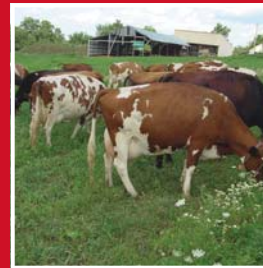


# FIELD & FEEDLOT



NORTHWEST AREA EXTENSION

SEPTEMBER 2007 ISSUE

## Planning is Important if Planting Corn After Corn

By Mark Licht, ISU Extension Field Agronomist

It's that time of year...to estimate how your corn and soybean fields will fare this year. This will be yet another challenging year in northwest Iowa. The U.S. National Agricultural Statistics Service has placed 2007 yield estimates at 162 bushels/acre for corn and 47 bushels/acre for soybean in northwest Iowa, while average statewide estimates come in at 180 bushels/acre for corn and 50 bushels/acre for soybean. How do your farms compare? If you're not concerned with how your farms stack up before harvest you might be interested to see how your storage and marketing plans will stack up prior to harvest.

It is recommended to take separate yield estimates for each hybrid/variety, tillage system, rotation, etc. trying to be unbiased in the places and plants surveyed. Additionally, making estimates from 5 to 10 places within the survey area will increase the estimation accuracy. Since both the corn and soybean estimations take into account seed size and seed weight, accuracy can be affected due to environmental and management conditions. For example dry weather may affect the seed fill period making seed size and weight lower than normal causing an over estimation of grain yield.

### Corn Yield Estimation

Estimating corn yields can be accomplished after the kernel number has been finalized. This occurs roughly 2 weeks after pollination has ended. To estimate corn grain yields determine the number of ears in 1/1000<sup>th</sup> of an acre (1/1000<sup>th</sup> of an acre equals 17' 5"). Count the number of kernel rows and the number of kernels per row. Then multiply ear number by number of kernel rows by number of kernels per row and divide by 90 since there are approximately 90,000 seeds per bushel. Or simply put;

$[(\text{number of ears}) \times (\text{number of kernel rows}) \times (\text{number of kernels per row})] \div 90 = \text{estimated yield (bushels/acre)}$

### Soybean Yield Estimation

Estimating soybean yields can't be done quite as soon as corn but never-the-less we're there. Soybean yields can be estimated

as soon as the R6 growth stage is achieved. Estimations for soybeans are not as accurate as for corn but get better the closer to harvest they are done. Count the number of plants in an acre, number of pods per plant and number of seeds per pod. Use averages from throughout the field. Then multiply plants per acre by pods per plant by seeds per pod and divide by 2,900 and 60 since there are approximately 2,900 seeds per pound and 60 pounds per bushel. Or simply put;

$(\text{plants/acre}) \times (\text{pods/plant}) \times (\text{seeds/pod}) \div (\text{seeds/pound}) \div (\text{pounds/bushel}) = \text{estimated yield (bushels/acre)}$

## Hitch & Go Safely This Harvest Season

By Joel DeJong, ISU Extension Crop Agronomist

Each harvest season some loaded wagons go into the ditch due to an inability of the towing vehicle and braking system to control the load. There are a number of reasons that these loads go out of control. First, some drivers who offer to help reduce the harvest rush are not experienced with towing loads. Another contributing factor is that the number of choices and sizes of farm equipment has increased dramatically over the past several years, making it a challenge to match the right towing equipment with the right wagon.

Pick up trucks have become a popular choice to pull grain wagons and are often used to tow loads that are too big. One of the reasons people like to use trucks instead of tractors is to return wagons faster to the field. But you need to stop and think about whether the truck can control the loaded wagon and be able to stop adequately. One hazard when using trucks is the brake capacity is not suitable for heavy loads. Even when the brakes are applied, the vehicle will still be moving forward because it is overloaded, especially when going down a hill.

Here are some tips for matching the right towing equipment with the right load.

### When towing grain wagons without brakes drivers should:

- Not exceed 20 miles per hour travel speed.
- Not tow loaded wagons weighing more 1.5 times the weight of the towing vehicle.

## When towing grain wagons with brakes drivers should:

- Not exceed 25 miles per hour travel speed, unless specifically allowed by the equipment.
- Not tow loaded wagons weighing more than 4.5 times the weight of the towing vehicle.
- No matter what type of towing vehicle and load is being moved, do not exceed the maximum capacity of the towing vehicle or weight ratings on the roads being traveled.

## Also make sure to check that:

- Tires are properly inflated.
- All required markings and lighting are affixed and working.
- The wagon is properly attached and securely hitched.
- The operator has the skill and experience to transport the grain.

A second part of this is the safety of drivers on the road during this time of year.

## Here are some tips from the Iowa State Patrol for motorists:

- Scan the road ahead, especially near curves, hills and intersections.
- Avoid being surprised by a farm implement ahead of you. Drive defensively.
- If you are behind a slow moving implement, do not tailgate! It is very dangerous to follow too close behind, especially if you are considering passing this vehicle at some point.
- Stay back far enough behind the slow moving vehicle that you can check for oncoming traffic, no passing zone signs and up coming intersections before you attempt to pass.
- Most farm tractors and combines have flashing amber lights on when traveling down the road. Don't mistake one of these flashing lights as a turn signal indicator; the implement may not be going to turn in the direction you think.
- Watch the implement and see what it is really going to do. This is a very good reason not to pass within 100 feet an intersection!

## Here are some tips for farmers:

- Check lights on your implements periodically to make sure they are working properly and are free of dust or anything that might make them hard to see by others.
- Add reflective tape on the rear areas of the implements, making them more visible to the motoring public.
- Worn out or faded Slow Moving Vehicle signs (SMV) should be replaced. It is important that slow moving vehicles be as visible as possible on our roadways.
- When operating a slow moving vehicle move over onto the shoulder of the highway if room is available. This allows approaching traffic to pass more safely, helps to prevent traffic congestion and lessens the chance of a collision occurring.
- Make sure path is clear before turning into driveways and farm fields.

Have a safe harvest – plan ahead and don't skip the details! For more information on farm safety visit: <http://www.extension.iastate.edu/ag/farmsafe.html>

## ISU Offers Producer Training for New PQA Plus Program

*By Jerry Weiss, ISU Extension Swine Field Specialist*

Pork producers with current Pork Quality Assurance (PQA) Level III certification should be aware that the PQA™ program has been revamped and expanded to include an animal well-being assessment. Because of this new structure and the renaming of the program to PQA Plus™, all existing PQA certifications will not be renewed at the end of the certification period. The Iowa Pork Industry Center (IPIC) and Iowa State University (ISU) Extension are teaming up to provide the necessary certification training for producers.

The certification under the new PQA Plus™ program also will be for three years.

When you, the producer needs to recertify, you'll go through the new program with a trained advisor, similar to that in the old 'PQA' program. Getting this new certification meets the needs of many packer buying requirements.

There are differences between the two programs. PQA Plus™, like PQA III, has a producer education component, but it adds an on-site assessment of animal well-being. PQA Plus™ merges the concepts of the former PQA and Swine Welfare AssuranceSM programs -- food safety and animal well-being -- in two steps: Individual certification through education (named PQA Plus™ Certification) and Farm site assessment (named PQA Plus™ Site Status.)

Training sessions for PQA Plus certification will be held on a quarterly schedule across the state of Iowa. Pre-registration is requested to be sure adequate materials will be available. The training sessions that will be held in western Iowa are as follows:

- September 6, 2007, 7-9PM Buena Vista County Extension Office, Storm Lake
- November 8, 2007, 10-Noon, Montgomery County Extension Office, Red Oak
- November 29, 2007, 10-Noon, NICC, Sheldon
- December 13, 2007, 7-9PM, Union County Extension Office, Creston
- January 10, 2008, 7-9PM, Buena Vista County Extension Office, Storm Lake

Topics to be covered at this meeting will be those you need to know in order to become certified under the PQA Plus Program. There is a \$25 per person fee, which can be paid at the door. This certifies you for a 3 year period.

The PQA Plus Program is a credible and affordable solution to assure food safety and animal care. It will help meet the needs of customers including restaurants, food retailers and consumers.

If you have questions about the new PQA Plus Program, you may contact ISU Extension Swine Field Specialist Jerry Weiss at (712) 335-3103 or David Stender at (712) 225-6196.

## Iowa State Fair Beef of Merit Results

*By Dennis DeWitt, ISU Extension Livestock Field Specialist*

The 2007 Iowa State Fair 4-H Beef of Merit show was down slightly from the past few years, but the quality and yield grades were one of the best years. The 52 steers started last winter with an average weight of 562 pounds and weighed 1286 pounds at the Iowa State Fair with an average daily gain of 3.26! Eight steers gained over 4 pounds per day. Seventy seven percent were USDA Choice and 69% were yield grade 1 & 2. There were 5 dark cutters or 10% compared to other shows of 1-5%. The severe heat and humidity was one of the major factors this year.

Seventy five percent of the steers met all the guidelines for Window A-High Cutability Grid Market. That is outstanding! Only 4 steers met the Window B-High Quality Grid Market. This is an industry wide concern for having more beef grade in the upper half of the Choice grade. As usual, we had no Prime quality graded steers. I really liked the live show champions in Window B and thought they looked easy in the High Choice grade. Following harvest and USDA quality grading neither one graded low Choice!

Melissa Johnson, Butler County, won Window A- High Cutability Grid with a Maine Anjou x Simmental red white face steer. Her steer was 3<sup>rd</sup> place in Class 3 of Window A in the live show. The Johnson steer weighed 1400 pounds with a 4.13 average daily gain. The Low Choice yield grade 1 steer measured only .25 inch backfat with a 17.3 square inch ribeye area.

Jessica Faust, Madison County, won Window B-High Quality Grid with her home grown Shorthorn Angus cross calf born in September 2006. The Faust steer was exhibited in Window A of the live show and was 5<sup>th</sup> overall. Her 1200 pound steer was only 11 months old and gained 3.77 pounds per day. The 731 pound carcass measured a half inch of backfat and 13.7 square inch ribeye area and graded average choice yield grade 2.

Over \$4000 in prize money was paid in premiums. The two champions are awarded \$500 by the Sale of Champions Winner's Circle Club, Vermeer Manufacturing of Pella, Al & Jeanne Conover of Baxter and the Iowa State Fair.

You may access the results on the Internet through the Iowa Beef Center webpage at: <http://iowabeefcenter.org> or the Iowa State Fair webpage [www.iowastatefair.org](http://www.iowastatefair.org)

## Sheep Breeding Season Management following Heat Stress

*By Dennis DeWitt, ISU Extension Livestock Field Specialist*

This year's heat will have a detrimental effect on breeding season fertility for beef and sheep. When temperatures hover above 90 degrees with high humidity for 3 consecutive days spermatogenesis ceases. Rams and bulls will remain infertile for the next 6-8 weeks. Mating will take place, but pregnancy will not occur in as many as 40% of the females. Watch the pastures closely for breeding activity. Like this springs lambing season, many producers indicated lambing started on time; but then there were many single births and or an extended period of no new births. What can be done? At this point not much! Beef cows should be pregnancy checked at weaning and a rigorous culling should take place to remove open and late calving cows. Sheep farmers need to have a veterinarian do a complete breeding soundness evaluation on rams. Farmers should also consider delaying the breeding season to late September or October as rams and ewes should return to peak reproductive status and litter sizes will increase 30-45%! Just turning rams in later this year will reap increased dollars sold next summer.

## Corn Co-product Evaluation

*By Dennis DeWitt, ISU Extension Livestock Field Specialist*

Farmers that are feeding 40% or more total ration dry matter intake to beef cattle of any of the many corn co-products are encouraged to have a laboratory analysis for nutrient content. The Iowa Beef Center and ISU Extension offices are encouraging farmers to have the corn co-products, total mixed ration and water sample analyzed using wet laboratory technologies. The Iowa Beef Center has a mini-grant available to assist in the cost of the laboratory analysis. For only \$30, a farmer will receive an additional \$100 in cost sharing for the analysis. Interested beef farmers can contact ISU Extension beef field specialists Beth Doran, [doranb@iastate.edu](mailto:doranb@iastate.edu) or Dennis DeWitt, [dewitt@iastate.edu](mailto:dewitt@iastate.edu) for further information.