Shift Corn Focus From Harvest To Storage In October

DR. SAM MCNEILL

PRINCETON, KY. Although corn harvest is running well behind the 5-year average in much of the mid-South, soon it will be time to shift our thinking from producing the crop to managing it during storage. Mild fall temperatures provide opportunities for inexpensive

insect control. Stored grain should be cooled to within 10 to 15 degrees F of the outside monthly average temperature as they fall. Be aware of the time required to move a cooling cycle completely through each bin on the farm. Estimates can be easily made by dividing 15 by the ratio of fan capacity to the number of bushels. For example, consider that a 5 horsepower fan will deliver about 10,000 cubic feet of air per minute (cfm) at 2.2 inches of static pressure. Placed on a 20,000 bushel bin, this fan will deliver 0.5 cfm for each bushel in the bin. So, dividing 15 by 0.5 gives an estimate of 30 hours for each cooling cycle for this situation. Look at weather forecasts throughout the fall to see when Mother Nature gives you opportunities to cool each bin by 10 to 15 degrees each month. After fall cooling, seal the fan with a tarp or plastic sheet to reduce drafts through the grain during the winter.

With this year's large crop many bins may be filled to their very top or peak. That situation always raises a concern because grain above the top ring will not store well and should be removed (cored) from all bins within a month after storage to avoid problems down the road. Coring the bin actually helps improve storage conditions in many ways:

1. it improves airflow through the grain;

2. it reduces fan operating time, which in turn saves on the electric bill;

3. it improves ventilation in the headspace, which reduces problems with moisture condensing on the bottom of the bin roof and dripping back on the grain; and

4. it provides workers with enough room to work inside the bin when inspecting grain, collecting samples during storage, and checking insect pitfall traps.

So by coring the bin we also protect crop quality and value.

The most important point when dealing with stored grain is to be aware of the hazards involved when working around gravity flow wagons or inside a bin. Unfortunately, there has already been one accidental death in the region this year that was associated with flowing grain so folks need to be ever mindful of safe working conditions. Safety precautions and other information on managing stored grain is available on the UK Grain Storage website (www.ca.uky.edu/agc/pubs/aen/aen39/aen39 .pdf) or by calling the Cooperative Extension Service Office in your county. Δ

Dr. Sam McNeill is Extension Agricultural Engineer with the University of Kentucky at Princeton.