City of Florissant Environmental Quality Commission

Creating A Quality Environment by Composting

Just What Is Compost And Why Is It A Good Thing?

For one thing, compost is a good alternative to land filling yard wastes. Compost, also called humus, is a dark, crumbly, and earthy-smelling form of decomposing organic matter. It is a practical and convenient way to transform yard wastes into an environmental resource. By composting, you help Florissant and the State of Missouri meet their top priority for solid waste management reducing waste. Yard trimmings and kitchen scraps currently fill up valuable landfill space—20 to 30 percent of all household waste.

How Can Compost Help My Environment?

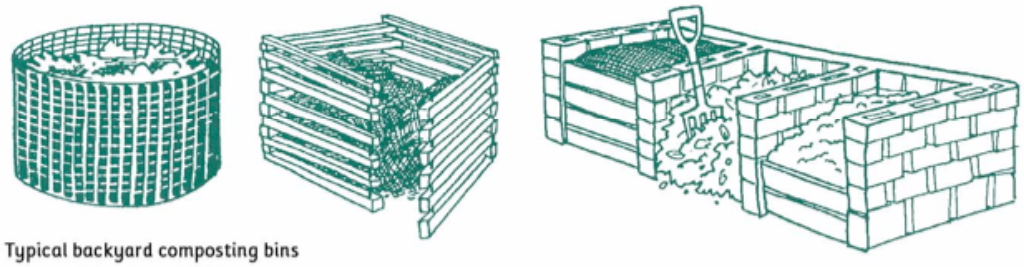
Compost returns organic matter to the soil in a usable form. If you have a garden, a lawn, trees, shrubs, or even planter boxes, you have a use for compost. Healthy plants help clean our air and conserve our soil, making Florissant a healthier place to live. Organic matter in the soil improves the environment by

- Enriching flower and vegetable gardens, improving the soil around trees and shrubs, or amending soil for house plants and planter boxes naturally by stimulating the growth of beneficial microorganisms
- Reducing nitrogen runoff, protecting lakes and streams by using compost not chemical fertilizers and pesticides in your yard.
- Conserving water by loosening clay soils to allow better root penetration and binding sandy soils, improving the capacity to hold water and nutrients
- Stimulating plant growth through time-release nutrients
- Protecting the landscape against weather extremes, especially drought, by keeping soils warmer in the winter and cooler in the summer
- Adding essential nutrients for a healthy soil ecosystem that fosters rapid decay of grass clippings and enhances the soil food chain and the wild bird population.
- Improving your soil is the first step toward improving plant health. Healthy plants help clean air, conserve soil, and beautify landscapes.

How Do I Compost?

Begin by picking out a composting site, preferably in a shady, level area of your yard. One with easy access to your kitchen and to your garden is best. A good starter compost pile size is about 3’x3’x3’. You can build a wood, box-like structure as a compost bin, create one out of wire, purchase a bin of plastic or other materials, or just make a pile in a corner of your yard. A type of

turning unit is the barrel composter, which tumbles the wastes for aeration. Snow fencing works well. If you have a sturdy shovel or pitchfork, use it. Otherwise, you may want to buy a lightweight hay fork for mixing and aerating the compost every other week or so.



Typical backyard composting bins

What Materials Can I Compost?

After you make your enclosure/bin, you'll need some ingredients to start the pile. Add them layer by layer, mixing as you can. These are some good ones to use:

- Grass clippings
- Leaves
- Small twigs
- Flowers—deadheaded or throw-aways
- Non-spreading weeds
- Old plants/potting soil
- Wood chips
- Dryer lint
- Shredded paper
- Some food wastes that may be composted with your yard waste are vegetable and fruit scraps, coffee grounds (including the filter), tea leaves, tea bags and eggshells.

Do **not** use these:

- Meat, fish or dairy products
- Diseased or insect infested plants
- Weeds gone to seed
- Weeds that spread by runners (morning glory, quack grass, buttercups, etc.)
- Dog and cat wastes
- Woody waste that is not chopped or broken up finely enough
- Pressure treated, painted or preserved lumber scraps

If you want compost to be ready in two or three months rather than the next gardening season, you can turn it every few days. Moisten each layer of material as you add it to the pile so that it is spongy damp, but not soggy. Shredded materials work best and start the decaying process fastest.

For more information see easy "compost recipe" and compost links below:

Compost Recipe:

1. **Brown material** (leaves, hay, dry matter) - this cellulose material is the carbohydrate or "energy" food for the compost micro-organisms, who digest it to get the energy for their work. Most of the brown material leaves the pile as carbon dioxide. Use a mower or a shredder to grind the brown material into smaller pieces to increase their surface area and speed of the decomposition. Don't use wood chips and sticks because they take a long time to decay, they might be better used as mulch or composted separately.
2. **Green material** (grass, vegetable waste, manure, fertilizer) - this material contains nitrogen compounds that are important in the growth of the micro-organisms. The green material can produce odors in compost piles if allowed to clump together, so layer the ingredients and mix with a pitchfork. If you don't have fresh grass or manure, mix in 1/2 of a 50 lb. bag of ground alfalfa fertilizer to each bin of fall leaves.
3. **Soil or old compost** - is full of micro-organisms that act similar to yeast in the making bread or yogurt –just a little bacteria to kick off the process! Although composting will work without the addition of soil or old compost it helps the process go faster.
4. **Water** (to a damp sponge consistency). It's very important to have adequate moisture inside the compost pile—many piles suffer from being too dry. Water and stir the pile as you build it. Leaves are like shingles and prevent water from reaching all the material.
5. **Air**. Oxygen is required for the "slow fire" called composting. Without air, any biological activity will be severely limited and a shift to unhealthy bacteria may occur. Putrefactions can also occur when too much fresh green matter is added and not mixed well with the other materials. Mix all these ingredients and turn as you can - a hay fork (the fork with thin tines) is a good tool to do this. If the pile is cool but hasn't turned to humus yet, it needs to be turned. A well built compost pile can get quite hot, killing weed seeds and pathogens in manure. To turn the pile, unhook the wires holding it together or lift it up. Reform the wire circle next to the existing pile which should hold its shape. Use the fork to move the pile into the newly formed space adding new material as you like. Moisten with the hose if needed.

Age is not a good indication of stability since the rate of decomposition is determined by nutrient balance, mixing, moisture, and aeration.

Composting Links:

Missouri Botanical Gardens
http://www.mobot.org/gardeninghelp/plantfinder/factsheet.asp?code=12

MO State Department of Natural Resources
http://www.dnr.mo.gov/env/swmp/composting/compost1.htm