Insect Prospective

Bryan Jensen, UW Extension and IPM Program

Insects (and their relatives) are probably not the first thing on people’s mind right now. However, getting the crop planted probably is. Soon thoughts will turn to pest management. Although too early to tell what will happen, it never hurts to think ahead and prepare for what could be.

I don’t think I’m going too far out on a limb to suggest this might be a year with significant slug damage in corn and soybean. The weather we have been experiencing (and had last fall) certainly suggests early season scouting for slugs will be important. As usual, fields which had high slug populations in 2016, are no-tilled, have high amounts of residue or are unusually wet would be first on my list to scout. Fields that are following a small grain and/or cover crop would also be good candidates. Several of our cultural management strategies have been already been made (primary tillage, rotation) or may not be feasible (early planting). If you had fields with high slug activity in 2016, consider planting corn rather than soybean if that option is available as would be increasing the amount of secondary tillage if practical. In season management will be difficult and expensive so any preventative management you do will help significantly.

Using slug baits as rescue treatments will have questionable results as a stand-alone treatment especially if slug damage is heavy. Cost effectiveness will certainly be an issue but so is the possibility of stand loss. Read labels carefully! The baits using the active ingredient metaldehyde are NOT labeled for soybeans grown in Wisconsin. A quick, if not hasty read of the label, may indicate otherwise. However, a footnote indicates that Wisconsin is not on the list of approved states for use.

DATCP’s survey personnel have indicated very high black cutworm moth counts in their pheromone traps and
Krista Hamilton has indicated these counts are ahead of last year’s numbers. Remember those nice spring days and warm southerly winds we had several weeks ago? Well, the downside is they brought some hitchhikers along. High trap counts are not always a good predictor of field damage. However, they do give us fair warning that the potential is there. Concentrating scouting efforts on high risk fields would be my suggestion. Those fields would be corn planted into soybean residue, fields with dense broadleaf weed populations and perhaps low areas along stream banks, etc. The outlook looks good for corn planting in the near future. However, late planted fields will also be at risk of black cutworm damage for a longer period of time.

True armyworm catches have been low according to WI Pest Bulletin. Other states have reported locally heavy adult flights. Crop stage and arrival of armyworms is not as critical as it is with black cutworm. Therefore, the threat from this migrating generation of armyworm can last longer into the spring than for black cutworms. Experience tells us that early season damage is often more localized than the summer generation and damage is often very dependent on oviposition preference. These preferences include corn planted after grassy cover crops including cereal rye and corn planted into fields with an abundance of grassy weeds. Although not a grass, corn no-tilled into alfalfa can also be very attractive. Include wheat fields in your scouting efforts as well. Focusing efforts on these high risk fields is not fool proof, but if you have limited time, these hints can be helpful.

Alfalfa weevil damage potential is difficult to predict. Fortunately, degree days can predict egg hatch and I would guess that will start soon in the southwest part of the state as well as in the warmer sandy soils on south facing slopes along the Mississippi River. Early symptoms of alfalfa weevil feeding are small pin-hole sized holes in the upper leaves. Although extensive damage is not usually expected until larvae reach the 3-4th instars early scouting will give you a heads-up and time to prepare.

**Cover Crops Becoming Your Next Weed?**

Daniel H. Smith, Mimi Broeske, and Kevin Shelley- Nutrient and Pest Management Program, University of Wisconsin-Madison

Spring fieldwork has been a challenge so far and termination of cover crops can be a challenge under less than ideal conditions. A recent publication from the Nutrient and Pest Management program details termination

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**Corn Planting Date Concerns for 2017**

Dr. Joe Lauer, UW-Madison Agronomy and UWEX state corn specialist

The recent cool, wet weather has some farmers concerned about corn planting. We are currently in the optimum range for the corn planting date response. Soon we will be on the downhill side of this response where grain yield decreases AND grain moisture increases. However, there can be quite a bit of variability associated with this response.
During this time, the average planting date that produces maximum corn grain yield is May 4 (the range has been May 1-7). Farmers can still be within 95% of the maximum yield between April 18 and May 20. The narrowest planting date “window” where you could still achieve 95% of the maximum yield was during 2014 between April 25 and May 19 (24 days). The widest window was during 2011 between April 11 and May 21 (40 days).

We planted our first planting date at Arlington on April 17. We planted the hybrid grain and silage trials at Montfort on April 24, Janesville on April 25 and Hancock on April 28. Some university agronomists have written about the potential for imbibitional chilling (see IA and NE) during this growing season. At Janesville and Hancock corn was planted just prior to and during the recent cool, wet weather conditions. We will see how well these trials emerge. They will also be a good test for measuring seed quality differences among hybrids and companies.

**Figure 1** Shows the corn planting date response at Arlington during the 2010s.

Harvest of rye as forage in mid to late May, in southern Wisconsin, generally allows subsequent planting of a full season crop such as corn, soybeans or alfalfa seeding. The video linked below provides an introduction to the practice of fall planting winter cereal rye as a conservation cover crop following harvest of corn silage to help prevent soil erosion and nutrient runoff. The three minute video focuses on using the rye as an early season forage crop the following spring. Determination of “boot stage,” the development stage of rye where forage yield and quality are optimized, is demonstrated.

**Timely video: Cover Crops – Winter Rye After Corn Silage**

**Weed Identification, 2017 Series, Common Chickweed**

Mark Renz UW Madison Associate Professor and Extension Specialist (mrenz@wisc.edu), Chelsea Zegler UW Madison Associate Research Specialist (zegler@wisc.edu)

**Introducing a new Weed ID series of factsheets**

With everyone gearing up for the field season we thought it would be good to periodically review identification for some of Wisconsin’s common and not so common weed species. While identification isn’t always fun, it is a critical component to management and it is widely thought that our ability to identify weeds has declined over the past several decades.

Therefore we are creating a weed identification series to improve this skill. This series will review key characteristics, including images, of relevant weeds that are currently emerging in Wisconsin. Feel free to use this to help you or your staff with weed identification. We have formatted this so it is easily posted in a breakroom or emailed to colleagues. You could even use it to test your staff during meetings (just don’t tell them it was my idea)!

Below is the first of what we hope are ten installments. Expect a new weed factsheet every 1-2 weeks. We will post notices in the crop manager and have downloads on the IPCM website, as they become available. If you have suggestions on weed species to include don’t hesitate to contact either of us.

**WEED IDENTIFICATION SERIES PLANT #1**

**Common Chickweed**

We decided to start the series with this species as populations have been expanding over the past 3 years in numerous fields throughout Wisconsin. We attribute this to two factors
The last two falls have been significantly warmer and longer than average. This has allowed for fall germination and survival of this winter annual (as well as other winter annuals species).

This plant also has the ability to act as a summer annual if enough spring/summer precipitation occurs before the canopy of the crop closes. Many parts of Wisconsin have met these criteria over the past several years as we have witnessed the expansion of this plant in many environments (agriculture, horticultural, natural areas) throughout southern Wisconsin.

Enjoy this first species and be looking for a new species every 1-2 weeks.

CLICK HERE TO DOWNLOAD PDF OF COMMON CHICKWEED IDENTIFICATION FACTSHEET

Soybean Management Strategies to Facilitate Timely Winter Wheat Establishment in 2017

Dr. Adam Gaspar and Dr. Shawn P. Conley

Winter wheat acres across WI have declined over the past few years due to late grain harvests, disease concerns (FHB or scab) and poor wheat prices, however anyone that lives and works in WI knows that a base number of cereal acres are needed to support the dairy industry (straw and land to summer haul manure). As farmers get ready to kick off the 2017 growing season here are a few suggestions to help get your 2017/18 winter wheat crop established on time.

• **Plant early.** If weather and soil conditions allow for it plant the acreage you intend to go to winter wheat first. This is regardless of which crop you plan to follow (soybean, corn silage or field corn). Remember the [optimal planting date window](#) for most of our WI winter wheat acres is the last week of September through the first week in October. In Table 1 on the next page you will notice that for every 3 days planting is delayed we see ~1 day delay in beginning maturity (R7), so delaying planting by one week equates to about 2 days later maturing. However when planting is delaying past June 1st it turns into more of a 1:1 relationship. Also remember in WI it normally takes another 5-8 days for the soybean crop to move from R7 to R8 (full maturity).

• **Consider an earlier maturity group soybean.** Plant a high yielding, earlier maturity group soybean to help get that soybean crop harvested on time. Though [later maturing varieties](#) “on-average” produce the greatest yields, data from our [2016 WI Soybean Variety Test Results](#) show the maturity group range that included a starred variety (starred varieties do not differ from the highest yield variety in that test) was 1.8-2.8, 1.4-2.4, and 0.8-1.8 in our southern, central and north central regions respectively. This suggests that the “relative” maturity group rating is trumped by individual cultivar genetic yield potential. Therefore growers have options to plant an early maturity group soybean that will be harvested on time and not sacrifice yield.

• **Crop rotation matters.** Our long-term rotation data suggests winter wheat yields are greatest following soybean, followed by corn silage and lastly corn for grain. Therefore plan your rotation accordingly to maximize yield and system efficiency.

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**Considering Replanting Soybeans?**

Shawn P. Conley, Soybean and Wheat Extension Specialist

Even though very few soybean acres have been planted in WI there will be many agronomists across the Midwest assessing soybean stands after this deluge subsides. Below please find two resources that can assist both farmers and agronomists in making the replant decision easier.

- Think Twice Before Replanting Soybeans
- Considering Replanting? Let Bean Cam Help
Manage for the system not necessarily the crop. If you are serious about maximizing wheat grain and straw yield on your farm one of the biggest contributing factors for both of these in WI is timely wheat planting. Make management decisions to facilitate that. *We all know what inputs can extend maturity that don’t necessarily guarantee greater yields. So instead of listing them and fielding angry emails I am being strategically vague here* As a producer is it better to sacrifice 0-2 bushels of soybean yield or 10-20 bushels of wheat grain yield and 0.5 tons of straw?

As we all know mother nature holds the ultimate trump card on whether we will get our winter wheat crop established in that optimal window. These aforementioned strategies are relatively low risk to the farmer and regardless of what weather patterns we run into are agronomically sound.

### Wisconsin Winter Wheat Disease Update – May 2, 2017

Brian Mueller, Graduate Research Assistant, Department of Plant Pathology, University of Wisconsin-Madison

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

The Wisconsin Field Crops Pathology crew continues to scout wheat stands in various locations in Wisconsin. The primary disease of focus, remains stripe rust. Late last week we identified yet another stand of winter wheat with early stripe rust in a production field near Arlington, WI. The entire stand was planted to the variety Kaskaskia and had moderate levels of severity on the lower leaves (see picture). Incidence was spotty, but correlated to the greenest plants in the stand that were protected over the winter by snow cover. Other areas of the field that clearly were not insulated by snow and were further behind in growth stage, did not have visible symptoms of stripe rust. This observation reinforces the fact that stripe rust overwintered in this location during the winter of 2016/2017.

![Stripe rust on lower leaves of winter wheat plants at the Feekes 5 growth stage.](image)

<table>
<thead>
<tr>
<th>Planting Date</th>
<th>Maturity Group</th>
<th>Date of Growth Stage Initiation</th>
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<tbody>
<tr>
<td></td>
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<td>Arlington</td>
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<td>30-July</td>
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<td>26-July</td>
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</table>

**Table 1.** Calendar date for reaching R5 (beginning seed fill) and R7 (beginning maturity) growth stage by planting date and maturity group for the 2014, 2015, and 2016 growing seasons at Arlington and Hancock, WI.
At this point in the season many growers have made their herbicide applications and either applied fungicide or held off. Growers and consultants should remain diligent in scouting for stripe rust and other diseases as the crop moves toward flag leaf emergence. As I look into my “crystal ball” I think that a decision to spray fungicide at the flag leaf growth stage is going to be critical in Wisconsin, especially on susceptible varieties. Weather has been very wet and temperatures are becoming more conducive for spread of the stripe rust pathogen. As these conditions persist, and we approach the flag leaf growth stage, a decision will need to be made to spray to control stripe rust. Remember that the flag leaf is responsible for much of the yield that a wheat plant will make. Our work in Wisconsin in 2016, demonstrated that for every 10% increase in stripe rust coverage on the flag leaf alone, we lost almost 5.5 bu/acre in grain yield across the Wisconsin winter wheat variety trials (see Fig. 1 here). Thus, protecting this leaf is extremely important. On stripe rust-susceptible varieties, we have seen much benefit in flag applications to control stripe rust, especially when the pathogen is active.

Remember that there are many fungicide options for stripe rust control. Also, fungicide applications directed toward Fusarium head blight (FHB or scab) will also protect against stripe rust. So as you make your decision to spray at the flag leaf growth stage, choose a product that fits your pocketbook and consider that you might spray a strobilurin-containing product at this earlier growth stage. Later in the season, you will want to rotate to a non-strobilurin-containing product for your FHB control (Prosaro or Caramba). Hopefully we won’t have to make two applications of fungicide this year, but be prepared should the conditions necessitate this practice. Get out and scout, scout, scout!

### Wisconsin Pest Bulletin 4-27-16

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

Volume 62 Issue No. 1 of the Wisconsin Pest Bulletin is now available. [Click here to view this issue.]

PLEASE NOTE: This final Wisconsin Pest Bulletin of 2016 provides a post-growing season summary of prevailing insect and plant disease conditions and related weather. Once again, our sincerest thanks to the many cooperators, farmers, county agents and consultants who contributed their time and valuable information to the survey program this year.

**INSIDE THIS ISSUE**

**LOOKING AHEAD:** Large spring black cutworm migration underway

**FORAGES & GRAINS:** First alfalfa weevil larvae expected next week

**CORN:** Black cutworm traps capture 1,036 moths in April

**SOYBEAN:** Brown marmorated stink bug alert for 2017

**FRUITS:** Early STLM and RBLR moth flights in progress across the state

**VEGETABLES:** Asparagus beetles emerging and laying eggs in southern WI

**NURSERY & FOREST:** Hemlock wooly adelgid exterior quarantine reminder

**DEGREE DAYS:** Degree day accumulations through April 26, 2017

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

Brian Hudelson, Sean Toporek, Jake Kurczewski 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 April 21, 2017 through April 28, 2017.

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

**Forage Crops**

Alfalfa, Phytophthora Root Rot, *Phytophthora sp.*, Grant

Fruit Crops

Blackberry, *Cane Blight*, *Coniothyrium fuckeli*, Taylor

For additional information on plant diseases and their control, visit the PDDC website at [pddc.wisc.edu](http://pddc.wisc.edu). Follow the clinic on Facebook and Twitter @UWPDDC.
Wisconsin Fruit News, Issue 2

Janet van Zoeren, Christelle Guédot, and Amaya Atucha, University of Wisconsin – Madison, Departments of Entomology and Horticulture

Click here for volume 2’s 2nd issue of the Wisconsin Fruit News.

In it you will find information about:

- Photo guide for disease ID on cold-climate grapes
- Plant Disease Diagnostic Clinic update
- Insect Diagnostic Lab update
- Pest alert: Strawberry mites
- Cranberry degree-day map and update
- Grape insect scouting report: flea beetle vs cutworm damage
- Wine and table grapes developmental stages
- Timing of thinner application for apples
- Mass trapping of Codling Moth in apple orchards
- Apple pest report – spring caterpillars

All newsletters will also be posted onto at the Wisconsin Fruit website, available at 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.

Vegetable Crop Update April 30, 2017

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

2017’s 3rd issue of the Vegetable Crop Update is now available.

In this edition, please find information on:

- Welcome and review of disease forecasting concepts
- Hop crop status updates – and confirmation of downy mildew on spikes in WI
- Welcome Dr. Yi Wang, our new potato and vegetable horticulture specialist

Click here to view this update.
Common Chickweed

Common chickweed is an annual weed that germinates in fall or spring.

**Leaves:** opposite (0.3 – 1.2 inches long) that are pointed at the tip. No hairs are present except for a single line of hairs on the leaf margin.

**Stems:** grow mostly prostate and up to 2 ft long. Stems can root at the nodes and form dense patches. Stems are smooth except for a single band of hairs on one side of the stem.

**Flowers:** 5 petal white flowers that grow from where the leaf connects to the stem. Petals are deeply notched and thus may appear to have 10 petals.

**Flowers are 0.25 inches wide.**

**Biology:** Fall germinating chickweeds are one of the first plants to emerge and flower in spring. While this is commonly thought of as a winter annual, in wet years seeds can germinate and flower throughout the entire summer.

**Similar Plants:** several other chickweeds are common to Wisconsin including mouseear chickweed and giant chickweed. Mouseear chickweed has very hairy leaves and stems with more pointed leaves and giant chickweed leaves and flowers are 3-5 times bigger than common chickweed.

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**Questions or Comments:** Zegler@wisc.edu