



## Disposal Options for Large Quantities of Dead Animals Technical Guidance Document SW-2001-G1

Large numbers of livestock may be killed during a disease outbreak or natural disaster such as a snow storm. These mortalities require special disposal procedures to prevent creating hazards to human health, animal health, and the environment. This technical guidance document (TGD) outlines acceptable practices for the disposal of large quantities of dead animals (six or more animal units as defined in KSA 65-171d). Disposal options for small quantities of dead animals are described in TGD SW-1994-G1.

The Bureau of Waste Management (BWM), along with the Animal Health Commissioner-Kansas Department of Agriculture (785-296-2326), will provide advice on disposal options which meet the requirements of K.S.A. 47-1219 and K.S.A. 65-3407c(a)(5).

The statutory options for disposal, in order of preference, are:

1. Rendering;
2. Composting;
3. Disposal at a municipal solid waste landfill;
4. Burial on site; and
5. Incineration or open burning.

The table on the next page indicates environmental, cultural, and safety factors that may be affected by the different disposal options. Each of these should be considered when determining which disposal method is the best option.

**Rendering** is the preferred option of disposal for large quantities of dead animals; however, very large quantities of animals or animals with an infectious disease may nullify this option.

**Composting** may be an option for large numbers of dead animals. If animal mortalities resulted from a disease, contact BWM for guidance on appropriateness of composting.

**Disposal at a permitted municipal solid waste landfill** is the third most desirable option. These facilities are constructed to safely dispose of organic wastes. However, very large

quantities of animals and/or long transport distances may make this option impractical.

**Burial on site** requires authorization from the Kansas Department of Health and Environment (KDHE). This method may be used for the disposal of whole unprocessed livestock at a location near where the animals died if the deaths were the result of a natural disaster or if the carcasses present an emergency situation (K.S.A. 65-3407c(a)(5)).

A request for disposal must be submitted to BWM on a *Disposal of Solid Waste Without a Permit* (Disposal of Whole Unprocessed Livestock Carcasses) authorization application which includes written approval from the landowner and from the local government or zoning authority.

The following guidelines should be followed when burying animals on-site:

- With the help of KDHE District Office staff, select a site that will be protective of ground and surface water.
- Bury animals within 48 hours unless otherwise authorized.
- Add quick or slaked lime, if necessary, to control odors and thus discourage scavenging.
- Cover animals with a minimum of three feet of soil.

**Incineration or open burning** may be required by the Animal Health Commissioner to prevent disease transmission. KDHE's Bureau of Air (785- 296-1593) must be consulted for approval of location and methods of combustion.

The following table, modified from USDA Animal and Plant Health Inspection Service information, indicates the areas of concern that should be considered when determining which disposal method is the best option. To use this table, decide on the disposal method that is most suited to your situation, then look down the column under the chosen disposal method at the “X”s, “R”s, and “K”s to determine which areas of concern apply to that disposal method. You will need to be sure that all areas marked have been considered and appropriate controls are in place to minimize the impacts of the chosen disposal methods on these areas of concern.

Area of Concern	Method			
	Burial	Incineration or Open Burning	Rendering	Composting
Surface Water	X, K		X, R	X, K
Groundwater	X, K			X, K
Air	X	X, R, K	X, R	X
Wildlife	X			
Public Safety and Worker Health	X	X	X	
Solid Waste	X, K	X		X, K
Vegetation	X	X		
Cultural and Historical	X	X		
Utilities	X	X		
Climate	X	X		X

X- denotes applicability

R- denotes all Federal, State, and local discharge permit requirements must be satisfied in order to mitigate or eliminate any impacts

K- denotes KDHE has specific regulations which must be met

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For additional information regarding the proper management of solid or hazardous waste in Kansas, you may visit the Bureau of Waste Management website at <http://www.kdheks.gov/waste/> or contact the Bureau at: (785) 296-1600, [bwm\\_web@kdheks.gov](mailto:bwm_web@kdheks.gov), or the address at the top of this document.