

# Small Scale Solutions for your Farm

## Animal Mortality Disposal

### Do You Have Problems with:

- Disposing of dead livestock
- Scavengers disturbing and scattering carcasses or decaying animal parts
- Neighbors complaining about dead animal odors or flies

### Purposes and Benefits of Animal Disposal Facility

- Reduced problems with flies and odors
- Reduce the chance for the spread of disease
- Reduce likelihood of contamination of surface or groundwater
- Reduce complaints from neighbors

### Animal Disposal Facility

An animal mortality disposal facility is a safe method to dispose of dead livestock. Typical methods include composting, incineration, rendering, and burial.

Carcasses left out for scavengers or to decay may be “nature’s way” but it can lead to problems such as:

- Risk of spreading disease
- Scavengers may pose a threat to young livestock
- Can increase odor and fly problems
- Runoff from rain can contaminate surface and groundwater
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Carcasses left out for scavengers or to decay can lead to problems.



Dead bird composter!





## Animal Mortality Options

### Composting

Composting animal mortality is a process that decomposes the dead carcasses from a livestock operation, making them suitable for disposal by land application. It uses a simple mixture of manure, animal carcasses, and a coarse plant material such as wheat straw, peanut hulls, soybean hulls, etc. Only enough water is added to keep the material moist; the mixture should never be saturated. Composting can be as simple as using a garbage can which has had holes added for aeration or using wire fencing to create a bin to using wooden bins with a roof structure or large static piles in the open.

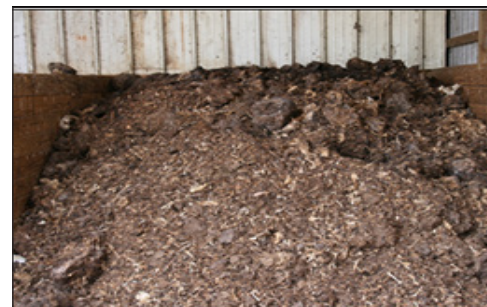
Large animals can be composted by using hay bales to contain manure and coarse plant material as long as the site is not near water bodies, wells or homes.

### Incinerators

Incinerators use natural gas, LP gas, or diesel fuel with forced air in a combustion chamber to reduce animal mortalities to ashes. When properly operated incinerators do not cause objectionable odors and excessive amounts of smoke and ash.

### Rendering

Rendering can be an economical alternative if there is a nearby facility. Some renderers will pick up carcasses from the farm. Others may require you take the carcass to the rendering facility. You will need a safe area to store carcasses until they can be picked up or taken to the renderer.



Dead animal composting materials.





## Burial

Burial has been the most common method of carcass disposal. Burial is still commonly used when large numbers of animals die from disease or catastrophe. Burial cannot be used in some areas because of risk for groundwater contamination. Carcasses should be buried above the water table and located away from wells and water bodies. Burial is usually not the best environmental option and results in long term impacts to burial location.

## Costs and Benefits

- Incinerator will cost \$6000 to \$10000 plus the cost of fuel.
- Freezer will cost \$5000 to \$7000 plus electricity. Some rendering facilities will charge a fee for pick-up.
- Compost bins will cost about \$20 per square foot.
- Roofs over any of these will cost about \$20 per square foot.
- Field Hay Bale composting will require 6 to 8 poor quality round bales per horse or cow.

## How to install these practices:

Locate mortality disposal facilities away from areas that flood, wells, and neighbors.

## Composters

- Can be built by hand.
- Small numbers of animals can be composted in containers that can be purchased from a farm supply store or made by drilling holes into a trash can or similar container.
- Small composting piles can be constructed using hardware cloth or fencing material.
- For larger numbers of animals, wooden bins can be constructed out of pressure treated wood, nailed or bolted together.



This roofed composting facility can be managed with a small tractor and front end loader. Note the roof runoff system that directs water to areas protected by gravel or grass and catches water for other uses.







- For large animal disposal, surround the carcass with hay bales and cover with manure and a bulking agent such as straw. Large animals can take up to a year to completely compost.

The “recipe” for good compost will vary depending on the size of the animal being composted, the type of manure or litter being added, and the type of bulking agent being used. It may take some experimentation to get the mixture right. NRCS can help you determine a good recipe for composting to start out. Composting will take anywhere from a week in containers during the summer to several months when composting large animals in the field. It is key to monitor the temperature of your compost pile. It should exceed 135 degrees F during the composting process to kill pathogens and most weed seeds. You may need to add water or turn the pile to get the compost to properly heat up.

### Incinerators

Incinerators must meet standards set by your state. Incinerators must be installed on a concrete pad and should be located close to the fuel source. The incinerator will last longer if it is covered by a roof, but there should be a minimum of six inches of clearance between the incinerator and any combustible roof parts.

## Technical and Financial Help Is Available

Whether you measure your farm in terms of feet or acres, your local Natural Resources Conservation Service (NRCS) office has experienced conservationists that can help you develop a Conservation Plan to conserve, maintain, and restore the natural resources on your land and improve the long-term health of your operation.

There is no charge for our assistance. Simply contact your local office to set up an appointment. You may also be eligible to receive financial assistance. Your NRCS office will explain any programs that are available so you can make the best decision for your operation. All NRCS programs and services are voluntary.



The manager of a hog composting facility monitors the temperature of the compost pile.





## For More Information

Visit the [Natural Resources Conservation Service](#) or visit [farmers.gov/service-locator](https://farmers.gov/service-locator) to find your local NRCS office. You can also check with your local USDA Service Center, then make an appointment to determine next steps for your conservation goals.

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NRCS conservationist assisting small scale farmer with developing a customized conservation plan.

