

September 10, 2004

PREPARE BINS NOW

Maintaining equipment in good shape and avoiding costly breakdowns has always been a big factor for area crop producers. For instance, a bin of 21% moisture corn with a starting temperature of 75 degrees F can lose a market grade in only three days if the aeration system breaks down.

Most grain harvested goes into the combine hopper as number one grade, but that can change considerably during the storage process. The best we can hope for is to maintain the quality of grain that we currently have at any point in time. Once grain quality is lost, it is lost forever and nothing can be done to improve it.

The following are some tips on preparing grain bins and equipment to help you maintain all the value you put in storage. To reduce the risk of a breakdown after you have filled the bin, always check electrical systems for corroded connections and frayed wiring before harvest. Mice like to nest inside electrical boxes where they are safe from predators. They will strip insulation from wires for nesting material and their urine causes corrosion. While inspecting control boxes, be sure to seal any openings where mice could get in.

If you anticipate carrying grain into the summer months, a residual chemical treatment should be applied to bin surfaces after empty bins have been thoroughly cleaned. Be especially careful to treat cracks and seams where insects can hide. Follow label directions carefully and use the proper protective equipment or you can become sick from pesticide poisoning. Bin treatments include: Malathion, Tempo (cyfluthrin), Storcide (chlorpyrifos-methyl plus cyfluthrin), pyrethrins (many brand names), Hard Hitter (permethrin), piperonyl butoxide mixed with pyrethrins (many brand names), and Actellic (registered for empty bin treatment for corn and milo only). Natural products for wheat and feed grains include silicon dioxide (diatomaceous earth under many brand names), silica gel (several brand names), and *Bacillus Thuringiensis* (BT-many brand names).

For soybean storage, Silicon dioxide products, BT products, and Tempo Ultra (commercial applicators only) are labeled for empty bin treatment prior to storing soybeans. Note: Mention of brand names is for clarification only. Other products containing these active ingredients are being marketed as well. No endorsement by the University of Nebraska is intended or implied.

Our grain is free of insects at harvest but it can become infested by insects living in the old grain that is left over in storage bins and harvesting and handling equipment. It is essential to clean bins and equipment before harvest. Use brooms and shop vacuums to clean the grain and grain dust from walls, floors, cracks and seams in the combine, grain carts, trucks, and in the grain bin at least two weeks prior to harvest. A rule of thumb - if you can tell what crop was harvested or stored before, it isn't clean enough.

Under the aeration floor is often forgot about and can harbor grain insects. Commercial applicators often use chloropicrin which is heavier than air and extremely toxic and effective for this type of treatment. Phostoxin pellets can be used if you have a restricted use pesticide license.



You need to follow label instructions carefully. Because phostoxin is light and penetrating, the bin must be sealed for this treatment to work. Application is by volume not by bushels. For more information on bin treatments or storing grain guidelines, give me a call at 821-2151 or e-mail rpryor1@unl.edu.

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