

IOWA STATE UNIVERSITY

Extension and Outreach

CROP NOTES for March 19, 2020

Iowa State University Extension Information for Northeast Iowa

Brian Lang, ISU Extension Agronomist, Decorah, IA

Past issues of Crop Notes are posted at:

<http://www.extension.iastate.edu/winneshiek/page/crop-notes-brian-lang>

To be removed from this email newsletter, please email me the request.

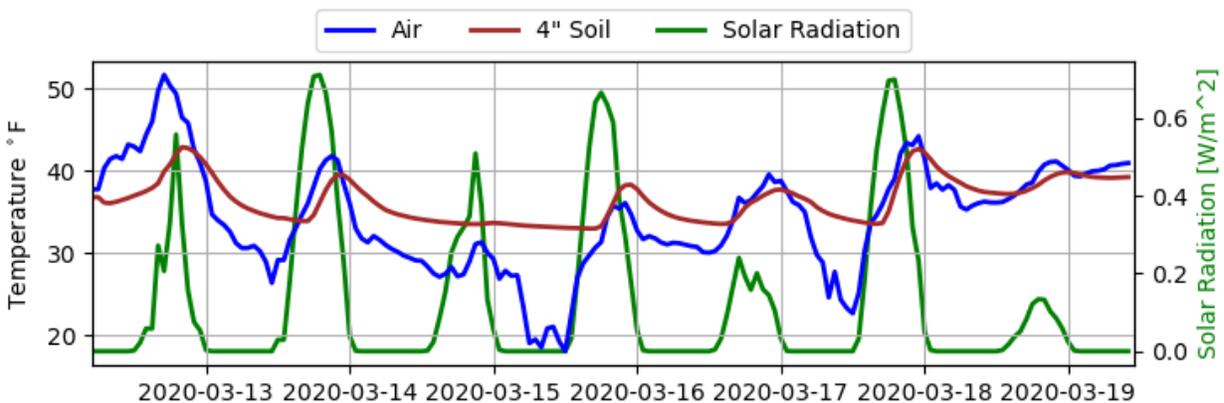
Table of Contents

WEATHER	2
Soil Temperatures.....	2
NITROGEN	2
It's Nearly Time to Apply Nitrogen to Winter Small Grains in Northeast Iowa	2
Anhydrous Ammonia Considerations for Spring 2020.....	3
Spring Corn Nitrogen Fertilization Considerations for Urea, UAN, and Other Products	3
PASTURE	3
Frost-Seeding	3
Nitrogen Fertilizer Recommendations.....	3
WEEDS	3
Instructions for On-Line Dicamba Training	3
Managing Winter Annual Weeds.....	3
Time for Biennial Thistle Control in Pastures.....	4
DISEASE	4
Efficacy Tables for Foliar Fungicides & Seed Treatments	4
FARM MANAGEMENT ITEMS	4
Iowa Farm Custom Rate Survey March 2020.....	4
National Ag Statistics Service 2019 Crop Yields by County.....	4
ISU CROP & LIVESTOCK NEWSLETTERS	4
Subscribe for Free to ICM News	4
Other ISU Newsletters	5
CORONAVIRUS	5
Cows and Coronavirus	5
UPDATES TO PESTICIDE APPLICATOR TESTING	6

WEATHER

Soil Temperatures

1. The NPKnowledge website provides an overview average estimate of state-wide soil temperatures: <http://extension.agron.iastate.edu/NPKnowledge/> Soil temperatures were in and out of the 40's for a while, but are well back into the 30's right now.
2. For more detailed information on soil temperatures and trends, the Iowa Environmental Mesonet website provides links to automated weather stations showing hourly soil temperature readings. To select your general location, date, etc. go to: <http://mesonet.agron.iastate.edu/agclimate/#soil04t> The daily low and high 4-inch soil temperatures in spring are usually around 7:00-8:00 a.m. and 5:00-6:00 p.m., respectively. A noon to 1:00 p.m. reading would be pretty close to a calculated daily average.
3. You can also use that same web site to view graphs of soil temperatures over time. At the same mesonet website above, click on "Plot Time Series" and select a "Station" (i.e. Nashua). Then click on "Make Plot" to get a 3-panel illustration of soil temperature, air temperature, solar radiation, and soil water content. The 4-inch soil temperatures are graphed in panel 3. FYI, below is the panel 3 graph for air and soil temps for the last 7 days at Nashua (March 13-19).



NITROGEN

It's Nearly Time to Apply Nitrogen to Winter Small Grains in Northeast Iowa

Nitrogen (N) fertilizer application timing for grain production of winter small grains like wheat is best timed before jointing stage, also called Feekes 6 stage. This is when the main growing point has moved just above the soil surface. It feels like a swelled knob in the main stem. In a normal spring this is likely to be around early April. Applying N a little earlier than this is important to maximizing tiller potential of the stand. So targeting the N application for Feekes 5 stage is best. This is when the plant just beginning to become erect but the main growing point still below the soil surface. FYI, small grains Feekes staging is nicely explained and illustrated at: <https://www.extension.purdue.edu/extmedia/ID/ID-422.pdf>

Anhydrous Ammonia Considerations for Spring 2020

- With a late harvest, not as much anhydrous ammonia (AA) was applied last fall as intended, leaving a considerable amount of nitrogen (N) to be applied this spring. The following article "Anhydrous Ammonia Application --Spring 2019" discusses considerations with a tight window for AA application and corn planting.
<https://crops.extension.iastate.edu/cropnews/2019/03/anhydrous-ammonia-application-spring-2019>
- Also, here is a nice primer on the physical and chemical reactions that take place following AA injection, "Understanding Anhydrous Ammonia Application in the Soil",
<https://crops.extension.iastate.edu/cropnews/2019/03/understanding-anhydrous-ammonia-application-soil> As well as an article on "Equipment Considerations for Anhydrous Ammonia Application", <https://crops.extension.iastate.edu/cropnews/2019/03/equipment-considerations-anhydrous-ammonia-application>

Spring Corn Nitrogen Fertilization Considerations for Urea, UAN, and Other Products

An article on this topic was recently posted on the ICM News at:

<https://crops.extension.iastate.edu/cropnews/2020/03/spring-corn-nitrogen-fertilization-considerations>

To receive articles like this one as timely as possible, you can subscribe for free to ICM News.

Go to this link <https://crops.extension.iastate.edu/cropnews> and type in your email address at the upper right hand side of the page.

PASTURE – see Crop Notes from February 26, 2020 at the link below.

<https://www.extension.iastate.edu/winneshiek/sites/www.extension.iastate.edu/files/winneshiek/CropNotes/CROP%20NOTESFebruary%2026%202020.pdf>

Frost-Seeding – we are still experiencing a very active day-to-day freeze-thaw nighttime-daytime cycle to make this work.

Nitrogen Fertilizer Recommendations – first application usually timed for early April, but could be applied a little earlier if the pasture is fit to drive on.

WEEDS

Instructions for On-Line Dicamba Training

Go to: <https://www.agribiz.org/dicamba-training/> for instructions about on-line training modules offered in March. A training module from any one company qualifies for all dicamba-based products.

Managing Winter Annual Weeds

Winter annual weeds like field pennycress, chickweed, horseweed/marestail will resume growth with the warmer temperatures. These can be especially problematic in no-till fields. A burndown treatment can help increase the consistency of control of these weeds and help with starting off with a clean field for crop planting. Effective burndown treatments should follow herbicide label suggestions for carrier type, carrier volume, nozzle type, and environmental considerations.

Treatments made on sunny days with warm daytime (>55F) and nighttime (>40F) temperatures will generally be more successful than those in cooler conditions. An article on the ICM News website provides a bit more information on this subject:

<https://crops.extension.iastate.edu/cropnews/2019/03/spring-burndown-treatments-winter-annual-weeds>

Time for Biennial Thistle Control in Pastures

If not accomplished last fall, there is still time this spring to apply herbicide before the biennial thistles bolt. The following article defines the various thistles in Iowa, and the timing and product choices for controlling biennial thistles in fall or early spring:

<https://crops.extension.iastate.edu/encyclopedia/biennial-thistles-iowa>

DISEASE

Efficacy Tables for Foliar Fungicides & Seed Treatments

The Crop Protection Network (CPN) has published its 2020 fungicide efficacy tables for foliar diseases of corn and soybean, and for seedling diseases of soybean. These three publications can be found at the CPN website: <https://cropprotectionnetwork.org/resources/publications>

FARM MANAGEMENT ITEMS

Iowa Farm Custom Rate Survey March 2020

This rate schedule is intended only as a guide. Actual custom rates may vary according to availability of machinery in a given area, timeliness, operator skill, field size and shape, crop conditions, and the performance characteristics of the machine being used. The March 2020 update is available at: <https://www.extension.iastate.edu/agdm/crops/html/a3-10.html>

National Ag Statistics Service 2019 Crop Yields by County

The 2019 corn and soybean county yield estimates are posted at:

https://www.nass.usda.gov/Statistics_by_State/Iowa/Publications/County_Estimates/index.php

ISU CROP & LIVESTOCK NEWSLETTERS

Subscribe for Free to ICM News

Recently posted articles include “Legally Operating a Drone in the Agriculture Industry” and “High Speed Planting Technology”. Go to: <https://crops.extension.iastate.edu/cropnews>

ISU ag staff post articles at this website throughout the year. I forward many of these on Crop Notes, but if you want to receive them ASAP, just subscribe (for free) to ICM News at: <https://crops.extension.iastate.edu/cropnews> and type in your email address at the upper right hand side of the page.

Other ISU Newsletters

The electronic age offers many possibilities in news information resources. ISU is no exception, and offers many choices from “E-Dairy News and Views” to “Growing Beef” to “Snouts and Tails”, and others. All free to subscribe to. Go to <https://www.extension.iastate.edu/ag/newsletters> for links to other ISU email newsletters.

CORONAVIRUS

Cows and Coronavirus

Hoard's Dairyman Blog Post by Abby Bauer, Associate Director

Calves and cows can get sick from the coronavirus - is there any connection to the human strain?

Concerns surrounding coronavirus are impacting people across the United States and around the world. As I write this blog, events are being canceled and travel is highly discouraged — all in an attempt to limit the spread of the virus. This Wuhan strain of coronavirus in humans is a relatively new challenge, but for those of us who work with dairy cattle, this is not the first time we have heard of the infection. That’s because coronavirus is one cause of diarrhea in calves and respiratory disease in adult cattle.

With coronavirus all over the headlines, we reached out to one of our contributing authors, Geof Smith, D.V.M., from North Carolina State University, to learn more about the virus that impacts dairy cattle. An article with much more detail about coronavirus in cattle will appear in our March 25, 2020, issue of Hoard’s Dairyman, but I will share a few highlights here.

We were curious if the coronavirus strain that affects cattle is connected to the current Wuhan strain in humans. In his article, Smith posed the question, “Can I catch coronavirus from my cows and calves?” The answer to that question is no, or extremely unlikely. Smith explained that coronaviruses come from a diverse family of RNA viruses. The strains that cause respiratory disease in humans are different than those that cause disease in cattle. Many of the human strains most likely did originate from animals, though. The SARS virus affected bats, then cats, before moving into humans. For MERS, it is believed the disease went from bats to camels to people. The current Wuhan strain likely originated in bats, too. Still, Smith explained that these strains have narrow host ranges, and the chance that a human strain of coronavirus would come from a cow or calf is extremely low.

With this knowledge in hand, focus your efforts on minimizing the spread of disease between people. Even if you don’t see yourself as a high risk, there are individuals among us who could become extremely ill from this virus. We can all take precautions to help limit the impact this virus has in the United States. To learn more about coronavirus and dairy cattle, don’t forget to take a look at Smith’s article in the March 25 issue of Hoard’s Dairyman, which will be arriving to mailboxes late next week. The coronavirus impact on dairy prices will also be discussed in our Milk Check Outlook article in that same issue.

UPDATES TO PESTICIDE APPLICATOR TESTING

- Effective as of March 13, 2020, IDALS has cancelled the pesticide applicator testing sites that were scheduled in individual counties from March 16 through March 31.
- Alternate testing sites which are Test-by-Appointment for a fee, are still available for some sites including the Borlaug Learning Center, Nashua (the ISU Northeast Research & Demonstration Farm, 3327 290th St, Nashua, IA 50658, 641-435-4864. Please find a complete list of these locations at: <https://iowaagriculture.gov/sites/default/files/pesticides/ATS%20Location%203-17-2020.pdf>
- April testing at IDALS test sites is not cancelled at this time. This includes April 10 at Waterloo, April 13 at Decorah, April 16 at Mason City, April 20 at Dubuque. The complete list “No Cost Testing Schedule” is available at: <https://iowaagriculture.gov/pesticide-bureau/pesticide-applicator-testing>

Iowa State University Extension and Outreach does not discriminate on the basis of age, disability, ethnicity, gender identity, genetic information, marital status, national origin, pregnancy, race, religion, sex, sexual orientation, socioeconomic status, or status as a U.S. veteran. Direct inquiries to the Diversity Officer, 515-294-1482, extdiversity@iastate.edu

Brian Lang

Iowa State University Extension Agronomist

325 Washington St., Suite B, Decorah, IA 52101

Office 563-382-2949; Cell 563-387-7058

<https://crops.extension.iastate.edu/>

IOWA STATE UNIVERSITY
Extension and Outreach

Healthy People. Environments. Economies.