RECIPE FOR COMPOST

Composting is nature's way of recycling organic waste into a beneficial soil amendment. Compost is a rich, dark, earthy smelling soil that is best used when it is turned into the ground. It provides nutrients for plants that are easy for the plant to assimilate. Sometimes chemical fertilizers may be too strong for the plant and this could damage plant growth. Compost makes healthy soil and in return, you will have healthy plants that can naturally fight pests and diseases.

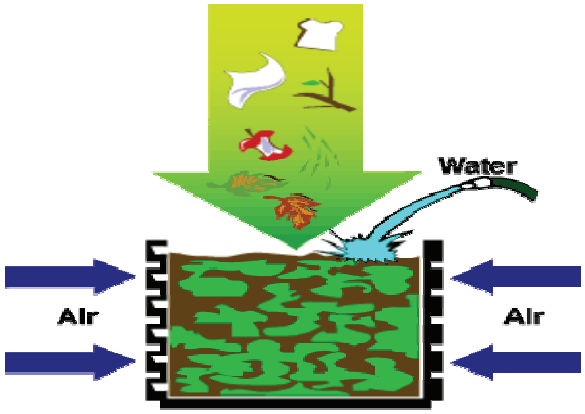
When composting, we are just accelerating the natural decomposition of organic material. By controlling the environment of the compost pile you can determine how fast or slow you complete the compost process. There are four basic ingredients in the compost pile, nitrogen, carbon, water, and air.

- **Nitrogen - Green materials such as grass clippings, fresh leaves and twigs, vegetable and fruit trimmings, coffee grounds and filters, and non meat eating animal manure. Most any organic material that has moisture or 'life' still in it is considered a green material.**

- **Carbon - Brown materials that are have released their nitrogen are usually dry and brittle. Dry leaves and grasses, straw, wood chips, corn stalks, shredded newspaper, paper towels, napkins, and cardboard are all good carbon rich examples.**

- **Water - Adding water to the pile will balance the correct moisture level. The proper moisture should be about the same as a damp wrung out sponge. Few drops should fall when the material is squeezed in your hand.**

- **Air - Oxygen is very important to the organisms that are working in the pile to breakdown the organic material. Bacteria, fungi, microorganisms, and insects need oxygen to breathe and air space in which to move throughout the pile.**



WHAT CAN BE COMPOSTED?

- Grass Clippings
- Yard Trimmings (old plants, wilted flowers, small prunings)
- Leaves
- Vegetables and Fruits Scraps
- Coffee Grounds
- Tea Leaves
- Wood Chips and Saw Dust
- Shredded Paper (Low grade paper not acceptable for recycling)

WHAT TO AVOID

- Meat, Fish, Poultry (including bones)
- Food Sauces
- Fats, Grease, and Oils
- Dairy Products
- Pet Feces
- Invasive Weeds
- Treated Wood (or any materials containing strong preservatives or toxins)
- Ashes and charcoal

COLD AND SLOW COMPOSTING

With cold or slow composting, you can just pile grass clippings and dry leaves on the ground or in a bin. This method requires no maintenance, but it will take several months to a year or more for the pile to decompose. Cold composting works well if you are short on time needed to tend the compost pile at least every other day, have little yard waste, and are not in a hurry to use the compost. Keep weeds and diseased plants out of the mix since the temperatures reached with cold composting may not be high enough to kill the weed seeds or disease-causing organisms. Add yard waste as it accumulates. Shredding or chopping speeds up the process. To easily shred material, run your lawn mower over small piles of weeds and trimmings. Cold composting has been shown to be better at suppressing soil-borne diseases than hot composting. Cold composting also leaves more undecomposed bits of material, which can be screened out if desired.

HOT COMPOSTING

Hot composting requires more work, but with a few minutes a day and the right ingredients you can have finished compost in a few weeks depending on weather conditions. The composting season coincides with the growing season. When conditions are favorable for plant growth, those same conditions work well for biological activity in the compost pile. However, since compost generates heat, the process may continue later into the fall or winter.

Hot piles do best when high-carbon material and high-nitrogen material are mixed in a 1 to 1 ratio. A pile with the minimum dimensions of 3' x 3' x 3' is needed for efficient heating. For best heating, make a heap that is 4 or 5 feet in each dimension. As decomposition occurs, the pile will shrink. If you don't have this amount at one time, simply stockpile your materials until a sufficient quantity is available for proper mixing.

Hot piles reach 110 to 160 degrees Fahrenheit, killing most weed seeds and plant diseases. Studies have shown that compost produced at these temperatures has less ability to suppress diseases in the soil since these temperatures may kill some of the beneficial bacteria necessary to suppress disease.

Steps:

1. **Choose a level, well-drained site, preferably near your garden.**
2. **There are numerous styles of compost bins available depending on your needs. These may be as simple as a moveable bin formed by wire mesh or a more substantial structure consisting of several compartments. There are many commercially available bins. While a bin will help contain the pile, it is not absolutely necessary. You can build your pile directly on the ground. To help with aeration, you may want to place some woody material on the ground where you will build your pile.**
3. **To build your pile, either use alternating layers of high-carbon and high-nitrogen material or mix the two together and then heap into a pile. If you alternate layers, make each layer 2 to 4 inches thick. Some composters find that mixing the two together is more effective than layering. Use approximately equal amounts of each. If you are low on high-nitrogen material, you can add a small amount of commercial fertilizer containing nitrogen. Apply at a rate 1/2 cup of fertilizer for each 10-inch layer of material. Adding a few shovels of soil will also help get the pile off to a good start; soil adds commonly found decomposing organisms.**
4. **Water periodically. The pile should be moist but not saturated. If conditions are too wet, anaerobic microorganisms (those that can live without oxygen) will continue the process. These are not as effective or as desirable as the aerobic organisms. Bad odors also are more likely if the pile is saturated.**
5. **Punch holes in the sides of the pile for aeration.**
6. **The pile will heat up and then begin to cool. Start turning when the pile's internal temperature peaks at about 130 to 140 degrees Fahrenheit. You can track this with a compost thermometer, or reach into the pile to determine if it is uncomfortably hot to the touch.**
7. **During the composting season, check your bin regularly to assure optimum moisture and aeration are present in the material being composted.**
8. **Move materials from the center to the outside and vice versa. Turn every day or two and you should get compost in less than 4 weeks. Turning every other week will make compost in 1 to 3 months. Finished compost will smell sweet and be cool and crumbly to the touch.**

BUILDING A HOT COMPOST PILE