



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. Due to the nature and need to isolate the virus, three disposal options are addressed in this guidance: Composting, On-Site Burial and Landfilling. This document is not a substitution for the governing regulations.

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” (<https://www.kyagr.com/tornado/documents/On-Farm-Disposal-167.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 (1). 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 20 and 21 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.

Composting

The preferred method for carcass management, in the event of an infectious disease, is inhouse composting.

Compost that will not be used for a commercial purpose or sold as a product 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” <https://www.kyagr.com/tornado/documents/On-Farm-Composting-166.pdf> and
2. Meet the requirements of the Kentucky Agriculture Water Quality Plan.

Composting

In the event of an out-break 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 (1).

When compost is distributed, as defined below, 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. A grower does not need a permit to apply compost on the farm at which the mortalities occurred. It is recommended, when the compost is finished, that a portion be retained 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 disposal of the material after the compost process is complete.



(1) See the [Disposal of Domestic Birds Infected by Avian Influenza](#) – An Overview of Considerations and Options published by the U.S. Environmental Protection Agency for recommendations surrounding temperatures and timelines for in-house composting and management practices.

On-Site Burial

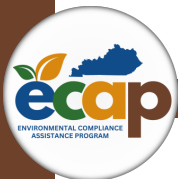
On-site burial may be conducted provided the site meets certain conditions and does not create an adverse impact or potential for release.

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.

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.

Formal authorization of a site is not required by DOW, but DOW expertise 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 list of permitted solid waste-contained landfills is available at waste.ky.gov/SWB. 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.

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.

Contacts

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

Kentucky Department for Environmental Protection
[Environmental Response Team](#)
800-928-2380 or 502-564-2380

Kentucky Department of Agriculture
[Office of the State Veterinarian](#)
Statevet@ky.gov
502-782-5903

The information in this document is offered only as general guidance. It is not a substitute for reading and understanding Kentucky's statutes and regulations governing the applicability and issuance of environmental permits. Specific requirements may vary with location. ECAP is not authorized to relieve any person from any requirement of federal regulations or Kentucky law through this document.

