

IOWA STATE UNIVERSITY

Extension and Outreach

CROP NOTES for June 17, 2020

Iowa State University Extension Information for Northeast Iowa

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Past issues of Crop Notes are posted at:

<http://www.extension.iastate.edu/winneshiek/page/crop-notes-brian-lang>

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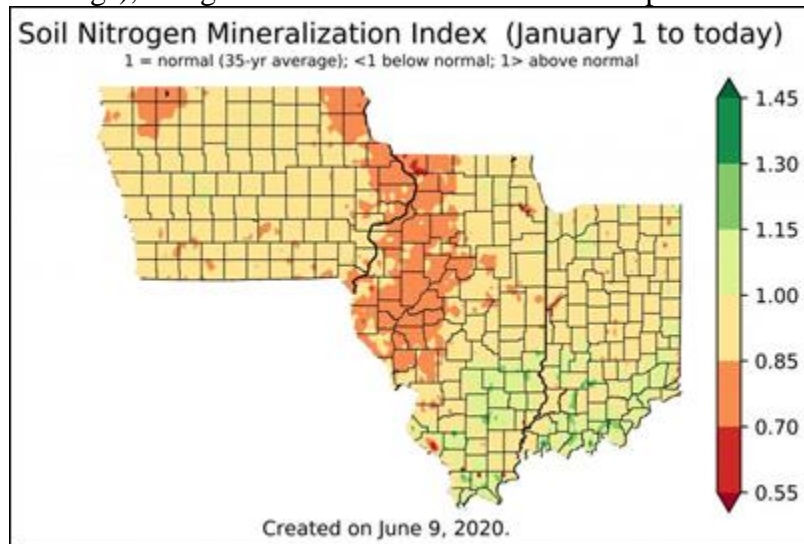
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WEATHER

Interesting Weather Facts in FACTS (Forecast and Assessment of Cropping sysTemS)

If you thought this spring was not only cooler but also cloudier, it was not your imagination. Read the article at: <https://crops.extension.iastate.edu/blog/mark-licht-sotirios-archontoulis-zach-clemens/facts-weather-assessment-june-1> Impacts this spring include slower than normal nitrogen (N) mineralization (graphic below) contributing to a slower start for the corn and oat crops in northeast Iowa. If the N mineralization was slow, so was the sulfur mineralization. This may account for some of the slower development in alfalfa this spring (old stands and new seedings), along with the late frost that set the crop back.



GROWTH & DEVELOPMENT

Corn

- From V1 to V10, corn develops a new leaf stage about every 84 GDD. After V10 a new leaf develops every 56 GDD.
- At V3 stage corn, the nodal root system (the root system starting at about ¾ inch below ground) should be a similar size to the initial seed roots (called the seminal roots).
- At V6 stage the seminal roots are no longer important and the main growing point is just above the soil surface.
- At V7 the number of rows of kernels for the ear is determined. The number of kernels per row begins initiation now and continues until about one week prior to silk emergence.
- After V7, corn growth moves into its 'rapid-growth-phase'.

Soybeans

- At V2 to V3 stage N-fixation from the nodules begins.
- A new leaf stage appears about every 5 days through the V5 stage. From V6, a new leaf stage appears every 3 to 5 days.
- At V5 stage the lateral roots completely reach across a 30-inch row.

- With a normal planting date and normal weather, R1 stage (1st open flower on the main stem) usually occurs in a full season variety for northern Iowa sometime within the first week of July. Earlier planted and a warm June could move up R1 stage by as much as two weeks.
- R1 stage is the cutoff for application of dicamba in dicamba-tolerant soybeans, and is the initial timing for some preventative White mold treatments.

INSECTS

Armyworm. Include armyworm in your scouting awareness throughout the entire month of June. Armyworm is easy to scout for, and allows some time to respond with treatment. Its feeding is above ground and the feeding injury is easy to identify. It greatly favors grasses (corn, small grains, forage grasses), and tends to not feed much on broadleaves (soybeans, alfalfa) unless there is nothing else to eat. There were just a few isolated reports of armyworm activity south of Hwy 20 in a corn following a rye cover crop.

Armyworm eventually eating all of the leaf except the mid-rib. No contact with the growing point yet, allows time for an insecticide treatment and full crop recovery.



Armyworm often hide from sunlight in the whorl.



Common Stalk Borer Larval Migration Starts in 1 Week

For those that lose corn plants in the first few rows along grassy field borders or grass-back terraces, you may have a problem with Common Stalk Borer.



A common control window for this pest is to wait for the beginning of larval migration from the grass field border into the first few rows of corn and apply an insecticide to that area. This larval migration occurs from 1,300-1,700 DD (from Jan. 1, base 41F) with the goal to treat within the first half of this window. When a larva within the grass stem gets too large for the grass, it “dead-heads” the grass (kills its growing point which turns the grass prematurely tan color – see photo below) and moves out to find something with a larger stem like the nearby corn. Current DD are about 1,350 along Hwy 20 and 1,250 along Hwy 9. The Hwy 9 area will reach 1,300 on Thursday. The migration starting at about 1,300 DD provides a prime window of about 7-10 days to spray an insecticide on the first few rows of corn along the grass border. **You can scout for “dead-heads” in the grass borders as a way to estimate if there are just a few or many Common stalk borer along your field.** Don’t worry about treating if the “dead heads” are few.



Corn Rootworm Egg Hatch about a Week Behind Normal

50% egg hatch occurs at about 684 to 767 soil degree days (base 52 from Jan. 1). This normally occurs mid-June. Currently northern Iowa has about 600 soil DD and should reach 700 DD in another 4 days.

European Corn Borer (ECB)

- All corn is protected up to about 17 to 21-inch extended leaf height by a naturally occurring compound in corn called DIMBOA.
- Once corn grows beyond the 17 to 21-inch extended leaf height, we start scouting fields not protected by Bt ECB traits (identified in the Handy Bt Trait Table: https://agrilife.org/lubbock/files/2020/02/BtTraitTable_FEB_2020.pdf)
- The first ‘taller’ corn in an area will be the most attractive to ECB moths for egg laying.
- The following free publication includes photos of a hatching egg masses, shot-holing, stalk and ear damage, as well as general timelines and threshold calculations: <https://store.extension.iastate.edu/Product/15141> An interactive spreadsheet threshold calculator is also available at: <https://www.ipm.iastate.edu/field-crop-insects> (two-thirds down the page). In a nutshell, threshold is roughly an average of 1 larva per plant.

Japanese Beetles

Japanese beetles are starting to appear in southwest Iowa, however we probably won't see any in northeast Iowa until July 1. Initial appearance coincides with about 1,030 DD (base 50, starting Jan. 1). Northeast Iowa is currently at about 750 DD. As with any defoliator insect in soybeans, the threshold for V-stage soybeans is 30% defoliation, and for R-stage soybeans is 20% defoliation.

Potato Leafhopper (PLH)

Its routine to scout for PLH in alfalfa from June through August. Scouting and management tips are available at: <http://www.extension.iastate.edu/CropNews/2009/0615hodgson.htm> The only way to properly scout for PLH is with a 15-inch diameter sweep net.

Thistle Caterpillar

Southwest Iowa is finding some Thistle caterpillar activity in their region, but not much elsewhere. As with any defoliator insect in soybeans, the threshold for V-stage soybeans is 30% defoliation, and for R-stage soybeans is 20% defoliation. For a refresher on Thistle caterpillar ID, go to: <https://crops.extension.iastate.edu/encyclopedia/thistle-caterpillar>

DISEASES

White Mold

Planning ahead for preventive treatments at R1-R2 stage soybeans (R1 = an open flower on any node of the main stem; R2 = an open flower on one of the two uppermost nodes on the main stem). The Crop Management Network lists fungicide efficacy for control of various soybeans diseases including White mold (<https://crop-protection->

network.s3.amazonaws.com/publications/fungicide-efficacy-for-control-of-soybean-foliar-diseases-filename-2020-03-18-150123.pdf). Ratings of products for White mold include a very good rating for Endura applied at R1-R2, a good to very good rating for Aproach applied at R1 and again at R3, a good rating for Omega, Lektivar, and Propulse applied at R1-R2. Cobra herbicide also carries a label for White mold suppression with application recommended at or just before R2 (instructions on page 11 on the following label: <http://www.cdms.net/ldat/ld621002.pdf>).

AG DECISION MAKER JUNE UPDATE

How to streamline your CFAP application

This link takes you to an article that provides a step-by-step guide to using USDA's CFAP Payment Calculator. Reading the article in full before downloading the spreadsheet, and following steps 1-18 sequentially will save you time and frustration.

<https://www.extension.iastate.edu/agdm/articles/plastina/PlaJun20.html>

UPCOMING EVENTS

June 24, 25, 26, Virtual Spring Field Day Webinar Series

In replace of the traditional face-to-face ISU Research Farm Field Day in June, ISU Extension is offering three 30-minute webinars. Each webinar will start at 8:00 AM with a 20-minute presentation followed by 10 minutes for questions. Topics to be featured each day of the webinar series are:

- June 24: Utilizing Tile Drainage to Better Manage Nitrogen and Improve Corn Yields, Mike Castellano, Professor of agronomy (CCA credit of 0.5 SW)
- June 25: Late Season Field Scouting with UAVs, Matt Darr, Professor in agricultural and biosystems engineering (CCA credit of 0.5 CM)
- June 26: Multi-tactic Approaches to Manage Herbicide Resistance, Prashant Jha, Associate professor in weed management (CCA credit of 0.5 PM).

This webinar series is free and open to anyone. It will be offered through ZOOM. There is no charge to attend, however registration is required and can be completed by going to www.aep.iastate.edu/serf After registering, participants will receive an email with instructions and a link for joining the webinar series. Once registered, you will be able to watch any or all the webinars. Participants may join through their web browser, mobile phone or tablet. Participants will need to download a free app prior to joining. Participants should join the webinar 15 minutes in advance to ensure connections and software is working correctly. If you cannot attend the live webinar, a recording of each session will be posted for viewing as soon as they are available on the ISU Extension Crops Team YouTube Channel. For more information, questions or if you need assistance with registration please contact ISU Extension agronomists Rebecca Vittetoe at 319-653-4811, or rka8@iastate.edu ; Virgil Schmitt at 563-263-5701, or vschmitt@iastate.edu ; or Josh Michel at 319-523-2371, or jmichel@iastate.edu

June 27, Dairy Drive-Thru ScAGvenger Hunt, Calmar

1:00 to 4:00 PM. Celebrate National Dairy Month with a Dairy Drive-Thru ScAGvenger Hunt hosted by Iowa's Dairy Center. The event will be held Saturday June 27 from 1:00 to 4:00 PM at 1527 Hwy. 150 S, Calmar. Visitors will get a close-up look at cows by driving their vehicle around the farm, even right through the maternity and freestall barns. Attendees will be given a scavenger hunt card at the beginning to look for agriculture-related clues throughout the experience. At the end, the Winneshiek County Dairy Promoters will be serving Moo Mobile shakes right to your vehicle. This family-friendly event is free to the public. The event will be weather permitting with a rain date scheduled for Saturday July 11. There will be no building access for restrooms during the event. All attendees must stay inside their vehicle at all times. For more information or questions, visit the Northeast Iowa Dairy Foundation's Facebook page <https://www.facebook.com/ISUDairyTeam/> or contact Mariah Busta at info@iowadairycenter.com

July 1, Soil & Water CCA Webinar for 3 SW Credits

8:00 to 11:00 AM, Webinar, \$25 registration required by midnight June 29.

Topics:

- Progress and tools for scaling up adoption of Iowa Nutrient Reduction Strategy
- Tile Drainage: Reducing nitrogen fertilizer, increasing yield and implementing conservation practices

To register, go to www.aep.iastate.edu/serf-cca/ The link, password and instructions for joining the webinar will be emailed to participants after the registration is completed with payment and prior to the start of the session on July 1. Participants may join through their web browser, mobile phone or tablet. Participants will need to download a free app prior to joining. Participants should join the webinar at least 15 minutes in advance to ensure connections and software is working correctly. For more information, questions or if you need assistance with registration please contact ISU Extension agronomists Rebecca Vittetoe at 319-653-4811, or rka8@iastate.edu ; Virgil Schmitt at 563-263-5701, or vschmitt@iastate.edu ; or Josh Michel at 319-523-2371, or jmichel@iastate.edu

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