

IOWA STATE UNIVERSITY

Extension and Outreach

CROP NOTES for May 4, 2020 – Corrected Soil Temperatures

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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Contents

WEATHER	1
Soil Temperatures	1
Growing Degree Days	1
Wind Speed & Direction Forecasts	2
EMERGENCE	3
Corn	3
Soybeans	4
WEEDS	4
What's Happening To My PRE herbicide on the Soil Surface?	4
INSECTS	4
Iowa Moth Trapping Network Update on Armyworm & Black Cutworm	4
Common Stalk Borer Egg Laying Window	5
Alfalfa Weevil	5
UPCOMING EVENTS	6
June 10, Four-State Dairy Nutrition and Management Conference, Virtual	6

WEATHER

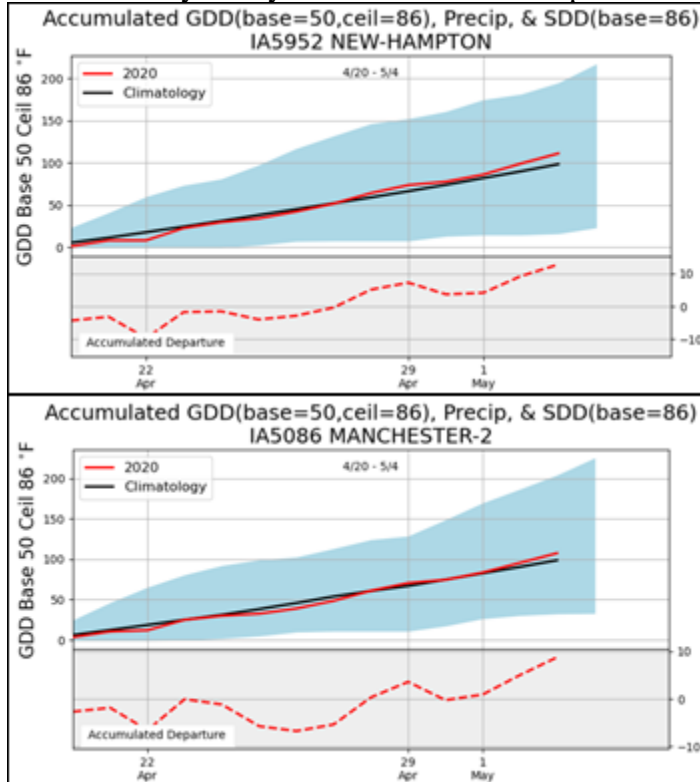
Soil Temperatures

Currently the average 4-soil temperatures for northeast Iowa are in the mid- to upper 50's. Even with the forecasted cooler week ahead with lows into the 30's all week, the daily high's will still be 50 or better, so soil temperatures will not decrease to any level of concern.

Growing Degree Days

Current corn growing degree days (GDD) are running fairly close to the long-term average. For example, below is a chart plotting GDD (base 50, April 20) for New Hampton and Manchester.

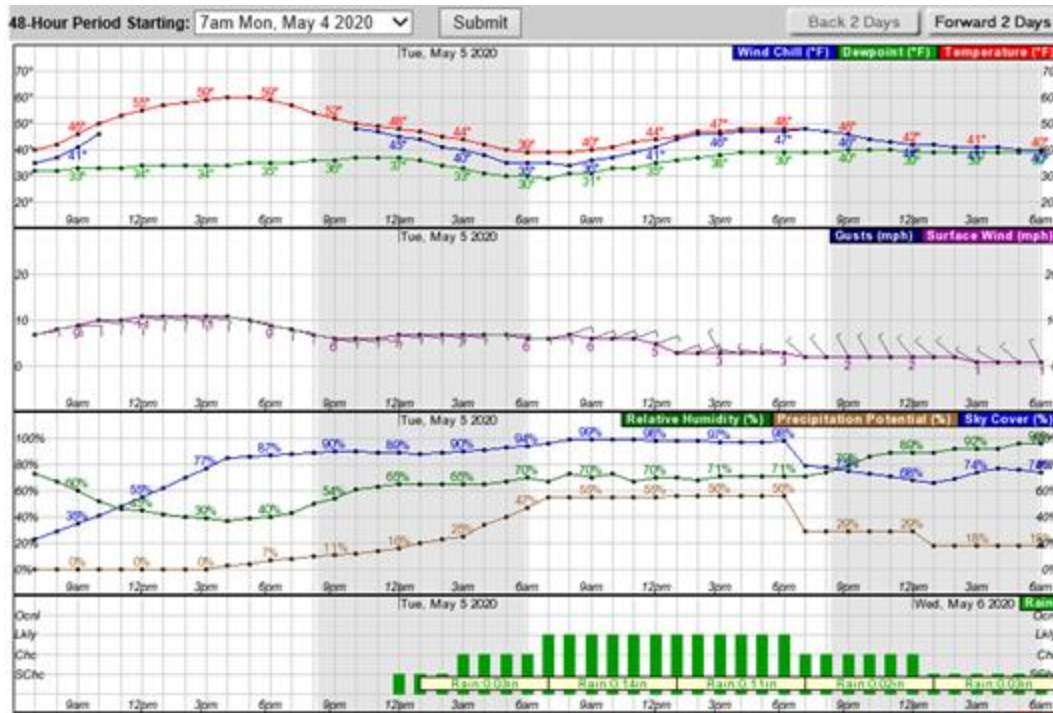
The black line is the long-term average GDD, and the red line represents 2020. The red dashed line shows day to day accumulated GDD departures from normal.



The current forecast is for cooler than normal weather all week, with average daily GDD of only 3-4/day when the long-term normal for this week is 8-9/day.

Wind Speed & Direction Forecasts

A good web site for weather forecasts on wind speed and direction is the National Weather Service. Go to: <https://www.weather.gov/>. Enter your zip code in the upper left hand search box. When the forecast page comes up, page way down and click on the box titled "Hourly Weather Forecast" (looks like the chart below). This chart forecasts the next 6 days (2 days to a page) of hourly wind speed and direction, temperature and other information. For example, the chart below is for Decorah today and tomorrow. Today's wind speed and direction are easterly at 9 to 11 mph. Tomorrows starts northeasterly at 5 to 6 mph and changes to northwesterly at 3 mph. I think this website works quite well **except** for the precipitation forecasts.

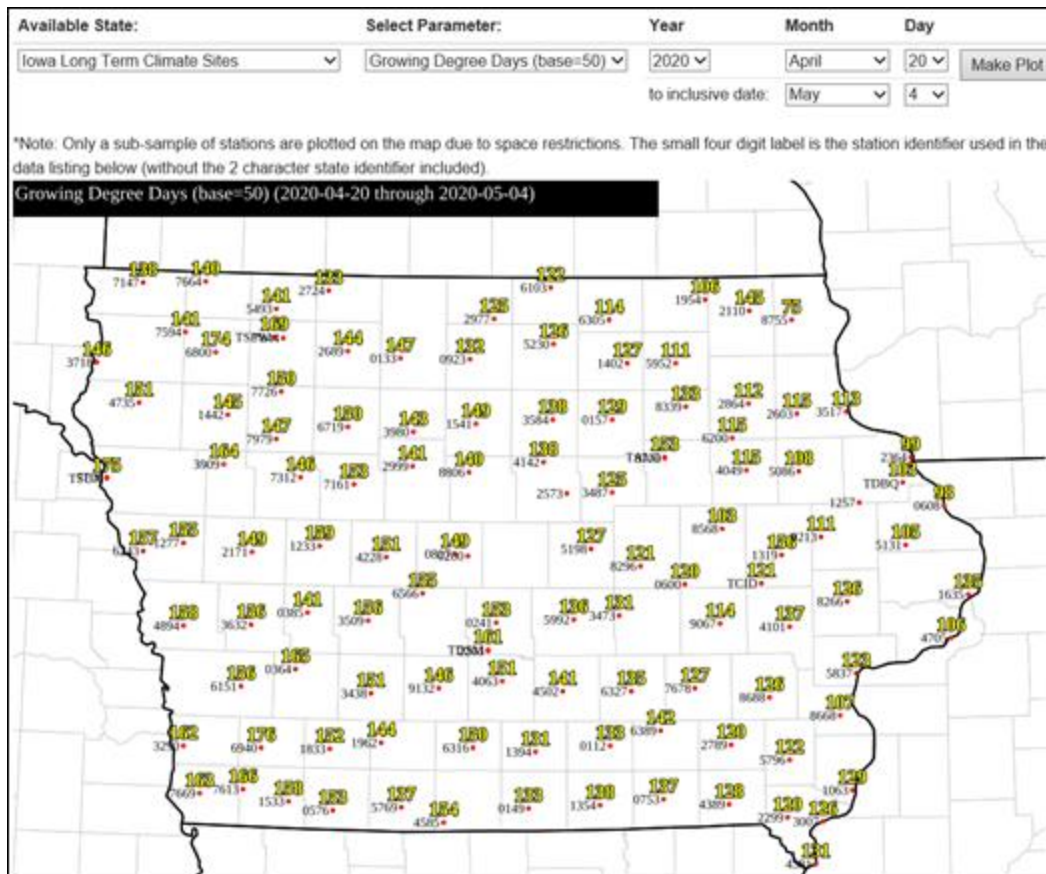


EMERGENCE

Corn

Corn takes anywhere from 90 to 120 GDD from planting to initial emergence. It's usually closer to 120 GDD for early spring planting and closer to 90 GDD for late spring planting. Laboratory studies have shown that for most corn hybrids grown in the Midwest, seedling emergence is about 3 weeks with an average soil temperature at 51°F, and about 1 week with an average soil temperature at 70°F. As a general rule, if no emergence is seen by 120 GDD, scout the field to assess the condition of planted seed. For a map of current GDD, go to:

<http://mesonet.agron.iastate.edu/GIS/apps/coop/gplot.phtml> On this website enter your planting date and click on Make Plot. The map below has a planting date of April 20. At this time please ignore readings from Decorah, Waukon and Waterloo. Their automated weather stations need maintenance.



Soybeans

Generally, emergence of soybeans takes a little longer than for corn, with GDD in the ballpark of 110 to 140 GDD. For both corn and soybeans, the estimated GDD to emergence also assumes that seeds were planted at proper depth with good seed-to-soil contact and into sufficiently moist soil and soil temperatures $\geq 50^{\circ}\text{F}$ in order to imbibe water and germinate.

WEEDS

What's Happening To My PRE herbicide on the Soil Surface?

Maybe it will rain tomorrow, but otherwise here's a nice article from ISU Extension Weed Specialist Bob Hartzler on Pre-herbicides and dry soil conditions.

<https://crops.extension.iastate.edu/blog/bob-hartzler/what%E2%80%99s-happening-my-pre-herbicide-soil-surface>

INSECTS

Iowa Moth Trapping Network Update on Armyworm & Black Cutworm

Last week's report posted at <https://crops.extension.iastate.edu/blog/ashley-dean/iowa-moth-trapping-network-update-week-4> shows just a little moth trap activity of True armyworm in the

southern half of Iowa, and some moth trap activity of Black cutworm up to about Hwy 20. Neither are of concern for northeast Iowa at this time and for at least another 3 weeks.

Common Stalk Borer Egg Laying Window

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 is 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) for regions along Hwy 9 and Hwy 20 are 340 DD and 420 DD, respectively. Current predictions to 600 DD for regions along Hwy 9 and Hwy 20 are May 23 and May 20, respectively.

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.

Also, some Bt corn controls or suppresses stalk borer and some do not. Check the “Handy Bt Trait Table” for those

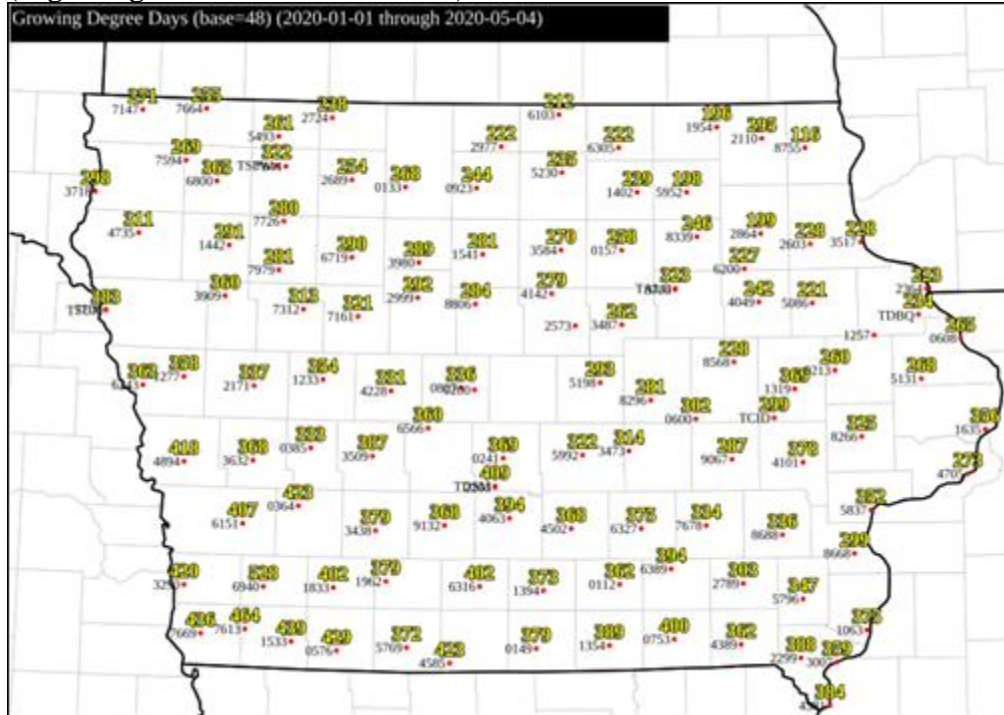
products: https://agrilife.org/lubbock/files/2020/02/BtTraitTable_FEB_2020.pdf

Alfalfa Weevil

The rather mild winter favors better overwintering of alfalfa weevil. However, we have not had problems with this pest for many years which is why we scout first to see if there is a problem. We start scouting for alfalfa weevil in northeast Iowa once degree days (DD) exceed 250 (Base 48 from Jan. 1). Southern Iowa starts starting at >200 DD. Current DD in northeast IA are about 200 DD along Hwy 9 and 230 DD along Hwy 20. A rough extrapolation would put 250 DD at about May 11 for the Hwy 9 region and May 7 for the Hwy 20 region. Greater risks would be on south-facing slopes and proximity to woodlands. The quickest and easiest way to initially scout for Alfalfa Weevil is to use a sweep net just to survey a field. If there are some alfalfa weevil in the net, then refer to the scouting procedure and threshold information in this April 2018 article <https://crops.extension.iastate.edu/cropnews/2018/04/alfalfa-weevils-get-slow-start-2018> The current Iowa Mesonet map shows DD accumulations as of today. Please ignore readings from Decorah, Waukon and Waterloo. Their automated weather stations need maintenance. To create a DD map like this at a future day, go to

<https://mesonet.agron.iastate.edu/GIS/apps/coop/gspot.phtml?var=gdd50&year=2020> . Set your

parameters for Growing Degree Day base temperature (48 for alfalfa weevil), and date (beginning Jan. 1 for alfalfa weevil). Then click on Make Plot.



UPCOMING EVENTS

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, or 320-203-6093.

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