

CROP NOTES for April 14, 2009

Past issues of Crop Notes are posted at:

<http://www.extension.iastate.edu/winneshiek/info/crops.htm>

Iowa State University Extension Information for Northeast Iowa

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WEATHER

Soil Temperatures

Currently, average soil temperatures in northeast Iowa are in the mid-40's.

Soil temperature readings are available at: <http://extension.agron.iastate.edu/NPKnowledge/>

WINTER KILL

Triticale

I just received a report of significant winter kill of some winter triticale in northeast Iowa. The greatest damage was on the 'flatter' areas of the fields where some ice sheets likely developed in winter. Ice sheets can kill in two ways: One, a cold-temperature kill of the plant tissue because of the high thermal conductivity of ice. Ice is an extremely poor insulator. Two, smothering plants through an accumulation of plant respiration by-products around the plant. This second method is what usually causes problems with alfalfa survival under ice sheets. Alfalfa tolerates ice sheets for about 7 days. After that, mortality increases with additional days under ice sheets.

PLANTING INFORMATION

Corn, Soybeans, Small Grains, Alfalfa

Just a reminder that planting information on these crops was included in the April 1 Crop Notes. If you need to review items such as corn seeding rates relative to yield and seed costs, soybean seeding rate, date, row spacing, etc., go to:

<http://www.extension.iastate.edu/NR/rdonlyres/229080A5-0FEE-44E7-86C0-C63F2E81654A/98841/CROPNOTESforApril1.pdf>

xExtension Information on Corn Planting

In addition, there is an article that discusses corn planting date, depth, seed treatments, and planter set-up at: http://www.extension.org/pages/Corn_Planting This website is part of eXtension. eXtension offers you another searchable source of information that is University based, unbiased, field-tested, and written by experts within their individual specialties.

ISU Research Farm Reports Include Planting Date Trials

For those looking to plant corn early, the recommendation is to wait for soil temperatures to reach 50 F and increasing. This is to help avoid issues with imbibitional chilling or sub-lethal chilling briefly discussed in the xEtension article on corn planting linked above. ISU conducts early planting date research at the Northeast ISU Research Farm near Nashua. All research farm reports are posted at: http://www.ag.iastate.edu/farms/progress_report.php The most recent corn planting date trial at Nashua was in 2008, with the results posted at:

<http://www.ag.iastate.edu/farms/08reports/Northeast/CornPlantingDate.pdf> An article on State-wide ISU Extension planting date trials is posted at:

<http://www.extension.iastate.edu/CropNews/2009/0408elmoreabendroth.htm>

NITROGEN APPLICATION

Anhydrous Ammonia Application and Planting Corn

Adapted from Carrie Laboski, Department of Soil Science, UW

University of Illinois conducted research where corn was planted at a depth of 2 inches on a silt loam soil on top of NH₃ injection bands. In this study, there were 3 NH₃ injection depths (4, 7, and 10 inches), 3 dates of planting (0, 1, and 2 weeks after NH₃ application), and 2 nitrogen (N) application rates (100 and 200 lb N/a). There was also a control treatment where no NH₃ was applied. The 100 lb N/a rate showed no reduction in stand compared to the control 27 days after planting for any injection depth or date of planting. The 200 lb N/a rate showed significant stand reduction at a 4-inch NH₃ injection depth, but no stand reduction at the deeper depths when planted the day of NH₃ injection. Plant height was slightly stunted 41 days after planting when 100 lb N/a was injected the same day as planting at a 4- or 7-inch depth; if injected at 10 inches there was no stunting apparent. While, the 200 lb N/a showed severe, slight, and no stunting for the 4, 7, and 10 inch NH₃ injection depths, respectively. Overall, depth of NH₃ injection was more important in reducing injury than was the amount of time between NH₃ application and planting.

To prevent or minimize injury when planting corn a few hours after NH₃ application:

1. Inject NH₃ at least 7 inches deep and perhaps as deep as 10 inches if possible.
2. Do not plant the corn row directly on top of the injection bands. If possible, apply NH₃ at an angle relative to the corn rows.
3. Lower N application rates will minimize risk of injury (e.g. typical N rates in corn-soybeans vs. corn-corn situations).
4. Ensure that the soil closes behind the knife openings to limit N loss and movement upwards towards the seed.

DISEASE

Soybean Seed Treatments

Dr. Yang, ISU Extension Plant Pathologist just wrote an article on soybean seed treatments in the April 13 ICM News at: <http://www.extension.iastate.edu/CropNews/2009/0413yang.htm>
The last statement in Dr. Yang's article makes the point that insecticide seed treatments will not help with soybean aphid control. To clarify this... the insecticide seed treatments actually work very well on soybean aphids, but for only part of the season. In seasons that require foliar insecticide applications, even if you use an insecticide seed treatment, you will still have to apply a foliar insecticide for adequate control of aphids. This is discussed in the following article from Michigan State University. In their article they mention that the best use of insecticide seed treatments for soybean aphid control was in a season where aphids appeared early and created extremely heavy pressure, as was their situation in 2005 where many of their fields were treated with foliar insecticides twice.

<http://web1.msue.msu.edu/soybean2010/Neonicotinoid%20Seed%20Treatments%20For%20Soybeans.pdf>

INSECTS

Common Stalk Borer

The 5 management options for this pest are listed in the March 18 Crop Notes at:

<http://www.extension.iastate.edu/NR/rdonlyres/229080A5-0FEE-44E7-86C0-C63F2E81654A/97995/CROPNOTESforMarch18.pdf>

Option 1 is starting to get a little late and also increasingly risky with the dry conditions. Burn grassy road ditches, grass-back terraces, etc. to reduce "field border" infestations. The recommended time to burn the grass is when the new grass growth is beginning to spike. The burn will kill the eggs laid last fall. Take precautions with this operation:

- 1) If roadside crews have established native plantings in your road ditches, it would be harmful and likely illegal to burn these plantings in fall or spring.
- 2) Be aware of roadside utilities (gas, electrical, communications) that could be damaged and be held liable.
- 3) Much of the area is drier than normal, and makes a roadside fire easy to get out of hand.
- 4) Also be careful of other trash in ditches (discarded oil or gas cans, broken glass, etc.).

Black Cutworm

The traps are in place around the state. ISU Extension has nothing to report yet. The University of Illinois is beginning to catch some Black cutworm in the southern part of the state.

WEEDS

Equisetum (Horsetail)

This weed is slowly becoming a favorite weed to talk about due to its increasing spread from road ditches into no-till fields and the lack of control options. The attached pdf links you to two resources, an ISU Extension Fact Sheet and an abstract summarizing recent research from the University of Nebraska. The pdf also includes a table that indentifies the common chemical names in the two resources with their brand names and links to their on-line pesticide labels.

ANIMAL MORTALITY COMPOSTING

New rules; Assistance from NRCS; Workshop at Calmar on April 20

New regulations from the FDA prohibiting high-risk cattle material in feed go into effect April 27, 2009. Composting may be a viable alternative. The new FDA rules do not prohibit a renderer from accepting any of the items they may currently be accepting. However the rule prohibits the rendering of brains and spinal cords from cattle 30 months of age and older, and the entire carcass of cattle not inspected and passed for human consumption, unless the cattle are less than 30 months of age or the brains and spinal cords have been effectively removed.

Composting facilities must be designed to accommodate at least the average annual death loss for all sites using the facility. Composted material should be applied to cropland. Prior approval is required from the

Iowa DNR to apply composted material to non-cropland or to compost mortalities from a catastrophic event such as a fire. More information about DNR rules associated with on-farm composting can be found at www.iowadnr.gov/afo/disposal.html

All runoff from mortality composting facilities must be controlled and contained. Diversions should be constructed to prevent clean water run-on and to collect and contain runoff. Roof structures help prevent runoff from mortality composting facilities. Assistance is available from the NRCS to construct an animal mortality composting facility and determine its suitable site and size. Financial assistance may also be available through EQIP.

On April 20 there is a Mortality Composting Workshop at Calmar. The program runs from 1:00 to 3:30 pm, at the Dairy Center just south of Calmar on Hwy 150. The workshop will address composting of all types of livestock. Agenda: 1:00 to 1:30, Dr. Gary Eiben, State Veterinarian will cover Iowa rules and regulations on composting livestock, especially those over 30 months of age. 1:35 to 2:30, Dr. Tom Glanville, ISU Ag Engineer will discuss the fundamentals of animal composting (site location, land preparation, cover materials, carcass preparation, and management of the compost pile). 2:40 to 3:30, tour of mortality composting site. To register please call NICC at 800-728-2256 Ext 399.

LAWN & GARDEN

Special Issue: Iowa Beginner's Guide to Home Gardening

The most recent issue of the Horticulture & Home Pest Newsletter provides a basic information to start a home garden. It covers the most common vegetable crops, how to plant, care for, harvest and use them. <http://www.ipm.iastate.edu/ipm/hortnews/2009/4-8/introduction.html>

Spring Lawn Care

For a nice article highlighting important points about fertility and weed management (including crabgrass) go to: <http://www.extension.iastate.edu/news/2009/mar/0603101.htm>

EVENTS

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Apr. 21-22, BIGMAP Symposium – Food & Fuel Crops: Issues, Policies, and Regulation, Ames

At the Gateway Hotel & Conference Center, Ames. For information about the program, go to: <http://www.ucs.iastate.edu/mnet/bigmap/home.html>

Grazing Field Days for 2009

ISU Extension 2009 Pasture-Walk schedule is at:

<http://www.extension.iastate.edu/NR/rdonlyres/229080A5-0FEE-44E7-86C0-C63F2E81654A/97997/2009PastureWalks.pdf>

University of Wisconsin Crawford County Extension 2009 Pasture-Walk schedule is at:

<http://www.uwex.edu/ces/cty/crawford/ag/documents/PastureWalk2009.pdf>

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