

Fact Sheet 4:

Reducing Attractants, Carcass Management, and Composting

Ailing and injured livestock, afterbirth, blood from the birthing process, and livestock carcasses left on the range or near habitations can attract predators, including bears, coyotes, or wolves. Some research indicates that wolves that depredate livestock may have been attracted into the proximity of livestock in the first place by these attractants. By quickly removing them to a composting site, it may increase the likelihood that wolves and other predators will bypass livestock altogether. Traditional carcass disposal methods such as burial, rendering, and incineration, are becoming increasingly expensive. Composting is a solution to keeping carcasses and other organic matter from becoming nuisance attractants. It can also be a cost-saving measure. Some other advantages to composting are the ease of maintenance, using equipment already present on most farms, and the production of a useful, cost-free source of organic fertilizer. Most on-farm composting does not require a special permit.

Composting is the breakdown of organic matter by which naturally occurring microbes reduce the matter into byproducts that can be useful on the farm or pasture. The most efficient microbes are the ones that work best with heat. The optimal compost temperature is just above 130°F, and a proper “carbon to nitrogen” ratio of 30 parts carbon to 1 part nitrogen (30:1) is required. A rule of thumb is: if the temperature is in this range, and there are no odors, the correct ratio is being maintained.

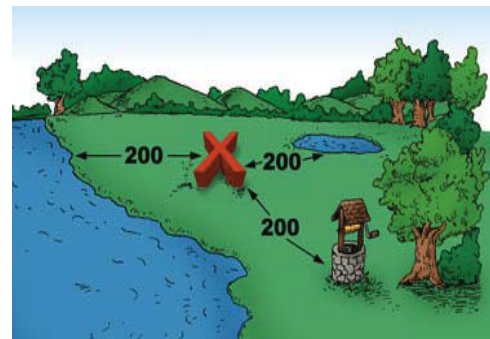
Thermophilic (heat-loving) microbes generate their own heat, but insulation is necessary to keep the compost pile warm enough. A compost pile should have 3 to 5 feet of porous compost materials — adding leaves, straw, sawdust, or cardboard to the mix may help maintain an appropriate balance and serve as insulation. It may also be necessary to occasionally add water to keep the pile from drying out and slowing down the decay process. Some producers choose to turn their compost piles once a week to speed up the breakdown process. At the completion of the composting process, a useful, humus-like material is produced that doubles as slow-release fertilizer, organic soil amendment, or water-saving mulch.

To compost smaller animals, such as poultry, pigs, and sheep, a properly constructed covered structure is recommended. For larger animals, such as cattle and horses, a freestanding pile on a well-drained or improved surface is adequate.

Selecting the Site

When selecting a location for carcass composting, the following are important considerations:

- Compost activity should be set back at least 300' from surface water and drinking water wells or well catchment areas.
- Composting activities may not adversely impact groundwater resources and should not occur in areas with seasonally high groundwater unless conducted on an impervious surface with leachate collection and means to prevent storm water run-off.



- Local regulations should be checked for specific constraints regarding distance to property lines, residences, schools, and other public areas, as well as for potential odor control.
- Sufficient infrastructure should be present such as paved pads, and year-round vehicle access, providing the ability to properly manage the compost as well as leachate to prevent storm water run-off.

An example of how to create a compost site:

- Lay a 24-inch bed of bulky, absorbent organic material. Wood chips about 4-6 inches long work well. Ensure the base is large enough to allow for 2-foot clearance around the carcass. You can make the bed as long as space permits for multiple carcasses.
 - Lay the animal in the center of the bed. Lance the rumen to avoid bloating and possible explosion. Explosive release of gases can result in odor problems and it will blow the cover material off the composting carcass!
 - Turning helps to expedite the composting process by adding air, but the pile can also sit undisturbed for 4-6 months. Check to see if the offal is degraded.
 - Long-stemmed thermometers are the most flexible devices for measuring temperatures in several different locations in a pile or in several different piles. A properly built pile should reach thermophilic conditions (130 to 150°F) within 2 or 3 days and remain there for at least 2 weeks.
 - Remove large bones before spreading the compost on your land. Use the bones as part of the base for the next compost pile.
 - Site cleanliness is the most important aspect of composting. Fencing the pile adds additional assurance that other animals will not scavenge the location. A clean compost site deters scavengers, helps control odors, and keeps good neighbor relations. A properly installed electrified high tensile fence will provide excellent protection from wolves and other predators.
- For guidelines on fencing to deter wolves and other predators refer to Fact Sheet #5.**



In addition to any local regulations, Washington State requirements for permitting and reporting on-farm mortality composting vary depending on the size of operation and use of the compost material. Most on-farm composting operations will be exempt from permitting. Contact the Washington State Department of Ecology or the Department of Agriculture for more information on regulations. For a more complete handbook on carcass composting, the WSU publication *On Farm Composting of Large Animal Mortalities* can be found online <http://cru.cahe.wsu.edu/CEPublications/eb2031e/eb2031e.pdf>