

Ask a Master Gardener

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From a Spent Garden to Rich Compost for a Lush Garden

Q. When I clean up my yard in the fall I have tons of debris including leaves. I hate to burn all of it and do not have a service that will pick it up. What can I do to use it instead of just wasting it and polluting the environment in the process?
Teresa K.

A. There is an ideal solution to your problem. Compost! Compost is a great amendment for your garden that is made from your kitchen waste and yard debris. It does wonders for your garden and the environment. You take your waste which would normally go into the landfills and make compost which improves your soil when it is added back in the form of organic matter and helps to produce your next lush garden. So, everyone wins.

Compost is decomposed (rotted) plant materials. Even though this process will occur without any help from you, there are steps you can take to speed it up and make the end product easier for you to use.

The most common types of waste used to make compost are fruit and vegetable kitchen waste; garden waste, such as, prunings, clippings and spent plants; grass clippings (free of herbicides); and leaves. These materials decompose with the help of the bacteria and fungi found in soil to produce a rich organic material called “compost” that can be used as soil amendments and mulch. The addition of this material to your soil helps to maintain moisture, control weeds and reduce erosion.

McLaurin and Wade have an excellent in-depth article on composting: **Composting and Mulching** on the University of Georgia (UGA) Extension website: <http://extension.uga.edu/publications>. I have summarized some of the major points below.

For efficient, virtually order free decomposition you need air, water, smallish particles and heat. The oxygen found in air allows the bacteria to break the materials you are composting down into components the plants can use. Turning your compost pile with a pitchfork or other implement once or twice a month will speed up the process.

Moisture is also necessary. The pile should not be dry or soggy, but have the consistency of a damp sponge. If rain is scarce, water can be added with a hose or bucket to achieve this consistency.

Grinding or shredding coarse materials, such as twigs or leaves, also helps to speed up decomposition. A mower can be used to shred fallen leaves.

Keeping a healthy pile with good aeration and moisture levels speeds up the breakdown which in turn generates heat which again improves decomposition. The internal pile temperature should be between 130 and 160 degrees F. These temperatures also help to kill disease organisms and seeds in the pile.

The proper carbon to nitrogen ratio, C:N, in the pile is important. In their article McLaurin and Wade recommend a 30:1. However, it gets a little complicated figuring this ratio. They give a good chart in their article that is helpful. Sharon Omahen of UGA in an article in GaFACES on May 3, 2006 quotes UGA Extension specialist Bob Westerfield as saying a ratio of 3:1 of brown material to green as being an easy way to control this proportion. For example: use 3 parts of brown materials, such as leaves for every 1 part of green material, such as grass clippings.

Many things can be added to your compost pile. Brown materials provide carbon and include shredded paper; rotted sawdust; dry and dead plant materials; and autumn leaves. Green materials provide nitrogen and include fresh plant products, such as fresh grass clippings without herbicide added (if herbicide is present it may kill your plants); kitchen fruit and vegetable waste; coffee grounds; and tea bags.

DO NOT USE: weeds with seeds; invasive weeds; meat products, bone or grease (these attract animals); or materials with chemicals. Small amounts of manures from horses, cows and chickens can be used, but too much can result in unpleasant odors.

Your pile should be in a convenient location for use and water, but, if possible, where it will not be obvious. It should get good air circulation, but not drying winds; and partial sun. The more wind and sun it receives the more water you need.

Some type of container helps to manage your pile and keep it looking neat. Numerous types of structures or containers can be used. Many expensive composters are available, but you can make your own inexpensively. I have seen bales of hay or straw used as walls and after a year or two incorporated into the

pile. I have found two chambers made from concrete blocks to work well. A series of wire cylinders can be used and the pile moved down the series as it decomposes and you turn it. A combination of wood, wire and metal posts can be used to fashion a series of bins; barrels and drums can be used, also. Specific directions and designs are included in the article listed above.

Your pile should be turned at least once a month. It helps to have at least two bins and move it from one to the other as you turn it. It will be about half of its original size when completed and look like dark, rich soil. It is often called “black gold.” At this point you can use it as a soil amendment or mulch in your garden.

If you follow all of the recommendations, your pile will decompose at the best rate. However, even if you are like me and don’t turn it as often or keep it watered properly, it may take a little longer, but you will still have lots of wonderful “black gold” for your garden and leave a lot of empty space in the landfills and keep a lot of smoke out of the air.

For more information on composting or answers to any other gardening questions, contact a Master Gardener Extension Volunteer at 770-836-8546, via e-mail at ccmg@uga.edu or visit our office in the Ag Center at 900 Newnan Road in Carrollton.