

## Fall Livestock and Grain Price Outlook Meeting Scheduled

A Fall Livestock and Grain Price Outlook meeting will be held on Sept. 24, from 1:30 to 4 p.m. at the Lancaster Extension Education Center, 444 Cherrycreek Road, Lincoln.

During the 2-1/2 hour meeting, participants will be updated on current and projected supply and demand conditions that are expected to affect corn, soybean and wheat prices and marketing decisions for the new crop year. Price outlook and risk management strategies for livestock production in the midst of increasing world trade issues will also be discussed.

"On the livestock side, issues such as BSE in Canada and Country of Origin labeling are affecting the producers need to manage risk. Planning marketing strategies for fall crops based on realistic scenarios is important as well," said Darrell Mark, NU extension livestock marketing specialist.

Dr. Mark along with Lynn Lutgen, NU extension grain marketing specialist, are featured speakers at the outlook meeting. There is no registration fee.

For more information contact Tom Dorn or Karen Wedding at 402-441-7180. (TD)

## Biosolids Increase Yields While Reducing Fertilizer Costs

Learn about Biosolids at an Educational Workshop



**Tuesday, Sept. 30**  
**3:30–8:30 p.m.**

In the lull just before harvest, have you been thinking about ways to improve production and cut costs? You can reduce your out-of-pocket fertilizer costs, improve poor soil and increase yields by using Lincoln's municipal biosolids. This material is high in organic matter and contains all the nutrients needed by crops to grow. Most cooperators see a yield benefit for three to four cropping years after just one application.

You are invited to come to a workshop on Tuesday, Sept. 30, 3:30–8:30 p.m. at the Lancaster Extension Educational Center, 444 Cherrycreek Road, Lincoln. First, we will travel to the Theresa Street Wastewater Facility for a tour to see how biosolids are processed to make them safe to use. The tour will be followed by an educational program back at the Lancaster Extension Education Center. Call 402-441-7180 and register by Sept. 26. For more information, contact Barb Ogg or Dave Smith. (BPO)

## Time to Control Problem Weeds

Fall is a good time to control several species of perennial weeds in pastures and waste areas. Perennial plants such as field bindweed, Canada thistle and leafy spurge translocate food from the upper plant parts into the root system in the fall. Herbicides applied at that time readily move into the roots as well, greatly improving the effectiveness of the herbicide. Even if the chemical doesn't completely kill the weed, the plant goes into winter in a weakened condition and is much more susceptible to winter kill. Fall treatments can be made anytime after mid-September but before a hard freeze occurs. Treatments can even be made after a light frost has occurred as long as the plants are still active and growing. Daytime temperature in the 50's are

satisfactory for effective control.

Fall is also the best time to control musk thistle and related species. Musk thistle is a biennial, (sometimes a winter annual), that spreads by seeds. Young plants will have a rosette form (a round cluster of leaves that lies nearly flat on the soil). They overwinter in the rosette form and those with sufficient growth then shoot up (bolt), form blossoms and go to seed in June, July and August. After producing seed, the plant dies. The reason fall is a good time to control Musk thistle is because the newly germinated plants are small and, therefore, easily killed. As with the perennial plants, plants not killed outright go into winter in a weakened condition and are more susceptible to winter kill.

In addition to obtaining excellent

control on the target weeds, the potential for drift damage to non-target species is lessened in the fall. Most field crops and gardens are finished producing by this time, and the current year's growth on perennial shrubs and trees is hardened off making them less susceptible to damage as well.

For recommendations on specific weeds in crops, pastures and non-crop areas, consult the "2003 Guide for Weed Management in Nebraska" (EC 03-130-D), available for \$3 when picked up at the extension office or consult the Web version at [www.ianr.unl.edu/pubs/fieldcrops/ec03-130.pdf](http://www.ianr.unl.edu/pubs/fieldcrops/ec03-130.pdf). (TD)

## Preparing Bins to Maintain Grain Quality, Value

With harvest quickly approaching, it's time to prepare your grain bins and equipment to limit insect problems and potential loss of crop value in storage. Remember grain harvested in Nebraska is essentially insect-free, but can become infested by storage insects which originate in or around the bin or in contaminated equipment such as combines and grain augers.

First be sure to store sound, clean, dry grain. It may be advisable to screen out broken grains, trash and fines to increase the quality of the final storage product. Eliminating trash will enhance fumigation should this procedure be required later.

Cleaning and preparing bins now can help ensure grain insects don't diminish the value of your harvest.

Since stored grain insects can invade new grain from infested harvesting and handling equipment (combines, augers, etc.), it's essential equipment be well cleaned. Carefully remove all traces of old grain from combines, truck beds, grain carts, augers and any other equipment used for harvesting, transporting and handling grain. Even small amounts of moldy or insect-infested grain left in equipment can contaminate a bin of new grain. Clean grain bins thoroughly, disposing of spilled, cracked and broken grain and grain flour, along with the insects feeding on such material. A simple broom and a vacuum cleaner are essential pieces of equipment in cleaning grain bins.

Around the bins be sure to remove old equipment, junk and clutter to reduce attractiveness to insects and rodents. Make sure the bin is insect- and rodent-proofed by plugging holes, sealing bins, caulking and making general repairs. Grain spilled near the bin attracts insects and draws mice and rats. Clean up and dispose of any spilled grain several weeks before harvest. If rats have tunneled under foundations, use baits or traps to reduce or eliminate them.

Tall weeds can harbor insects and provide cover for rodents. Mow around the bin site to reduce the potential for insect and rodent infestation. If necessary, re-grade the site so water readily drains away from bin foundation. One cannot always wait for the soil to dry before loading or unloading grain from bin sites. Make certain travel lanes have enough rock or gravel to bear the weight of heavy trucks and grain carts.

Landscaping should be maintained well away from grain storage facilities. Leave a four-foot wide strip of bare gravel around the perimeter of storage bins. If you buy old crop



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grain for storage with newly harvested grain, be sure to watch for insects in the incoming grain. If infested grain is purchased for livestock feed, store it away from the new crop and feed it as soon as possible. Grain stocks may be rotated or moved and a grain protectant applied.

Stored grain insects cannot live on extremely dry grain (less than 10 percent moisture), however, it is impractical to reduce grain moisture much below minimum moisture levels necessary for long-term storage. Insect activity and reproduction are favored, however, by high grain moisture (14 percent or more), especially when condensation and molds occur and fermentation raises temperature in the grain mass. A bin of 19 percent moisture corn with a starting temperature of 75° F can lose a full market grade in about five days if the aeration system shuts down, which allows the grain to heat and deteriorate. Electrical system maintenance before harvest can prevent costly downtime. Spoilage and internal heating allow insects to remain active even in winter. By properly managing grain aeration the grain temperature can be manipulated. Grain cooling can be particularly important in reducing insect reproduction since insects are cold-blooded and not very active below 55° F. Condensation of moisture in the grain mass is prevented by slow cooling and gradual reduction of the gradient between the grain mass temperature and the outside (ambient) temperature.

Wiring for fans and other electrical components should be inspected for corrosion and cracked, frayed or broken insulation. Exposed wiring should be run through waterproof, dust-tight conduit. Avoid kinking the conduit and make sure all connections are secure.

Mice often nest in control boxes where they are protected from predators. They can strip insulation from wires for nest material and their

urine sometimes causes corrosion on relays and other electrical components. If rodent damage is found, clean and repair or replace damaged wiring, relays and other electrical equipment. Then seal over knock-outs and other openings that may permit rodent entry.

Fans, heaters and ducts should be checked for corrosion and other damage. Remove any accumulated dust and dirt that may reduce operating efficiency and be sure all connections are tight to prevent air leaks that can reduce operating efficiency.

Once empty bins have been thoroughly cleaned, a residual treatment may be applied to bin surfaces to protect incoming grain from insect infestation. Follow label instructions carefully. The following materials can be applied as residual sprays to bin surfaces: malathion EC, premium grade, chlorpyrifos-methyl (Reldan 4E), INSECTO/Diatomaceous Earth, pyrethrins, or cyfluthrin (Tempo SC Ultra). Note pyrethrins would provide a relatively short residual and malathion is not effective for some stored grain insects due to resistance. Methoxychlor is no longer labeled as a residual spray in stored grain facilities in Nebraska.

For bins with false floors, which are inaccessible for cleaning, Chloropicrin, a bin "clean-out" fumigant, is legal to use prior to binning the grain. Other fumigants used on empty bins include magnesium phosphide and methyl bromide.

Caution! Fumigants are dangerous, restricted-use pesticides and may require gas monitoring devices and respirator protection for the applicator. It is highly recommended fumigation be done by a commercial pesticide applicator who has been trained and certified by the Environmental Protection Agency and Nebraska Department of Agriculture in safe fumigant handling and application techniques. Refer to current labels for specific details and instructions. (TD)