

Composting vs. Burial of Poultry Mass Mortality

In the event of an outbreak of highly pathogenic avian influenza (HPAI) in North Carolina, the N.C. Department of Agriculture & Consumer Services' Office of the State Veterinarian recommends composting over burial as the preferred method of carcass disposal. However, since burial is still an option, advantages and disadvantages of both methods are identified below.

Pros

Cons

Composting

- More environmentally friendly
- Limits movement of virus-filled carcasses
- Controls off-farm spread of virus to neighbors
- Destroys the virus in carcasses and litter
- Minimizes risk of groundwater contamination
- Contaminated litter and feed are added to the compost mix
- Process is guided by a composting expert
- Produces a useful end product with potential monetary value
- Farm and workers can be paid by USDA to manage the composting process
- Independent of weather

- Requires 28 days to complete
- Will likely need extra carbon material brought in for composting windrow construction
- Additional cleaning & disinfection of transport trucks (wood chips, etc.) is required
- House design may make in-house composting difficult/prohibitive

Burial

- Reduces lateral spread of disease through off-farm transport
- Equipment is readily accessible
- Allows for removal of carcasses from houses after depopulation
- May be relatively low-cost
- Process is guided by a burial expert
- Less dependent on off-farm materials

- Pre-approval for burial sites is required
- Does not guarantee shortened down-time
- Litter and feed cannot be buried and must be managed through composting or other approved means
- Potential contamination of groundwater and surface water
- Survival of virus in burial site (groundwater) unknown
- Limitations on burial depth may require a large 'footprint'
- Carcasses may take decades to decompose in mass burial sites
- Burial site location becomes N.C. public record
- Weather dependent
- May impact future land use and property values (disclosure)
- Burial sites may require environmental monitoring

The disease events and progress of recovery of a single farm are not necessarily the only considerations used by USDA-APHIS for issuing a poultry re-stocking permit. Within a 6.2 mile radius control zone it is most likely that all infected farms within that zone will need to become disease-free by satisfying the timeline criteria before any single farm can re-stock. Events in Iowa and Minnesota in 2015 have shown that, in general, it takes 3 to 4 months to begin re-stocking farms. If a farm rushes to use burial with the idea that it is the quickest way to get back in production and a nearby farm becomes an infected premises, the permit to re-stock now becomes dependent on the timeline of that newly infected farm. Rushing to burial does not guarantee shortened time to re-stocking of birds in poultry houses, and burial may generate a potential long-term liability in the meantime. Any liability related to burial ultimately is the responsibility of the landowner.