

July 24, 2015

**Avian Influenza
Environmental Impacts
Burial and Outdoor Composting Options**

*Properly **managing** and **disposing** of dead farm animals is important. Every poultry operation should have a strategy for properly disposing of dead stock. The strategy must follow a legal disposal method as defined in the PA Domestic Animal Act*

There are several methods of dealing with mass mortality. The 1st and preferred method is composting, with the 2nd option being burial. Other methods may include landfill, incineration, and fermentation.

Consider neighbor relations and nuisances that may be created by your chosen disposal method. While mortality composting is a desirable option for many producers, placing a composting pile or bin too close to a neighbor can turn it into a new liability.

The PA Domestic Animal Act lists important legal requirements for all poultry operations. Responsible parties must:

- Properly dispose of the carcass within 48 hours after a domestic animal dies.
- Prevent exposure of the carcass to other living animals, domestic animals and the public.
- Not endanger environmental, animal or public health while transporting dead stock.
- Be licensed by the PA Department of Agriculture if you purchase or receive a dead domestic animal for disposal purposes

Farms should think of how they would deal with mass mortality before it happens, and plan accordingly. In thinking thru the options available and choosing an option that best suits the farms needs/wants, the farm can start to identify what would need to occur and what plans would be needed, on the environmental side of the equation.

The information and techniques outlined in this brochure are intended as guidance. Contact the PA Department of Agriculture, Bureau of Animal Health and Diagnostic Services at 717-772-2852 for additional information and instructions.

Outdoor Composting

For the outdoor composting option, one will need to think where they can secure a carbon source (fodder, hay, mulch, wood chips, bedded pack manure, etc.)

If manure will be the carbon source, or part of the carbon source utilized, the composting pile or windrow must meet the following:

1. The land application of the compost shall occur within 120 days of stacking or by the next growing season, whichever is less.
 - For situations where compost stacks will be placed in fields with the expectation that it will be there for longer than 120 days, the stack shall be covered with an impermeable cover within 3 weeks of placing the stack in the field.
 - Land application of mortality compost must be planned under Act 38 (nutrient management) for all Concentrated Animal Operations (CAOs) and Concentrated Animal Feeding Operations (CAFOs) or Chapter 91 (manure management) for all other agricultural operations.

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2. Compost stacked piles should be stacked in a cone or windrow shape so as to shed rainwater. This shape limitation would not be necessary if, upon stacking, the stack will be covered with an impermeable cover.
3. Compost stacks should be setback 100 feet from streams (intermittent and perennial), lakes, ponds, open existing sinkholes, and active water wells.
4. Compost stacks should not be located in water concentration areas, such as a swale, ditch, or waterway.
5. Compost stacks should not be located on areas that have excessively drained soils. This limitation would not be necessary if, upon stacking, the stack will be covered with an impermeable cover.
6. Compost stacks should not be located within 3 feet of the seasonal high water table.
7. Compost stacks should not be located above subsurface drain tiles. This limitation would not be necessary if, upon stacking, the stack will be covered with an impermeable cover.
8. Compost stacking sites should not have a slope of greater than 8%.
9. Compost stacking sites with slopes between 3 and 8% should not be located further than 100 feet from the top of the slope unless a diversion is constructed of soil above the stack.
10. The composting materials must be dry enough to allow for stacking at least 4 feet in height.

Burial

Burial has the greatest number of environmental, public health and safety considerations, when looking at all the disposal option available. Burial sites need to be chosen carefully to prevent groundwater and well water contamination. Burial requires equipment to dig deep enough holes.

Adequate cover prevents wild animals, dogs or birds from exhuming the carcasses. Poor coverage of carcasses can spread disease, be unsightly and can attract rodents and flies.

One should identify sites on maps or in GPS for future reference. One should also re-vegetate the burial site with grass once the burial site is closed.

By law, burial sites must be:

- Located outside of the 100-yr flood plain
- A minimum of 100 feet from waters of the Commonwealth (streams, ponds, wetlands, etc.) (200 feet is recommended)
- Covered with minimum 2 feet of soil within 48 hours
- Located minimum 100 feet from wells & sinkholes (200 feet recommended)
- Located a minimum of at least 100 feet from property lines (200 feet recommended)
- Bottom of burial sites should be:
 - A minimum of 2 feet above bedrock
 - A minimum of 2 feet above seasonal high water table
 - A minimum of 2 feet above highly permeable soils
- Have an Erosion and Sedimentation Control (E&S) plan whenever the earth disturbance is greater than 5,000 square feet.
 - Attached is a sample E&S plan; E&S Guidance; and an example E&S plan, which could be utilized as a template for developing a farm specific E&S plan if burial is considered or utilized.
 - The E&S plan does not need to be submitted, but must be available on site for review upon request.