

**CROP NOTES for June 1, 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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**GROWTH & DEVELOPMENT**

**Corn**

Emerged corn develops a new leaf stage about every 84 GDD.

### Long-term average GDD in northeast Iowa:

- for early June its about 15 GDD per day, although we can expect an average of 23 GDD per day for this warmer than normal week.
- for mid-June its about 18 GDD per day.

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). Once corn reaches V6 stage, the seminal roots are no longer important.

## **Soybeans**

### Basic Scouting for Emerged Soybeans. Check for:

- 1) Population, seed depth and plant spacing. Did you get what you intended with your planter settings? If a reduced stand, why? soil crusting, planter setup, seedling disease or soil insects (seedcorn maggot, wireworms, grubs)?
- 2) A final stand of a uniform 100,000 plants per acre should maximize yields. It seldom pays to replant uniform stands of 75,000 because of the cost of replanting and yield penalty for the delayed planting. Below is plant population table in plants per foot of row.

Row Width	Desired plants per acre (X1000)					
	75	100	125	150	175	200
6 inch	0.9	1.2	1.4	1.7	2.0	2.3
7.5 inch	1.0	1.4	1.8	2.2	2.5	2.9
10 inch	1.4	1.9	2.4	2.9	3.3	3.8
15 inch	2.2	2.9	3.6	4.3	5.0	5.7
20 inch	2.8	3.8	4.8	5.7	6.7	7.7
30 inch	4.3	5.7	7.2	8.6	10.0	11.5

## **ALFALFA**

### **Timing First Crop Harvest of Alfalfa with PEAQ**

Timing first crop alfalfa harvest by calendar date does not work well. Spring climates vary from year to year, and fields managed differently also affects spring regrowth. Different varieties, age of stand, fertility, last season's cutting schedules, fall harvest or not, can all influence the rate of regrowth in spring. This spring we had both a cooler spring and a significant frost on May 9, each of which potentially setting back first crop harvest about a week.

PEAQ stands for predictive equation for alfalfa quality, and is a quick and easy method to assess when individual alfalfa fields are ready for harvest based on a forage quality estimate. All you need is a yard stick and Table 1 in ISU Extension publication CROP 3141, which is available from your county ISU Extension office or download at: <https://store.extension.iastate.edu/Product/15234> PEAQ provides a RFV estimate for the standing crop. It is critical that you subtract from your standing crop RFV reading in Table 1 by either 15 RFV units for a haylage harvest or 25 RFV units for a hay harvest to account for anticipated forage quality harvest losses. So if you are targeting alfalfa haylage for 150 RFV, you would harvest when Table 1 for PEAQ reads 165 RFV (bud stage alfalfa, stem height 27-28 inches). Typical alfalfa quality targets for cattle are 150 RFV for 1st trimester dairy and calves, 135 RFV for stocker cattle, and 120 RFV for lactating beef cattle. And, of course, take into account the weather forecasts. Don't wait for a little more stem growth if it's going to put you into a rain delay.

This spring ISU Extension staff around the state will be providing some PEAQ readings from alfalfa fields and posting them on a website at: <https://www.extension.iastate.edu/dairyteam/peaq> . You will be able to track these postings over time, but we strongly encourage that you take PEAQ readings from your own alfalfa fields for best assessment of harvest time. A few current readings from this website include: Bremer county field checked on May 26 with a 185 RFV; Dubuque county field checked on May 28 with a 170 RFV; and Winneshiek county field checked on May 28 with a 195 RFV.

## INSECTS

### Iowa Moth Trapping Network Update on True Armyworm & Black Cutworm

The May 27 update on moth trapping is available at: <https://crops.extension.iastate.edu/blog/ashley-dean/iowa-moth-trapping-network-update-week-8>

**True Armyworm.** Current moth trapping now has significant flights into northern Iowa. It is typical to include armyworm in your scouting awareness throughout the entire month of June. What's nice about this is that 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.

*Feeding on young corn. Growing point still below ground.*



*Feeding on corn farther along. Eats all but the mid-ribs. No contact with the growing point yet, allows time for an insecticide treatment and full crop recovery.*





*Armyworm often hide in the whorl from sunlight.*



**Black Cutworm.** Moth trapping has picked up significantly in the western half of Iowa. While flights have still been light in northeast Iowa, it is time to include this pest in your routine scouting until corn reaches V5 stage. Most corn in northeast Iowa is currently V2 stage, with earliest planted corn at V3 stage. Every 84 GDD adds another leaf stage. This ‘warm’ week should average 23 GDD per day where the long-term average is 15

per day. Tips on scouting, identification and thresholds for treatment is available at:

<https://crops.extension.iastate.edu/cropnews/2020/05/2020-scouting-recommendations-black-cutworm>

## Common Stalk Borer Larval Migration in 2 Weeks

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.



There are 3 basic options for controlling this pest.

Option 1 was to use a controlled burn in late March-early April of the grass field border of the corn field to kill the eggs. The over-wintering stalk borer eggs are on the dead grass residue bordering corn fields.

Option 2 was to apply an insecticide over the grass field border during the egg hatch window. This window runs about 575 to 750 degree days (base 41 from Jan. 1). Current degree days (DD) in northeast Iowa are >750.

Option 3 is to wait for larval migration from the grass field border to the first few rows of corn, and apply an insecticide over the grass field border and first few rows of corn. This is timed at 1,300-1,700 DD, which is usually around mid-June. Current DD are about 800 along Hwy 9 and 900 along Hwy 20. We should reach 1,300 DD around June 17 along Hwy 9 and June 13 along Hwy 20

Also, some Bt corn controls or suppresses stalk borer and some do not. Check the “ Handy Bt Trait Table” for those products: [https://agrilife.org/lubbock/files/2020/02/BtTraitTable\\_FEB\\_2020.pdf](https://agrilife.org/lubbock/files/2020/02/BtTraitTable_FEB_2020.pdf)

## Bean Leaf Beetle (BLB)

While we have not seen much of any early season BLB activity in northeast Iowa for many years, the mild winter would have improved survivability of this overwintering pest. So as you scout emerged fields for plant population, uniformity of stand, etc., also pay attention to any feeding on cotyledons and initial leaf development. BLB often scatter and hide when disturbed. So you may have to just go by degree of defoliation of young plants ( $\geq 40\%$ ), rather than beetle numbers per plant (VC stage - 3/plant; V1 stage – 5/plant). The beetles can be different colors and with or without spots, but the defining feature is that they all have a black triangle at the front of the abdomen.



Figure 1. Bean leaf beetle.





**Figure 2. VC stage soybean seedlings with 30% defoliation.**

### **Thistle Caterpillar**

Last year, southern and western Iowa had to deal with high populations of Thistle caterpillar. Southwest Iowa commented today about finding some Thistle caterpillars in their region. As with any defoliator insect in soybeans, the threshold for V-stage soybeans beyond V1 stage is 30% defoliation. For a refresher on Thistle caterpillar ID, go to: <https://crops.extension.iastate.edu/encyclopedia/thistle-caterpillar>

### **Trapping Network for Corn Rootworm – Free Traps for Cooperating**

ISU Extension is starting up a new trapping network for corn rootworm. If you are interested in volunteering to set up and monitor traps for corn rootworm or would like additional information, send an email to [bugtraps@iastate.edu](mailto:bugtraps@iastate.edu) by June 15, 2020. Please include your contact information and mailing address in the email. As part of the Iowa corn rootworm monitoring network, ISU will provide enough traps for each cooperator to monitor one transect (4 traps) for 4 weeks. Traps and a protocol will be mailed to you in late June. Trapping would likely begin during the third week of July (depending on degree days for the season). <https://crops.extension.iastate.edu/blog/ashley-dean-erin-hodgson/new-trapping-network-corn-rootworm>

### **Alfalfa Weevil**

Past Crop Notes discussed this pest. We are close enough to 1<sup>st</sup> crop harvest to just harvest rather than treat for this pest if it reached economic threshold. I did not find any populations for concern in northeast Iowa, but there has been significant activity in parts of southern Iowa.

### **Potato Leafhopper (PLH)**

PLH migrate up from the southern U.S. every spring, often first found in our region in mid- to late May, and becomes of concern to scout for after first crop harvest. 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 sweep net. When purchasing a sweep net, it should be a 15-inch diameter net.

### **Aphids in Alfalfa**

It usually takes drier conditions for development of aphids in alfalfa. Southwest Iowa is currently finding some activity. Timely control of potato leafhopper usually also controls aphids. Also, it takes lots of aphids to reach threshold levels, and populations are usually quite spotty across a field.

#### ***Economic thresholds for aphids in alfalfa from publication IPM-58***

Plant height, inches	Pea aphids/stem	Blue aphids & Cowpea aphids/stem	Spotted aphids/stem
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< 10	30 – 50	10 - 50	10 – 20
10 – 20	50 – 75	30 - 50	20 – 40
> 20	100	> 50	> 40

**Green and pink pea aphids** (photo from University of WI).



**Cowpea aphids.**



**Beneficial insect levels to justify not treating:**

- 1 or more adult lady beetles to 5 – 10 aphids
- 3 or more lady beetle larvae to 40 aphids

**DISEASE**

**Fusarium Head Blight (FHB) in Wheat – repeat from last Crop Notes**

As the crop approaches flowering, it’s time to prepare for the option to use a foliar fungicide application at Feekes 10.5.1 growth stage. Scout fields as wheat enters this critical period for FHB. If considering a fungicide, suggested products include Prostaro, Caramba, Miravis Ace, and Proline. Replicated research indicates all of the suggested products are most effective on FHB when applied between Feekes 10.5.1 through 5 days after 10.5.1.

For an picture of Feekes 10.5.1, check the Purdue University publication on page

5: <https://www.extension.purdue.edu/extmedia/ID/ID-422.pdf>

For more information on FHB, go to: <https://cropprotectionnetwork.org/resources/articles/diseases/fusarium-head-blight-of-wheat>

## WEEDS

### Post-Emergence Corn & Soybean Herbicide Choices

As you consider options for your Post-emergence programs in corn and soybeans, the University of Wisconsin created the following resource listing most post-emergence options and their restrictions to crop growth stage or plant

height: [https://www.wiscweeds.info/img/2020%20POST%20Window/2020%20POST%20Herbicide%20Application%20Window\\_Final.pdf](https://www.wiscweeds.info/img/2020%20POST%20Window/2020%20POST%20Herbicide%20Application%20Window_Final.pdf)

## UPCOMING EVENTS

### June 3, Webinar on “Ongoing Impacts from the 2019 Harvest and Early 2020 Crop Forecast”

10:00 AM, Free program, register at the following link:

[https://zoom.us/webinar/register/1715895679458/WN\\_D1sFdj92QhuO\\_9jsrrNO0g](https://zoom.us/webinar/register/1715895679458/WN_D1sFdj92QhuO_9jsrrNO0g)

Iowa State’s Dr. Hurburgh, a professor in the department of Agricultural & Biosystems Engineering, will explore the ongoing impacts of the 2019 harvest, including; poor quality grain, lack of grain storage space, market pricing, overall economy and other impacts. The session will also touch on very early forecasting of the 2020 crop, what to expect and start potentially planning for.

### June 10, Four-State Dairy Nutrition and Management Conference, Virtual

This conference presents the latest research on issues concerning the dairy industry including feed efficiency, calves and transition cows. Participate live on the virtual conference. Registration fee: \$75 before June 1, \$100 after June 1. Live presentations and Q&A sessions will be recorded and available to participants for 60 days after the conference. Registered participants will be emailed where to receive links to the conference recordings and PDF materials. Program details are at: <http://fourstatedairy.org/> or contact Jim Salfer at [salfe001@umn.edu](mailto:salfe001@umn.edu), or 320-203-6093.

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