

August 23, 2017



Composting

By Catherine Moné

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In these late summer days, I'm always impressed by the piles of vegetable scraps our kitchen produces as we eat, preserve, and freeze, our garden bounty. As fall nears, we're removing spent plants from the garden, raking leaves from our paths, and pulling the weeds that have managed to find niches for summer growth in our hot, dry climate. These mini-mountains of what some would see as garbage are, to me, great resources for building my soil and nourishing my plants. I compost - an easy, fun way to reduce landfill by keeping green waste on my property. But if you scratch the surface, composting also provides a wonderful science project that you can share with your kids and grandkids.

Consider the ancient oaks that dominate our landscape. These plants stay healthiest with absolutely no human intervention. How do they do it? Although we might think of the earth beneath our feet as simple dirt, it's not. It's soil - a living ecosystem composed of fungi, bacteria, protozoa, and other organisms that decompose organic matter into forms that plants can use for nourishment. Plant roots attract specific types of soil organisms based on the plant's needs, in a mutually beneficial relationship. The plant offers a little carbohydrate from its photosynthesis process, and the microorganisms provide water and nutrients the plant needs. In this perfect system, oaks can thrive for hundreds of years.

Composting is simply the creation of an environment that encourages decomposition by beneficial microorganisms. There are a number of different techniques, but the key is to think like a hungry microorganism: they're going to need energy foods and nutrient-rich foods, as we humans do. For energy, microorganisms need carbon, which can be dried leaves, straw, shredded paper, coffee filters, and similar materials that composters call Browns. For nutrients, microorganisms need high-nitrogen components, such as fresh food scraps, fresh grass clippings, coffee grounds, or manure from grazing animals. We call these Greens. The Brown/Green ratio can be calculated depending on the specific materials you use, but as you begin, a simple one-to-one ratio will do the trick.

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To create your first compost, the Master Gardeners suggest a 4' x 4' open pile. You'll layer your greens and browns as you go, and keep the pile moist but not soaked. Air flow is also important, so you can add spacers occasionally as you build the pile, or turn it with a pitchfork every few weeks. As the microorganisms do their work, the internal temperature of the pile will heat up to about 120-135 degrees. This heat kills the weed seeds in your pile. If you're ambitious, you can purchase a composting thermometer that allows you to test this temperature. If you have too much Brown, the microorganisms will have energy, but be poorly nourished, too much Green, and the microorganisms will be overfed but energy poor (and stinky). If layered in balance and generating heat, the pile should decompose in 6-8 weeks. Use your finished compost to top your landscape plants or add to garden soil.

After your first effort, you'll surely want to learn more! The Sherwood Demonstration Garden has compost demonstrations that you can come take a look at. The garden is located at 6699 Campus Dr. in Placerville. UCCE Master Gardeners of El Dorado County are available to answer home gardening questions Tuesday through Friday, 9:00 a.m. to noon, by calling [\(530\) 621-5512](tel:5306215512). Walk-ins are welcome at our office, located at [311 Fair Lane in Placerville](#). For more information about our public education classes and activities, go to our UCCE Master Gardeners of El Dorado County website at <http://mgeldorado.ucanr.edu>. Sign up to receive our online notices and e-newsletter at http://ucanr.edu/master_gardener_e-news. You can also find us on Facebook.

The upcoming Master Gardener public education class will be September 9, on “Seasonal Color with California Bulbs.” Join me as I discuss the bulbs, corms, and rhizomes that make up much of our region’s wildflower beauty. Come learn their growth and propagation needs and get tips for success in your home garden. Class will be 9am to noon at the Government Center Hearing Room, Bldg C, 2850 Fairlane Court, Placerville.