



# Don't let YARD WASTE go to Waste

In the fall, children love to make piles of leaves and jump into the fluffy mounds of yellow, orange and brown. Although they don't realize it, they have taken the first step toward developing a valuable resource – compost.

Composting is a biological process during which naturally occurring microorganisms convert organic waste, such as yard trimmings, into a product suitable for mulching, fertilizing or conditioning soil. Adding compost to soil helps it to retain moisture and makes soil easier to till. Plants grow better because the soil has more nutrients, and there is less need for chemical fertilizers.

While starting a compost pile is a bit more involved than raking leaves, the whole project is not much more complex.



Produced by the U.S. Army Environmental Center. For more information visit our Web site at [aec.army.mil](http://aec.army.mil) or call 1-800-USA-3845.

## Getting Started

The most low-tech compost pile can be a simple pile of organic material, but that can be messy and unattractive. You can make a simple compost bin from wooden stakes and chicken wire, or buy an inexpensive plastic collapsible compost bin at most garden stores. These kinds of bins are good for families who move every few years and don't need a permanent structure.

However, if you want to make a lot of compost, the best way to manage the material is in a sturdy wooden box with a large side opening. You will need to reach in that opening to stir the compost and to transplant it to your garden.

When you have selected your compost container, choose a level spot of about 3 square feet near a water source and preferably out of direct sunlight. Clear the area of sod and grass. The compost bin should not be placed directly on the ground because it will need ventilation from the bottom. A good base for the bin would be a wooden palette, or logs covered by chicken wire.

The three most important components in any compost pile are moisture, oxygen and temperature. An ideal diet for the microorganisms consists of a carbon source (dry brown yard debris such as leaves and dead weeds) and about one-half to one-third as much of a nitrogen source (wet green material like grass clippings and plants). Add successive layers of this organic

material if possible, but during seasons when dry, brown material is not available, compost may still be made with only wet, green plant material.

Sprinkle water on the pile after adding each layer of organic material so that the pile maintains the consistency of a squeezed-out sponge, but is not soggy. Also, regularly aerate the pile by turning it and mixing the old layers with the new layers; by poking holes in the pile; or by burying a perforated pipe in the pile to supply a constant stream of fresh air.

Yard debris such as tree branches should be chipped before being added to a compost bin so that it will decompose faster. If a large quantity of chipped wood is added to the compost, it is a good idea to add a small amount of fertilizer to increase the level of nitrogen.

You can speed up the composting process by chopping large material into smaller pieces, keeping the pile moist, and frequently turning the pile. When composting is completed, the resulting soil will appear as a dark, crumbly material uniform in texture. The compost pile should begin cooking once it is established and should feel warm to the touch. A carefully maintained compost pile can turn waste into compost in as little as six weeks.

## What Can and Can't Be Composted?

Most organic materials are acceptable for use as compost, including grass clippings, leaves, coffee grounds and filters,

shredded woody yard waste and sawdust, wool and cotton rags, and manure from herbivorous animals, such as cows, horses, sheep and chickens). Many foods can be composted as well, but meats, grease and dairy products should be omitted because they cause odors and attract pests.

Nonorganic materials cannot be composted. They include Styrofoam, metal, plastic and charcoal or coal ashes. Other materials that should not be composted are diseased plants, food waste that may attract pests, noxious weeds and pet wastes, which may contain disease.

## The Only Option for Yard Waste

According to a 1999 report by the U.S. Composting Council, the United States generates 180 million tons of solid waste each year, a figure that has more than doubled in the past 30 years. This waste is rapidly taking over the nation's landfills, and new sites are difficult to create because of environmental requirements and community objections. In fact, two-thirds of America's landfills have closed since 1970, and one-third of the remaining landfills will close in five years.

Composting is not only an excellent way to increase crop production and promote healthier flower gardens, it reduces the strain on our nation's landfills.

## COMPOSTING TROUBLESHOOTING GUIDE

SYMPTOM	PROBLEM	SOLUTION
Bad odor	Not enough air	Turn the pile
Dry center	Not enough water	Add water while turning the pile
Damp and warm	Pile is too small	Add more material to center of pile
Damp, sweet-smelling but not warm	Lack of nitrogen	Mix in a nitrogen source (wet green plant material)

Source: Global Environmental Outreach, March 1994