CROP NOTES for Sept. 5, 2012
Past issues of Crop Notes are posted at:
http://www.extension.iastate.edu/winneshiek/page/crop-notes-brian-lang

Iowa State University Extension Information for Northeast Iowa
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WEATHER
Corn Growing Degree Days (GDD)
For GDD from May 1 to present, go
to: http://mesonet.agron.iastate.edu/data/summary/gdd_may1.png
GDD from May 1 to present at the NE Research Farm, Nashua = 2,554 which is about 207 GDD ahead of normal.
Tuesday Night Storm
Rainfall map attached

National Weather Service 8 to 14 Day Forecast
NWS http://www.cpc.ncep.noaa.gov/products/predictions/ suggests the 8 to 14 day outlook for temperature and rainfall is warmer and drier than normal.

ISU EXTENSION DROUGHT WEB PAGE
Resources
ISU Extension continues to add resources on a web site to help you deal with the drought. The resources listed under various categories: “Crops”, “Livestock”, “Dealing with Stress”, “Home and Yard”, “Financial Concerns”, and “Tips for Businesses”. Go to: http://www.extension.iastate.edu/topic/recovering-disasters

CORN
Stage of Growth & Silage Production
Most corn at this time is R5 stage (dent). Once in Dent stage, we can look at the “milk line” for an estimation of whole plant moisture. Reaching ¼ to ½ milk line is the typical window for silage harvest, but whole plant moisture content should always be checked. With drought stressed corn, some of the ¼ milk line corn has been testing about 5 points lower than usual.

Silage Gas
Take extra care this fall with silage structures, being aware of possible formation of toxic nitrogen dioxide (NO2) silo gas, especially with higher levels of nitrates in the silage. Precautions about NO2 formation in silos are provided in: http://www.uwex.edu/ces/crops/SiloGas.htm Silo Gas not just a concern with silos. It is also a concern with bunkers, bags and piles.

Grain Combine Settings for Drought Stressed Crops
To address combine issues for drought affected corn and soybean crops, Mark Hanna, ISU Extension Ag Engineer wrote an article found at the ICM News: http://www.extension.iastate.edu/CropNews/2012/0808hanna.htm

SOYBEANS
Stage of Growth
The still green soybean fields are in R6 stage still filling pods. I have seen a few fields that still have at least 10 days of grain filling to go. Once you have any one pod on the main stem reaching a mature brown color, the plant is at R7 stage and is basically at 100% dry matter accumulation.

DISEASE
Aflatoxin: Infection, Production, Testing & Interpretation
Initial infection: This mycotoxin is produced by a yellow-green (olive green) mold called Aspergillus flavus. Spores of Aspergillus flavus can enter the kernels through silks when they are yellow-brown, which is shortly after pollination. This is more likely to occur under drought conditions with temperatures above 90 degrees F.
Colonizing the seed: Once Aspergillus flavus has entered the seed, it must successfully colonize the seed. The surface of the seed will be colonized first, but the surface colonization does not produce aflatoxin.

Production of aflatoxin: Aflatoxin is produced when the kernels become internally infected. This can be enhanced with damage to the kernels from insects, hail or wildlife. The kernel must be at about 32% moisture or less (down to about 16% moisture) for internal infection to occur; kernels are normally at 30 to 35% moisture at maturity (black layer). Favorable weather for production of the toxin is to have warm nights.

Scout fields: Once corn reaches black layer, pull back husks on several ears of each hybrid and look for signs of Aspergillus ear rot. It usually shows up on the kernels at the tip of the ear first, especially if they have been damaged. If you find the Aspergillus fungus, that still does not mean that Aflatoxin was produced, but the grain should be tested. For a photo of Aspergillus ear rot and additional information on this subject, go to: [http://www.extension.iastate.edu/CropNews/2012/0801robertson.htm](http://www.extension.iastate.edu/CropNews/2012/0801robertson.htm)

If found: First, call your insurance provider. This is a covered peril and must be adjusted in the field. Test by an approved third party. After settlement, grain is property of the producer. The grain must be documented as used correctly. Harvest, cool and dry immediately to 15% moisture – no wet corn holding. For long term storage dry to 14% moisture. Aflatoxin does NOT increase in storage under normal Corn Belt conditions, but is NOT removed by the dryer or by freezing. If there in the bin, it will show up all year.

Sampling, testing & interpretation: ISU Extension has a publication that explains sampling, testing and interpretation for aflatoxin. Go to: [http://www.extension.iastate.edu/sites/www.extension.iastate.edu/files/www/PM1800.pdf](http://www.extension.iastate.edu/sites/www.extension.iastate.edu/files/www/PM1800.pdf)

A Mycotoxin Testing Directory was recently posted by ISU Extension at: [http://www.extension.iastate.edu/Grain/Topics/mycotoxinrainingtesting.htm](http://www.extension.iastate.edu/Grain/Topics/mycotoxinrainingtesting.htm)

Soybean Vein Necrosis Virus (SVNV)
This is nothing to get excited about, but many fields soybean fields have some SVNV. I am only including this just because you likely have not seen it before in your fields and might be wondering what it is. The droughty weather was favorable for thrips this season, and they transmitted some SVNV in soybeans. The following article from the University of IL includes a discussion and photo on this disease. [http://bulletin.ipm.illinois.edu/article.php?id=1707](http://bulletin.ipm.illinois.edu/article.php?id=1707)

ALFALFA
Fall Harvest
This time of season there are always questions on when that last cut could be made and still allow enough time to build carbohydrate reserves in the roots before the killing frost. The answers are usually something like… “its fine to harvest through the first week of September”, and… “harvest 6 weeks before the killing frost”. These answers still work, however, the more correct answer actually deals with growing degree days, not the calendar. A nice summary of this research is available at the following web site. Its Wisconsin research, but the data from Lancaster & Beloit, WI would apply quite nicely to northeast Iowa. [http://www.uwex.edu/ces/forage/pubs/Late-Summer-Cutting-Management-of-Alfalfa.pdf](http://www.uwex.edu/ces/forage/pubs/Late-Summer-Cutting-Management-of-Alfalfa.pdf) Basically, the Lancaster & Beloit data (southern WI) suggest alfalfa harvested through the first week of September in northern Iowa is at very low risk of winter injury, having plenty of time to replenish root reserves going into the winter. A September 15 harvest could
A September 21 harvest, more risk, and a September 28 harvest (not in the article) the most risk of issues with winter survival. These risks do not mean that you will lose the stand, but rather would likely lose a percentage of plants and/or reduction in first crop yield next season because of some winter injury, and slowed plant recovery in spring.

**COVER CROPS**  
**USDA Changes Crop Insurance Rules for Cover Crop Harvesting in Spring 2013**  
Last week, USDA has decided to change that crop insurance rule for 2013 only, to help livestock farmers impacted by the drought to produce more forage. Details are provided in the following article. [http://www.aae.wisc.edu/pdmitchell/CropInsurance/RuleChange.pdf](http://www.aae.wisc.edu/pdmitchell/CropInsurance/RuleChange.pdf)

**EVENTS**  
**Sept. 18, Pasture-Walk Event, Waukon**  
10:30 am start at the Joel Winnes farm, 835 McCabe Dr., Waukon. Highlighted topics include exploring this beginning farmers partnership model and ways to get through the summer slump and the pro's and con's of corn silage. Great River Graziers from Wisconsin will facilitate the discussion. The walks are designed for local farmers to help each other improve pasture management, resulting in both healthier profits, life style and environment. The walks are organized by area graziers and supported by ISU Extension, Crawford County Extension, NRCS, and the Northeast Iowa Community Based Dairy Foundation. Directions: From Jct of Hwy 9 & Hwy 76 south of Waukon, go east 1.2 miles on Hwy 76 to County Rd X16 (Forest Mills Rd), then south 0.8 miles to McCabe Rd, then west 0.1 mile to the farm.

**Sept. 27, Advanced Spray Technology Clinic, Ames.**  
Two different sessions offered. Either 9:00 am to 11:30 am or 1:00 pm to 3:30 pm. Both include a lunch at Noon. Iowa State University (ISU) offers the On Target Application Academy. Developed by BASF, Dr. Robert E. Wolf, Manager, Wolf Consulting & Research and Application Technology Specialist, and TeeJet Technologies, the On Target Application Academy is an opportunity providing growers extensive hands-on training of herbicide application best practices. Attendees will gain deeper understanding of new technologies to ensure on-target applications, better train co-workers and employees, maximize yields, protect input investments, and protect lifelong investments in their crops. 2.5 CCA in PM. Program details are provided at: [http://www.aep.iastate.edu/spray/homepage.html](http://www.aep.iastate.edu/spray/homepage.html)

**Oct-Dec, 2012 Farm and Urban Income Tax Schools, Registration Open**  
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