Evaluating the Need for Rescue N Applications

Past articles have discussed how to evaluate the need for rescue N applications for corn after excessive rainfall. A recent study completed at the Marshfield Ag Research Station on a somewhat poorly drained soil can help when deciding how much rescue N to apply. Where wet conditions caused loss of preplant applied N at Marshfield, 40 lb N/a applied 7-10 days prior to tasseling was adequate to compensate for N loss (Figure 1). Sidedressing all of the N was more profitable than preplant or split applications. When trying to decide on a rescue N application rate, consider your cost of production and remember that the first 30 to 50 lb N/a will provide the greatest return on investment.

Figure 1. Effect of N application timing on corn grain yield on a somewhat poorly drained Wiltsee silt loam soil in 2015 at Marshfield, WI. When all N was applied preplant, yields were reduced because of early season N loss from wet conditions. Sidedressing N at V6 had lowest economic optimum N rate (ECONR), greatest profitability, and best N use efficiency compared to all other N application timings. Application of 40 lb N/a prior to tassel can “rescue” yields from early season N losses.
New Videos: Early Season Soybean Management

1. Potential Causes of Poor Soybean Emergence in Cool Wet Soils

Dr. Damon Smith, University of Wisconsin-Madison, visits a soybean field that shows signs of low emergence due to soil crusting and Pythium seed rot. The field has experienced cool wet weather after planting. Dr. Smith explains how to management is achieved through seed treatment or adjustments to planting populations. A target population on 140,000 seeds/acre applies to use of treated seeds. Without seed treatment, growers can adjust to a planting population of greater than 140,000 to make up for losses due to seed rot prior to emergence.

2. Soybean Emergence Issues in Cool Wet Soils

Dr. Shawn Conley, University of Wisconsin-Madison, goes to the field to discuss soybean emergence issues in cool wet soils. He shows a variety of damage that crusty soils can cause to emerging plants.

3. Soybean Replant Decisions and the Bean Cam Free App

Dr. Shawn Conley, University of Wisconsin-Madison, discusses replanting management decisions in soybeans.


4. Early Season Management Options for White Mold in Soybean

Dr. Damon Smith, University of Wisconsin-Madison, visits a soybean field to talk about white mold, row spacing, and the new Sporecaster white mold management smartphone app.

Check out this application for iPhone and iPad: https://itunes.apple.com/us/app/spore... Check out this application for Android: https://play.google.com/store/apps/de... http://ipcm.wisc.edu

Introducing badgercropdoc.com

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

We are proud to announce the launch of our new website, badgercropdoc.com! Badger Crop Doc is a one-stop-shop for all things Wisconsin Field Crops Pathology related. We have merged the website and blog found at
https://fyi.uwex.edu/fieldcroppathology/ with our University of Wisconsin academic website, so that all information can now be found in one place. If you subscribed to the blog posts at https://fyi.uwex.edu/fieldcroppathology/, don't worry, we have already moved your e-mail over to badgercropdoc.com. Be sure that browsers are now pointed to the new URL and check your e-mail folders to be sure blog postings aren't going to junk or trash. Finally, this posting will serve as the last posting from https://fyi.uwex.edu/fieldcroppathology/.

BadgerCropDoc was made possible with support from the Wisconsin Soybean Marketing board and is meant to be complementary to badgerbean.com and coolbean.info, while offering research-based information for the major field crops of Wisconsin. We hope you enjoy this new resource. As always, please let us know what you think. We would love to hear feedback.

Waterhemp Management Challenge Plot Tour

Rodrigo Werle, University of Wisconsin-Madison and UW Extension Cropping Systems Weed Scientist; Dan Smith, Nutrient and Pest Management Program University of Wisconsin-Madison

According to our recent SURVEY, waterhemp has become the most concerning weed species in row crop production in Wisconsin.

The University of Wisconsin Nutrient and Pest Management (NPM) and the WiscWeeds Programs would like to invite farmers, agronomists, industry representatives and educators to attend the 2018 “Waterhemp Management Challenge” Plot Tour on Friday, July 13, 2018 at Lancaster Ag Research Station (7396 State Rd 35 & 81, Lancaster, WI 53813). See flyer attached.

We will showcase studies comparing:

- 29 PRE-emergence herbicide programs
- the value of group 15 herbicides (Dual II Magnum, Outlook, Warrant and Zidua) applied POST-emergence
- systems approach for weed management in Xtend soybeans

Registration starts at 8:30 AM with coffee and donuts provided by the Wisconsin Soybean Marketing Board.

Please RSVP by July 10, 2018 with Dan Smith (NPM Southwest Regional Specialist) via email (dhsmith@wisc.edu) or phone (608-219-5170).

For more information, please see the flyer at the end of this pdf.

Japanese Beetles

Bryan Jensen, IPM Program and Dept. of Entomology

They’re back. Anyone surprised?

Adult Japanese beetles are starting to emerge, however, we don’t expect peak emergence for a few more weeks. What will happen in 2018 is anyone’s guess. Last year was one of the heaviest years in terms of adult numbers (not necessarily economic damage). Winter temperatures were moderate and soil moisture has been adequate. Both factors contribute to higher survival.

Adults are showy. About ½ inch-long, metallic green body, bronze-colored wing covers and they have six white tufts of hair on each side of the abdomen. Furthermore, they tend to feed in large groups and their damage on soybean is conspicuous in the upper canopy. Fortunately, the threshold for defoliation on soybean is relatively high. Don’t consider treatment until there is...
30% feeding on vegetative soybean or 20% defoliation in reproductive stage soybean. Percent defoliation needs to be assessed on a whole plant basis. People tend to overestimate damage because they focus on the upper leaves not the whole plant.

During the summer months there are several insect defoliators that can be found in soybean. Japanese beetle feeding is relatively easy to distinguish from the rest. Many people describe their feeding as “net-like”. That is leaving the smaller leaf veins intact when compared to feeding from thistle caterpillars, clover worms, bean leaf beetles, grasshoppers and others. Recognizing Japanese beetle feeding may not seem important but adults easily move around from one food source to another and can abruptly leave. Diagnosing their damage may help determine the culprit and if treatment is needed.

In corn, assessing damage is much easier. Adult will feed on green silk which can affect pollination. There is very little, if any, defoliation. Like soybean, they tend to feed in groups making scouting more difficult but spot spraying more effective. It takes an average of 3 adults feeding on green silks/plant before there is economic concern.

Adults are going to be present until late-summer. During this time period they will feed, mate and lay eggs. Eggs will hatch this summer and the immature grubs will feed on roots of grasses and several other hosts. Japanese beetles overwinter as immature grubs which occasionally cause damage to seedling corn in the spring.

**Weed Science Plot Tour**

The Wisconsin Cropping Systems Weed Science Program (WiscWeeds) would like to invite corn and soybean farmers, agronomists, industry representatives and Ag educators to attend the 2018 “Weed Science Plot Tour” on Tuesday, July 17, 2018 at Arlington Ag Research Station (Public Events Building, N695 Hopkins Rd, Arlington, WI). See flyer attached.

We will showcase studies comparing:

- Herbicide Programs in Corn
- Weed Management in Enlist Corn
- Impact of Carrier Rate on Efficacy of PRE-Emergence Corn and Soybean Herbicides
- Comparison of PRE-Emergence Herbicides for Weed Control in Soybeans
- Systems Approach for Weed Control in Balance

Beans, Enlist, Liberty Link, and Xtend soybeans

Registration starts at 8:30 AM with coffee and donuts. Plot tour starts at 9:00 AM and concludes by 11:45 AM.

Please RSVP by July 13, 2018 with Mindy Breunig or Kelly Tomko-Ewing via phone (608-846-3761) or email (mindy.breunig@wisc.edu;ktomko@wisc.edu)

For questions related to the tour, contact Rodrigo Werle, UW-Madison Extension Cropping Systems Weed Scientist via phone: 608-262-7130 or email: rwerle@wisc.edu

*For more information, see the flyer attached at the end of this pdf.*

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**Reporting Soybean Crop Injuries**

Shawn P. Conley, University of Wisconsin-Madison and Jeremy Ross, University of Arkansas System Division of Agriculture

For many of us in agriculture, 2017 was a year we would like to quickly forget. Unpredictable weather, low crop prices and last, but certainly not least, many of us were dealing with the D-word, and I don’t mean Dallas. Off-target movement of synthetic auxin herbicides pitted neighbor against neighbor, farmers against state boards and industry against academia. The caustic environment in agriculture in 2017 made the politics in Washington D.C. look like *Sesame Street!*

On October 30th 2017 Dr. Kevin Bradley published a [Final Report on Dicamba-injured Soybean Acres](#) where he listed an official count of 2,708 reported cases of dicamba-related investigations and an estimated 3.6 million acres of dicamba injured soybean. The efforts of Dr. Bradley as well as many other Extension Weed Scientists led to wholesale changes in herbicide labels and mandatory training prior to the 2018 growing season. The collective hope was to keep these herbicides on-site, where we put them!

This spring, Mother Nature gave many growers across the Midwest small windows to plant soybean in April and early May. Planters got ahead of spray rigs, pre-emergent herbicides didn’t get out and boom, we are behind the 8-ball for weed control options. Those early planted soybean acres then decided to bloom in June which put applicators and farmers against the clock to get their post emergence herbicides on according to label. In the Midwest, it has rained for the past week and applicators have been challenged again to get into the field. Later planted soybeans will start to bloom over the next week and again put applicators and farmers running against...
the clock to get their post emergent herbicides on consistent with label directions. If dicamba was applied post emergence, we can simply mark our calendar forward 14-21 days, cross our fingers and hope that the label changes, applicator training, and more recognition of the potential problems worked and we don't see any off-site injury.

Let's fast forward to now. The first official unofficial report of crop damage due to dicamba injury was reported by Dr. Bradley today “Dicamba Injured Crops and Plants Becoming More Evident: June 15th Update”. We are also starting to see images and early reports of dicamba injury coming from the Mid-South and lower mid-western states. It would be irresponsible to make any wide sweeping claims of pending doom; however, if it does show up it would be even more irresponsible to not report it.

I have been told by many colleagues in both academia and industry that farmers across the country are gun shy to report any damage this season. The three main reasons given by growers are:

I am in a drought stricken area and if I report any damage I will be ineligible for crop insurance!

This is my neighbor, we are friends and I don’t want the government involved. We can handle this between us.

We need this technology and I don’t want to lose it!

As a farm kid myself, I fully understand all of the reasons mentioned above. However, we must all be cognizant that just because we don’t report a problem doesn’t make it go away. There are far too many recent examples of institutional non-reporting that have come back to severely damage the reputation of the non-reporting entity (MSU, Face Book, #MeToo, etc.). Our institution is agriculture! We battle misinformation on GMO’s, we battle misinformation on animal husbandry, and we constantly battle educating the other 99% on what we do.

If 2018 turns out like 2017 we do not want to stick our heads in the sand and pretend a problem does not exist. If 2018 turns out to have minimal issues then FANTASTIC! Industry and academia should be lauded for their joint accomplishments. The best way to support agriculture and freedom to operate is through honesty and accurate self-reporting.

To read this post on their blog, click here.
Wisconsin Winter Wheat Disease Update – June 26, 2018

Damon Smith, Extension Field Crops Pathologist, Department of Plant Pathology, University of Wisconsin-Madison; Brian Mueller, Assistant Field Researcher, Department of Plant Pathology, University of Wisconsin-Madison

The Wisconsin Field Crops Pathology crew has scouted and rated all winter wheat variety trials across the wheat-growing region of the state. We have also looked at commercial fields for disease in the region. In general leaf diseases will be of minimal impact this season. We have observed a little Septoria leaf blotch in some fields in the lower canopy. However, this pathogen will not limit yield this season, as it has not reached the flag leaf yet. We have also not observed any stripe rust this season. As I mentioned in previous posts, the winter was cold enough with minimal snow cover, which didn’t allow the stripe rust pathogen to overwinter in the region. Subsequent spread from the southern states north, was also not fast enough to reach the crop in Wisconsin to impact yield. If stripe rust does arrive this season, it will not impact yield. Leaf rust was observed at the Arlington (south-central Wisconsin) location. However, it was at very low incidence and severity and will likely not impact yield on most varieties in the state.

To read the rest of this update, click here.

Wisconsin UWEX Vegetable Crop Update Issue 12

Amanda Gevens, Associate Professor & Extension Specialist, Potato & Vegetable Pathology, UW-Madison Plant Pathology Department

Vegetable Crop Updates Newsletter #12

- late blight and early blight disease risk updates (most locations have surpassed DSV 18 threshold for late blight management)
- national late blight and cucurbit downy mildew updates
- discerning potato black dot and silver scurf
- Horticultural updates

Wisconsin Pest Bulletin, Issue No. 8, June 21

Krista Hamilton, Entomologist, Bureau of Plant Industry/Division of Agricultural Resource Management, Wisconsin Department of Agriculture, Trade and Consumer Protection

Volume 63 Issue No. 8 of the Wisconsin Pest Bulletin is now available at:


PLEASE NOTE: We dedicate this issue to the memory of Lee Lovett, who was involved in the Pest Bulletin as a surveyor, editor and overseer from the mid-1960s until his retirement in 2001. He continually worked to make it a better and more useful tool for growers. Lee died June 11 at age 78.

INSIDE THIS ISSUE

LOOKING AHEAD: Japanese beetles emerging in southern Wisconsin

FORAGES & GRAINS: Potato leafhopper nymphs appearing in alfalfa

CORN: European corn borer treatment window to close next week

SOYBEAN: Soybean aphid counts extremely low

FRUITS: First apple maggot flies likely to appear soon

VEGETABLES: Squash vine borer moth observed in Dane County

NURSERY & FOREST: An assortment of reports from recent inspections

DEGREE DAYS: Growing degree day accumulations as of June 20, 2018
UW/UWEX Plant Disease Diagnostic Clinic (PDDC) Update June 22

Brian Hudelson, Sue Lueloff, John Lake 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 June 16, 2018 through June 22, 2018.

The 6/22/18 PDDC Wisconsin Disease Almanac (i.e., weekly disease summary) is now available at:

SAVE THE DATE - Friday, July 27, 2018

Keeping Water in our Soil: Uplands Watershed Group Farm Tour and Farmer-Fisherman Lunch

9:20  Stapleton Grain, Hay, and Livestock Farm, a.m.  5952 County Rd Z, Spring Green

10:45  Cates Grass-fed Beef Farm, a.m.  5992 County Rd T, Spring Green

The farm tour will be followed by lunch at the Cates Farm, compliments of the Uplands Watershed Group.

Come discuss practices that are useful for your farm and that help water infiltrate into your soil. See no-till drilling, cover crops and managed pasture systems that conserve soil and nutrients. Look inside a soil pit and see in-field soil tests conducted. Then enjoy burgers, plus seafood caught by fishermen in the Gulf – whose challenges with nutrient build-up and biological die-off in the Gulf Dead Zone we seek to help through our conservation practices. Hear Gulf fisherman Lance Nacio explain why it matters.

For questions, contact Margaret Krome, Michael Fields Agricultural Institute (608) 283-1440, mkrome@sbcglobal.net or Gene Schriefer, Iowa County Extension 608-930-9850
According to our recent survey, waterhemp has become the most concerning weed species in Wisconsin row crop production. Glyphosate-resistant waterhemp has been confirmed in 25 counties, and PPO-resistant waterhemp has been confirmed in four.

To learn more about waterhemp management in soybean, join us for a tour of our challenge plots that showcase comparisons of 29 PRE-emergence soybean herbicides, the value of Group 15 herbicides sprayed POST-emergence in soybean, and a systems approach for weed control in Xtend soybean.

**WATERHEMP MANAGEMENT CHALLENGE**

**Plot Tour**

**Friday, July 13, 2018**

**Lancaster Ag Research Station**

7396 State Rd 35 & 81, Lancaster WI 53813

Registration, coffee and donuts at 8:30 am

Tour starts at 9 am (concludes by 11 am)

RSVPs (by July 10th please) and questions?

Contact Dan Smith,
Southwest Regional Specialist,
Nutrient and Pest Management Program,

dhsmith@wisc.edu

(608) 219-5170

NPM
The following research trials will be showcased: 1) Herbicide Programs in Corn, 2) Weed Management in Enlist Corn, 3) Impact of Carrier Rate on Efficacy of PRE-Emergence Corn and Soybean Herbicides, 4) Comparison of PRE-Emergence Herbicides for Weed Control in Soybean, and 5) Systems Approach for Weed Control in Balance Beans, Enlist, Liberty Link, and Xtend soybean.

WEED SCIENCE PLOT TOUR

Tuesday, July 17, 2018
UW Arlington Ag Research Station
Public Events Building, N695 Hopkins Rd, Arlington, WI
Registration, coffee and donuts at 8:30 am
Tour starts at 9 am (concludes by 11:45 am)

RSVPs (by July 13th please)
Contact Mindy Breunig or Kelly Tomko-Ewing,
phone (608-846-3761) or
email: mindy.breunig@wisc.edu;
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Questions related to the tour,
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Cropping Systems Weed Scientist
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