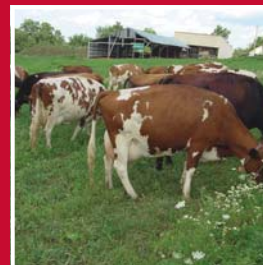


# FIELD & FEEDLOT



ISU EXTENSION & OUTREACH—NORTHWEST REGIONS

FEBRUARY 2012 ISSUE

## Extension Web Sites

### Ag Decision Maker

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

### Beef Center

<http://www.iowabeefcenter.org/>

### Manure Management

<http://www.agronext.iastate.edu/immag/>

### Pork Center

<http://www.ipic.iastate.edu/>

### ISU Extension Dairy Team

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

## Handling Manure

By Beth Ellen Doran, ISU Extension & Outreach Beef Program Specialist

**Dry Manure Applicator Certification Workshops** – Two workshops will be offered in NW Iowa for dry or solid manure operators. The first will be Feb. 22, beginning at 1 p.m., at the Sioux County Extension Office in Orange City. The second is Feb. 23, beginning at 9 a.m. at the Buena Vista Extension Office in Storm Lake.

Each workshop meets the manure applicator certification requirements for both confinement site manure applicators and commercial manure applicators who primarily apply dry or solid manure. However, the information will benefit anyone using dry or solid manure as a nutrient resource.

Workshop topics include land application rules, stockpiling requirements, and research from the winter application of solid manure. Staff from the Iowa Department of Agriculture and Land Stewardship will discuss the requirements for selling and buying manure under Chapter 200A.

The workshops are free, but please register by calling 712-737-4230 (Sioux) or 712-732-5056 (Buena Vista). Applicators will be required to submit certification forms and fees to the Iowa Department of Natural Resources to meet certification requirements.

**Value of Manure** – How important is manure to the financial bottom line of the beef operation? It is very important and especially when you consider the cost of a deep-bedded facility. Based on some very round numbers, Dan Loy, ISU Extension and Outreach state beef specialist, calculated that the increased daily cost of a deep-bedded facility (\$.35 per head/day) was slightly more than

offset by the value of the manure (\$.38 per head per day).

**Managing Manure** – Managing manure not only can improve the financial status of the cattle operation, but can also reduce emissions from the bedded pack. In a NW Iowa study, researchers measured the ammonia, temperature, moisture content, pH, pack depth, nutrient composition and concentration of odorous volatile organic compounds at 56 locations in each of four pens in two deep-bedded mono-slope beef barns.

Nutrient composition of the manure/bedding material is similar to manure in open feedlots, except that the volatile solids content is much higher (80% versus 21%). This means the deep-bedded manure/bedding may have additional value beyond use as a fertilizer, possibly for combustion as in methane generation.

Areas of high ammonia concentration occurred randomly throughout the pens and were the result of recent urination by the cattle. Thus, location-specific mitigation for ammonia will not be effective. Ammonia concentration increased as pack and ambient air temperature increased. Therefore, shallow-pack management may be a system that can lower ammonia emissions during hot months.

Concentration of odorous volatile organic compounds was highest in transition areas between the bedded pack and the concrete floor. Frequent cleaning around the bedded pack should reduce the concentration of volatile organic compounds and may improve air quality in the barn. However, shallow-pack management may increase the concentration of odorous compounds in the surface manure because of less bedding material and a higher manure:bedding ratio.

The complete report of this study is available at [www.ans.iastate.edu/report/air/2011pdf/R2582.pdf](http://www.ans.iastate.edu/report/air/2011pdf/R2582.pdf).

## Farm Employee Management: Assembly of Farm Job Descriptions

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The last issue of Field & Feedlot discussed the reasons why it is beneficial to have job descriptions for the positions on your farm. By way of short review, there are multiple bonuses to your operation. Good job descriptions aid in recruitment, interviewing, selection and hiring of better employees. Once

those employees are on your farm, employee training and development are enhanced because you know what needs to be done. This results in increased employee satisfaction and productivity. Accurate job descriptions aid in evaluating employee performance and determining where additional training is needed. Improved communication among employees occurs when everyone understands their duties as well as their role in the farm operation. Finally, when you take the time to assemble and maintain updated farm job descriptions, your organization benefits as a result of this process of analyzing your labor requirements and identifying what needs to be done and by whom.

The actual assembly and writing of job descriptions on your farm is not difficult, especially if you approach the task in a step-by-step manner.

**Conducting a Job Analysis:** Identify the key positions already in existence on your farm. Be sure to include every position in the job analysis process – including the positions and tasks performed by the owners and managers at your dairy farm.

Then for each position, conduct a job analysis. A job analysis is simply the process of breaking down and understanding the various elements of a position. First, explain to your employees that you are conducting a job analysis for the purpose of writing job descriptions, and that you expect all employees to benefit from this process. Give each employee a form that asks three basic questions:

1. What do you do on your job? List every task that you perform from the most minor simple to the most major and complex. List as many tasks as possible.
2. For each task you listed, state how often you perform that task – such as daily, weekly, monthly, several times a year?
3. For each task you listed, list the items of equipment or tools that you use to perform that task.

After each employee has completed this written exercise, take the time to sit down with the individual worker and go over it. You will likely find that they omitted some tasks. Inquire about what training was important to learn how to do these tasks, and what additional training would be beneficial. Ask the employee, “If you were hiring someone to do your job, what qualifications or prior training would you want that employee to have?”

The job analysis process focuses on what work is currently being accomplished. However, it is helpful to think about what tasks may be going undone – and should be completed on a regular basis in your operation. This process identifies additional labor needs on the farm.

**Examine the Job Analysis Results:** Once the job analysis process is completed – scrutinize these results for what you might be able to learn. Sit back and think about whether the positions as currently configured make sense. Are there responsibilities and tasks that should be reassigned? Are the time and talents of some employees being wasted on menial tasks that could be assigned to newer, less-experienced employees? Is there one or more position that should be restructured or new positions to be created? Charting or diagramming the positions and work-flow on your farm

may help you to see a better way to get things done.

**Elements of the Job Description:** Armed with the results of your job analysis process, you are ready to start writing job descriptions. The purpose is to paint a word picture of each job so that everyone in the organization understands what is expected of that position. Most job descriptions will include at least six basic elements:

**1. Job title.** Make sure the job title accurately describes the job being performed. Obviously, the types of jobs of your farm will depend on the nature of your operation, *i.e.*, whether the farm is strictly a row crop operation, or if you have a beef or dairy cattle operation, swine, poultry or other livestock. Some operations need mechanics, computer technicians, bookkeeper/accountants or general maintenance workers. Remember, a typical agricultural production operation has different needs from what you might have seen thirty years ago.

**2. Job Summary.** Immediately after the title, give a concise definition or description of the major job responsibilities. This is the type of short description that may be used for recruitment purposes.

**3. Job Qualifications.** List the knowledge, education, experience or training necessary to perform the job. Include realistic physical requirements essential to perform the job such as an ability to stand for long hours at a time or lift and carry a certain weight. Do not make statements that are discriminatory on grounds of race, gender, age, or national origin.

**4. Job Duties or Tasks.** List all the job activities that the worker performs in that position. Start with the most frequently performed duties and proceed to the least frequent duties. The degree to which the position is specialized will impact the number of job tasks on the list. It may be helpful to include an approximate percentage of the time that duty is performed. At the end of the list, it is common to include “other duties as assigned by supervisor” to allow for flexibility.

**5. Work relationships.** In this section, describe who supervises the position, and whether the position includes any supervisory duties. Describe how this position relates to other positions in the organization.

**6. Time of Work description:** This section is not intended to be a specific work schedule, but rather a description of the range of hours worked each week, and whether the position includes night and weekend work.

Other information about the job such as compensation plans, benefit plans, housing and the like are generally not included in a job description. This would normally be included in a separate document for that specific purpose.

Once you have completed job descriptions for each position on your farm, you will find them to be invaluable tools in improving your organization. As you use job descriptions in employee recruitment, development and evaluation, the process of keeping them updated will become easier as well.

As always, feel free to contact me with any of your farm employee management questions.

## A Well Planned Windbreak Makes Good Sense

By Margaret Murphy, ISU Extension & Outreach

A well designed windbreak offers plenty of benefits. It reduces the impact of winter winds and controls drifting snow and accumulation. It can help save on the heating bill. Buildings that are protected by a windbreak can use up to 25% less fuel for heating. Plus, a windbreak can create better conditions for livestock. Protection from winter winds can lower an animal's stress, which in turn enhances its health. It has been reported that livestock sheltered by a windbreak use more of their feed for weight gain as less is needed to preserve body heat. Windbreaks also provide wildlife habitat and, overall, boost farmstead value.

The ISU Forestry Extension offers several basic guidelines to planning a successful windbreak. Locate windbreaks on the north and west sides of the acreage to be protected. When designing a windbreak consider its height, distance to the protected site, density, and spacing. The height directly affects the distance that protection will extend downwind. For the best wind lift, plant the tallest trees on the inside and the shortest shrubs on the upwind sides. The inside row of the windbreak should be at least 50 feet away from the area to be protected. With wider windbreaks leave 100 feet from the outside row to the protected site. Regarding density, for optimal protection, have a minimum of two rows of shrubs and three rows of conifers (bare minimum if have a smaller lot is 1 row of shrubs and 2 of conifers). Spacing between rows should be at least 20 feet. Spacing within rows will vary depending on the size of the trees or shrubs when mature.

Never use a single species for a windbreak and make sure the species you select are well suited for your area. Conifers are preferred over deciduous varieties as they are more effective at wind reduction. A few to choose from include Norway and Black Hills spruce, Eastern red cedar, and concolor fir. Blue spruces are commonly used but are susceptible to *Rhizosphaera* needlecast. With shrubs, a few that handle drier soils include ninebark, black chokeberry, and hazelnut. For moister sites that are well-drained consider arrowwood, nannyberry, dogwoods, and cranberry.

Spring is the best time to establish a windbreak. Take the winter to plan the layout and select the best species for your area. Remember when you are preparing the site, properly control for runoff of melting snow or from feedlots. For information on windbreaks, you can contact Dr. Jesse Randall of the ISU Forestry Extension through his email [randallj@iastate.edu](mailto:randallj@iastate.edu) or by phone at (515) 294-1168.

## Corn Insects Controlled by New Transgenic Traits

By Paul Kassel, ISU Extension & Outreach Field Agronomist

Seed companies continue to develop and promote new transgenic traits for their corn hybrids. These transgenic traits offer control

of several corn insects. Questions have been raised as the potential for damage from some of these various insects.

The University of Wisconsin Integrated Pest and Crop Management newsletter website has information on the transgenic traits and the insects that are managed by those traits.

The following are some descriptions of those insects and their potential damage.

**Black cutworm.** This insect is an occasional pest of corn in northwest Iowa. Black cutworm can reduce plant populations quickly in the spring. Transgenic traits that control black cutworm can provide some assurance of control if timely insecticide applications are not possible because of wet weather or workload needs. Insecticide seed treatments and some rootworm insecticides also provide protection from black cutworm damage.

**Corn earworm.** This insect is more of a problem in the southern United States. One or two generations in Iowa may cause some ear tip feeding. Corn earworm is not considered a major insect pest in Iowa.

**Corn rootworm.** This insect is often a major insect pest in Iowa. Continuous corn acres and corn soybean rotation acres can be damaged by corn rootworm. Transgenic traits for corn rootworm provide a convenient and effective way to manage this pest. There have been some confirmed problems with corn rootworms that have developed resistance to the YieldGard rootworm trait. However, the occurrence of this resistance has been at a relative low level in Iowa.

**European corn borer.** This insect has been a major insect problem in Iowa in the past. Currently corn borer is not considered a major insect threat to Iowa corn because of the widespread use of transgenic traits that control this insect. Corn borer can occasionally cause damage to refuge acres.

**Fall Armyworm.** This insect may be present in Iowa, but is not considered a major pest. Fall Armyworm is more of a pest consideration in the southern United States.

**Stalk borer.** This insect overwinters in grassy areas that are adjacent to corn fields. Damage may occur to the outside rows of a cornfield. This may be a consideration in fields with large amounts of terraces and/or grassed waterways.

**Western Bean cutworm.** This insect can be very damaging to corn. However, it has decreased in prevalence the past few years. It is difficult to scout, predict and prevent the damage from Western Bean cutworm. Therefore traits that protect for western bean cutworm provide good assurance against this pest.

Corn rootworm insecticides applied at planting time are still an effective way to manage corn rootworms. Granular products like Aztec, Counter, Force, Lorsban and SmartChoice are available for planting time application. Therefore, there may be option to select corn hybrids without transgenic traits and protect them from rootworm damage with granular insecticide products applied at planting time.