

Composting Essentials

Biology

Healthy compost is teeming with life. A host of invertebrates, fungi and bacteria take part in decomposition. Without them we would be buried in waste! You don't need to add a special product since microbes are already present in the waste. Others will find their way to it shortly. If you build it they will come!

Materials

Yard waste and other organic materials are food for microbes. Carbon compounds provide energy while nitrogen is used to build proteins. Shredding or chopping materials increases surface area for the microbes to work and speeds decomposition. Shred leaves with a bagging mower, chop up large rinds with a knife or shovel and chip wood debris.

Water & Air

Moisture and oxygen are crucial to all methods of composting. Compost should be about as moist as a wrung-out sponge. Provide oxygen by turning compost piles (excluding worm containers) and using bins made from wire mesh or with lots of aeration holes. This prevents anaerobic (without oxygen) bacteria that produce foul odors.



Further Resources:

UNIVERSITY OF MARYLAND
EXTENSION

Solutions in your community



HOME AND GARDEN
INFORMATION CENTER
University of Maryland Extension

University of Maryland Extension
Charles County Office: 301-934-5403
<http://extension.umd.edu/charles-county>

Adapted from University of Maryland Extension publications HG 35 and HG 40.

CHARLES COUNTY COMMISSIONERS



Equal Opportunity County

Department of Public Works
Division of Environmental Resources
10430 Audie Lane, La Plata, Maryland 20646
301-932-3599 • 301-870-2778
MD Relay: 711 • Relay TDD: 1-800-735-2258

www.CharlesCountyMD.gov



Mission Statement – The mission of Charles County Government is to provide our citizens the highest quality service possible in a timely, efficient and courteous manner. To achieve this goal, our government must be operated in an open and accessible atmosphere, be based on comprehensive long- and short-term planning and have an appropriate managerial organization tempered by fiscal responsibility. We support and encourage efforts to grow a diverse workplace.

Vision Statement – Charles County is a place where all people thrive and businesses grow and prosper; where the preservation of our heritage and environment is paramount; where government services to its citizens are provided at the highest level of excellence; and where the quality of life is the best in the nation.

Americans With Disabilities – The Charles County Government welcomes the participation of individuals with disabilities. We comply fully with the Americans With Disabilities Act in making reasonable accommodations to encourage involvement. If you require special assistance and would like to participate in our programs, please contact the Charles County Government directly.

Charles County Government

HOME COMPOSTING



Brochures provided courtesy of
Charles County Government
Division of Environmental Resources
10430 Audie Lane, La Plata, MD
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What Is Compost?

Compost is a dark, crumbly, earthy-smelling material that results from the decomposition of organic materials.

Why Should I Make Compost?

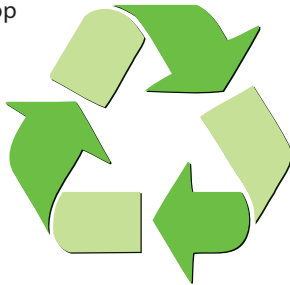
Composting is a practical and economical way to handle your yard waste and many kitchen scraps. In Charles County, 20 percent of household waste is organic compostable material that can be kept from the landfill. Compost improves the quality of soil in your planter boxes, garden or lawn. If you have a garden, lawn, or trees, you have a use for compost.

What Can I Compost?

High Nitrogen "Greens"	High Carbon "Browns"	Avoid
Grass clippings	Leaves	Pesticide-treated grass clippings
Dead weeds	Non-glossy paper	Plastic-coated paper
Fruit and vegetable wastes	Sawdust	Hard to kill weeds
Coffee grounds	Woodchips	Meat or animal products
Manure: cow, horse, poultry	Napkins & paper towel	Cooking oil or oily foods
	Straw	Dog and cat manure
		Dairy products
		Bones

How Can I Use Compost?

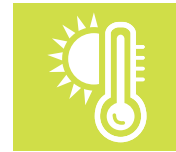
Compost can be mixed into flower and vegetable gardens, added around trees and shrubs, and used as a top dressing on established lawns. Using compost in your landscape returns nutrients and organic matter to the soil. Adding organic matter improves aeration, reduces compaction and improves moisture holding capacity.



Composting Methods

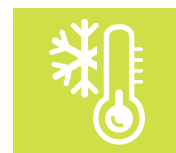
"With these principles in mind, everyone can make excellent use of their organic wastes."

There are many different methods of composting. Included here are just a few of them. They differ in the amount of space and effort required and the time to finished product. You should choose the method that best fits your needs, space and lifestyle.



Hot, Active

It is a rapid form of composting but requires more tending than others. Heat loving bacteria do much of the decomposition in this method. To achieve the ideal balance of "greens" and "browns", save up enough material of each before combining into a pile or bin. The ideal pile, row or bin size is at least 3' x 3' x 3' but no higher than 5' so oxygen can reach the center. Combine a balanced mixture of "greens" and "browns". Two parts grass clippings with one part shredded leaves results in an ideal carbon to nitrogen ratio of 30:1. Thoroughly mix materials and add water to lightly moisten if materials are dry. Temperature will increase within 24 hours and reach 130-170°F. Monitor the temperature and mix/turn pile before temperature falls below 100°F. When properly tended, this will produce compost in about 8 weeks.



Cool, Passive

This method requires the least labor but the most patience to harvest finished compost. If you continually add fresh materials like kitchen scraps to the pile, this is the method of choice. This can be done in an open pile, a bin of wood and wire or a circle of wire mesh. Cover fresh kitchen scraps with a layer of shredded leaves or other "browns" to reduce flies. Each year or before the pile is larger than 3' x 3' x 3', move the top of the pile to a new site and harvest the finished lower layer of compost.



Trench Composting

This is a cool, passive method of composting and works well in empty garden space. Dig a trench 8-12" deep and about a foot wide. Begin burying your kitchen waste and other organic material and cover with chopped leaves, grass clippings or soil as you go. The materials will decompose and in one year you can plant in that space. Alternate the trench location each year to improve the soil throughout your garden.



Worm Composting (Vermicomposting)

Even if you don't have much space you can compost! You will need redworms (*Eisenia foetida*), a bin with ventilation & drainage, kitchen scraps, bedding (like moistened, shredded newspaper) and a 55-75°F environment. Bins are available commercially or can be made at home from medium sized plastic storage totes. Feed worms 2-3 times each week by adding kitchen scraps to bin in alternating locations. Put scraps under bedding material then recover with bedding to prevent fruit flies. On average, worms can eat at least half of their weight in food each day, but it will take 6-8 weeks to produce a noticeable amount of compost. When kept properly, there are no odors or flies!

20% of the trash received at the County Landfill can be Composted

