
Dead Animal Composting and the Management of Such Practices in Ohio

#0533
July 2002

What is composting of dead animals?

Composting of dead animals is specifically defined in Section 1511.01 of the Ohio Revised Code (ORC) as the following:

"Composting" means the controlled decomposition of organic solid material consisting of dead animals that stabilizes the organic fraction of the material.

What options are available for dead animal disposal?

With the ever present dilemma of animal mortality to both animals on small rural farms and large scale agricultural operations, the issue of disposal of the carcasses is an inherent concern. The available options for dead animal disposal are burial, incineration, rendering, or composting. Due to cost constraints, incineration has not been considered a viable method of disposal. Burial of animal carcasses may be a questionable option for efficient land utilization and a potential source of water pollution. Furthermore, there has been a notable decline in the availability of rendering operations in Ohio. Because of these changes in dead animal disposal methods, composting has proved to be a useful option.

What animals are typically considered for disposal by the composting method?

The most commonly composted animals are chickens and turkeys. The composting of swine carcasses is becoming more commonplace and there is increasing interest in processes for cattle carcasses.

How are the carcasses composted?

Though methods differ slightly depending on the type of carcass, composting animal carcasses generally consists of a mixture of animal manure, carcasses, sawdust or straw, and water. The weight of the carcasses is determined and the other elements are weighed out according to a recipe. The manure, carcasses, and bulking material are layered in a primary composter and moistened as needed. The temperature (which reaches peaks of 130E F to 150E F) is monitored on a daily basis to ensure that the majority of pathogenic bacteria, viruses, and fly larvae are destroyed. After 10 days or more, depending on the type of carcass, the material is mixed and moved to a secondary treatment composter where it is again monitored for temperature.

Upon completion of the process, the compost should be stored for 30 days to one year, depending on the type of carcass, before land application.

Is dead animal composting a practice that is unique only in Ohio?

Many farmers and agricultural businesses across the nation utilize dead animal composting as a viable alternative to other disposal methods. States, including Maryland, Missouri, Arkansas, Georgia, and Wisconsin, have ongoing programs through agencies such as the Cooperative Extension Service, Department of Natural Resources, universities, and other local or state agencies.

How does Ohio regulate dead animal composting?

Regulations in Ohio that govern the composting of dead animals cover two aspects of this practice. First, the dead animal composting facility is regulated by both facility and operational requirements. Second, the compost produced by a dead animal composting facility may require testing to meet minimum Ohio EPA compost quality standards.

Who oversees dead animal composting operations in Ohio?

Ohio EPA Division of Solid and Infectious Waste Management (DSIWM) and the ODNR Division of Soil and Water Conservation have both been directed by the legislature to address animal composting.

Ohio EPA regulates dead animal composting if the animal carcasses are taken to another agricultural operation to compost or if the agricultural operation wants to compost animal carcasses from other agricultural operations.

As long as the composting of dead animals meets the conditions under ORC Section [§1511.02.2] § 1511.022, Ohio EPA DSIWM does not regulate the facility operations. However, Ohio EPA DSIWM compost quality standards may be applicable. Agricultural operations which qualify under ORC Section [§1511.02.2] § 1511.022 fall within the operational guidelines of ODNR.

Dead Animal Composting and the Management of Such Practices in Ohio

An agricultural operation falls within the operational guidelines of ODNR when:

1. The composting is conducted by the person who raises the animals and the compost product is used in agricultural operations owned or operated by that person; or
2. The composting is conducted by the person who owns the animals, but does not raise them, and the compost product is used in agricultural operations either by a person who raises the animals or by a person who raises grain that is used to feed them.

For agricultural businesses who qualify under either of the two conditions named above, the following requirements must be met:

1. Participate in an educational course concerning composting conducted by the Ohio Cooperative Extension Service and obtain a certificate of completion for the course;
2. Use the appropriate method, technique, or practice of composting established in rules adopted under Division (E) (10) of ORC Section 1511.02.

However, if the composting operation includes disposal of waste that does not meet the qualifications and conditions of ORC Section [§1511.02.2] § 1511.022, the operation will be subject to all applicable Ohio EPA solid waste composting rules.

What is Ohio EPA's involvement in regulation of compost quality standards?

In accordance with ORC Section 3734.028, Ohio EPA has the authority to regulate compost quality standards. ORC Section 3734.029 clarifies this authority in regard to compost quality standards involving dead animal composting. Ohio EPA has the authority to require compost quality standards on compost product resulting from the composting of dead animals unless either of the following two conditions apply:

1. The compost product is used by the person who raises the animals and is used in agricultural operations owned or operated by that person, regardless of whether the person owns the animals.

2. The composting is conducted by the person who owns the animals, but does not raise them and the compost product is used in agricultural operations either by a person who raises the animals or by a person who raises grain that is used to feed them and that is supplied by the owner of the animals.

According to ORC Section 3734.029, if the compost is distributed for use outside of these two conditions, compost produced at these agricultural operations must be tested to meet compost quality standards established by Ohio EPA prior to such distribution.

For more information about dead animal composting call ODNR, Division of Soil and Water Conservation, at (614) 265-6610, or call your local Soil and Water Conservation District. For more information about solid waste issues, including dead animal composting, call your local health department, Ohio EPA District Office, or the Composting Unit of Ohio EPA's Division of Solid and Infectious Waste Management at (614) 644-2621.