LATE AND PREVENTED PLANTING OPTIONS AND CROP INSURANCE IN WISCONSIN

PAUL D. MITCHELL, EXTENSION STATE SPECIALIST IN CROPPING SYSTEMS AND ENVIRONMENTAL MANAGEMENT, DEPARTMENT OF AGRICULTURAL AND APPLIED ECONOMICS

In this new video, Dr. Mitchell talks about crop insurance options for acres planted after final planting dates:

1. Plant late with reduced coverage
2. Take full prevented plant indemnity
3. Take partial prevented plant indemnity and plant another crop
4. Leave uninsured

View the video at https://youtu.be/-hJv89DHUs8


Renk Agribusiness Institute https://renk.aae.wisc.edu/
SOYBEAN REPLANT DECISIONS: JUST THE FACTS JACK!

SHAWN P. CONLEY, DEPARTMENT OF AGRONOMY, AND DAMON SMITH, DEPARTMENT OF PLANT PATHOLOGY, UNIVERSITY OF WISCONSIN-MADISON

Though farmers continue to struggle to get their crops established in #plant19 we are starting to see the first images of soybean beginning to crack and emerge. As farmers, agronomists and technical service providers begin to assess the 2019 soybean stands here are a few items to contemplate before re-plant recommendations are made.

Get an accurate stand assessment. We are often drawn to the worst areas of fields and over-blow how bad the overall stand really is. You can go old school and use the tape or hula-hoop method or try a digital approach such as Bean Cam the WSMB funded soybean replant app!

![Bean Cam app](https://example.com/app)

Link to the app store for iPhone and iPad

Link to the app store for Android

An effective stand is obviously important to maximize soybean seed yield. However the downside yield risk for a sub-par stand is minimal until stands fall below 50,000 plants per acre. The synergy of early planting coupled with breeders adding 3x yield to soybean branches at low populations have effectively reduced the yield penalty for thins stands by 1/2 (Suhre et al. 2014). Therefore we recommend the following.

Early planted soybean yield is maximized with stands that range from 100,000 (high yield environment) to 135,000+ (low yield environment) plants per acre.

When soybean stands are less than 50,000 plants per acre, inter-plant new seed with a similar maturity into the existing stand. DO NOT TEAR UP THE STAND AND START OVER.

When stands fall between optimal and 50,000k plants per acre Think Twice Before Replanting Soybeans! Our data shows a nominal ~2 bu yield increase in this situation. Even if you have a “free re-plant” guarantee the numbers don’t make economic sense. As a grower you are better off investing $$$ in an effective in-season residual herbicide to control weeds such as Palmer and waterhemp.
NEW VIDEO: EARLY-SEASON SOYBEAN HERBICIDE INJURY SYMPTOMS

DR. RODRIGO WERLE, ASSISTANT PROFESSOR & WEED SPECIALIST DEPARTMENT OF AGRONOMY

In this video, Dr. Rodrigo Werle (UW-Madison Extension Weed Scientist) describes the different types of early-season soybean injury potentially caused by commonly used PRE-emergence herbicides.

View the video at https://youtu.be/7aAp5nmuWcs

IT’S RAINED AGAIN…. WHAT SHOULD I DO ABOUT NITROGEN?

CARRIE LABOSKI, SOIL FERTILITY/NUTRIENT MANAGEMENT EXTENSION STATE SPECIALIST IN WISCONSIN

With continued precipitation and water lying on fields in many areas, growers are becoming concerned about nitrogen loss. This article will explain how to determine if N loss from excessive rainfall has occurred and what corrective measures may be taken.

Once N is in the soil, nitrate is the form of N that can be lost via leaching or denitrification. Nitrogen in the form of ammonium or organic-N will not be lost. The first step is to determine how much of your applied N may be nitrate. It takes 1 to 2 weeks for ammonium forms of nitrogen to transform to nitrate, while it takes 1.25 to 2.5 weeks for urea, and 3 to 8 weeks for anhydrous ammonia. Urea ammonium nitrate, UAN (28% or 32%), is 50% urea, 25% ammonium, and 25% nitrate. This means that 25% of the N applied in UAN may be lost immediately.

Nitrate leaching will occur when precipitation (or irrigation) exceeds the soil’s ability to hold water in the crop root zone. Leaching is a much bigger issue on sandy, coarse-textured soils that typically hold 1 inch of water per foot of soil compared to medium- and fine-textured soils that hold 2.5 to 3 inches of water per foot of soil. To determine if nitrate could leach out of the root zone, compare the rainfall totals in your area to the number of inches of water that your soil can hold in the crop root zone.
Losses of N through denitrification can occur on medium- and fine-textured soils when the following conditions are present: 1) N is in the nitrate form. 2) The soil is saturated with low oxygen content. A glistening soil surface can indicate soil saturation. The longer the soil is saturated the more N may be lost. 3) Denitrification proceeds faster on warmer soils, especially when soil temperatures are greater than 75°F. The following is an example of how length of time the soil is saturated and soil temperature impact N loss. When soil temperature is 50°F, 3% of the nitrate may be lost when the soil is saturated for 4 days compared to 6% lost when saturated to 10 days. By comparison, when the soil temperature is 75°F, 20% of the nitrate is lost after 4 days of saturation and 43% is lost after 20 days of saturation.

Keep in mind that soil saturation causes physiological damage to a corn crop. Bob Nielsen from Purdue explains that young corn can survive 4 days of ponding if temperatures are below the mid-60’s °F, but if temperatures are over the mid-70’s °F, then corn survival will be less than 4 days. Thus, depending on the temperature it may not matter how much N has been lost, the corn crop may never fully recover even if supplemental N is applied.

By assessing soil texture and drainage, form of N applied, time between N application and heavy rainfall(s), you can make an educated guess about if and how much N may have been lost. For a more detailed explanation of this please read: [http://bit.ly/2teVpRt](http://bit.ly/2teVpRt)

If all or most of your N for corn is coming from manure and/or a forage legume, then the PSNT can still be used to estimate N credits. Note, when average May-June soil temperatures are more than 1°F below the long-term average, the N credit is often underestimated and book value estimates of credits are more reliable. The PSNT is not suggested for use on sandy soils. For more details on how to use the PSNT see UWEX Publication A2809 Nutrient application guidelines for field, vegetable, and fruit crops in Wisconsin ([http://learningstore.uwex.edu/assets/pdfs/A2809.pdf](http://learningstore.uwex.edu/assets/pdfs/A2809.pdf)).

Where the entire crop N requirement has not yet been applied, sidedress or other postemergence applications should contain the balance of the crop N requirement. Additional N to replace 25 to 50% of the fertilizer N that was lost could be applied.

If all of the N was applied prior to the heavy rainfall, try to determine how much N loss may have occurred. The next step is to decide whether or not you need or want to apply supplemental N fertilizer to your corn crop. When making this decision, compare the amount of N loss (in lb N/a) that you think may have occurred to UW’s price adjusted corn N rate guidelines at several different N to corn price ratios. (See UWEX publication A2809 for details).

For each N:corn price ratio, UW guidelines have a target N rate, the maximum return to N rate (MRTN) and a range of N rates that produced profitability within $1/a of the MRTN. The profitable range of N rates will typically produce a yield that is more than 95% of maximum yield. Yield at the MRTN rate is 98 to 99% of maximum yield. Remember maximum yield is not the most profitable yield. Based the estimated amount of N loss, as well as your cost of production, you may not want to replace all of the lost N.

Options for applying supplemental N when it is needed include traditional sidedressing, late/pre-tassel applications, or fertigation. UAN solutions can be applied as a surface band or as a broadcast spray over the growing crop. Dry N fertilizers (urea, ammonium sulfate, or ammonium nitrate) can also be broad-
cast applied to the crop. Leaf burning from solution or dry broadcast applications should be expected. Applying the dry materials when foliage is dry will help minimize burning. Broadcast N rates should be limited to 90 lb N/a for corn with 4 to 5 leaves and to 60 lb N/a for corn at the 8-leaf stage. Under N deficient conditions, corn will respond to supplemental N applications through the tassel stage of development if the N can be applied. Recent research conducted at Marshfield, WI showed that 40 lb N/a as UAN applied 7 to 10 days prior to tassel was successful at rescuing yield, when preplant applied N was lost because of wet soil conditions.

This article was originally posted on the NPKetc site. To view the original post: https://npketc.soils.wisc.edu/2017/06/26/its-rained-again-what-should-i-do-about-nitrogen/

ASIATIC GARDEN BEETLE

BRYAN JENSEN, DEPARTMENT OF ENTOMOLOGY AND DIVISION OF EXTENSION

Although not currently found in Wisconsin, damage from the Asiatic Garden Beetle (AGB) has been noted in several states since 1921. Most recently in southern Michigan, Ohio and northern Indiana. Severe damage, including stand loss, has been observed in some areas. Its spread has not been rapid, however, now might be a good time for a short discussion as we get ready to monitor fields.

AGB is an annual white grub and larvae feed on several different host plants including corn, soybean, alfalfa and potato. Symptoms in field crops will show up as stunted plants. Infestations have been more common and severe on sandy soils.

It may be a guess what the seasonal distribution will be in Wisconsin, however, I would expect grub damage to be heaviest in seedling corn and soybean. Adults are likely to emerge mid-summer and start laying eggs in the soil soon after. AGB overwinter as early instar grubs and begin feeding on available plant part in spring.

The above ground symptoms will be similar to what you would expect from other species of white grubs. However, this grub will be easier to identify. Use some magnification and look for a white “bulb” on each side of the head. It is the only specie with that characteristic. Please examine the enclosed pictures from John Obermeyer, Purdue Department of Entomology. Also, Dr. Chris DiFonze, Department of Entomology, Michigan State University has prepared an

Photo 1. Clockwise from top, adult, pupae and grub AGB  Photo 2. “Bulb”, a diagnostic feature on grub, Photo credit: John Obermeyer, Purdue University

Adults AGB are small, compared to our perennial white grubs and don’t normally feed on crops. They are, however, very attracted to night lights and will feed on several different garden and landscape hosts.

For now, please be aware of a potentially new (for Wisconsin) pest as you prepare to walk fields. If something just doesn’t “fit”, please contact your county extension agent for diagnostic help.

---

**FIRST THOUGHTS ON MANAGING YOUR PREVENT PLANT ACRES**

**SHAWN P. CONLEY, DEPARTMENT OF AGRONOMY, AND DAMON SMITH, DEPARTMENT OF PLANT PATHOLOGY, UNIVERSITY OF WISCONSIN-MADISON**

I want to start out this blog being very clear and honest…… I don’t exactly know what the right answer is! However as I have stated before, the best thing about blog articles is that it is a dynamic format and can be rapidly updated and changed. I am sure this blog article will change weekly (maybe daily) as we learn more and I get feedback on this article. So let’s get into it. I think we all agree we need to put something on these fields to not only hold the soil but also manage our weed populations, especially waterhemp. To that end I had two farmers call me this week and ask what would happen if they planted winter rye in June. That is a good question I said so I reached out to many colleagues and we all agreed that yes that was a good question, but none of us had done it to date. Our collective thought was that winter rye or winter wheat (I think rye would be better) would grow 18 inches up to maybe 4 feet tall, stool out and put out multiple tillers since the plant will not vernalize and induce reproduction. This should develop a fairly rapid and robust canopy that can be very competitive with weeds. Speaking with Fred Kolb at UI, he thought that oat would also be a good cover as it would develop well put out seed heads, and if worked into the soil in the fall, reseed the system and then winterkill so you wouldn't need to worry about termination next spring. For all of these crops I would target 750,000 to 1,000,000 seeds per acre as a seeding rate (WAG). Obviously this is not a perfect system as there may be some herbicide carryover issues from last year’s crops and we would be planting 100’s to 1000’s of acres that may serve as a green bridge for plant pathogens, but that is potentially next years problems. I encourage anyone reading this article to send me thoughts, feedback or other ideas. I am sure someone has tried this and I would like to add in your experiences.

The post [First thoughts on managing your prevent plant acres](http://www.coolbean.org) appeared first on Cool Bean.

---

**WISCONSIN FRUIT NEWS**

**CHRISTELLE GUEDOT, FRUIT CROP ENTOMOLOGY AND EXTENSION SPECIALIST, WISCONSIN-MADISON FRUIT PROGRAM**

In the May 24, 2019 issue (Vol 4, Issue 4):

- Plant Disease Diagnostic Update
- Risks and Benefits of reducing herbicide rates
- Insect Diagnostic Lab Update
- Winter Damaged Blueberries
- Eastern Berry Thrips
- Grape Variety Developmental Stages
- Grape Flea Beetles
- Bitter Pit Management
- Door County Report

The home website for the UW-Madison Fruit Program is https://fruit.wisc.edu

WISCONSIN VEGETABLE CROP UPDATE

AMANDA GEVENS, ASSOCIATE PROFESSOR & EXTENSION SPECIALIST, POTATO & VEGETABLE PATHOLOGY, PLANT PATHOLOGY DEPARTMENT

View the PDF at https://ipcm.wisc.edu/blog/2019/05/vegetable-crop-updates-newsletter-may-24-2019/

In the May 24, 2019 issue (Update 5):

- New format for P-Days and DSVs for potato disease forecasting
- Hop powdery mildew review & management
- Access to the A3422 Vegetable Production Guide

WISCONSIN PEST BULLETIN

KRISTA HAMILTON, ENTOMOLOGIST, WISCONSIN DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION

Volume 64 Issue No. 04 of the Wisconsin Pest Bulletin is now available at: http://datcpservices.wisconsin.gov/pb/pests.jsp?categoryid=32&articleid=3114&issueid=323

Looking Ahead

Volume 64 Number 5 Date 05/30/2019

BLACK CUTWORM - Survey traps have collected a cumulative total of 1,207 moths at 44 monitoring sites since the first recorded moth capture of the season on April 4. Repeated significant flights in May signal that damaging infestations could continue to develop throughout June. Many emerging corn acres are under a high threat of larval infestation at this time. Routine scouting for evidence of cutting or below-ground tunneling injury is advised until the V5 stage.
EUROPEAN CORN BORER - Degree day accumulations near Beloit, Lone Rock and Madison have reached the 374 units (modified base 50°F) required for the spring flight to begin, though significant moth activity is unlikely until mid-June. Black light trap contents should be closely examined during the next two weeks for any early moths.

JUNE BEETLE - Adult June beetles are emerging and recent black light trap counts indicate that locally heavy populations should be expected. DATCP co-operators from Walworth to Marathon County recorded large beetle captures in the past week, with the highest count of 307 beetles reported from Wausau. Foliar feeding damage caused by the adult stage of the June beetle is usually isolated and brief, and control is rarely warranted.

CODLING MOTH - Emergence of spring moths began in a few southern Wisconsin apple orchards this week. Five cooperating sites reported low counts of 1-7 moths, and most did not register a sustained flight. Codling moth flight occurs consistently between 6:00 and 11:00 pm in Wisconsin, and winds must be between 3-5 mph with temperatures above 62°F without rain for mating to occur. Daily trap monitoring is critical until the biofix is determined.

TRUE ARMYWORM - Moderate to heavy local flights have been documented at several trapping locations this month, signaling that growers should anticipate armyworm caterpillars appearing on perimeter row corn plants in 2-3 weeks. The Janesville black light trap site registered a very large capture of 240 moths from May 23-29, and larvae from earlier flights are now collecting in alfalfa sweep net samples.

EURASIAN HEMP BORER - Moths began emerging in a Delavan greenhouse on May 26. The appearance of adults suggests that egg laying on the leaves and stalks of indoor hemp plants is beginning. The larvae of this small moth are considered one of the most destructive hemp pests, therefore routine inspection of greenhouse plants for moths is recommended starting next week. The biological insecticide Bt and natural enemies such as parasitic Trichogramma wasps are control options for IPM programs.