Composting your way to a happy garden and landscape.

Making compost is not a mysterious process and it is a really good thing for your garden or landscape. You collect your vegetable and fruit kitchen scraps together with some landscape trimmings and create an environment for them to decompose (rot) into wonderful crumbly finished compost. Your plants will love the stuff, either worked into the soil or used as a surface mulch. And plant recycling is a nice thing to do. But there are a few tricks and some different ways to get to the same end result.

The basic concept of composting is that all plant materials will eventually rot. But what you want to do is speed the process up. Billions of fungi, bacteria, worms, and tiny insects do the heavy lifting of composting. If you make them happy, they will work swiftly to deliver very nice compost. Their requirements are simple: a mix of nitrogen rich plant scraps and other more fibrous plant debris; enough moisture but not too much; and oxygen.

Gardeners speak of "green" and "brown" plant materials to be mixed together. The green materials are your fresh vegetable and fruit scraps, lawn clippings (if you haven't used lawn herbicides), and livestock manures. They provide readily available sources of nitrogen to build up the populations of decomposing microorganisms. Once the bacteria and fungal numbers start to climb, they aggressively feed on the other more fibrous "brown" plant materials (like shrub trimmings). That releases the nutrients in the brown materials and the pace of composting becomes self-sustaining. Generally, you would mix 2 parts (by volume) of brown (leaves, stemmy plant materials, wood chips, shredded newspapers, etc.) with 1 part of green material. This is not an exact recipe but it is better to err on the side of more "brown" materials than "green" materials. And don't forget to add egg shells for their calcium.

Moisture and oxygen go together. In your compost pile or bin or in a worm box, the environment needs to be moist but not sopping wet. If it is too wet, the pore spaces around the plant debris fill with water and there is no (or low) oxygen. This is how you get stinky compost! A certain set of bacteria that live in low oxygen environments dominate the pile and produce a sulfur gas ("sewer smell") that is not pleasant. The right mix of materials will help with aeration and pile drainage.

There are lots of ways to compost. You can dig holes in the garden and put the vegetable and fruit trimmings directly in the soil. The material will compost slowly in the winter but speed up as the soil warms and dries out. This can draw raccoons and skunk that are interested in what you have for them. Slicing soil into the trimmings before you cover it will dampen their interest. There is no need to add brown materials with this system.

Bins allow you to readily mix the brown and green materials to produce fine, rich compost. Bins can be purchased or made. We have plans at the Extension office or they are available on-line. I have seen some nice bins made out of pallets. Most bins should be covered in the winter to reduce the rain falling on the pile. This will keep the compost process moving. You can simply make a pile of mixed materials and cover it (assuming it

is somewhat moist) with clear or black plastic and then let it go. Either of these sytems do best with an occasional mixing of the pile. Finally, you can make a worm bin, fill it with moistened shredded newspaper, and add your fruit and vegetable trimmings. We also have information on worm bins. You can buy worms from bait shops or on-line from various dealers in the Portland area. Red wrigglers are the preferred species. Nightcrawlers don't like worm bins.

One final note. You will speed the composting of your brown materials if you run them through a chipper-shredder or even a lawn mower for leaves. By chopping the "brown" portion of the mix, you create a larger surface area for the bacteria and fungi to work on.

Chip Bubl OSU Extension/Columbia County 503 397-3462 <u>chip.bubl@oregonstate.edu</u> 505 N. Columbia River Highway, St. Helens, OR 97051

