



Disposal of Spoiled or Contaminated Grain Technical Guidance Document SW-1998-G6

In many locations across Kansas conventional grain storage facilities are filled to capacity and high crop yields, coupled with marketing problems, have resulted in the need to store grain on the ground. Outdoor storage may result in significant spoilage and contamination concerns, necessitating disposal of unmarketable grains and residuals. This technical guidance document provides guidelines and recommendations related to available disposal methods.

Storage Concerns

Outdoor grain storage can result in spoiled product, which brings the potential for odor and contaminated stormwater runoff. Grain piles also attract rodents and other undesirable vectors and scavengers. These nuisances and environmental problems, along with the ongoing decrease in product value, create a strong incentive to eliminate outdoor storage as soon as practical. Anyone storing grain outdoors should be aware of potential health and environmental problems and closely monitor the storage location to minimize impacts to the surrounding area.

Alternate Uses and Disposal Options

When a decision is made that stored grain is no longer wanted, an acceptable alternative use or disposal option must be implemented. These options should be considered and a course of action selected before the need to remove the grain becomes urgent, such as in response to a major odor problem.

The Kansas Department of Health and Environment (KDHE) has limited knowledge and authority related to alternate uses for spoiled or unwanted grain unless the reuse method could impact human health or the environment. KDHE recognizes that some spoiled or contaminated grain may be used, under certain conditions, as a feedstock for alcohol production. This use may be coordinated by the responsible party without KDHE involvement.

If the grain will not be used for alcohol production, the responsible party must select one of the following methods for using, treating or disposing of the grain. The methods are listed in order of preference.

1. Land application is approved through this guidance document at agronomic rates of up to 1 ton per acre. Higher application rates must be coordinated with the Kansas State Extension Service -Agronomy Dept. in Manhattan.

2. Composting must be performed in accordance with technically accepted composting methods. To identify an existing permitted composting site, or to set up a new temporary or permanent composting operation, please contact the Bureau of Waste Management.

3. Disposal in Municipal Solid Waste Landfill must be coordinated with landfill owner/operator, but no special waste disposal authorization is required. Landfills may temporarily store grain in a secure location, controlling runoff as they work it into the fill, in accordance with the Facility Operating Plan.

4. Burial in Newly-Constructed Trench Fill must be coordinated with the local KDHE district office to ensure that the selected area is environmentally acceptable and that the site is properly closed at the completion of disposal activities. A permit is not required. You can find a list of the district offices and contact information on the KDHE website at: <http://www.kdheks.gov/contact.html>.

For information regarding the management of solid or hazardous wastes, you may contact the Bureau of Waste Management at (785) 296-1600 or the address at the top of this document, or visit the Bureau's website at <http://www.kdheks.gov/waste/>.