USDA NRCS
Natural Resources Conservation Service

Composting Deer Carcasses

Alabama Guide Sheet No. AL 317C

Definition

The composting of deer carcasses is proving to be an acceptable process for deer hunting clubs to environmentally dispose of deer carcasses (entrails, hide, and bone). The composting process uses a simple mixture of sawdust and fertilizer (or poultry litter), deer carcasses, and water. After a complete composting process, when the deer carcasses have decomposed to a stable material, the compost can be recycled to substitute for sawdust for later deer composting processes or it can be land applied as a fertilizer and soil amendment.

General Information

The basic composting facility should be a roofed, polebarn type of building that can keep rainfall off the composting bins. The floor of the facility should be either concrete or firmly packed clay. Bins should be constructed of pressure treated lumber to a manageable dimension (generally 5 feet deep, 10 feet wide, and 5 feet high). One bin this size can dispose of 30 to 50 deer carcasses per year. The width of the bin can be varied according to the equipment that will be used to move the compost. An additional bin for second stage composting may be needed to complete the composting process. Additional storage space will also be needed for sawdust or poultry litter used in the composting process.

Operation and Maintenance

Hints:

1. The proper moisture content of the compost mix will be easier to maintain if the sawdust, poultry litter, or recycled deer compost has the proper moisture

   content when added to the mix. It is difficult to uniformly add water to the mix after the composter is full.

2. The moisture content of the sawdust, poultry litter, or recycled deer compost added to the mix should be about 60 percent, which is the point where a handful of the material will just begin to stay together when squeezed. If the material falls apart after being squeezed, it is too dry. Water should be sprinkled and mixed into the sawdust, poultry litter, or recycled deer compost slowly. If free water drips from the squeezed material, or if a film of free water is left on the hand, the material is too wet. The material should be spread to air dry or mixed with drier material to lower the moisture content before adding to the compost mix.

3. If space is available, the composting process can be improved by turning a filled bin and restacking into an empty bin after about 90 days. If time will permit, this may be done two or three times during the off season.

4. The boards on one side of the bins should be removable to make loading and unloading the bins easier.

5. The nitrogen content of poultry litter and recycled deer compost is high enough that additional fertilizer will not be required. If sawdust is used, a small amount of ammonium nitrate should be added to each carcass.

6. Antlers should not be placed in the compost bin. They could puncture tractor tires when the compost is spread on food plots.

Basic Operating Procedures

1. Prepare a foundation layer of sawdust, poultry litter, or recycled deer compost in the bottom of the bin before adding carcasses. This initial layer should be about 12 inches deep.

2. Place deer carcasses side by side in a single layer on the foundation leaving at least 6 inches between the carcasses and the bin walls. Uniformly sprinkle about 1 pint of ammonium nitrate fertilizer on each 50 pounds of carcass if composting with sawdust. Completely surround and cover the carcasses with at least 6 inches of damp sawdust, poultry litter, or recycled deer compost. If there are not sufficient carcasses for a full layer, cover the edges of the available carcasses with at least 6 inches of sawdust, poultry litter, or recycled deer compost and begin adding carcasses at that point as they become available. Never leave any part of a carcass exposed even if extra sawdust, poultry litter, or recycled deer compost must be added

3. Continue this layering procedure until a bin is full. The last layer used to cap the bin should be 12 inches of sawdust, poultry litter, or recycled deer compost. Do not stack bins over 5 feet high. A temperature rise in the compost pile to 125^{o}F or higher indicates that the process is working. NOTE:If a bin does not properly heat, it is probably too wet or too dry or was filled improperly. If the cause is dryness, this can be corrected by turning the mixture into an adjacent bin and spraying on water as it is turned. Mixtures that are too wet will attract and produce excessive numbers of flies, have a strong odor, leak large amounts of liquid from the bottom of the bin, and appear rotten. This can be corrected by turning into an adjacent bin and combining with drier sawdust, poultry litter, or recycled deer compost.

4. Prior to the next hunting season, the compost should be ready to utilize as a fertilizer or soil amendment on the hunting club food plots. If the material has not completely composted, the contents should be turned into another bin. Special attention may be required to cover partially composted animal parts that become exposed after turning and may require additional sawdust, poultry litter, or recycled deer compost to provide 6 inches of cover. Water will usually need to be added in the turning process to moisten the compost and help it go through another heating period.

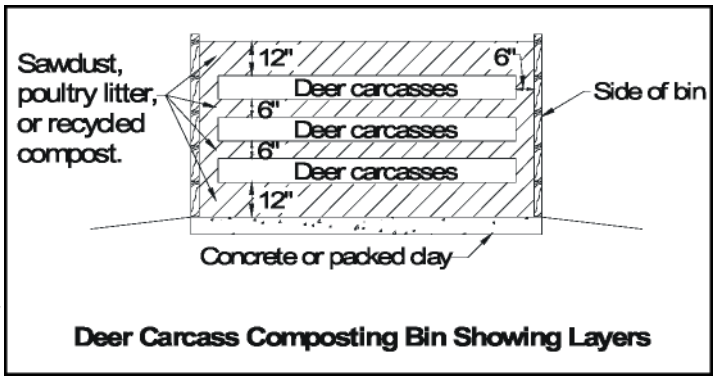
5. The turning and recomposting process can take another 90 to 180 days, and then the material should be ready for land application. Even after composting some of the larger bones may not be completely decomposed and may require more composting in subsequent batches or disposal by another method.

Cautions

Deer carcass composting is still an experimental process and careful monitoring is needed to ensure success. Bins used to compost carcasses should be kept covered to ensure animals do not dig into the pile.

References

NRCS AL Conservation Practice Standard
Code 317 - Composting Facility



Deer Carcass Composting Bin Showing Layers