decision. Additionally, the fungicide applications at this stage will protect flag leaves from foliar diseases like rust, Septoria leaf blotch, or powdery mildew, should they move in over the next few weeks during grain fill.

Caramba and Prosaro have proven to be the best products for FHB control, however, timing of application is critical. These products must be applied at the beginning of anthesis with good efficacy achievable up to 5-7 days after the start of this growth stage. Fungicide application after 7 days post-anthesis is not recommended. [You can watch a video of Dr. Shawn Conley describing how to identify this important growth stage by clicking here.](#)

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Fungicide application after 7 days post-anthesis is not recommended. [You can watch a video of Dr. Shawn Conley describing how to identify this important growth stage by clicking here.](#)

We continue to look for other wheat diseases around the state. We have not observed any rust on winter wheat in Wisconsin. Additionally, no powdery mildew and no Septoria leaf blotch have been observed on our scouting trips. We will continue to monitor the winter wheat disease situation as we move into grain fill.



## Wisconsin Pest Bulletin 6-4-15

Krista Hamilton, Entomologist

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. 7 of the Wisconsin Pest Bulletin is now available at:

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

### INSIDE THIS ISSUE

LOOKING AHEAD: First soybean aphids of the year found in western WI

FORAGES & GRAINS: Potato leafhopper migrants widespread, counts remain low

CORN: True armyworms and stalk borers appearing in corn fields

SOYBEAN: Bean leaf beetle defoliation noted in 47% of fields surveyed

FRUITS: Variable codling moth flight under way in parts of the state

VEGETABLES: Low numbers of variegated cutworm larvae noted in Richland County

NURSERY & FOREST: Basil downy mildew confirmed in a Milwaukee County greenhouse

DEGREE DAYS: Growing degree day accumulations through June 3, 2015

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