

Flood publication

- <https://www.extension.purdue.edu/floodpub/>
- 1. Allamakee County Extension and Outreach 1-563-568-6345
- 2. ISU Extension and Outreach 1-800-262-0015 (Ames)
- 3. Iowa Concern Hotline 1-800-447-1985
- 4. Answer line 1-800-262-3804
- 5. Hortline 1-515-294-3108
- 6. <http://www.extension.iastate.edu/content/dealing-with-flooding>
- 7. <http://eden.lsu.edu/Pages/default.aspx>
- 8. <http://eden.lsu.edu/Topics/Hazards/Floods/Recovery/Pages/CatalogedFloodResources.aspx>
- 9. <http://www.extension.umn.edu/extreme-weather/flood/recover/>
- 10. <http://www.extension.iastate.edu/humansciences/content/finding-answers-now>
- 11. <http://articles.extension.org/pages/13405/the-extension-disaster-education-network-community>
- 12. <http://articles.extension.org/pages/33184/recover-from-a-flood>

Other resources:

- **Homeowners Insurance coverage:** It's likely that a standard homeowner's policy does not cover flood/water damage. <http://www.iid.state.ia.us/node/11128944> However, we should encourage anyone to contact their insurer to find out for sure.
- **Losses—Tax Implications:** Everyone should document-document-document their losses – whether they have insurance or not. They may be able to deduct losses on their income tax returns. Read more about it here -- <https://www.irs.gov/taxtopics/tc515.html> -- but take photos, keep receipts, etc.
- **FLOOD insurance claims: If they have flood insurance, they should have been starting their claims process already – many resources here:** https://www.floodsmart.gov/floodsmart/pages/preparation_recovery/file_your_claim.jsp
- **Flood insurance basics:** https://www.floodsmart.gov/floodsmart/pages/residential_coverage/rc_overview.jsp
- Dry Wood Framing in Flooded Homes before Rebuilding—ISU Extension: <https://www.extension.iastate.edu/news/2008/jul/120901.htm>
- Flood Clean-up Publications and Videos from NDSU Extension: <https://www.ag.ndsu.edu/flood>
- Drying Out Video: <https://www.ag.ndsu.edu/flood/drying-out-2-45>
- Drying-Cleaning Flooded Walls – UMinn Extension: www.extension.umn.edu/environment/housing-technology/moisture-management/flooded-walls-drying-and-cleaning/
- ISU Extension—Dealing With Flooding (2014): www.extension.iastate.edu/content/dealing-with-flooding

- Resources for Officials re: Flooding in Iowa:
<http://www.extension.iastate.edu/floodinginiowa/>
- **Dealing with the STRESS of Disasters:**
<http://www.extension.iastate.edu/topic/recovering-disasters>
- <http://extension.missouri.edu/explorepdf/miscpubs/mp0904.pdf>
- <https://store.extension.iastate.edu/Product/PM1367> (When the home freezer stops)

Mold issues:

- <https://asprtracie.hhs.gov/documents/after-the-flood-mold-specific-resources.pdf> (This is a comprehensive list that includes many fact sheets on mold---from what I looked at---the mold guide below seems to be very good.)
- <https://www.epa.gov/sites/production/files/2014-08/documents/moldguide.pdf> (This is 16 pages—perhaps offices would want to have copies of this one available but not include it in the packets)

Crops and Livestock:

Dairy: Here is a link to the dairy team webpage for any information regarding flood resources for livestock. It will be continually updated as needed, but please share as needed.
<http://www.extension.iastate.edu/dairyteam/content/flood-related-resources-1>

Crops:

CROP NOTES for Aug. 30, 2016

Past issues of Crop Notes are posted at:

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

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FLOODED CROPS

Corn - Correction from Last Week

Last week I wrote that if flood waters got above ear height, the ears are likely ruined. This is not correct. It was correct for the floods of 2008 and 1993, but corn was flooded near VT stage. In those cases, ears under water were ruined, basically turning to mush within a week. The August 24, 2016 flood occurred with most corn at early dent stage. In general, ears from these flooded fields still look to be in good condition, so far.

Talking points relative to this situation include:

1. The flood waters appeared to drop quickly which in most cases will minimize potential problems.
2. Hybrids with tighter husks better held out water and silt deposits from the kernels.
3. Loose husks and ears that extended beyond the husk have silt deposits on the kernels, more flood water exposure to the ear and cob, which make them at higher risk of mold development.

4. Many of these plants have husks totally covered in silt and nearly sealed up tight with a “mud” cover. What will this mean for dry-down? Will it retain more moisture and enhance potential mold development, or just slow dry-down?
5. Kernels damaged prior to the flood (*i.e.* insect feeding, bird damage, etc.), then exposed to flood waters are at higher risk of mold development.
6. A common fungal development in corn following a flood is smut, which is relatively harmless. <http://www.extension.umn.edu/garden/yard-garden/vegetables/corn-smut/> Smut does not develop mycotoxins, and is actually grown and marketed as a food delicacy.
7. Other fungi (ear molds) may also develop by harvest time. Ears will need to be assessed before harvest. If mold is found then grain should be tested for potential mycotoxin presence, defining which kind and what concentration. An excellent reference for this is PM-1698: <https://store.extension.iastate.edu/Product/Corn-Ear-Rots-Storage-Molds-Mycotoxins-and-Animal-Health>

Normal corn development from early dent stage has about three more weeks to physiological maturity (black layer). Future unknowns with flooded fields include:

1. Various degrees of silt covered corn will interfere with photosynthesis and reduce kernel fill, resulting in light test weight. Silt covered plants will add challenges to combine function.
2. Prolonged saturated soil could prematurely kill corn, and/or enhance development of root and stalk rot affecting standability and kernel fill, resulting in light test weight and harvest problems.
3. Will silt-covered husks eventually open up for dry-down, or remain tight, retain moisture and enhance mold development? Ears will need to be assessed for mold development before harvest.

Corn Silage

Silt deposits on the plants make them useless for silage. Early dent is near time for corn silage harvest, and it's just not possible to get sufficient rainfall to wash the silt off of the crop. For shallower flood water areas, set the chopping head above the height of silt deposits on the plant.

Soybeans

The silt covering flooded soybeans to various degrees will block photosynthesis, resulting in reduced grain fill and seed size.

Prolonged saturated soil could prematurely kill the soybeans or enhance development of root rot affecting standability and kernel fill, resulting in reduced grain fill.

Silt covered plants and lodged plants will add challenges to combine function.

Alfalfa

Alfalfa can survive a few days under water, and this flooding seems to have receded fairly quick. However, silted forage is useless for feed and would require additional rains to wash silt off the plants. If a significant area of the field is ‘silt-damaged’, and you want another crop this fall, chop it back onto the field. The regrowth will be normal. Although, alfalfa does not tolerate extended saturated soil conditions as well as clovers or forage grasses. By the time field

equipment can re-enter a flooded field, we should have a good idea as to what condition the crop is in.

CORN

Corn Growing Degree Days (GDD); Growth & Development

Long-term normal GDD from May 1 is ~2,115 GDD for Northeast IA.

Currently for 2016 it is ~2,250 GDD from May 1, ranging ~2,100 to 2,400 GDD across northeast IA (see map http://mesonet.agron.iastate.edu/data/summary/gdd_may1.png).

The warmer than normal August took away some yield potential. Cooler July-Aug. weather extends the grain fill window to improve yield potential.

Most corn in northeast IA is currently R5 stage. Corn silage harvest begins. Black layer in about 3 weeks.

Stage	Description of stage	Comments	Time to next stage
R4	Dough	Starch accumulation increasing. Kernel moisture starts decreasing.	~ 7 days to R5 (beginning Dent stage)
R5	Dent, divided into ¼, ½, and ¾ milk line.	Dent in kernel results from kernel moisture reduction. Observe ‘milk line’ on kernel as starch hardens. Corn silage harvest usually starts between ¼ and ½ milk line.	~ 31 days to R6 Takes ~½ of the total days from R1 to R6
R6	Physiological maturity (PM, or ‘black layer’)	Initial PM has kernel moisture at ~ 35%, and kernels at maximum dry matter accumulation.	~ 62 days after silk i.e. Silk on July 22, PM ~ Sept 22

SOYBEAN

Growth and Development

Most soybeans are early R6 stage.

Stage	Description of stage	Comments	Time to next stage
R5	Seeds are 1/8-inch long in the pod at one of the four uppermost nodes on the main stem with a fully developed leaf.	By R5.5 stage, plants obtain max. height, leaf area and node number. Rapid and steady seed dry weight accumulation.	about 15 days to R6 stage
R6	Pods contain green seeds that fill the pod to capacity at one of the four uppermost nodes on the main stem with a fully developed leaf.	Period of rapid, steady seed dry weight accumulation continues until R6.5 stage. Rapid leaf yellowing begins shortly after R6 (lower canopy spreading upward). R6.5 is good timing for aerial cover crop seeding, applying seed to the ground before extensive leaf drop occurs.	About 18 days to R7 stage, physiological maturity.

CORN SILAGE

Harvest Tips – See Aug. 24 Crop Notes

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

Pricing Corn Silage

ISU has a 2008 publication titled “Pricing Forage in the Field” <http://www.extension.iastate.edu/agdm/crops/pdf/a1-65.pdf> that provides some rough guidelines for pricing standing crop corn silage, alfalfa and other forages. However, this publication is probably due for a revision. The University of Wisconsin and University of Minnesota suggests using “7” times the price of corn grain at 65% moisture corn silage, and a recent communication that I had with one of our Farm Management Specialists also suggested adjusting the multiplier to “7” instead of “6” which is what is currently used in “Pricing Forage in the Field”.

For a more detailed approach to pricing corn silage, there is an Excel spreadsheet from ISU Extension called “Corn Silage Pricer”. It is on the following Ag Decision Maker website about two-thirds of the way down the page:

<http://www.extension.iastate.edu/agdm/decisionaidscd.html> It will open with the “Drought Model” Excel file. Go to the bottom of the Excel page and click on “Example” to open the file for normal corn silage production.

There is also a new mobile app from the University of Wisconsin for pricing corn silage. For details and the app links go to:

http://www.dairyherd.com/advice-and-tips/nutrition/new-mobile-app-pricing-standing-corn-silage?mkt_tok=eyJpIjoiTXpnek5tWXdNamcxTkRCbCIzInQiOiJUbK8yakZiWlo0aE1xeHpIQkptdFhUOSjMndNMxVQTCsrcXZxeTNUQkM3ek9uUWRDOHQ3bzhiGxPaW1yblRwMWc1VEUrRWEyVDMra25XdHgxQINpSkVcL3k0b0NUTHlwVjhWUmY5OE1cL1lvPSJ9

ALFALA

Fall Harvest Tips - See Aug. 24 Crop Notes

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

COVER CROPS

Timing of Seeding

Aerial seeding of cover crops into standing soybeans usually begins when the mid-canopy leaves start to yellow. This is around the R6.5 stage. Some leaf drop begins at this time, and it’s nice to have the cover crop seed under the leaf drop rather than on top of the leaf drop. So, we like to get the seed on the ground before more than 10% of the leaf drop occurs. There are usually ~9 days from beginning R6 stage to R6.5 stage.

For corn, it’s not as clear cut as to when it is best to do what with which cover crops. The general idea is to wait until the corn canopy would be a week or two away from starting to “open up” and let sunlight in. This suggests anywhere from just past ½ milk line to initial black layer. The overriding factor is soil moisture, and not so much whether its ½ milk line or black layer. After initial black layer the canopy will start opening up allowing sunlight to penetrate to the germinating/emerging cover crop.

As far as what cover crops and seeding rates, the possible combinations are boundless. If this management is new to you, start simple. The NRCS has a basic publication on cover crops with suggested seeding rates and seeding windows. Go to: http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_005818.pdf For those looking for more comprehensive information on cover crops, the “catch-all” website is the Midwest Cover Crops Council homepage: <http://www.mccc.msu.edu/>

INSECTS

Soybean Aphid

Most fields are late R5.5 to early R6 stage. My own site near Decorah got about 6 inches of rain and cut the aphid population in half. I am not seeing any aggressive activity in any fields. It's possible that there still could be an issue with very late planted immature fields. I was informed by the ISU Extension Agronomist in northwest Iowa, where they did not get any rain, that soybean aphid populations are still significantly increasing.

DISEASES

Sudden Death Syndrome (SDS)

Above ground symptoms of this disease continues to expand across northeast Iowa as we have had one of the wettest August on record, and a wet August is very favorable for development of this disease. More specifically, the wet August is very favorable for the disease toxins produced in the root/crown region of the plant to spread to the leaves. But the fungal disease is in the root, not the leaves, which is why foliar fungicides have no effect. Take notes of diseased fields. Future management choices include (prioritized most effective first):

- 1) Crop rotation using non-host crops for 2-3 years before returning to soybeans. Corn and sorghum in rotation does not reduce the SDS fungus in the soil.
- 2) Use a variety with tolerance to SDS
- 3) Use a seed treatment specific for SDS

I strongly recommend that you save or copy the brand new SDS publication available at: <http://cropprotectionnetwork.org/soybean-diseases/sds/>

Southern Rust in Corn

About 90% of the corn fields that I have recently looked at have a low level of Southern Rust. This is interesting because we have not identified this disease before in northeast Iowa. This season has been very unique with one of the warmest-wettest-most humid summers that we ever had in northeast Iowa, which is a highly favorable environment for development of this disease. It is highly unlikely that this weather pattern will occur next summer. Here's a blog from a few years ago with photos of Southern and Common

Rust: <http://crops.extension.iastate.edu/cropnews/2008/07/common-or-southern-rust-showing-iowa-fields>

EVENTS

Sept. 6, Iowa Learning Farms to Host a Field Day about Saturated Buffers and Prairie Strips, Dike

<http://www.extension.iastate.edu/article/iowa-learning-farms-host-sept-6-field-day-near-dike>

Sept. 8, ISU Southeast Research Farm Field Day, Crawfordsville

<http://www.extension.iastate.edu/article/field-day-sept-8-isu-southeast-research-and-demonstration-farm>

Sept. 8, ISU Northern Research Farm Fall Field, Kanawha

<http://www.extension.iastate.edu/article/northern-iowa-research-farm-fall-field-day-sept-8>

Sept. 9, Windbreak Planning and Management, Waverly

2:00 to 3:30 pm, free and open to the public. The program is at the Bob Busch Farm, 2327 270th St, Waverly (south of Walmart). The program includes: “Planning and Tree Selection” Greg Heidenbrink, Iowa DNR Forester; “Cost Share & Guidance”, Chad Gilles, Bremer SWCD; “Using Shrubs for Pollinators and Wildlife” Meredith & Dan Borchardt, Trees Forever/Pheasants Forever; Afterwards view Bob’s grassed waterway where he used a unique netting to establish it.

Sept. 13, Field Day on Subsurface Drainage (tile) and Bioreactors, Tripoli

10:00 to 11:30, free and open to the public. The program is at the Tom Manson farm, Hwy 63 & 160th (in case of rain, meet at Bremer Extension office). The program includes: “Iowa Nutrient Reduction Strategy” - Jamie Benning, ISU Extension Water Quality; “How Iowa Commodity Groups are Involved in Water Quality” - John Finley, Iowa Corn & Keegan Kult, Iowa Soybean Association; “Cost-share Options” - Chad Gilles, Bremer NRCS; “Two Year’s Results of the Bioreactor at Manson Farm” Ron Lenth, ISU Extension—Bremer County.

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