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Extension and Outreach

CROP NOTES for July 8, 2019
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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WEATHER
GDD for the Next 2 Weeks is Good News
For northeast Iowa, the long-term average GDD for the middle of July is about 22 per day. The next two weeks (July 8-July 21) should average about 24.5 per day. Great news, still warmer than normal to move the crop along. However, the forecasters (National Weather Service) still think the 30-day outlook beyond this two weeks is for cooler and wetter than normal conditions.

Hail

June 30 had +60 mph winds across most of northeast Iowa. This brought some widespread but spotty wind and hail damage. I am not aware of any hail damage that significantly affected any corn fields. I received one report of hail damage in soybeans that cut-off a number of plants. Obviously, if soybeans were cut below the cotyledonary node, those plants are dead. If cut above the cotyledonary node, new shoots will develop from the axillary buds from that node. The complication with soybeans is that hail injury assessment includes calculations of percent lost plants, percent cut nodes, and evaluation of stem bruising. The formulas for this assessment is included in the *Loss Adjustment Standards Handbooks.* You can download a copy of these at:

- *Soybean Loss Adjustment Standards Handbook*: https://www.rma.usda.gov/-/media/RMAweb/Handbooks/Loss-Adjustment-Standards---25000/Soybeans/2019-25440-Soybeans-Loss-Adjustment-Standards-Handbook.ashx
- *Corn Loss Adjustment Standards Handbook*: https://www.rma.usda.gov/-/media/RMAweb/Handbooks/Loss-Adjustment-Standards---25000/Corn/2019-25080-Corn-Loss-Adjustment-Handbook.ashx

Those handbooks can be a bit overwhelming. If you just want a simple publication covering the basics on hail damage to corn and soybeans, please download these free pdf copies from ISU Extension:

- *Hail on Corn in Iowa*: https://store.extension.iastate.edu/product/14776
- *Hail on Soybean in Iowa*: https://store.extension.iastate.edu/product/14792

Wind & Green-Snap, Pinching & Root Lodging

The +60 mph winds in northeast Iowa on June 30 caused some wind damage to corn fields. This damage could have been from root-lodging, pinching, or green-snap. These types of damage will vary with crop stage, row direction to wind direction, current soil moisture conditions and hybrid. This July 2012 article includes a paragraph or two on contributing factors and yield reductions for root lodging, pinching, and green snap. https://crops.extension.iastate.edu/cropnews/2011/07/wind-and-corn

CORN

Growth and Development

Emerged corn will develop a new leaf every 84 GDD up to V10, then develop a new leaf every 56 GDD up to Tassel (VT). For a map of current GDD from May 1 to today, go to: http://mesonet.agron.iastate.edu/GIS/apps/coop/gsplot.phtml (FYI, the Decorah location is in error, ignore it). For your various planting dates, subtract 100 GDD to account for emergence, then divide by 84 GDD to get an approximate leaf stage. Once the crop gets to V10 (the first 840 DD), then divide the remainder by 56 to estimate the leaf stages beyond V10. Example, so May1 to July 7 at Fayette is 914 GDD. 914-100=814, divided be 84 = 9.7, rounded up to V10 stage corn. Whereas, May 15 planted corn at Fayette would be roughly V9 stage. Beyond V10 stage, there is development of a new leaf every 56 days. With GGD averaging 24.5 per day, that's 3 new leaves per week.

SOYBEANS

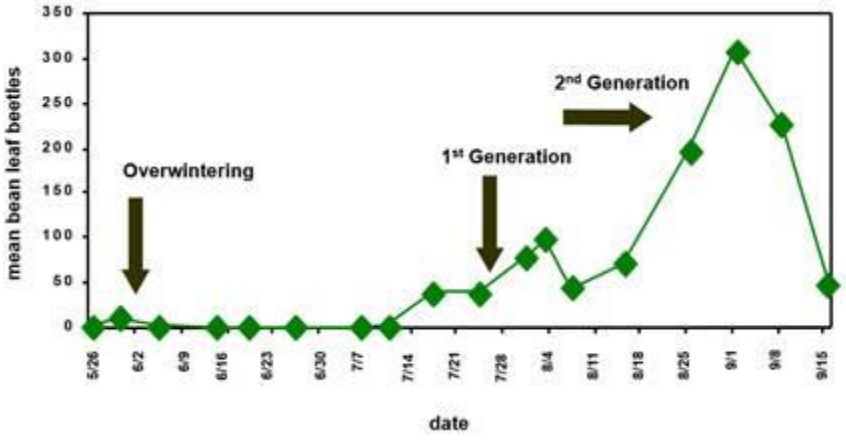
Growth and Development

A new V-stage appears roughly every 5 days from VC to V5. By V5 stage, lateral roots completely reach across a 30-inch row. Early and mid-May planted soybeans should have reached 1st flower (R1 stage). Earliest planted fields should be at R2 stage. Timing of certain herbicides (end of Xtend applications) and fungicides (timing for White Mold) are at play. Please read under "DISEASES" in Crop Notes about fungicides for White Mold.

INSECTS

Bean Leaf Beetle

It's been a while since we have seen overwintering BLB in early soybean development in northeast Iowa. We could find a few here and there, but nothing close to threshold (40% defoliation of seedling soybeans). The 1st generation BLB tends to runs through July, which would be mostly in reproductive stage soybeans, so now the threshold drops to 20% defoliation (30% defoliation in the V-stages). Then a 2nd generation still occurs in the August-September window and can also include pod clipping as well as defoliation. For this we have a threshold using a sweep net. I'll post the sweep net threshold information in the next Crop Notes. FYI, below is an example of typical seasonal population trends for BLB.



True Armyworm (TAW)

We like to scout through June for 1st generation True Armyworm feeding activity. Reports of any activity have been almost non-existent. There can be a second generation of True Armyworm in the middle of summer. I ran into one of those fields in 2017 where the armyworm went unnoticed and consumed about 20% of the field. Low numbers for 1st generation assumes minimal threat of 2nd generation, but if it happens to occur in your 'odd' field it can still be devastating. As you continue to scout regularly for other issues (European corn borer, foliar diseases, corn rootworm assessments), it's easy to notice defoliation injury from armyworm to react in plenty of time if necessary.

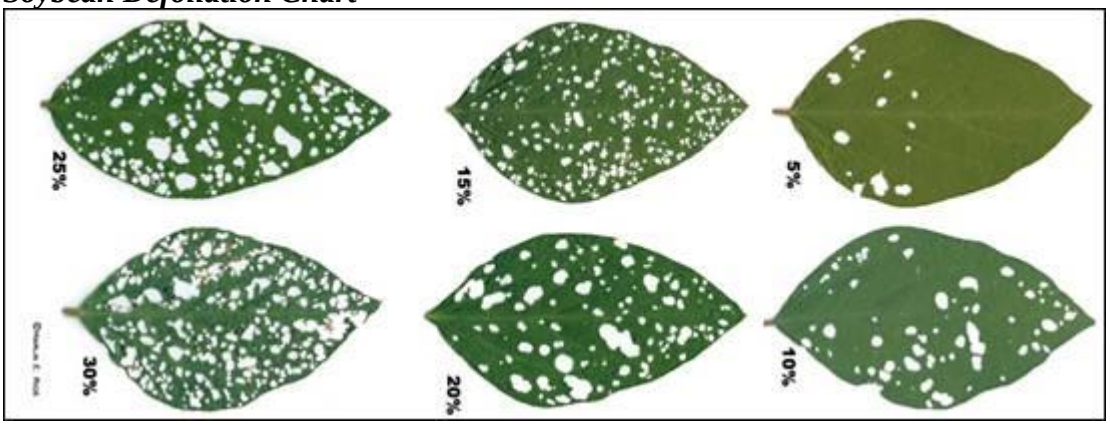
European Corn Borer (ECB)

If you are not using ECB Bt-corn, as corn reaches to height of 18 inches (extended leaf height; about knee-high), you should begin scouting for 1st generation ECB. From knee-high to waist high we look for shot-holing in leaves. If found, we following the steps mentioned in the following fact sheet (pages 8-9) https://store.extension.iastate.edu/Product/15141 . The good news for the later planted corn is that ECB moths are most attracted to the taller earlier planted corn.

Potato Leafhopper (PLH)
Scout for PLH in alfalfa through August. Don't forget to scout the new seedings. Scouting and management tips are available
at: https://crops.extension.iastate.edu/cropnews/2014/06/managing-potato-leafhoppers-alfalfa

Thistle Caterpillar
It's been a while since we have seen this extremely infrequent pest in Iowa soybeans. The greatest activity is in Southwestern Iowa with a number of fields treated for the pest. In northeast Iowa we can find them in most fields, but few and scattered. Economic threshold is 30% defoliation in vegetative stage soybeans, and 20% defoliation in reproductive stage in soybeans. Here's some photos and more information about this pest:
https://crops.extension.iastate.edu/thistle-caterpillar

Japanese Beetles (JB)
Southern Iowa reports the initial appearances of JB. I saw a few yesterday on my garden's green beans and raspberry plants. Japanese beetle adults need about 1,030 growing degree days (base 50°F, starting Jan. 1) to complete development, and will continue emergence until around 2,150 degree days. Northeast Iowa is currently at about 1,050 to 1,150 DD. Adults emerge from grass in early July and immediately begin to feed on low-lying plants such as roses and shrubs. Adults eventually move to trees and field crop foliage to feed and mate. Mated females move back to grass areas in August and September to lay small egg masses in soil cavities. Just like any defoliator, as we move into R-stage soybeans, 20% defoliation is considered economic threshold. That threshold is for the sum total of any and all defoliators (caterpillars, beetles, grasshoppers). For JB identification, go to: https://hortnews.extension.iastate.edu/japanese-beetle
Soybean Defoliation Chart



Free Tick Identification Service offered for the 2019 Summer
The Medical Entomology lab at ISU is offering a FREE tick identification service this summer. We invite anyone that has found a tick on themselves, a family member, or their pet to send their tick(s) for identification. Simply follow the directions on the tick submission form at:
https://www.ent.iastate.edu/dept/faculty/smith/files/page/files/tick_submission_form.pdf
Please note that this service does not test for the presence of pathogens. We will only identify the tick to provide information regarding potential risks of tick-borne disease. If fever or rash develop within days after removing a tick, consult a physician immediately. Also available is an

excellent color publication from the ISU Extension Store, PM 2036 "Ticks and Tick-borne Diseases in Iowa". Get a free download copy at https://store.extension.iastate.edu/Product/12612

DISEASES

Foliar Fungicide Efficacy Table Publications for Corn and Soybeans

These publications are a free download from the *Crop Protection Network*. You can find most any crop disease information on the latest updated publication at this website.

Soybeans

https://crop-protection-network.s3.amazonaws.com/publications/fungicide-efficacy-for-control-of-soybean-foliar-diseases-filename-2019-03-25-121546.pdf

For example, if you are curious about using a foliar fungicide for control of White Mold (largely based on field history of the problem, and variety resistance rating), the efficacy table provides the following:

- Endura 0.7DF – very good control with a single application at the R1-R2 stage.
- Omega 500DF – good control.
- Propulse 3.34SC – good control.
- Aproach 2.08SC – good to very good control when applied at both the R1 and R3 stages.

Resistance concerns… Another concern with foliar diseases in soybeans is that strobilurins are no longer recommended for *Forgeye Leaf Spot* and *Cercospora Leaf Blight* due to resistance issues. And the strobilurins are of questionable performance on Brown Spot (*Septoria brown spot*).

Corn

https://crop-protection-network.s3.amazonaws.com/publications/cpn-2011-corn-fungicide-efficacy-for-control-of-corn-diseases.pdf

Tar Spot in Corn

The University of Wisconsin has developed a risk-prediction model for Tar Spot. The current model shows high risk for Dubuque and other parts of northeast Iowa. https://crops.extension.iastate.edu/blog/alison-robertson/tar-spot-risk-predictions-iowa-june-23-2019 Obviously spores must be present, so the elevated risk for NERF (Northeast Research Farm) might not mean much since the disease has not been found there yet. But the disease was present in Dubuque County last year. The high risk assessment does NOT mean treat now, but rather to timely scout and treat if the disease is identified. The foliar fungicide efficacy table for corn does not yet rank product choices for Tar Spot. The disease is too new to have a research database on various products' performance. The current choice would be to play it safe using a mixed mode of action product.

WEEDS

Wild Parsnip

As many are aware, the sap from this weed causes phytophotodermatitis, a skin reaction ranging from sunburn-type redness to blistering burns when skin is exposed to sap and sunlight. The sap can affect any person or animal. The amount of sap and sunlight exposure determines the severity of the reaction. For animals, photosensitivity can also occur with ingestion of above ground vegetation followed by exposure of the animal to sunlight. The plant's chemicals circulate in the bloodstream and may also cause liver damage at high enough concentrations.

Because of this, “hay containing wild parsnip should not be used as feed or bedding”, according to Extension Equine Specialist, Krishona Martinson, University of Minnesota. Wild parsnip is toxic at all growth stages, even when cut and dried in a bale of hay, although the toxic dose of wild parsnip is unknown. If you chose to use a herbicide to control Wild Parsnip in the road ditch and intend to harvest ditch hay, please read the pesticide label carefully for harvest and feeding restrictions associated with that herbicide. If burning Wild Parsnip in the roadside, or maybe as baled hay to dispose of it, be aware that skin irritation could result through inhalation of the smoke. While Wild Parsnip is not currently listed on Iowa’s noxious weed list, however, it is listed as a prohibited-control noxious weed by the Minnesota Department of Agriculture and must be controlled in Minnesota in accordance to the Minnesota Noxious Weed Law (MN Statutes 18.75-18.91).

EVENTS

July 17, Soil Health and Water Quality Workshop, Grundy

9:00 AM to 1:30 PM at the Grundy County Fairgrounds. Topics include: Landowner-tenant collaboration, Relay cropping, Edge-of-field practices, Prairie strips, Urban conservation, and Soil health. For more details, go to: https://practicalfarmers.org/events/field-days/soil-health-and-water-quality-workshop/?utm_source=pnews&utm_medium=email&utm_campaign=07.05.19 Free lunch will be provided, but please RSVP to Denise Freeseman, Grundy County SWCD, at denise.freeseman@ia.nacdnet.net or (319) 824-3634, ext 3, by Wednesday, July 10.

July 25, Workshop on Revised RUSLE2 and Iowa P-Index, Altoona

8:00 AM to 4:30 PM at the ISU Extension Polk County office in Altoona. Service providers and livestock producers that develop manure management plans (MMP) can learn or remind themselves how to use the Revised Universal Soil Loss Equation 2 (RUSLE2) and the Iowa Phosphorus Index to be used in creating those MMP. The introductory level workshop provides hands-on software orientation, including an introduction to the operating parameters, selection of input values, and developing and saving management operations for RUSLE2. More details about the program, agenda and registration is available at: https://www.extension.iastate.edu/news/isu-extension-and-outreach-host-rusle2-soil-loss-workshop-0

July 31 & Aug 1, Planning for Profitability in a Changing Dairy Industry, Decorah (July 31) & Rock Rapids (Aug 1)

9:00 AM to 2:00 PM on July 31 at Pinter’s Gardens located at 2475 State HWY 9, Decorah; and on Aug. 1 at the Forster Community Center in Rock Rapids.

Key presentations include:

- Cash versus accrual accounting and how it will be affected by changes in the tax laws – presented by Tom Thaden, Eric Hofland and Reggie Hostetler, Agriculture Consultants from the Northwest Iowa Farm Business Association
- Using FINBIN and DHIA data to predict financial success on small-medium sized dairies – presented by Joleen Hadrich, Extension Economist and Associate Professor of Applied Economics at the University of Minnesota

- The value of a risk management strategy – presented by Cassie Monger, Dairy Industry Specialist with Compeer Financial
- Dairy Market Outlook – presented by Fred M. Hall, Northwest Iowa Dairy Specialist with ISU Extension and Outreach.

For more details about the program, registration, etc., go to:
https://www.morningagclips.com/planning-for-profitability-program/

July 30-Aug 26, 2019 Farmland Leasing Arrangements Meetings, 9 locations in northeast IA

- July 30, 1:00 to 3:30 PM, Decorah, at Bank of the West, register 563-382-2949.
- July 30, 6:00 PM to 8:30 PM, Cresco, Howard County Extension office, register 563-547-3001
- Aug 1, 1:30 PM to 4:00 PM, Mason City, NIACC, register 641-423-0844
- Aug 8, 9:00 AM to 12:00 PM, Charles City, Floyd County Extension office, register 641-228-1453
- Aug 8, 1:30 PM to 4:30 PM, Tripoli, Bremer County Extension office, register 319-882-4275
- Aug 9, 6:00 PM to 8:30 PM, Cedar Rapids, Linn County Extension office, register 319-337-2145
- Aug 14, 6:00 PM to 9:00 PM, Elkader, at the Freedom Bank, register 563- 245-1451
- Aug 22, 1:30 PM to 4:00 PM, Allison, Butler County Extension office, register 319-267-2707
- Aug 26, 1:00 PM to 3:30 PM, Monticello, Jones County Extension office, register 319-337-2145

Updated land values & cash rental rates; USDA Farm Bill highlights; Writing and terminating a farm lease; Family & Landlord-Tenant communication; Trends, outlook in farmland leasing; Production costs lease considerations; Methods to set fair rents, flexible leasing.
The 3-hour workshop includes a comprehensive workbook and other resources. Registration Fee is $20 per person if pre-registered, and $25 per person at the door.
Other locations across the state listed at:
https://www.extension.iastate.edu/agdm/info/meetings.html

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