

# COMPOSTING



Composting is the process of decomposing organic matter, such as plant material, food waste and dog poop, under aerobic conditions.



Composting uses naturally occurring microorganisms -- a wide range of bacteria and fungi, that break down the organic matter.

Bulking material, typically, shredded bark mulch, straw, leaves or sawdust, is added to green material (food scraps, fresh grass, manure) to energize the process, and help maintain a porous texture that circulates air and moisture.



Pathogens are killed by the high heat naturally generated by heat-loving microbes during the initial phase. During the cool-down, other organisms kick in to complete the process. The compost material needs to be left alone (also termed "seasoned" or "cured") for a time.

Curing ensures that finished compost is mild enough to nurture plants but will not burn roots when added to enrich the soil.

The process of composting pet waste is the same as composting any organic material. Research, due diligence and practice are required to successfully manage a compost pile. But composting is within the capabilities of any individual or group willing to put in the time and effort.

Climate is a consideration, so it helps to consult a local composting resource such as a council or agricultural university extension.

Some private composting facilities are unwilling to accept pet waste for a variety of reasons including permit limitations, concerns about odor and potential pathogens, plastic bag contamination and an assumption that there is no market for compost with pet waste.

In addition, professional composters might be unsure of regulations and whether special processes are needed. Research in recent years has proven that all these concerns can be addressed. Pet waste is successfully composted with other organic materials in many locations around the world.

Smaller on- or off-site composting systems usually involve static bins or tumblers that are periodically turned.

These methods can be inefficient when attempted without good information or guidance. But communities have set up successful working pet waste composting systems that can be duplicated.

Additional information

*Cat Litter and Dog Feces: Compost or Waste?* - a study by Jason Hofman, Ph.D commissioned by the Nova Scotia Resource Recovery Fund Board - confirmed the viability and safety of composted pet waste.

"There are no compelling reasons to not compost CLDF based on the chemical and biological aspects of the material." J.H., Halifax NS 2010

*Composting Dog Waste* is a USDA Natural Resources Conservation Service and Fairbanks Soil and Water District (AK USA) study providing detailed instructions for on-site dog waste composting at sled dog kennels.

<https://www.epa.gov/system/files/documents/2022-11/Composting-Dog-Waste-Booklet-Alaska.pdf>

*Back yard composting basics: a cheat sheet*, Rodale Institute, is a good read for newbies.

## LARGE-SCALE COMPOSTING

Commercial compost facilities optimise the process to ensure rapid biodegradation of bulk quantities of organic material.

Each step of the decomposition process is enhanced by shredding material to the same size, adding beneficial ingredients and controlling the temperature and oxygen levels.

These measures ensure rapid biodegradation of the organic material to high quality, toxic-free compost.

There are different types of commercial composting methods: turned windrow (outdoors), in-vessel (outdoors, indoors or covered). The finished compost is sold bulk for agriculture, nurseries or landscaping or bagged for retail sale.



## SMALL-SCALE COMPOSTING

Climate and seasonal weather conditions should be taken into consideration when creating outdoor D-I-Y compost.

Corrugated metal or wooden roofs protect from rain and snow. Chicken wire sides will let in air while keeping out wildlife.

Placing a pile or bin directly on the ground brings microbes directly into the process.



Composting system at Marsha P. Johnson State Park Dog Park, Brooklyn, NY USA  
<https://www.fox5ny.com/news/dog-poop-composting-at-park-in-brooklyn>

Easy and inexpensive three-bin system using standard wooden pallets.  
<https://www.backyardchickencoops.com.au/blogs/learning-centre/how-to-make-a-compost-bin>



Left: Small commercially produced Earth Cube for urban composting by Green Mountain Technologies  
<https://www.compostingtechnology.com>

The Earth Cube is used for dog waste composting by Battery Park City Authority – New York USA  
<https://www.youtube.com/watch?v=gEnW1zqvq6A>

Pet Poo Skiddoo – Asheville, NC USA  
<https://www.youtube.com/watch?v=BYy9GtOpPng>