CROP NOTES for April 26, 2018
Iowa State University Extension Information for Northeast Iowa
Brian Lang, ISU Extension Agronomist, Decorah, IA
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WEATHER
Soil Temperature
Current soil temperatures are around 50 F, but nighttime low air temperatures will still be in the low to mid-30’s for Thursday-Saturday. After that, with nightly low air temperatures of 40’s or better, soil temperatures will stay above 50 F. Forecasters predict a cold front to come through next week with a 40% chance of rain on Tuesday-Wednesday, but air temperatures are forecasted to remain on the warm side (70 day/50 night).

Here’s the current Iowa Mesonet 4-inch soil temperatures (http://mesonet.agron.iastate.edu/agclimate/smts.php) for the ISU Northeast Research Farm near Nashua:

Snow cover last week held the 4-inch soil temperature at about 32-33 F (the red line still at 32-33 F on April 20). Once the snow melted and air temperatures increased (the blue line), you can see the diurnal temperature fluctuations with min-max soil temperatures on April 26 at about 47 and 66, respectively. This measurement is over bare soil. Soil temperature under crop residue would be a little cooler daytime and a little warmer nighttime.

6 to 10 Day Forecast
For what it’s worth (hey it’s a weather forecast!), the 6 to 10 day outlook has a 40-50% probability of warmer than normal temperatures and above normal precipitation for northeast IA. http://www.cpc.ncep.noaa.gov/products/predictions/610day/

WEEDS
Dicamba On-line Training for Iowa Pesticide Applicators
The new rules that require “Additional Label Training” for those that want to use the new dicamba formulations on dicamba resistant soybeans can now achieve this requirement through an on-line course. You can find the online course options at https://www.agribiz.org/dicamba-training/
Then page down and chose one of the “ONLINE TRAINING LINKS”. Any of the three will meet requirements for all three products.
BASF
https://www.engeniastewardship.com/#/training
Check FieldWatch® Before You Spray
FieldWatch® provides a voluntary mapping tool to show pesticide applicators the locations of registered sensitive crops and beehives so they can make informed decisions regarding potential pesticide applications. Recently added are two new mobile apps to improve access. For more information, go to: https://crops.extension.iastate.edu/cropnews/2018/04/fieldwatch%C2%AE-%E2%80%93-you-spray

INSECTS
Seedcorn Maggot Activity in Southern Iowa
Peak adult emergence for 1st generation occurs about 360 DD (base 39) of which southern Iowa is at or above. Northeast Iowa is currently at about 200 DD. We’ll reach 360 DD by late next week. If planting into recently tillage residue, especially green residue (cover crop, CRP, rotated hay/pasture), or winter/spring applied manure, the field would be at some risk and an insecticide seed treatment could be used. More details are provided in the following article: https://crops.extension.iastate.edu/cropnews/2018/04/seedcorn-maggot-active-southern-iowa

Common Stalk Borer Control in Corn – Still time for Option 1
Option 1 is a prescribe burn of grass bordering corn fields.
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 tends to be the most effective if it can be done safely.
1) Right now, the over-wintering stalk borer eggs are on the dead grass residue bordering corn fields. A controlled burn of the grass will destroy most of the eggs. Take the proper precautions: (a) Don’t burn if roadside crews have established native plantings in your road ditches. (b) Be aware of roadside utilities (gas, electrical, communications) that could be damaged and you would be held liable. (c) Pay attention to ‘no-burn’ orders if droughty conditions exist in the county. (d) Be careful of other trash in ditches (discarded oil or gas cans, broken glass, etc.). For prescribe fire planning and coordination, please read the following article: http://www.extension.iastate.edu/smallfarms/spring-time-prescribed-fire-time-iowa
2) Some Bt corn controls or suppresses stalk borer, and some do not. Check the “Handy Bt Trait Table” for those products: https://lubbock.tamu.edu/files/2018/01/BtTraitTableJan2018.pdf

3) Otherwise we can wait for either Common stalk borer egg hatch (starts ~575 DD) or larval migration (starts ~1,300) from Jan. 1 base 41, which I will report on when the time comes. Northeast Iowa is currently at ~180 DD and a rough extrapolation at this time to reach 575 DD would be about May 16.

Black Cutworm
Central Illinois trapping has recently detected significant moth flights of Black Cutworm. Iowa usually runs a bit later than Illinois in the flight detections. Once we detect significant flights we’ll track 300 DD (base 50) from the flight-trap date to what would generally be initial feeding of larvae and the starting time to scout corn fields for this pest. Stay tuned for more information.

True Armyworm
Trapping in Illinois has recently detected a some armyworm moths, but nothing significant yet. Iowa has also set up pheromone traps this spring and we will share the trapping reports once they occur. In general, in northeast Iowa, armyworm scouting lags behind black cutworm scouting.

Alfalfa Weevil
It’s been over a decade since we have seen any problems with this pest in Northeast Iowa. But you never know when a larger population will appear. So we track degree days (Base 48) and provide a heads-up when it’s time to scout. Scouting begins at about 250 DD from January 1. Current DD base 48 in northeast IA are about 80 DD for the Hwy 20 region to 50 DD for the Hwy 18 region. A rough extrapolation at this time puts 250 DD at about May 9 for the Hwy 20 region and May 12 for the Hwy 18 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

SOIL FERTILITY
Corn N Rate Calculator
Consider using the Corn N Rate Calculator to provide a practical baseline economic N rate, then begin your discussion of then fine-tuning the N rates for different fields, N placement, fall or spring applied, split application, with or without manure applied (fall or spring, surface or incorporated, type of livestock), etc. Go to: https://crops.extension.iastate.edu/blog/john-sawyer/corn-nitrogen-rate-calculator-website-2018-update

Anhydrous Ammonia Application & Planting Time
Here’s some tips on planting safely soon after an anhydrous ammonia application. Separation between the ammonia zone and seed placement is critical.
1) Knife the ammonia as deep as the equipment allows (~7 inches), and applying under adequate soil conditions that allow for good closure behind the knife. Those rushing the application tend to inject at a shallower depth and/or apply in wetter field conditions and smear sidewalls with the
injection knife. 2) RTK GPS would provide the accuracy for no-wait planting between injection zones. Otherwise inject anhydrous at an angle to planting direction to avoid damage to large tracks of corn rows. 3) The higher the rate, the more risk by creating a larger ammonia zone during application. A planned split N application program can reduce the rate of pre-plant N. 4) There is no specific “safe” waiting period. You often hear about waiting a week from application to planting, but (1) and (2) above help compensate for this. More details on this and other N management options is provided in the following article: https://crops.extension.iastate.edu/cropnews/2018/04/late-spring-nitrogen-considerations

Other N Management Considerations
Details provided in the same article mentioned above: https://crops.extension.iastate.edu/cropnews/2018/04/late-spring-nitrogen-considerations

Starter Fertilizer
Best chance of benefiting from starter fertilizer
- With lower than recommended P and K broadcast application rates
- Without primary N application before planting
- Continuous corn, especially in no-till with low or no pre-plant application rates
- Cooler than normal soil temperatures
- No-till with high residue cover with low pre-plant application rates
- Northern Iowa soils with moderate to poor drainage
- Late planting dates
More details on this and other N management options is provided in the following article: https://crops.extension.iastate.edu/cropnews/2018/04/fertilization-can-help-cool-soils-and-late-planting-dates

COVER CROP
Rye Cover Crop and Planting Corn
Good news/Bad news… Bad news- the rye got a slow start this spring and is still short. The good news – weather conditions (i.e. day/night temps of 60’s/40’s) works well for control with glyphosate. Cooler nights (<40F) have been problematic for control of rye with glyphosate. But by Sunday, night temps are +40F. A common recommendation is to herbicide kill the rye, then wait 10-14 days before planting corn. This appears to be more important with delayed termination of taller rye. If we took this literally, and cover crops are terminated today, the two week delay would mean planting on about May 9. Based on the table below, planting today suggests 100% yield potential, and planting May 9 suggests a 4% yield reduction. And if the weather does not allow planting on about May 9, yield losses could be greater. Research measuring yield reductions if planting corn too soon after the rye is killed has shown yield reductions of 0-15% (other research having less concerns and other research with even greater yield reductions). So, there is no one right answer to this dilemma. For tips on herbicide kill of cover crops please read Bob Hartzler’s article at: http://www.weeds.iastate.edu/mgmt/2014/covercropterm.pdf
FARM MANAGEMENT

Updates to Delayed and Prevent Plant Provisions

Insured acres that have already been planted but need to be replanted may qualify for a special replanting insurance payment. This assumes that the acreage was planted after Iowa’s beginning planting dates (April 11 for corn and April 21 for soybean). Replant payments are based on the value of eight bushels of corn or three bushels of soybeans per acre, times their respective projected insurance prices determined in the month of February. For 2018, that is about $32 per acre for corn and $30 per acre for soybeans. To qualify for indemnity payment under the replanted or prevented planting provisions, a minimum area of 20 acres or 20 percent of the insured unit must have suffered loss, whichever is smaller.

In Iowa, the crop insurance “late planting period” begins after the final planting date of May 31 for corn and June 15 for soybeans. The new “practical to replant periods” will run from June 1-10 for corn and June 16-25 for soybeans. “Those who hold this insurance may want to contact their crop insurance agent to make sure they understand the “practical to replant” provisions in their crop insurance policy since the ending dates have changed slightly for 2018,” said Steve Johnson, farm management specialist with Iowa State University Extension and Outreach. For unplanted corn acres, beginning June 1 producers in Iowa have three choices: (1) Plant corn as soon as possible with a reduced guarantee, (2) Shift to soybeans with full insurance coverage, (3) Apply for prevented planting. Qualified acres are insured at 55 percent of their original guarantee for corn and 60 percent for soybeans.

Ag Decision Maker recently posted the following:
Delayed and prevent planting provision for Multiple Peril Crop Insurance:  
https://www.extension.iastate.edu/AGDM/crops/html/a1-57.html  
Delayed and prevent planting provision decision tool spreadsheet:  
https://www.extension.iastate.edu/AGDM/crops/xls/a1-57delayedplantingevaluator.xlsx
ALFALFA
Growth and Development
I have recently had questions about how slow the alfalfa is developing. Please realize that soil temperatures were still at 32-33°F just last week. It takes about 750 GDD (base 41 starting March 1) for alfalfa to reach bud stage. We can’t change that math, and we have essentially zero GDD prior to last week. Northeast IA is currently at about 135 GDD, whereas long-term average conditions would have us at 345 GDD by this time. From here on, if we have normal growing conditions, we should reach 750 GDD by about May 28.

EVENTS
April 27, Vegetable Production Workshops to Explore Managing Disease, Insect Pests and Weeds, Calmar
8:30 AM to 2:00 PM at NICC Dairy Center. The workshop is designed to help growers, local foods coordinators, extension staff, county horticulturists and industry representatives learn to manage common insect and disease challenges in vegetable production in Iowa. Topics to be covered include pest and disease management in vegetable production, weed management and how to correct nutrient deficiencies in vegetable crops. There also will be live plant samples with disease symptoms and disorders. Participants will be encouraged during the workshop to take a quiz to identify these diseases and disorders. For more information, contact Teresa Wiemerslage, 563-794-0599, Email: wiemer@iastate.edu

Upcoming programs at the Northeast Iowa Dairy Foundation, Calmar
ISU Extension, NICC and the Dairy Foundation will be hosting a series of applied workshops for dairy producers, employees and students. The workshops will be held at Iowa’s Dairy Center south of Calmar and will feature a mixture of classroom and hands-on learning on the dairy farm. Mark your calendar for the following dates:
- April 18-19: Seven Habits of Highly Successful Feeders
- April 25-26: It’s Transition Time
- May 1-2: Calmar Calf College
- May 8-9: Master Hoof Care Workshop
- May 9-11: Dairy Robotics
Additional details will soon be available at www.iowadairycenter.com Prices and participation will vary based on the workshop. If you are interested in participating in one of these workshops, please contact Mariah Schmitt at (563) 534-9957 or schmittma@nicc.edu

May 10, Field Scouting Basics Workshop, Boone
10:00 AM to 4:00 PM at the Field Extension Education Lab. A one-day hands-on course for beginning corn and soybean crop scouts. Optional Agricultural Worker Pesticide Safety training follows at 4:00 to 5:00 PM. Details are provided at: http://www.aep.iastate.edu/feel/scout.html

June 13-14, Four-State Dairy Nutrition & Management Conference, Dubuque
At the Grand River Center, Dubuque, IA. Presenting the latest research on issues concerning the dairy industry including feed efficiency, calves, and transition cows. Complete agenda and registration is available at http://www.wiagribusiness.org/fourstate.html
June 21, Northeast Iowa Silage Conference, Dubuque
9:30 AM to 3:30 PM at the Midway Best Western Plus, Dubuque (3100 Dodge Street). The conference will feature presentations from both academic and industry experts. This one-day conference will focus on the keys to growing, harvesting, storing and feeding high quality silage to beef and dairy cattle. Topics include quality corn silage before, during & after harvest, characteristics of corn varieties for silage, preventing molds and mycotoxins, pricing corn silage, silage in beef or dairy rations, and safety. Online registration and more conference information is available at: http://www.aep.iastate.edu/silage/

June 28, Seventh Annual Iowa Swine Day, Ames
Showcases national industry speakers. Details at http://www.aep.iastate.edu/iowaswineday/

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Brian Lang
Iowa State University Extension
Agronomist
325 Washington St., Suite B
Decorah, IA 52101
Office 563-382-2949
Fax 563-382-2940
Cell 563-387-7058
www.agronext.iastate.edu/