

Veterinary Link: Disposal of dead animals

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An inevitable part of owning livestock is that some animals will die on the farm, and their disposal becomes an issue. The reduced availability and increased cost of body pickup by rendering companies has made that once-common method of carcass disposal much less utilized.

Other than being rendered, dead animals can be composted, placed in a sanitary landfill, incinerated or buried on-site.

Disposal decisions

Improper disposal of dead animals can result in surface water

or groundwater contamination. Therefore, proper disposal is important and regulated by one or more state agencies. Many states require that carcasses be properly disposed of within 24 hours after knowledge of death.

Composting dead animals has the advantage of recycling the end product back to the land as fertilizer and is being used in the poultry and swine industries, as well as larger beef and dairy operations. Composting speeds the decomposition of carcasses to a soil-like product that can be spread on cropland. However, because of the size of adult cattle, the large space required

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for an appropriate composting site, and the labor and expertise involved, this option is rarely used by cow-calf operators.

Once a process is established, composting is convenient in that it eliminates the need to deal with frozen or wet ground for burial. Also, when properly done, it minimizes odor and other nuisances. Sawdust, straw, cornstalks, and/or manure must be used to cover carcasses and provide the carbon source needed for composting. Depending on carcass size, weather and other factors, it takes seven to 32 weeks to completely degrade a carcass.

Landfills are allowed to accept dead animals in many states. Modern sanitary landfills are designed and operated to prevent leaching into groundwater or surface waters. The drawback of landfills is that they are only for disposing, not for recycling, and landfill space is becoming scarce. Even though a landfill is permitted to accept dead animals, it may not be the policy of the landfill operator closest to your operation.

Incineration of dead animals in a properly designed and operated incinerator is feasible, but it may not be economical, especially for adult cattle. Incineration is energy-intensive and has the potential for polluting the environment if the incinerator is not operated and maintained properly.

Open burning of dead animals or burning in a trash barrel or similar type of container is not allowed by many states. In Missouri, an ag incinerator does not need a permit if it has a burning capacity of less than 100 pounds (lb.) per hour of animal remains (carcasses, organs and solid tissue

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waste from the farm) and it is located more than 1,500 feet (ft.) from the nearest inhabited dwelling not on the farm or ranch.

This definition limits ag incinerators without permits to relatively small units that may not be adequate for large-scale animal production operations. In any

case, even an incinerator not requiring a permit must be operated in a manner that does not cause a nuisance condition or air pollution.

Noncommercial dead animal incinerators operated with a burning capacity of more than 100 lb. per hour must have a permit. However,

these incinerators are exempt from the requirements for residence time, secondary chamber temperature and hydrogen chloride testing.

On-site burial of dead animals is the least desirable option due to the potential for water pollution, but it is acceptable if certain practices are

followed to limit pollution. Although on-site burial is the least-preferred method of disposal, it may be the only practical option for some producers. To comply with the law, the burial method must follow certain guidelines. These restrictions may be very different from traditional dead animal disposal practices.

Burial boundaries

The following outlines on-site dead animal burial for Missouri. (You should check with your state agencies that regulate dead animal disposal for requirements in your state.)

The maximum loading rate for areas defined as having major groundwater contamination potential is limited to one bovine, six swine, seven sheep, 70 turkey or 300 poultry carcasses on any given acre per year. The limit for all other animals and immature cattle and sheep, turkeys or poultry is 1,000 lb. of animal on any given acre per year.

The maximum loading rate for areas excluded from major groundwater pollution potential is limited to seven cattle, 44 swine, 47 sheep, 400 turkey or 2,000 poultry carcasses on any given acre per year. All other animals and immature cattle and sheep, turkeys or poultry are limited to 7,000 lb. of animal on any given acre per year.

The maximum amount of land that is used for on-site burial of animals on any person's property during a given year is limited to 10% of the total land owned by that person, or 1 acre, whichever is greater.

Burial sites should not be located in low-lying areas subject to flooding. The lowest elevation of the burial pit should be 6 ft. or less below the surface of the ground. The dead animals should be immediately covered with a minimum of 6 inches (in.) of soil and a minimum final cover of 30 in. of soil.

Carcasses should not be placed on the ground, in a ditch, at the base of a hill or in a cavern and covered with soil. Puncture the abdominal cavity of carcasses more than 150 lb. to allow escape of gasses.

The location of a burial site must be at least 300 ft. from any wells, surface water intake structures, public drinking water supply lakes, springs or sinkholes; at least 50 ft. from property lines; at least 300 ft. from any existing neighboring residence; and more than 100 ft. from any body of surface water, such as a stream, lake, pond or intermittent stream.

Large-scale animal deaths may occur in events such as natural disasters, disease outbreaks, or a disease eradication and control program. Management of such large-scale loss may be beyond the scope of methods outlined in state regulations. In such cases, your state veterinarian, with the assistance of other state agencies, will develop an emergency plan for proper management of large-scale death loss.