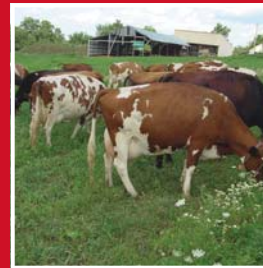


# FIELD & FEEDLOT



NORTHWEST AREA EXTENSION

MAY 2007 ISSUE

## Corn and Soybean Planting Dates

By Joel DeJong, ISU Extension Crop Field Specialist

By the time you receive this newsletter, it is my hope that almost all of the corn acres in NW Iowa have been planted in soils fit for crop growth and development in 2007. However, when I am writing for this issue of Field and Feedlot, the weather has put us well behind normal. Therefore, I am going to spend a little time reviewing the ideal dates of planting for Iowa, according to research.

Research conducted at several ISU farms during the late 90's and into the early 00's showed that the ideal **corn** planting date for NW Iowa was between April 20 and May 10. We actually have a limited amount of newer data that would show earlier planting dates doing just as well, if soil conditions are right and April soil temperatures are approaching 50 degrees with good weather forecasts ahead. This year the temptation to plant that early did not exist. At this time of the year, early May, I almost totally ignore soil temperature when planting; I know it will warm up someday soon! A good corn planting completion date target is the 10<sup>th</sup>, but yield losses are still small until mid-May, on average. However, if planting is delayed until early June the average yield potential goes down about 20% and increased risk from early fall frost is higher.

ISU Extension has a good publication titled "Corn Planting Guide" that is available free on the internet at this location: <http://www.extension.iastate.edu/Publications/PM1885.pdf>. I almost always carry a copy of this with me when evaluating corn stands for replanting – it helps calculate what yield potential might be under different stand levels and dates of planting. Your local Extension Office can likely get a copy for you, too.

The ideal soybean planting date seems to get earlier all the time. It seems that if a producer finished planting corn in early May, they often waited until mid-May to begin planting soybeans. Some of that, I believe, was the fear of frost to emerged soybean plants. Some was to get early season weed control. However, we have better herbicides than we had historically, and newer research seems to show that the best yields come from earlier planting than historically practiced.

Palle Pedersen, ISU Extension Soybean Specialist, has conducted research in 24 different environments since 2003 looking at a variety of soybean management differences. He found that early planting of soybeans (starting May 1 in northern Iowa, and of course, in good soil conditions) offered the best yield in high producing soybean fields. His highest yielding treatments were from fields planted by the 8<sup>th</sup> or 10<sup>th</sup> of May. Yield potential in these really high yielding fields dropped almost a bushel per day after that point in time. However, fields that might not have as high yielding potential didn't see a drop-off in yield at those early dates.

Can you use the same management when you are planting soybeans earlier? No, it does take increased management. Well-drained soils are likely to show fewer problems with seedling diseases when planting this early, and seedbed conditions need to be "fit." Soil temperatures in early May would be worth watching – the short term forecast should be positive. Scouting for bean leaf beetles becomes much more important in the earliest emerging soybean fields in a neighborhood. Soybeans will likely emerge more slowly due to cooler soils, which increase these risks. Know which disease risks are present in your fields, and take appropriate action!

In summary, if you are done planting corn in early May, soils are fit, forecasts are positive, and you are ready to plant beans – don't wait! Frost risk increases, but I haven't seen a lot of frost loss in soybeans the last few years after mid-May, and that is likely when these beans will emerge.

For more reading on this topic and other topics on soybean production, see the ISU Soybean Extension and Research web page at: <http://extension.agron.iastate.edu/soybean/topicpage1.html>.

## Open Beef Feedlot Deadline Rapidly Approaching

By Beth Ellen Doran, ISU Extension Beef Field Specialist

July 31<sup>st</sup> is the deadline for open beef feedlots, having Confined Animal Feeding Operation status, to file their nutrient management plans.

This applies to all beef feedlots of 1000 head or more and smaller beef feedlots that have a National Pollutant Discharge Elimination System permit.

“If you haven’t started to develop your nutrient management plan, the time to start is today,” according to Angie Rieck-Hinz, coordinator of Iowa State University Manure Management Action Group. “The deadline may seem a long way off, but there are specific things you need to start on now.”

Producers will need to collect soil and manure samples immediately and submit them to a commercial lab for nutrient analysis. The nutrient analysis from both kinds of samples will be used to calculate the manure application rates for each field. For producers filing new plans, the rate of manure application will be based upon the Phosphorous Index.

Writing a nutrient management plan is neither quick nor easy. It requires a series of calculations and a number of supporting materials, such as plat maps, aerial photos and calculations on a field-by-field basis. The plan also requires information about animal mortalities, diversion of clean water, chemical handling, manure storage structures and land application equipment.

Once the plan is written, a public notice must be placed in the newspaper. This notice will indicate that the plan has been filed with the respective Department of Natural Resources, and the reader is instructed how and where to access the plan. The public can then review and react to the filed plan.

Because of the complexity in writing a nutrient management plan, feedlot producers may prefer to hire technical service providers to write the document. However, be advised that there are a limited number of people who write these plans, and they are also engaged in writing nutrient management plans for other species. It may be difficult to find an available plan writer. Regardless of who completes the nutrient plan, get started today!

For detailed information on all issues related to manure management, contact the Iowa Manure Management Action Group website at <http://www.extension.agron.iastate.edu/immag>.

## Ag Link Seminar Scheduled

*By Ron Hook, ISU Extension Farm Management Specialist*

Ag Link is coming to Northwest Iowa! Ag Link is a tried and tested seminar designed to provide multiple generation farm operations with the information needed to be successful. The seminar is four information and discussion packed days that will help you discover how to address major issues that can lead to failure in a multiple generation farm business.

Included among these issues are: whether an existing operation is large enough to support an additional partner; the basics of estate planning; alternatives for transferring farm assets; strategic planning and business planning.

Ag Link will provide general information necessary to plan entry into existing farm operations. Participants will receive a resource packet with worksheets, exercises and pertinent farm transfer planning information. There will be ample opportunity for those involved to discuss issues related to farm transfer.

The NW Iowa Ag Link seminar is scheduled for two days in June and another two days in August, 2007. The seminar will be held at the Marina Inn at South Sioux City, NE. Families are encouraged to register members from each generation involved in the operation in order to fully benefit from the program. Look for additional registration details at your local Extension office in the near future.

## Air Modeling: The Newest Tool in Proper Hog Barn Siting

*By Jerry Weiss, ISU Extension Swine Field Specialist*

The Community Assessment Model (CAM) is an air modeling tool that looks at multiple factors for siting a swine barn or expanding a current facility.

Iowa State University Agricultural and Biosystems Engineering Professor Dr. Steven Hoff began developing CAM in 1998. “I’ve spent time since then through various research projects collecting calibration data to validate the model.” Dr. Hoff says the model continues to develop as new data is collected.

Dr. Hoff started using the model for swine facility siting purposes in 2004 and has used it around 70 times in Iowa so far. Proper siting is critical to the long-term success of an operation—from an investment standpoint and for community acceptance and for minimizing the impact on neighboring residences and locations of public interest.

The Community Assessment Model encompasses an evaluation of the site, including size of facility, species, average inventory and weight, and manure storage type. Community information gathered includes the direction and distance to residences, churches, cemeteries and places of frequent public gathering. Other livestock at the proposed site or other locations in the community also are reported.

Once this information is gathered, a computer model including local historical weather patterns with wind speed, duration and orientation is used to predict the total hours of potential odor exposure that a point of interest will receive.

Modeling is conducted for odor release in the eight-month time frame of March to October. This is the time of year in which residents tend to spend a lot of time outdoors. The modeling procedure used is to assess a chosen siting location based on the percent time exposure of a residence to various levels of odor. Currently, site selections are judged based on a limit of a 1 percent time exposure to a 2 to 1 odor and a 0.5 percent time exposure to a 7 to 1 odor. These guidelines and results are given to the producer as a tool to help assess a potential site location. For more information on the CAM model, contact Jerry Weiss at 712-335-3103.

## Evaluating Conservation on Your Farm

*By Mark Licht, ISU Extension Crop Field Specialist*

Spring is the season! April and May bring new growth. Pastures, hay fields, waterways and winter grains green up. Corn and soybean are planted. But spring also brings plentiful and forceful rain showers making the performance of conservation practices and structures particularly critical.

Spring is a perfect time to evaluate conservation on your farm. As field work ensues do a visual conservation assessment. Look at how much residue is being left on the soil surface following planting. Look over buffer strips, terraces and waterways. And lastly don't overlook the open field in front of you.

As visual assessments of existing practices and structures are being made, look for indicators of poor performance. Is there a minimum of 30% residue cover? Are contours following the slope? Are grasses thick and lush? If practices and structures are not performing to the highest standards now is the time to make adjustments.

Residue cover is critical for preventing soil erosion, but it greatly reduces sediment transport to water bodies and contributes to improved soil and water quality. Residue cover absorbs the energy of raindrops that can dislodge and splash sediments up to five feet. The dislodged sediments clog soil pores which decreases water infiltration, increases soil erosion, increases water runoff and increases soil crusting.

Structures such as terraces, buffer strips and waterways work very effectively at slowing water flow, filtering out sediments and directing water flow.

Here's what to look for:

- Check inlets
- Check for excessive erosion
- Check stand pipes
- Check for slow drainage and standing water
- Look for evidence of burrowing animals
- Check for structure shapes

Here are some management strategies:

- Mow waterways and buffers occasionally
- Reshape / clean out filled-in waterways and terraces
- Reseed as needed
- Shut off the sprayer before crossing the structure

While planting, spraying and row cultivating pay attention to areas that are prone to erosion and water runoff. Is rill or inter-rill or gully erosion occurring? Take note of occurrences and determine measures for correction, avoiding future problems.

Heavy rainfall events provide an opportunity to evaluate performance under greatest demand. While steady, but gentle rainfall events provide a glimpse of the durability of conservation practices and structures. In both cases field observations help to refine existing conservation plans and develop new comprehensive conservation plans.

## New Livestock Enterprise Budgets

*By Tom Olson, ISU Extension Farm Management Field Specialist*

The **2007 Livestock Enterprise Budgets (FM1815)** are now available. In-depth budgets for various types production in swine, beef, sheep and dairy are included. All income and expenses are estimated for each enterprise with a projected breakeven. A detailed listing of the variable costs (feed, utilities, vet, etc.) is included, but also projected fixed costs (machinery, equipment, housing) and an estimate of labor required. The budgets are organized with fill-in-the-blank sections make each budget an actual projection for an individual farm.

A livestock enterprise summary for all the different enterprises are included. This summary gives "ballpark" estimates of labor-hours, bushels of corn, pounds of hay, etc. on a per head (or per litter) basis. This section is valuable for whole farm planning.

A version of Livestock Enterprise Budgets are also a part of the internet resource, **The Ag Decision Maker** [www.extension.iastate.edu/agdm](http://www.extension.iastate.edu/agdm). Each budget is an interactive downloadable excel spreadsheet. Individual on-farm numbers can be put into the spreadsheet for breakeven analysis and detailed projection. The spreadsheets are easy to use and do not require any "spreadsheet savvy." Each spreadsheet can be saved on the computer for record-keeping. Projections for an individual enterprise can be examined after the project is finished to create much more refined numbers for the next "go-round."

**The Ag Decision Maker** has many different types of projection spreadsheets available. All are in this same easy-to-use fill-in-the-blank format. Crop enterprises, machinery decisions, grain storage, and financial forms are just a few examples.