

October 17, 2008

DRYING CORN WITH NATURAL AIR

A lot of our corn in early October was at 19% to 20% moisture, a moisture level that can cause problems in storage. So the question becomes how long will it take to dry 20% moisture corn to 15% using a natural air fan during the last three weeks in October with on-farm stored grain?

The High Plains Climate Center data for our area shows the average 24-hour mean temperature is 51F for the final three weeks in October. If we assume the mean humidity is 50% (dew point of 33F) and if we assume the airflow from the natural air fan is 1.0 cfm/bu, (the minimum recommended airflow for 20% moisture corn is 1 cubic foot per minute airflow per bushel), we can estimate the time to dry this grain. Aeration fans would not be adequate because aeration fans will be lower than 1 cfm/bu.

Under these climatic conditions, using the stated natural air drying fan, and assuming no stirring system in the bin, it should take about 20 days to bring the moisture content at the top of this bin of corn to 15%.

If the bin is equipped with a stirring system, run the stirring system while filling the bin to relieve the pack factor, and redistribute the grain fines (which tend to congregate in the middle of the bin). Also it is important to level the grain. Then shut off the stirring system and allow a drying front to form and move through the grain. Since the bottom of the bin will be over-dried by the time a drying front is pushed through the bin, run the stirring system again when the top of the drying front is two feet below the surface to equalize the moisture in the grain mass. Using this stirring process could reduce drying time about three days.

If you do not know your airflow per bushel or are in a new situation with a bin, there is a useful program on the Internet. Go to: lancaster.unl.edu/ag/Crops/storage.shtml. In the middle of the page, there is a link called MN - Download free "FANS" software.

MICE INVASION IS HERE

As cooler weather is approaching, mice will be looking to enter buildings/RV's in preparation for the winter. Now is the time for people to:

1. Tighten up your buildings that have holes 1/4" or larger (provided the holes aren't being used by bees or wildlife larger than mice).
2. Keep a sharp eye out for mouse droppings.
3. Respond aggressively when mouse evidence is seen. A common mistake is the failure to use enough traps. For mice, more traps are better. Think 2 dozen for a single family ranch style house. More for larger houses and areas.



4. Our wildlife specialist says do not bother with those silly ultrasonic devices, house cats or repellents. They don't work. (I like both dogs and cats so in my opinion cats are better than no cats!)

For more tips on mice control look at our NebGuide at:
www.ianrpubs.unl.edu/epublic/live/g1105/build/g1105.pdf

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