

# CROPCHAT



ISU Extension information and resources for northeast Iowa

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## Quick Links

- [ICM News](#)
- [Crop Watch Blog](#)
- [Corn Production](#)
- [Weed Management](#)
- [Iowa State Research Farms](#)
- [Soil Fertility](#)
- [Crop Diseases](#)
- [Ag Decision Maker](#)
- [Farm Energy Initiative](#)
- [Corn Growth and Development](#)
- [Weed ID Field Guide](#)
- [Corn Field Guide](#)
- [Soybean Field Guide](#)
- [Corn and Soybean Diseases](#)
- [It's a Bugs Life \(Blog\)](#)

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## Crop Progress and Update

We got rain this week (Tuesday, August 23rd) in northeast Iowa! The research farm at Nashua got 1.35" of rain on Tuesday morning of this week as I was driving to work. This should really help both the corn and soybeans as they continue to mature and fill. We are at about 2130 growing degree days (GDD's), which is a little above normal for this time of year. For more information, go to:

<http://mesonet.agron.iastate.edu/GIS/apps/agclimate/gspot.phtml>.

## Corn

Most of the corn in northeast Iowa is in varying degrees of the R5 or Dent stage, depending on when it was planted. The new publication, *Corn Growth and Development (PMR 1009)*, splits R5 into substages depending on the progression of the milk line. This is a critical stage for optimum test weight development. At the beginning of R5, only 45% of the total kernel dry weight is accumulated. This leaves more than 50% to be accumulated in the R5 stage. Environmental stress factors occurring during this period will reduce the kernel weight of the plant. Once the corn enters the R5 stage, it has an average of 33 days before it reaches physiological maturity (R6) or "black layer." For more information and detailed descriptions with color pictures, pick up a copy of the new publication by clicking on the link in the "Quick Links" section to the left.

## Corn Leaf Aphid

Corn leaf aphid and bird cherry oat aphid have begun to infest corn fields in certain areas of Iowa the past two weeks. These areas include the northwest and northeast corners of Iowa, along with west central Iowa. Depending on the severity/pressure of the insect and growth stage of the corn, some fields have been treated with an insecticide. If the population of these aphids is high enough, they will secrete enough honeydew to create a black sooty mold, covering the corn leaves and ultimately affecting photosynthesis. As of right now, the only treatment thresholds we have for aphids in corn is before tasseling. To help with insecticide and treatment considerations, Erin Hodgson, ISU Extension entomologist, just recently wrote an article in the ICM News, [Corn Aphids Explode](#).

## Goss's Wilt Management

Here is a good article from ICM News to help with fall management decisions for fields that have Goss's Wilt. It describes the survival of the bacterium that causes Goss's Wilt in soil and crop residues.

[Survival of the Goss's Wilt Bacterium and Management Implications](#)

## Soybeans

Soybeans in northeast Iowa are in varying degrees of the R5 stage as well. The moisture that we had in the area this morning will greatly help, as this is the stage where the greatest seed growth occurs. R5 is determined when there is a seed that is 1/8" long in the pod at one of the four most uppermost nodes on the main stem. The seed continues to grow or expand in the pod until it fills the width of the pod cavity, which is then the R6 stage.

## Soybean Aphids

Soybean aphids have been slow to populate in fields this growing season, except for the last seven to 10 days. Brian Lang, ISU Extension field agronomist, noted that aphid numbers just about doubled from 92 to 177 per plant in a research plot near Decorah from last week to this week. Some of the later planted soybean fields have been sprayed for soybean aphids, along with a few that are surrounded by tree claims and have extreme aphid populations. Continue to scout the soybean fields that were planted late, as they aren't as far along and a treatment would be justified if aphid populations are 250 or more per plant. Most of the soybean fields in northeast Iowa are at the stage where they are far enough along (R5.5 - R6) that an insecticide treatment is unwarranted.

## New Bean Leaf Beetle Threshold Calculator

Erin Hodgson, ISU Extension entomologist, and Mike McCarville, Dept. of Entomology, have created a new tool to help BLB management decisions for first and second generation BLB. It is in an excel format that can easily be downloaded on your computer. Continue to monitor soybean fields for second generation BLB populations and damage, as they start feeding from mid August and will continue to feed all the way up to seed set.

[A New Bean Leaf Beetle Threshold Calculator is Created](#)

## Two-Spotted Spider Mites

Due to prolonged periods of hot, dry weather in parts of Iowa, infestations of spider mites have begun showing up in soybean fields. Most of the time, they will start at the field margins, and then move into the rest of the field. Spider mites damage the plant by inserting their mouth parts into the plant cells and sucking out all the contents. Injury symptoms appear as tiny white or yellow spots on the leaves, which is called "stipling." Injury is heaviest on the underside of the leaves. As the damage becomes more severe, the leaves will turn yellow, then brown or bronze, and eventually die and drop off.

Two-spotted spider mites are very small (< 0.002 inch) and a 10X magnification hand lens will need to be used to see them. Another way is to tap the soybean leaves on a white piece of paper and look for the movement of the adult spider mites. Research has shown that treatment should be considered if there are live spider mite colonies in the field and 20% to 25% of the leaves are discolored before pod set, or 10% to 15% discoloration after pod set.

Treatment options for spider mites are limited to chlorpyrifos, dimethoate, and bifenthrin or mixtures that have these ingredients. Minnesota research trials of insecticides on spider mites have shown pyrethroids, except bifenthrin, not to be very effective, and can actually increase the number of spider mites due to elimination of the natural enemies. Pay close attention to pre-harvest intervals, particularly as we get closer to physiological maturity of the soybeans. Please read and follow label directions. Listed below are some links with good information regarding two-spotted spider mites.

[Two Spotted Spider Mites](#)

[Two Spotted Spider Mite Potential on Soybean in Dry Areas](#)

[Drought Stress Favors Grasshoppers and Spider Mites](#)

## Upcoming Events

### Northeast ISU Research Farm Field Day - August 31st

Nashua, IA - 1:00 p.m. to 4:30 p.m. Speakers: 1. Charles Hurburgh, ISU Extension Ag Engineer, Grain Storage and Grain Quality Management 2. Aaron Gassmann, ISU Extension entomologist, Corn Rootworm Management and Bt Corn Rootworm Traits 3. Antonio Mallarino, soil fertility and nutrient management specialist, Micronutrients, Plant Analysis, and Soil Test Accuracy 4. Bob Hartzler, ISU Extension weed management specialist, Fall & Early Spring Weed Control