To All Ag Reporter Email Recipients:

Here is your weekly update for ag information. Click on the topic and it will take you directly to that article. In order of appearance:

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Spring Planting

I hope planting is going well and you are about to wrap up most corn and soybean planting for 2021. The soil has not been very warm, but that will change quickly in the next few days. Be sure to take care of yourself by eating well, taking proper breaks, and trying to get good sleep at night.

Here is a chart of planting dates for crop insurance. Hopefully, all your planting will be done in plenty of time.

Date	Corn	Soybeans
Earliest Planting Date	April 11	April 26
Final Planting Date	May 31 – Grain June 5 – Silage	June 10 (North 2/3) June 15 (South 1/3)
Acreage Reporting Date	July 15	July 15

Variable Germination and Emergence in Soybean: Which Seeds Are Still Viable?

By Shawn Conley, UW-Madison Extension, Soybean Specialist

Many of us, including myself, have planted under less than ideal soil conditions this spring. Often the ground was worked a little on the wet side leading to clods and variable seeding depths for our soybean crop. Reports of variable and delayed emergence in conventional (more common) and no-till soybean is raising replant and seed viability questions in several areas across the Midwest. If soybean was planted into dry soil and had not imbibed water (seed did not swell) then there is little to no concern for growers. Once a significant rainfall event occurs, the soybean will imbibe water, germinate, and should emerge normally. For yield estimates, we would assign the day it rained as the new planting date.

The more difficult question to answer is "How viable is the soybean seed once imbibition and/or germination has begun?" The critical seed moisture content for soybean germination is 20%. A soybean seed that has imbibed water, has a split seed coat, or has an emerged radicle will continue to germinate and grow as normal once the seed is re-hydrated if the seed (embryo) remains above 20% moisture (Senaratna and McKersie, 1983) (Image 1).

Image 1. Soybean germination

If the moisture content within a soybean seed falls to 10% due to dry conditions after germination has started, then a dramatic difference exists among the different seed germination stages. If the seed has imbibed water for 6 hours (seed is swollen, but the seed coat has not broken), then the seed is dehydrated to 10% moisture, germination is not affected. If the seed has imbibed water for 12 to 24 hours (seed coat broken, but prior to radicle emergence), then germination is reduced to 60 to 65%. If the radicle has emerged and seed moisture levels drop to 10%, then no survivors can be expected (Image 2).

Image 2. Variation in soybean imbibition

To test seed viability, growers can conduct a simple germination test. First excavate 100 soybean seeds and wrap them in a damp paper towel. Place these seeds in a warm location, and after 24 to 36 hours, count the number of seeds that have germinated (Image 2). Remember that a typical soybean germination is 90% (Image 3).

Image 3. Soybean germination roll test

Literature Cited:

Senaratna, T. and B. D. McKersie. 1983. Dehydration Injury in Germinating Soybean (*Glycine max* L. Merr.) Seeds. Plant Physiology 72: 620-624.

https://coolbean.info/?s=

Conservation Day by the Lake

Join us for a day of learning at Schoepp Farms, overlooking scenic Lake Wisconsin for Conservation Day by the Lake! This event will be held on Saturday, June 19th from 2:00 pm until 7:30 pm at N2007 East Harmon Rd, Lodi, WI 53555. At this event, you will have the opportunity to learn about getting more out of your cover crops with managed grazing, manure management with low disturbance manure injectors, how to reduce inputs by planting green, and how to improve farm profitability while protecting natural resources and improving soil health.

We will hear from area farmers along with keynote speaker, Rick Clark, a 5th generation farmer using no-till and cover crops on his 7,000 acre farm in Warren Co. Indiana. Rick will share how he uses a systematic approach to improve soil health and increase farm profitability through management. Join us for this event to connect with fellow farmers and community members, learn about what area producer led groups are working on, and enjoy a catered dinner from the Sauk Prairie FFA Alumni while looking out on Lake Wisconsin.

This event is hosted by the Sauk Soil & Water Improvement Group (SSWIG), the Producers of Lake Redstone, the Lake Wisconsin Farmer Watershed Council, and the Sand County Foundation with support from the University of Wisconsin Extension, Juneau County Land and Water Conservation, Columbia County Land and Water Conservation, and the Sauk County Land Resources and Environment Department.

Seats are limited for this event so be sure to get your registration in early. Registration fees are $20.00/person and include a catered dinner and all program materials. The RSVP deadline is Thursday, June 10, 2021. Registration fees increase to $30.00/person after the registration deadline. For more information on this event or to register, please contact Justine Bula at (608) 355-4842 or email justine.bula@saukcountywi.gov

In response to COVID-19, all current CDC guidelines will be followed at the event.

Two Soil Nitrate Tests for Corn Production in WI

The NPM Program and UW-Madison Dept. of Soil Science Professor Carrie Laboski have recently completed a new publication on Wisconsin's two soil nitrate tests. Soil Nitrate Tests for Corn Production in Wisconsin: Preplant and Pre-Sidedress Nitrate Tests can be viewed and downloaded here.

(copy & paste link in browser if needed:)
https://ipcm.wisc.edu/download/pubsNM/UWsoilNitrateTests_final.pdf

Improving the efficiency of nitrogen (N) applications to corn is fundamental to promoting farm profitability and environmental quality in Wisconsin. By implementing the four Rs of nutrient stewardship — right rate, right time, right place, and right source — farms can tailor nutrient applications to maintain nutrient availability for crop growth while protecting water quality. Soil nitrate tests are examples of available tools to help determine the "right rate" of N for corn grain, corn silage, and sweet corn.

The amount of nitrogen available for crop uptake is influenced by many factors, so it is important to choose the proper soil nitrate test for your specific situation. Field specific considerations include: •

Soil texture • Timing of manure and nitrogen fertilizer application • Previous growing season and overwinter precipitation • Previous crop and its nitrogen status

Guidance on how and when to use each of the tests along with advice on soil sample collection are found in this four-page publication. Printed copies will be available this summer.

Soil Nitrate Tests for Corn Production in Wisconsin: Preplant and Pre-Sidedress Nitrate Tests
https://ipcm.wisc.edu/download/pubsNM/UWSoilNitrateTests_final.pdf

Version: 2021
1.2 MB
133 Downloads
Details...

"Bumper Crops" videos from UW-Madison Ag Specialists

Follow this link to watch one or all five new videos listed below: https://ipcm.wisc.edu/blog/2021/05/5-new-videos-from-uw-madison-ag-specialists/ Each segment is only 3 to 4 minutes in length.

Herbicide-resistant weeds in Wisconsin field crops are discussed by Damon Smith, Extension Specialist, Field Crops Pathology, and Rodrigo Werle, Extension Weed Specialist.

Terminating rye cover crops are discussed by Damon Smith, Extension Specialist, Field Crops Pathology, and Rodrigo Werle, Extension Weed Specialist.

Waterhemp management strategies for corn and soybeans are discussed by Dan Smith (UW NPM Southwest Wisconsin Regional Specialist) and Rodrigo Werle (UW-Madison Extension Cropping Systems Weed Scientist).

Early season wheat management decisions are discussed by Damon Smith, Extension Specialist, Field Crops Pathology, and Shawn Conley, Soybean and Wheat Extension Specialist.

Current topics around planting soybeans are discussed by Damon Smith, Extension Specialist, Field Crops Pathology, and Shawn Conley, Soybean and Wheat Extension Specialist.

Weekly Emails Online!
https://columbia.extension.wisc.edu/agriculture/newsletter/

The Ag Reporter "Snapshot" is presented to you each week by George Koepp, Columbia County UW-Madison Extension Agriculture Agent. If you have any questions about these articles or need other ag-related information, please contact George at 608-742-9682 or by email george.koepp@wisc.edu