

# Animal Mortality Disposal Small Scale Solutions for your Farm

#### Do You Have Problems With:

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



Carcasses left out for scavengers or to decay can lead to problems

### Purposes and Benefits of Animal Disposal Facility:

- Reduced problems with flies and odors
- Reduce the chance of 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. Commonly used 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.

- Risk of spreading disease
- Scavengers may pose a threat to young livestock
- Can increase odor and fly problems
- Rain runoff can contaminate surface and ground water



A dead bird composter

#### **Costs and Benefits:**

- Incinerator will cost \$4000 \$6000 plus the cost of fuel.
- Freezer will cost \$2000 \$3000 plus electricity. Some rendering facilities will charge a fee for pick-up.
- Compost Bins will cost about \$10 per square foot.
- Roof over any of these type facilities will cost about \$10 per square foot.
- In Field Hay Bale composting will require 6 to 8 poor quality round bales per horse or cow.

#### **Animal Mortality Disposal**

#### **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 (litter), 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 fence to create a bin, to wooden bins with a roof structure (see picture below), to 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.



Composting a cow with round bales

#### 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 taken to the renderer.

#### **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 can not be used in some areas because of risk of groundwater contamination. Carcasses should be buried above the water table, and located away from wells and water bodies.



Dead animal incinerator



Dead animal composting materials

#### **Animal Mortality Disposal**

#### 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 animal 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.
  For large animal disposal surround the carcass with hay bales and cover with manure and 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 with. 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.



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





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.



#### SMALL SCALE SOLUTIONS FOR YOUR FARM

#### **Technical Help Is Available**

Your local Natural Resources Conservation Service (NRCS) office has experienced conservationists that can assist you with animal mortality disposal. They can also help you develop a Conservation Plan to solve other problems you have identified on your farm.

There is no charge for our assistance. Simply call your local office at the number listed below to set up an appointment and we will come to your farm.

You may also be eligible to receive financial assistance, through a state or federal program. 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.



Helping People Help the Land

For More Information Contact the:

**Natural Resources Conservation Service** 

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