



CATASTROPHIC MORTALITY

The information and techniques in this brochure are intended as guidance for routine animal mortalities on a farm. In situations involving catastrophic mortality, such as whole herd or flock due to disease or catastrophic events, please contact the PA Department of Agriculture Bureau of Animal Health and Diagnostic Services at 717-772-2852 for additional information and instructions.



ADDITIONAL RESOURCES

Contact your local Penn State Extension, County Conservation District or USDA Natural Resources Conservation Service office for assistance.

Natural Rendering: Composting Livestock Mortality and Butcher Waste. Cornell Waste Management Institute. 2002 <http://compost.css.cornell.edu/naturalrenderingFS.pdf>

Penn State Extension Composting Page extension.psu.edu/animals/health/composting

PA Agricultural Ombudsman Program
Eastern PA 717-880-0848
Western PA 814-696-0877, ext. 113
www.paagombudsman.com

PA Department of Agriculture
www.agriculture.pa.gov

PA USDA Natural Resources Conservation Service (NRCS)
www.nrcs.usda.gov/wps/portal/nrsc/site/pa/home/

Penn State Extension
extension.psu.edu

PA Department of Environmental Protection
www.dep.pa.gov Click on "Regional Resources", then "Office locations" for DEP offices in your area.

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Livestock & Poultry MORTALITY DISPOSAL *in Pennsylvania*



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Properly **managing** and **disposing** of dead farm animals is a basic legal responsibility for animal management and environmental protection. The PA Domestic Animal Law defines acceptable disposal methods, which include mortality composting, rendering, incineration and burial. Livestock and poultry operations need a strategy for proper disposal of routine losses and should utilize these acceptable methods. When catastrophic losses occur, disposal will be handled under the direction of the PA Department of Agriculture.

PA Domestic Animal Law

The PA Domestic Animal Law lists legal requirements for poultry and livestock operations. Responsible parties must:

- Properly dispose of the carcass within **48 hours**.
- Prevent exposure of the carcass to other living animals, domestic animals and the public.
- Minimize environmental impact and not endanger animal or public health while transporting deadstock.
- Be licensed by the PA Department of Agriculture to commercially transport and dispose of deadstock and poultry.



Compost piles may be turned occasionally to rejuvenate the compost process.

Having a strategy to handle mortalities before they happen can help an emotional situation be a little easier.



DISPOSAL STRATEGY

Disposal strategies must consider practical details.

- Could the disposal method impact your herd or flock's health, safety and bio-security?
- Proximity to your own or neighboring wells.
- Distance to closest surface water.
- Where will you access enough carbon material for composting?
- Can your neighbors see your disposal method or site? Will they find it offensive?
- Is your equipment heavy enough to move large animals and soil?
- Are farm soils suitable for underground disposal?

Disposing of uncovered animals on the ground to decompose or be eaten by scavengers is not legal nor professional.



LEGAL DISPOSAL METHODS

MORTALITY COMPOSTING:

Composting breaks down organic matter into a stable material, after reaching temperatures high enough to kill bacteria and viruses. When managed properly, composting is convenient, affordable and requires minimal labor. Properly managed composting facilities do not have problems with rodents, predators, flies or odors. Composting can be done in:

1. constructed, covered structures (especially for smaller animals, with frequent mortalities)
2. static piles (for minimal number of large animals)
3. windrows (is the best shape for internal air flow)
4. enclosed vessels (which speed up the process for larger animals, when experiencing frequent mortalities).

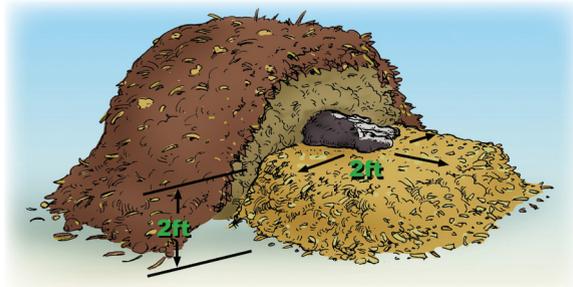


Illustration by Bill Davis, courtesy of the Cornell Waste Management Institute.

RENDERING:

Rendering, where available, is convenient and requires minimal labor. It can be expensive and presents biosecurity concerns. CALL FIRST to see what will be accepted before planning on rendering as a disposal option for your farm. Rendering pick-up should be located away from the main animal housing. Take extra care with biosecurity to prevent the spread of diseases onto and off of your farm. Dead animals should not be visible to the general public.

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Using a thermometer helps monitor the progression of the composting process.

In-vessel composters provide a controlled environment for a consistent, year-round finished product. It often reduces time to complete the composting process. There is no potential for runoff and may be more visually appealing than piles or rows.



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When burying or composting, you may lance the rumen of large animals.

More composting information can be found at <http://cwmi.css.cornell.edu/mortality.htm> or contact your local PennState Extension office.



Windrow composting. Windrows allow air to flow into the pile. Windrows should be oriented so rain water can drain away freely.

INCINERATION:

Incineration is convenient, especially for smaller animals, but can be expensive, time consuming, and may create odors. Incineration requires an enclosed unit specifically designed for this purpose. The best incinerators have the burner above the animal(s) or are fitted with a flue after-burner to eliminate smoke. Open-air burning is not an acceptable disposal method. Ag operations are currently exempt from air quality regulations on the farm premises, unless the federal Environmental Protection Agency (EPA) says otherwise. Local municipalities have authority to regulate air quality. Check with your local municipality before you incinerate.

BURIAL:

Where on-farm burial is the preferred option, choose sites carefully to prevent surface, groundwater and well water contamination.

Burial sites need adequate cover, which:

- prevents wild animals, dogs and birds from exhuming carcasses.
- minimizes the spread of diseases.
- discourages rodents and flies.
- encourages good neighbor relations.

Burial requires equipment to lift large animals and dig deep burial pits.



By law, burial sites **must** be:

- located outside of the 100-yr flood plain.
- a minimum of 100 ft from waters of the Commonwealth (streams, ponds, wetlands, etc.). 200 ft is recommended.
- covered with minimum 2 ft of soil within 48 hours.

Burial sites **should** be:

- Located minimum 100 ft from wells and sinkholes. 200 ft is recommended.
- at least 100 ft from property lines. 200 ft is recommended.
- away from public view.

Bottom of burial site **should** be:

- at least 2 ft above bedrock.
- at least 2 ft above seasonal high water table.
- at least 2 ft above highly permeable soils.



GOOD NEIGHBOR RELATIONS:

Farmers need to consider their neighbors. Even legal disposal methods can become an issue if you do not consider the impact on neighbors. Visibility and odors associated with agriculture are often the root of many

If a burial site is large enough (greater than 5000 sq ft), it will require an Erosion and Sedimentation plan. Check with your local County Conservation District for instructions.

Identify burial sites on maps or in GPS for future reference. Re-vegetate with grass once the burial site is closed.

Farmers are encouraged to seek technical assistance from a local County Conservation District, Penn State Extension, or USDA Natural Resources Conservation Service (NRCS) office to help determine the best burial site(s) on the farm.

LANDFILLING:

Landfilling is a form of burial. When transporting carcasses to landfills, the appropriate biosecurity protocols must be followed in order to minimize potential for spreading disease. Not all landfills are licensed to accept animal mortalities. CALL FIRST to be sure a landfill can accept your particular animal type(s) and weight(s).

Landfilling carcasses is an option, but requires careful consideration. Call first to be sure landfill is licensed to accept deadstock and poultry.



conflicts or complaints. It is best to keep a visual screen such as tree buffers around farm buildings, burial sites, incinerators and mortality composting sites in order to minimize the impacts of sights and odors.

It is also a good neighbor practice to ensure mortality composting or burial sites have at least the required two (2) feet of cover. This prevents odor issues and bio-security hazards for you and your neighbors.