

# Wisconsin Crop Manager

Volume 21 Number 12 --- University of Wisconsin Crop Manager --- May 22, 2014

## Insects and Mites

Wisconsin Pest Bulletin 5/15/14 .....	35
Scout Corn Fields for Black Cutworm – Significant Moth Flight .....	35
Timely Video: Black Cutworm in Corn .....	36
Timely Video: Alfalfa Weevil Scouting after First Cut .....	37

## Crops

Recent Cold Temperatures will have Little Impact on WI Winter Wheat Crop .....	37
Vegetable Crop Update 5/16/14 .....	37
Think Twice Before Replanting Soybeans .....	37

## Weeds

Little leaf buttercup, a bitter weed in spring hayfields ...	38
--	----

## Plant Disease

Plant Disease Diagnostic Clinic (PDDC) Update.....	39
--	----

of weeks. Larvae resulting from the current spring flight are predicted to begin cutting corn seedlings by May 29. Late-planted, no-till, and reduced tillage fields are at highest risk. Black cutworm treatment is suggested if 2-5% of corn plants have cutting damage and cutworm larvae are 6<sup>th</sup> instar or smaller. Seed treated and traited corn should also be scouted as they can sustain feeding damage under heavy population infestations.

The WIDATCP [Wisconsin Pest Bulletin](#) is reporting high black cutworm captures for a second consecutive week. Their network of 34 pheromone traps distributed in southwestern Wisconsin registered another 353 moths, for a cumulative total of 649 moths as of May 15.



Black cutworm moth. Egg deposition is now occurring on winter annual weeds (common chickweed, peppergrass and yellow rocket) in no-till and reduced tillage fields. Late planted and no-till or reduced tillage corn fields will be attractive egg-laying sites for the moths now arriving. Larvae resulting from the current spring flight are predicted to begin cutting corn seedlings around May 29.

Concerns over damage are greatest during the first ten days to two weeks after corn emergence. Scout fields for early feeding damage and presence of larvae. Focus attention on corn fields which are most attractive for black cutworm oviposition.

Black cutworm moths prefer to lay eggs on low-growing vegetation such as chickweed, curly dock, mustards or plant residues from the previous year's crop. Female moths are partial to soybean residue over corn and wheat residue for egg-laying sites. Heavy spring weed growth, newly broken sod,

## Wisconsin Pest Bulletin 5/15/14

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

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

<http://datcpservices.wisconsin.gov/pb/pdf/05-15-14.pdf>

## Scout Corn Fields for Black Cutworm – Significant Moth Flight

Eileen Cullen, Extension Entomologist

Corn planting and weed control delayed by wet field conditions coupled with a major black cutworm migration make black cutworm damage a likely event in the next couple

previous crop and plant debris all increase risk of black cutworm infestations.

Late-planted corn fields are most heavily damaged during an outbreak of black cutworm because plants are smaller and more vulnerable when larvae are at the “cutting” stage.

Initial damage to corn seedlings by early instar black cutworm larvae shows up as holes or irregular feeding injury to corn leaves. Small larvae are not yet able to cut plants and this injury is not economic. However, it does indicate potential for cutting or tunneling into the base of the plant by larger larvae. By contrast, seedcorn maggot and wireworm feeding may also occur early season, but their feeding is confined to lower leaves (first and second leaf) and below ground.



Black cutworm feeding damage by small larvae on young corn plant.

Black cutworm treatment is suggested if 2-5% of corn plants have cutting damage and cutworm larvae are 6th inches or smaller.



Black cutworm larvae reach the “cutting” stage at ½ -inch length. Corn plants are most vulnerable to cutting until V5. When corn reaches V4 stage larvae may not be able to cut the

plant, but they can burrow into the corn plant below ground level.



Black cutworm larvae

More information on black cutworm as well as foliar insecticide treatment options are available on pp. 65-66 of UW Extension [Publication A3646 Pest Management in Wisconsin Field Crops](#)

---

### Timely Video: Black Cutworm in Corn

Eileen Cullen, Extension Entomologist

Dr. Eileen Cullen, University of Wisconsin Extension Entomologist, takes you into the field to show you when to scout and how to manage key pests of Wisconsin field crops. For more information, visit <http://www.entomology.wisc.edu/cullenlab> and <http://ipcm.wisc.edu>

To view the video click on the image below.



## Timely Video: Alfalfa Weevil Scouting after First Cut

Bryan Jensen, University of Wisconsin Integrated Pest Management Program, takes you into the field to show you how to scout and manage alfalfa weevil in Wisconsin field crops.

Scouting AFTER first cut harvest is different than scouting before harvest because it includes checking during regrowth for green up. Also, the economic threshold moves up to 50% on the count of plants showing damage.

To view the video, click on the image below



## Recent Cold Temperatures will have Little Impact on WI Winter Wheat Crop

Shawn Conley, Soybean and Wheat Extension Specialist

With cold temperatures predicted over the next few days (May 15-17) there are some questions regarding the potential impact on this year's winter wheat crop. Based on the predicted temperatures reported, widespread significant crop injury is unlikely. The winter wheat crop is several weeks behind "normal" and remains in the tiller (Feekes 2) to jointing (Feekes 6) growth stages. At these growth stages the wheat crop can withstand temperature down to 24 degree F for up to 2 hours before crop injury occurs (Table 1). For more detailed information I have attached a link to a publication entitled Spring Freeze Injury to Kansas Wheat. For ease I have also removed a table from that publication to stress the importance of growth stage on damage potential (Table 1).

Lastly, growers may also be questioning the impact of temporary flooding within fields. Though crop injury from this flooding may occur that damage will likely be limited due to cool temperatures and slowed crop respiration. Any crop injury that does occur will directly be related to the [duration of the flooding event](#).



Figure 1. Temperatures that cause freeze injury to winter wheat at different growth stages. Winter wheat rapidly loses hardiness during spring growth and is easily injured by late frosts (graph adapted from A.W. Paul).

Table 1. Temperatures that cause freeze injury to wheat at spring growth stages and symptoms and yield effect of spring freeze injury.

Growth stage	Approximate injurious temperature (two hours)	Primary symptoms	Yield effect
Tillering	12 F (-11 C)	Leaf chlorosis; burning of leaf tips; silage odor; blue cast to fields	Slight to moderate
Jointing	24 F (-4 C)	Death of growing point; leaf yellowing or burning; lesions, splitting, or bending of lower stem; odor	Moderate to severe
Boot	26 F (-2 C)	Floret sterility; spike trapped in boot; damage to lower stem; leaf discoloration; odor	Moderate to severe
Heading	30 F (-1 C)	Floret sterility; white awns or white spikes; damage to lower stem; leaf discoloration	Severe
Flowering	30 F (-1 C)	Floret sterility; white awns or white spikes; damage to lower stem; leaf discoloration	Severe
Milk	26 F (-2 C)	White awns or white spikes; damage to lower stems; leaf discoloration; shriveled, roughened, or discolored kernels	Moderate to severe
Dough	26 F (-2 C)	Shriveled, discolored kernels; poor germination	Slight to moderate

Table 1. Wheat Resistance to Freeze Injury (From: [Spring Freeze Injury to Kansas Wheat](#))

## Vegetable Crop Update 5/16/14

The 5<sup>th</sup> issue of the Vegetable Crop Update is now available. This issue contains information on Blocker 4F 2(ee) label in WI for potato common scab, Late blight reminders, updates, and a look at Blitecast, Vegetable crop disease diagnostic report, and the Hops pesticide application workshop advertisement. Click [here](#) to view this update.

## Think Twice Before Replanting Soybeans

Adam P. Gaspar, Shawn P. Conley, & John M. Gaska  
Department of Agronomy, University of Wisconsin-Madison

### Introduction

Soybean planting date trends have steadily shifted earlier within the Northern Corn Belt while inclement weather, insect pressure, and disease pressure associated with spring planting can require replanting some years (USDA-NASS, 2011). Furthermore, recent studies have reported similar yields among reduced plant stands due to the soybean plants compensatory ability (Carpenter and Board, 1997) and diminished yield potential of replanted or essentially later planted soybeans (Conley et al., 2012; De Bruin and Pedersen, 2008). Ultimately, producers would like to know the potential yield gain or loss from replanting sub-optimal plant stands to help determine if replanting is economical. Therefore the objectives of this study were to:

- determine the threshold for replanting soybean stands.
- evaluate replanting options.
- quantify the effect of seed treatments and planting date on replant decisions.

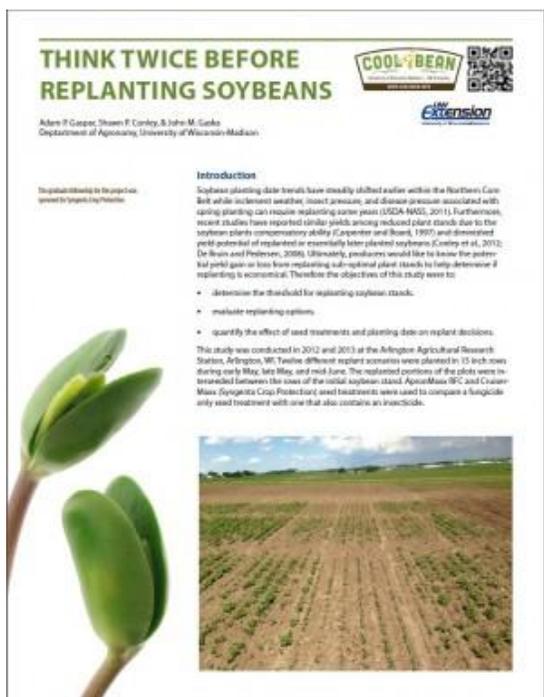
This study was conducted in 2012 and 2013 at the Arlington Agricultural Research Station, Arlington, WI. Twelve different replant scenarios were planted in 15 inch rows during early May, late May, and mid-June. The replanted portions of the plots were interseeded between the rows of the initial soybean stand. ApronMaxx RFC and Cruiser Maxx (Syngenta Crop Protection) seed treatments were used to compare a fungicide only seed treatment with one that also contains an insecticide.

To read the full PDF version of this article follow the link below:

[http://www.coolbean.info/library/documents/Soybean\\_nReplant\\_2014\\_FINAL.pdf](http://www.coolbean.info/library/documents/Soybean_nReplant_2014_FINAL.pdf)



little leaf buttercup (*Ranunculus arbotivus*) shown in alfalfa. Height as shown is 12 inches.



## Little leaf buttercup, a bitter weed in spring hayfields

Mark Renz, Extension Weed Scientist, and Kevin Shelley, UW NPM Program

Buttercups, have been showing up this spring in pastures and hayfields in southern Wisconsin. While Wisconsin has 18 species of buttercup, **little leaf buttercup** (*Ranunculus arbotivus*) is the most commonly seen in production fields. This species is native to Wisconsin and can behave as a biennial to short term perennial. While this plant can be found every year in the state (common in our forests), it is probably more common this year in hayfields and pastures due to overgrazing and poor regrowth from the summer droughts of 2012 and 2013. These conditions likely allowed for establishment and increased populations compared to “normal years”.

While this plant competes with desirable forage, the reason for controlling this native weed is that buttercups contain a toxic compound to all classes of livestock. This compound causes inflammation of the mouth and intestine when ingested, and if enough is ingested (>20% of diet) death can result. Fortunately little leaf buttercup is one of the least toxic buttercup species, with no direct evidence of mortality from ingestion known in the United States. Additionally, this plant is rarely eaten by animals as it has a very bitter flavor. Thus pasture animals have low risk of poisoning unless a producer grazes in a manner that reduces selectivity (e.g. mob grazing).



Little leaf buttercup (weed with yellow flower) shown infesting a spring alfalfa field.

A fairly heavy infestation has been observed (see picture) in first crop alfalfa hay in western Columbia County near Lodi this spring. This poses a bigger problem as the cut forage is a mixture of alfalfa and buttercup. This mixed ration, if fed directly to animals, could reduce their ability to avoid

buttercups. While it is unlikely that the amount of buttercups ingested will result in mortality, reduction in performance or changing in milk flavor could result. In this situation we recommend drying the hay before feeding it to livestock as the poisonous properties and bitterness are destroyed when hay is cured.<sup>1,2</sup> This problem is an issue in the first cutting of the year, but buttercups are rarely present in subsequent harvests as regrowth is minimal.

In pastures, a range of broadleaf herbicides are available and effective on buttercups, but will also injure/kill legumes. Spot treatments of herbicide or mowing will prevent any toxicity. In alfalfa, buttercup presence is often a symptom of thin stands or fertility problems. Check these prior to using herbicides, as effective options (e.g. Velpar) should be applied pre-greenup and typically have long plant-back intervals. Consult UWEX A3646 *Pest Management in Wisconsin Field Crops* for general guidelines<sup>3</sup>.

<sup>1</sup> Royer, F. and R. Dickinson, 1999. Weeds of Canada and the Northern United States. Pp. 116-117.

<sup>2</sup> University of Pennsylvania, 2014. <http://research.vet.upenn.edu/PoisonousPlantsofPA/Ranunculus/tabid/5473/Default.aspx>

<sup>3</sup> Cullen, E. et al. Pest Management in Wisconsin Field Crops, 2014. UW Cooperative Extension publication A3646, pp. 177-189. <http://learningstore.uwex.edu/Assets/pdfs/A3646.pdf>

---

Follow us on



---

## Plant Disease Diagnostic Clinic (PDDC) Update

Brian Hudelson, Ann Joy, Erin DeWinter and Joyce Wu, 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 May 10, 2014 through May 16, 2014.

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

#### VEGETABLES,

Basil, [Root Rot](#), *Pythium* sp., Columbia

Horseradish, Virus Disease, Unidentified virus (suspected turnip mosaic virus), McHenry (IL)

Pepper, [Gray Mold](#), *Botrytis cinerea*, Adams

Pepper, [Impatiens Necrotic Spot](#), *Impatiens necrotic spot virus*, Adams

Tomato, Herbicide Injury, None, Winona (MN)

#### SOIL,

Soybean Soil, Soybean Cyst Nematode, *Heterodera glycines*, Columbia, Dane

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