



Disposal of Poultry Carcasses

Environmental Guidance for Kentucky's Agribusiness

The Department for Environmental Protection (DEP) and Department of Agriculture have collaborated to develop the following guidance regarding requirements and recommendations for the poultry industry on carcass disposal in the instance of an infectious disease. This document is intended as a general guidance and is not a substitution for the governing regulations. Due to the nature and need to isolate the virus, the following disposal options are addressed in this guidance document:

- ◆ Composting
- ◆ On-Site Burial
- ◆ Landfilling



Introduction

In the instance of a mass casualty or depopulation event at a poultry farm, understanding the proper disposal requirements associated with each option is important. There are various options for carcass disposal and handling, as addressed in the University of Kentucky, College of Agriculture, Cooperative Extension Service guidance for "On-Farm Disposal of Animal Mortalities, ID-167" (<http://www2.ca.uky.edu/agc/pubs/id/id167/id167.pdf>).

When a mass casualty is due to an infectious disease, extra precautions need to be taken to prevent further transmission of the disease. The presence of an infectious agent also increases the need for timely management of the carcasses. Three critical factors influence the potential management options for disposal of domestic birds associated with an avian influenza outbreak. Those factors are as follows:

1. Containing the virus by limiting transportation of infected birds;
2. Responding quickly to reduce the potential for genetic mutations and the transmission of pathogens to humans and other species; and
3. Selecting carcass treatment/disposal option(s) that ensure containment and inactivation of the virus and protection of the environment given site-specific conditions.

Statutes and Regulations

In accordance with Kentucky Division of Waste Management (DWM) regulations, animal carcasses are solid wastes when discarded (meaning not processed or rendered). Carcasses may be managed as provided by Kentucky Revised Statutes (KRS) 257 and 302 Kentucky Administrative Regulations (KAR) Chapter 22 through the Department of Agriculture, unless the practice is found to violate general provisions against land, air or water pollution, as provided in KRS 224 and 401 KAR through DEP. Under all circumstances, carcass management shall not violate Environmental Performance Standards outlined in 401 KAR 47:030 or otherwise present an imminent threat to human health or the environment.

Waste Management
Water Quality

Composting

The preferred method for carcass management, in the event of an infectious disease, is on-site composting. Compost that will not be sold or used off-site is not required to be registered with the Kentucky Department of Agriculture or Kentucky Department for Environmental Protection but must:

1. Follow the guidelines established by the University of Kentucky, College of Agriculture, Cooperative Extension Service publication “On-Farm Composting of Animal Mortalities: ID-166” <http://www2.ca.uky.edu/agc/pubs/id/id166/id166.pdf>; and
2. Meet the requirements of the Kentucky Agriculture Water Quality Plan.

On-Farm Composting

Composting, if done following simple but important guidelines, can be an environmentally sound and economical option. Kentucky Law [KRS 257.160\(1\)\(f\)](#) allows disposal of animal carcasses by composting if the disposal is performed in an approved facility and according to the Agricultural Board’s administrative regulations (302 KAR).

Mortality Composting Protocols

For more information regarding APHIS protocols, visit https://www.aphis.usda.gov/animal_health/emergency_management/downloads/hpai/.

In the event of an outbreak of a contagious disease, protocols established by the Kentucky Office of the State Veterinarian and the U.S. Department of Agriculture, Animal Plant Health Inspection Service would take precedence, restricting or prohibiting the movement of poultry or poultry products on or off the affected site. In managing a highly pathogenic virus, survivability of the virus is a key consideration. Conditions of a composting process may inactivate avian influenza, yet survivability of the virus increases when protected by organic matter.

A grower does not need a permit to apply compost on the farm at which the mortalities occurred. If the facility distributes the compost, regardless of whether or not carcasses are part of the mix, registration is required through the Division of Waste Management. “Distribution” is considered to apply only to selling or giving away to the public or outside parties. It is recommended, when the compost is finished, that a portion be retained as a carbon-base material for use in ongoing mortality management. When composting carcasses impacted by a virus, take special consideration regarding the destruction of the disease and use or dispose of the material after the compost process is complete.

On-Site Burial

On-site burial may be conducted provided the site meets certain conditions and does not create an adverse impact or potential for release. The Kentucky Department of Agriculture, Office of the Kentucky State Veterinarian requirements indicate that carcass burial shall:

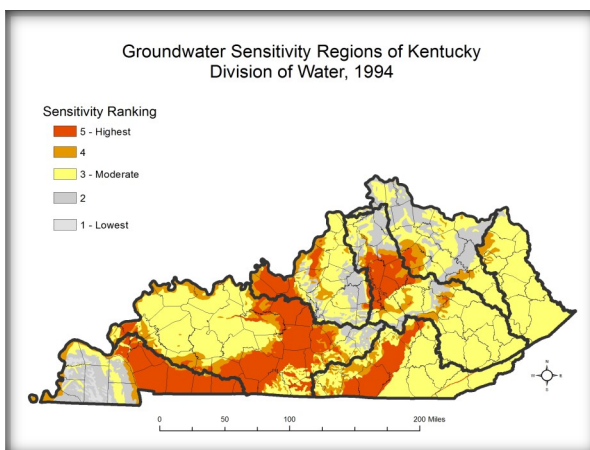
- ◆ occur at a location that is never covered with the overflow of ponds or streams and that is not less than one hundred (100) feet distant from any watercourse, sinkhole, well, spring, public highway, residence or stable;
- ◆ be placed in an opening in the earth at least four (4) feet deep, the abdominal and thoracic cavities opened wide their entire length with a sharp instrument; and
- ◆ cover the entire carcass with two (2) inches of quicklime and at least three (3) feet of earth.



On Site Burial (cont.)

The Kentucky Division of Water (DOW) has authority under the Agriculture Water Quality Act and can provide technical guidance with regard to identifying an appropriate on-site burial location. Requirements in the Agriculture Water Quality Plan (AWQP) address locating sites, including:

1. Setbacks for surface water, sinkholes, wellheads, springs, etc.
 - ◆ Implementation of setbacks should consider site-specific best management practices (BMPs), which may include AWQP BMPs to protect or enhance water quality.
2. Avoidance of problematic areas and ensure adequate soil profile below the carcass. Avoid flood zones, high water table/wetlands, sinkholes and other karst features and areas adjacent to special use waters. Maps and data available through the DOW, Kentucky Geological Survey and other sources are very useful in identifying these areas and a potential on-site burial location (<http://watermaps.ky.gov>). Additional assistance for siting may be provided by DOW by contacting 502-564-3410.



Although formal authorization of a site is not required by DOW, expertise from agency staff is available to assist in identifying potential concerns or regarding appropriate locations to perform on-site burial. When selecting a site or conducting on-site burial, ensure that the activity is conducted in accordance with the Office of the State Veterinarian and does not violate the Environmental Performance Standards in DWM Regulation 401 KAR 47:030.

Landfilling

In the instance of a small depopulation event, landfilling may be a viable option. Carcasses may be disposed of in a permitted solid waste contained landfill. Contact your local landfill to identify whether they are able to accept the carcasses; a map and list of permitted solid waste-contained landfills is available at <https://eec.ky.gov/Environmental-Protection/Waste/Pages/Solid-Waste-Facility-Reports.aspx>. There is potential risk involved in the transportation of carcasses and a concern for disease transmission at the point of disposal to scavenging animals at the landfill, particularly birds. Therefore, in an instance of high pathogenic avian influenza, landfill disposal is not the preferred method.

Agriculture Water Quality Best Management Practices

Kentucky's Agriculture Water Quality Authority has approved Best Management Practices (BMPs) to assist landowners as they work toward conserving Kentucky's land and water.

For a list of BMPs, please visit: <https://eec.ky.gov/Natural-Resources/Conservation/Pages/Best-Management-Practices.aspx>.



Transportation

Due to inherent risks of transportation, it is recommended to minimize or eliminate transportation of carcasses impacted by highly pathogenic avian influenza. In the case of an infectious disease, it is recommended to place carcasses in sealed bags or other containers prior to transport. During transportation of carcasses in noninfectious events, the carcasses transported over the highways must be covered with a tarpaulin or other heavy material. No portion of the carcass can be exposed, and the sides of the truck used must be made of a solid material. Further information about transportation and vehicle disinfection can be found in KRS 263.120 and KRS 263.130 at [Kentucky Revised Statutes - Chapter 263](#).

Agency Contacts

For more information regarding environmental regulations, please contact:

Kentucky Department for Environmental Protection

502-782-6189

envhelp@ky.gov

<https://eec.ky.gov/Pages/index.aspx>

For regulatory guidance regarding agricultural practices and livestock mortality, please contact:

Kentucky Department of Agriculture

Office of State Veterinarian

502-782-5901

Katie.flynn@ky.gov

www.kyagr.com/statevet/

Emergency Response

In the instance of a mass casualty, be sure to contact:

Kentucky Department for Environmental Protection

Emergency Response Team

800-928-2380

Kentucky Department of Agriculture

Office of State Veterinarian

502-782-5901



Kentucky Division of Compliance Assistance

Kentucky Energy and Environment Cabinet
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