



Farm Views

Website Features Diverse Agricultural Opportunities

The University of Nebraska Cooperative Extension Southeast District diversified agriculture team invites all individuals who are currently producing diverse agriculture products, or those interested in producing a diverse agricultural product, to explore its new website on Diverse Agricultural Opportunities in southeast Nebraska at <http://southeast.unl.edu/DiverseAg/index.htm>.

Developed from the results of a survey conducted by extension educators in the southeast district, this site provides information on a few of the existing diverse agriculture producers in southeast Nebraska. At this site you can find information on producers who are currently producing pasture and or free range poultry, diverse ways to raise and market livestock, herb production, vegetable production and many

other opportunities available to agriculture producers.

Each producer survey is listed on the website and provides information on the labor requirements, start-up costs, marketing techniques, skills needed to be successful, and the limitations of their unique operation.

Over time, the diversified agriculture team hopes to develop a list of upcoming events that diverse agriculture producers may want to attend, conduct educational programming on selected diverse agricultural products and marketing techniques, and develop a home study course.

For more information on the Diverse Agricultural Opportunities website, please contact Lance Cummins-Brown, extension educator, at (402) 441-7180 or by e-mail at lbrown4@unl.edu (LCB)

Most Grain Needs Aeration for Safe Storage

Farmers store grain on the farm following harvest for a number of reasons. Many farmers find it more convenient to store their production until the press of harvest is past when they will have more time to haul the grain to market and to avoid long lines at the elevator. Farmers often can add value by drying their grain on the farm prior to delivery. Typically, local basis (the reduction in local market price compared to the futures market price) is greatest at harvest due to limited storage space and the labor crunch at the elevator. By delaying delivery for a period of time, the local basis usually (but not always) improves, hopefully providing a net return to the farmer above his storage costs and interest expense.

Storing grain requires informed and active management. Improper storage can result in a lower quality product, loss of grain mass, and perhaps spoiled or moldy grain. The two most important factors in grain storage are the grain's temperature and moisture content. A farmer

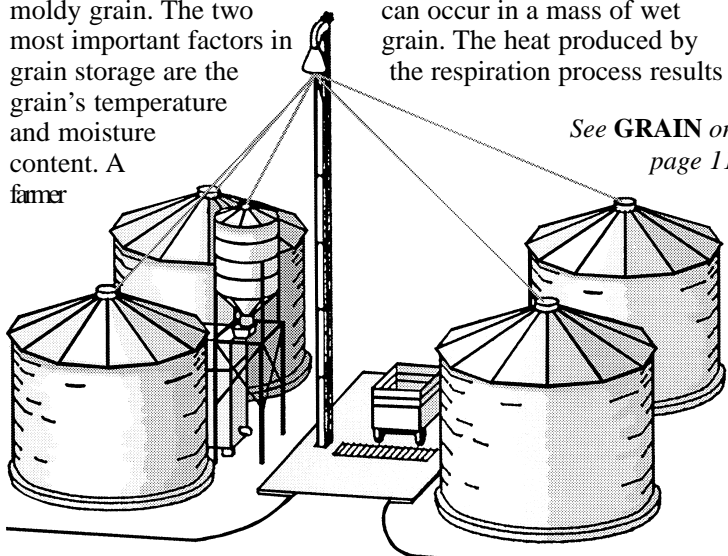
has some control over temperature with aeration and careful attention. With higher airflow rates, he/she can remove moisture as well.

Why Aerate?

If corn goes into storage below 15 percent moisture and less than 50 degrees F, it can be held for several months without aeration. Most years in eastern Nebraska, it is not possible to delay harvest until grain meets these criteria and therefore additional attention is required.

Above the threshold temperature and moisture content, stored grain will respire, (carbohydrates in the grain combine with oxygen from the air releasing carbon dioxide, water and heat.) When grain respire, dry matter is lost. This dry matter loss is analogous to burning the grain in a fire (which also produces carbon dioxide and water ... and heat.) Left unchecked, a runaway reaction can occur in a mass of wet grain. The heat produced by the respiration process results

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Sobering Farm Safety Statistics

Tom Dorn
Extension Educator

I recently received some sobering statistics from Extension Farm Safety Specialist, Dave Morgan. There have been 35 Nebraskans killed in farm-related accidents in the last 20 months beginning in January 2000, (20 in 2000 and 15 so far in 2001.) Over the 33 year period of 1969 to August 2001, 1,102 Nebraskans have died in farm accidents — for an average of 34.4 deaths per year.

It is sad to read the brief facts that accompany these statistics. Caught in an auger, crushed when tractor overturned, crushed when caught between tractor and implement, crushed when jack slipped while working under machinery, suffocated in grain bin, ATV accident, caught in PTO, tractor ran into by truck on highway.

Most modern tractors have some form of roll-over protective structure (ROPS) to protect the driver in the event of an overturn. In these cases, death or serious injury is often the result of being thrown from the tractor, causing head injuries or the victim is crushed under the machine. More people could be saved if tractor operators would wear their safety belt when operating a ROPS equipped tractor.

People need to be aware of the dangers of standing on moving grain. Every year people "drown" in grain that is being unloaded from a bin or wagon.

All-terrain vehicles should be considered tools not toys. The latest statistics report four deaths involving ATVs. Three of the four deaths involving an ATV

were people under 21 years old.

So many times one reads about passengers, not the driver, being fatally injured in an accident. Tractors, combines, and other equipment are no place for passengers. Many times passengers are precariously situated and easily dislodged and run over by the tractor or by a pulled implement. Sometimes the passenger is actually part of the cause of an accident because they interfere with the driver's ability to react to an emergency.

By the time this is published, harvest will already be underway and we will be into one of the busiest times of the year for farmers. Long hours and dangerous working conditions are accepted as a normal part of the life of a farmer, but no one should become a statistic for the sake of getting done a day or two earlier.

This goes for spouses and children as well, who many times are asked to help out. Lack of visibility after dark and

operating machinery they are not very familiar with puts both the operator and other family members at greater risk for injury.

For the rural residents reading this (school kids included) remember to be watchful on county roads. A car going 50 mph coming up behind a farm implement moving at 15 mph closes at a rate of over 50 feet per second. Heavily loaded trucks and grain trailers can't stop as quickly as a passenger car. Trucks and farm equipment may be entering the roadway from field lanes in places where you wouldn't normally expect them. Eight row headers on combines are over 20 feet wide and take up nearly all of a rural roadway. When overtaking a combine, give the farmer time to see you and to find a place where he/she can pull over and make room for you to pass. Never try to pass a combine or other implement on the shoulder of the road and never attempt to pass until the driver is aware of your presence.

Moving Hay Bales Can be Dangerous

Bales can weigh up to 2,000 pounds. When taking bales out of storage or moving them with a front-end loader, farmers should always use a bale clamp to prevent bales from rolling down the arms of the loader and pinning or crushing the operator.

Proper ballast is important when gathering and moving bales. Farmers should make sure there's sufficient weight added to the front end of the tractor to ensure adequate

traction for steering when using three-point hitch carriers. Added weight to the rear of the tractor may be necessary to maintain braking ability when using front-end loaders to handle large bales. When moving bales with a tractor, they should be carried as low as possible. Top-heavy loads can cause machinery to overturn easily.

Source: David Morgan, biological systems engineer, NU/IANR

Corn Ethanol and By-Products Add Value to Nebraska

Lance Cummins-Brown
Extension Educator

I recently attended a University of Nebraska sponsored in-service training for extension personnel on corn ethanol production and the resulting by-products of this process. This group of educators had the opportunity to tour two Nebraska ethanol plants and to talk to their employees. I learned a great deal at this training and would like to share some of the information I have learned with you.

Here is a Top Ten List of things I learned:

1) There are two different types of ethanol production currently being used in Nebraska. These are dry-milling and wet-milling and they are very different. Even though they both produce ethanol, the by-products they produce are very different and the way they process the corn is very different.

2) Ethanol plants produce more than just ethanol at their plants. At the dry-milling plant,

they produced 200 proof alcohol which is used for not only beverages, but also for other food and household products. They also produce wet and dry distiller grain. At the wet-milling plant, they produce two different types of corn syrup for human consumption, corn gluten feed, corn gluten meal, corn germ, corn oil, steep liquor and ethanol.

3) These plants use a tremendous amount of corn and produce a tremendous amount of feed for animals every year. Both plants have either recently expanded or are currently expanding. For example, the wet-milling plant unloads 250-300 semi-loads of corn a day and uses more corn in one year than is grown in the two largest corn producing counties.

4) Wet distillers grain and corn gluten feed are two very different products in terms of nutrition and price, even though they may look similar.

5) Corn gluten meal is used almost exclusively in chicken and pet food diets, while corn gluten feed is fed almost exclusively to cattle.

6) The wet-milling plant we

visited was the second largest user of electricity in Nebraska and had a water treatment plant large enough to supply a city of 250,000 people.

7) It is estimated that the by-products alone contribute over 40 million dollars of additional agricultural revenue each year.

8) Quality control is very high. Each plant tests the products they produce at least every two hours, every day.

9) These products are being developed for use in dairy, feedlot rations, stocker and cow rations during the winter.

10) In my opinion these plants will continue to add value to Nebraska's agriculture industry through increased demand for corn, increased quality feed options for livestock, and an increased number of jobs in rural areas.

For more information on corn ethanol by-products, their feed values and how to incorporate them into your livestock feeding plan please contact Lance Cummins-Brown, extension educator, at (402) 441-7180 or by e-mail at lbrown4@unl.edu.