

CROP NOTES for March 18, 2009

Iowa State University Extension Information for Northeast Iowa

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WEATHER

Soil Temperatures

Average soil temperatures are now above freezing, in the mid- to high 30's.

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

FORAGES

Forage Research Interest Survey - For Farmers & Agricultural Providers in NE Iowa

The United States Legislature has discontinued an annual fund of \$200 million for production research on Agricultural Research Farms. The immediate impact of this for Iowa is to NOT initiate any new research on forages and small grains other than bio-energy research. Bio-energy research has a dedicated funding source.

Because of this, the Northeast Iowa Agriculture Experimental Association Board for the Northeast ISU Research Farm near Nashua met on March 6 to discuss the future of forage research in northeast Iowa. A committee will be pursuing a number of factors related to this issue, including:

1) Searching for possible alternative funding sources.
2) Make an assessment of available equipment at the farm for forage research. This will limit what kind of research can be conducted.

3) Prioritize a practical wish list for research and demonstration projects at the farm based on client need, available funding, and available equipment on the farm.

Please respond to the following survey on a scale of A to F with A (Highest Priority), B, C, D, E, F (Lowest Priority), and return via email

Research Trials (replicated with statistical analysis to verify results):

- Alfalfa Variety Trial
- Legume-Grass Variety Trial
- Oat Variety Trial
- Corn Silage Variety Trial
- Alfalfa, Harvest Intervals / Cutting Schedules
- Alfalfa, Fall Harvest Management
- Alfalfa, Optimum Soil pH Range
- Legume-Grass, Optimum pH Range
- Alfalfa, Sulfur Fertility
- Alfalfa, Boron Fertility
- Alfalfa, Insect Management
 - Potato leafhopper management
 - Potato leafhopper resistant varieties
 - Other insects including aphids (Pea, Cowpea) and plant bugs (Alfalfa & Tarnish)
- Add your ideas:
- Add your ideas:
- Add your ideas:

Demonstration (side-by-side plots for show-and-tell observations):

- Forage establishment practices
- Forage variety identification plots

- ___ Add your ideas:
- ___ Add your ideas:
- ___ Add your ideas:

Alfalfa Stand Evaluations

It will be early April before I dig up my first alfalfa plants to assess overwintering of alfalfa. However, if you want to check your fields sooner, here are some tips.

Always Some Stand Reduction

Realize that some stand reduction (plants per square foot) is expected every year. Aside from plant-to-plant competition other stresses can take a toll (wheel track damage, stand age, advancing disease problems, lack of attention to soil pH and fertility, minimal stubble left in fall, etc.). So even if winter survival is generally good, some stands, particularly older stands, will still need to be evaluated this spring to estimate their potential productivity for the season.

Plant Counts Assessment

The old procedure to assess alfalfa stands has been through plant counts. The basic recommended plant counts per square foot for a pure alfalfa stand are: >20 plants in fall for the seeding year, >12 plants in spring for the 1st production year, >8 plants in spring for the 2nd production year, and >6 plants in spring for the 3rd production year. This is discussed in ISU Extension publication Pm-1362. <http://www.extension.iastate.edu/Publications/PM1362.pdf>

The plant count method seems to work fine for young stands (new seedlings to 1-year old stands), but it does not correlate very well with older stands. You would also need to cut the taproots in half to assess root tissue. Firm, white tissue is excellent, brown tissue is dead, yellow tissue is dying. Color diagrams to help with this assessment are in the University of Wisconsin publication A3620, Alfalfa Stand Assessment, available at:

<http://learningstore.uwex.edu/pdf/A3620.pdf>

Stem Counts Assessment Used Towards mid-April

A better method to evaluate alfalfa stands is the use of the stem count method. This method is discussed in UW publication A3620 linked above. This works regardless of plant age. Older stands have less plants per square foot, but produce more stems than younger plants. However, this method requires alfalfa topgrowth to average at least 6 inches tall. Count stems per square foot in 4 to 6 representative areas in the field. Count only those stems expected to be tall enough to mow at harvest time. If checking 6-inch tall alfalfa, pretty much every newly initiated shoot that you can see coming off the base of the plant would be counted. Use the following table to estimate the yield potential of the stand. The yield potential is the context of realistic yields normally expected from that field. Actual yields can be less depending on in-season problems with precipitation, insects, diseases, soil fertility, and harvest losses.

Table 1. Alfalfa stem counts and corresponding estimated yield potential.

Stem counts per square foot:	>54	50	45	40	35	30	25
Percent yield potential:	100	90	81	72	62	53	44

Table 2. Recommendations based on the stem count method.

<u>Stems/sq.ft.</u>	<u>Recommendation</u>
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>54	Not yield limiting.
40-54	Usually keep, but some yield reduction.
<40	Consider replacing because of significant yield reduction. May still keep it if significant grass forage is present.

Keeping the stand is an individual decision dependant on many factors, including: hay supply, available land, cash flow, etc. Table 2 provides general recommendations on whether or not to keep a stand. However, these recommendations are for pure alfalfa stands. Alfalfa-grass mixtures have a grass component that contributes to yield. If the desired stand was a 75:25 alfalfa:grass ratio, and assessment of alfalfa stem counts is about 41 stems per square foot (about 75% of a full stand), then the overall stand should provide 100% yield potential assuming the grass component makes up the other 25%.

Winter Annual Weeds in Alfalfa

Every May I get phone calls on outbreaks of weeds in alfalfa fields like Shepherds purse, Field pennycress, and/or Pepperweed. However, by that time there isn't anything that can be done about it. These are among the most common winter annual weeds that show up in alfalfa fields. They are not very palatable and are low in forage quality. Winter annuals germinate in the fall, develop a rosette-type growth (like dandelion leaves) and overwinter that way. In spring they bolt (rapid growth of upright stems) and produce seed. Once these plants bolt, herbicides are not very effective. The time to control these weeds is while alfalfa is still dormant, using herbicides such as Pursuit or Velpar. The only way to know if these weeds are present is to scout the fields. This can be done while you assess stands for over-wintering. The weed growth at this time is still in the rosette stage. However, even if you find some winter annuals, realize that most winter annual weed populations are not heavy enough to significantly interfere with yield and quality of the overall forage, so herbicide applications are not usually recommended.

Pasture-Walk Grazing Events

Attached is a pdf file for the 2009 Pasture-Walk grazing events hosted by local farmers in northeast Iowa. The first one is next week on March 25 at Giard.

SOYBEAN CYST NEMATODE

Still Time to Check for SCN Before Planting

At the following link you will steps for sampling for SCN. If you did not sample last fall for SCN, there is still time this spring as long as you get to it soon. Samples can be collected once the soil thaws, but avoid collecting a completely soil saturated "mud" sample.

<http://www.extension.iastate.edu/CropNews/2008/TylkaSCN.htm>

INSECT UPDATE

Common Stalk Borer - Consider Option 1 Soon

Those of you that lose corn plants in the first few rows along grassy field borders may have Common Stalk Borer problems. Go to the following web site for photos of the problem:

<http://www.ipm.iastate.edu/ipm/icm/1997/4-7-1997/toastborer.html>

Common stalk borer has basically 5 timing periods for management to reduce either "field border" problems, or "in-field" infestations. These options are:

Option 1. 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. This timing usually starts in late March. The burn will kill the eggs laid last fall. Actually the grass could have been burned at any time from late fall until now, but spring is the preferred time to minimize exposure to soil erosion.

However, there are some precautions to take:

- 1) If roadside crews have established native plantings in your road ditches, it would be harmful 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 still 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.).

Option 2. Apply insecticide during egg hatch -- 575 to 750 DD (base 41, Jan. 1). We will track degree days and let you know when we approach these numbers.

Option 3. Apply insecticide with "in-field" herbicide program if perennial grasses and ragweed (populations from last year) are extensive. If larva are in these weeds (quackgrass, wirestem, and giant ragweed) when the weeds are killed with postemergence herbicide, the larva are forced to move out of the weed and into something else (i.e. corn).

Option 4. For "field border" infestations, if no previous method was used, apply insecticide during larvae migration -- 1,100 to 1,400 DD (base 41, Jan. 1). Larva too large for a grass stem, leave the grass at this time to find a larger plant to live in (i.e. corn). Timing an insecticide at this time along the "field border" and the first rows of corn next to the "field border" catches many of the migrating larvae. This usually occurs in mid-June, but we will track the degree days.

Option 5. Moldboard or chisel plow activities bury eggs deep enough in the soil so that many of the hatched larvae do not survive.

ORGANIC

Certification in a Nutshell

The following link provides plain talk on the organic certification process for crops and livestock.

<http://extension.agron.iastate.edu/organicag/standards.html#first>

MISCELLANEOUS

Previous Crop Notes

Past issues of Crop Notes are posted at the following website.

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

ISU Extension Hotlines

Iowa Concern

Provides information and resources for Iowan's on family finance and legal issues.

<http://www.extension.iastate.edu/iowaconcern/>

Answer Line

Provides information and resources for Iowa consumers with family, home and food questions.

<http://www.extension.iastate.edu/answerline/>

Managing Touch Times

Provides answers from reliable resources and experts backed by research for families, households, business and communities.

<http://www.extension.iastate.edu/toughtimes/>

Horticulture

Answer anything on lawn, garden and landscaping plants. Call 515-294-3108 during 10 to Noon & 1 to 4:30.

EVENTS

Mar. 19, Northeast ISU Research Farm Annual Meeting, Nashua

Registration opens at 9:00 with a morning educational program that will include:

- 1) “Key Issues in Ag Law and Policy: How do they affect you and I?”
- 2) “The BioEconomy: Opportunities and Challenges”
- 3) “NE Research Farm Update” by Ken Pecinovsky.

Plus a Dutch-treat lunch over the noon hour and a Board of Directors meeting starting at 1:00 pm. Pre-registration is not required. Contact Fred Hall, NEIAEA Secretary, for additional information (hallfred@iastate.edu) or 641-394-2174. Directions: Exit Hwy 218 at the 220 exit at Nashua, turn west on B-60 (280th St., also Lexington Ave.) go 1.1 miles to Windfall Ave., then south 1 mile to 290th St., then east to the research farm.

Mar. 20 & 24, Public Invited to Comment on Proposed Rules Restricting Winter Manure Application

New proposed rules would restrict surface application of manure on frozen or snow-covered ground. If manure can be incorporated or injected any time of year, these rules would not apply.

The proposed rules would mainly affect animal producers who are required to have a manure or nutrient management plan and producers who cause water quality violations. More information on these rules can be found at: <http://www.iowadnr.gov/afo/newrules.html>

People are encouraged to make oral comments or submit comments in writing at the following public hearings:

1:00 pm, March 20: Room 115, Dairy Foundation’s Dairy Center, 1527 Highway 150 South, Calmar

6:00 pm, March 24: Lime Creek Nature Center, 3501 Lime Creek Road, Mason City

People may also send written comments directly to Claire Hruby, Iowa DNR, 502 E. Ninth St., Des Moines, IA 50319, or by email to Claire.hruby@dnr.iowa.gov. All comments must be submitted by 5 p.m. on March 27

Mar. 21, Blazing a New Trail Part 4, Cresco

9:00 am to 3:00 pm at the NICC Cresco Center. This is the fourth year for this organic conference featuring growing organic fruits, the organic market, climatology, locally grown greenhouse fruits and vegetables, contracts rights and wrongs, funding sources and soil quality

topics. For more information about the program, brochure, etc., go to:
<http://www.extension.iastate.edu/howard/news/organicconf.htm>

Mar. 24, Organic Producer Meeting, Waukon

7:00 pm to 9:00 pm, Farmers & Merchants Bank Community Room. It will be an open agenda for anyone to discuss topics of interest to them. For more information about this meeting contact Gary Welsh at 563-535-7318 or James Gruber at 563-586-2231.

Mar. 25, Pasture-Walk Grazing Program, Giard

1:00 to 3:00 pm, Pasture-walk field day hosted by Greg Koether on his farm at Giard. The program will emphasize pasture finishing beef, early season grazing, and handling facilities for weighing cattle. Directions: The farm is located across the street from the Methodist church in Giard. Giard is on Hwy 18, 7 miles E of Monona or 7 miles W of Marquette.

Mar.27-28, Women Around Ag Conference, Best Western Holiday Lodge, Clear Lake

Over 20 different workshops related to agriculture, farm financial issues, and personal development. For details, see the brochure at:

<http://www.extension.iastate.edu/NR/rdonlyres/E96D45B1-6430-4951-AFD9-59BFDE794AD0/93863/09WomenAroundAgBrochure.pdf>

Mar. 30, Fourth Annual Marketing, Food Systems & Value Chain Partnerships, Ames

Workshop runs 8:30 am to 4:00 pm, Gateway Hotel & Conference Center. The brochure is available at:

<http://www.leopold.iastate.edu/news/events/033009.pdf>

Apr. 1, RUSLE2 & Iowa Phosphorous Index Workshop, Altoona

Service providers and livestock producers can learn how to use the Revised Universal Soil Loss Equation 2 (RUSLE2) and the Iowa Phosphorus Index in nutrient and manure management plans. The workshop runs from 8:30 a.m. to 4 p.m. This hands-on workshop will provide the participant with software orientation and an introduction to the operating parameters for RUSLE2, selection of input values for RUSLE2, developing and saving management operations for RUSLE2 and its use in the P-Index. Real field examples will be used in the workshop and how to incorporate these numbers into manure and nutrient management planning requirements. Participants are required to bring a MS Windows compatible laptop equipped with a CD-ROM drive and Microsoft Excel Software. Participants must have their administrator password in order to install software on their own laptop. Additional details of the program are provided at:

<http://www.ucs.iastate.edu/mnet/rusle2/home.html>

Apr. 2, Advanced RUSLE2 Workshop, Altoona

For those that have attended the introductory RUSLE2 workshop (above), this workshop is designed for service providers, regulators, and individuals that want to learn some of the more intricate uses of RUSLE2 and the P-Index. Each registrant must bring a laptop computer pre-loaded with latest versions of Revised Universal Soil Loss Equation 2 (RUSLE2) and Iowa Phosphorus Index Calculator. See additional details at:

<http://www.ucs.iastate.edu/mnet/rusle2advanced/home.html>

Apr. 6-8, National Course on Comprehensive Nutrient Management Plans (CNMP), Des Moines

Completion of the CNMP Development Course is required to become certified as a Technical Service Provider by the Iowa State national TSP certification program. If you are interested in becoming a CNMP Technical Service Provider, certification information is available at:

<http://www.abe.iastate.edu/wastemgmt/cnmp-curriculum.html>

The CNMP program details are available at: <http://www.ucs.iastate.edu/mnet/cnmp/home.html>

Apr. 9, Understanding & Working with Nutrient Management Plans under the Concentrated Animal Feeding Operations (CAFO) Final Rule, Des Moines

This program was developed to address the updated requirements released on Dec. 22, 2008 for the National Pollutant Discharge Elimination System (NPDES) permit process. As with the CNMP program on Apr. 6-8, additional information about this CAFO program is at:

<http://www.ucs.iastate.edu/mnet/cnmp/home.html>

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

Gateway Hotel & Conference Center

<http://www.ucs.iastate.edu/mnet/bigmap/home.html>

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Many materials can be made available in alternative formats for ADA clients. To file a complaint of discrimination, write USDA, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964.

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