Recycle that garden waste

Source: William Fountain and Rick Durham, extension professors, Department of Horticulture

A little miracle happens when you compost garden waste. In a few months you get rich, crumbly, beautiful organic material filled with microbial life that will improve your soil and make your garden thrive.

Composting yard waste is a controlled biological process where bacteria, fungi and other organisms decompose organic materials like leaves, twigs, grass clippings and food wastes. Here are a few tips for creating top-notch compost.

You will speed up the process if you confine your pile within a smallish space; one square yard is about right. You can buy ready-made compost bins, or you can make them from clean wooden pallets. Place one pallet on the ground, drive metal stakes into the corners, then slide four pallets vertically onto the stakes. Or drive four stakes into the ground to form a rectangle and wrap with 3-feet high garden fencing or chicken wire.

You need both green and brown materials in your compost pile. Grass adds necessary nitrogen, but grass alone will begin to compact and stink. Brown materials such as dried leaves and twigs, or even shredded newspaper or plain white paper, add carbon to the mix and will speed up the composting process. However, paper is heavy in carbon and can throw off the nitrogen to carbon ratio, so it’s probably better to recycle most of your paper products another way. The ideal grass to leaves ratio is three parts tree leaves (brown material) to one part grass clippings (green material).

There are other acceptable materials to use in your compost pile. Kitchen wastes, such as coffee grounds (your worms will love your coffee grounds), eggshells and vegetable scraps work well. Keep a covered crock or pot under your sink to stash your kitchen parings. That way you can delay your trips to the compost pile until the crock is full.

Sawdust may be added if nitrogen is supplied at the rate of one pound of actual nitrogen (6 cups of ammonium nitrate or 4 cups of urea) per 100 pounds of dry sawdust. Wood ash acts like lime, which is alkaline, and should not be added at more than one cup per bushel of organic matter. Composting works best when the bin is at a neutral pH.

Don’t add animal products, pet droppings or fat to your compost pile. They will attract wildlife.

Composting can happen either aerobically (with oxygen) or anaerobically (without oxygen). Microbes need oxygen to efficiently break down organic wastes. Decomposition will occur under anaerobic conditions, but the process is slow and produces foul odors. Your goal should be 100% aerobic decomposition. Oxygen is added to a compost pile by layering bulky brown materials with more solid green materials and by turning the compost with a garden fork. If the compost pile is too large or is turned infrequently, the interior of the compost pile can become anaerobic while the exterior is aerobic.

Finished compost should be dark brown or black and crumbly with an earthy smell. You should not be able to discern the initial materials used for composting, unless there are peach and avocado pits, which break down very slowly and remain as discernable objects that can be removed. The pH will be neutral to slightly alkaline.

Compost may be used as a soil amendment to improve the soil’s physical condition and fertility. Compost makes heavy clay soils easier to work and improves aeration, root penetration and water infiltration. Adding compost to sandy soils helps retain water and nutrients.

Although compost contains some nutrients, their is not as high as most synthetic fertilizer. Additional fertilization may be necessary to achieve maximum plant growth and production, unless you are able to spread an inch or more of compost on your planting beds.

Compost makes a good mulching material. It can be used around both garden and landscape plants. It is best to slightly work the compost into the soil, because it tends to cake on the soil surface.

More information about compost can be found in Cooperative Extension Publication HO-75, Home Composting: A Guide to Managing Yard Waste, <http://www2.ca.uky.edu/agcomm/pubs/ho/ho75/ho75.pdf> or by contacting the (COUNTY NAME) office of the University of Kentucky Cooperative Extension Service.

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