How to make something out of your yard waste

By following a few easy steps, you can make a valuable garden product from stuff you usually throw away

By Susan Donaldson ■ Water Quality Specialist

GARDEN GOLD: Compost is a great soil amendment that retains moisture while slowly releasing nutrients into the ground.

I have to admit that in addition to being a lazy gardener, I also like to save money. Some years, it seems like each tomato I grow costs $5 after accounting for the cost of water, soil amendments, critter control and seeds. For Earth Day, why not do something good for your soil, and at the same time, for your pocketbook?

I'm talking about composting your kitchen and yard wastes to create garden gold. It's surprisingly easy, and you don't need to use fancy bins or additives. Compost also is an ideal soil amendment, helping retain soil moisture and adding slow-release nutrients to the soil. Plus, you're decreasing the amount of organic wastes sent to the landfill. Follow these steps to get started with composting.

In the beginning, your compost pile will give off a lot of heat.

1) Site. Pick a level, well-drained site. Build the pile on bare soil so soil bacteria and other organisms can move into it. In our high desert climate, a bit of shade helps maintain moisture in the pile during the heat of summer. The site should be convenient, close to a water source, the garden or other major sources of raw materials.

2) Pile size. Make compost piles at least one cubic yard, or 3-feet wide by 3-feet long by 3-feet high, to hold in the heat and maintain chemical processes. It's not necessary to use a bin or other structure, but it helps contain the composting materials. Bins or piles can be as large as a 5-foot cube in size. Piles or bins larger

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Okay to Compost

- Grass clippings
- Animal manure (from herbivores only)
- Non-animal-based kitchen wastes
- Garden trimmings
- Fall leaves, dry cornstalks
- Wood chips or sawdust
- Hay or straw

Do Not Compost

- Yard trimmings treated with pesticides.
- Weeds, if the pile won't be hot enough to kill the seeds.
- Diseased or insect-infested plant parts.
- Parts of any plant known to contain poisons or toxins, such as black walnut.
- Too much of any plant that contains tannins or resins that inhibit decomposition, such as junipers, pine, spruce or cottonwood.
- Charcoal ash.
- Fireplace ashes, since they have a very high pH.
- Fats, grease, lard or oils.
- Meat or fish bones or scraps.
- Dairy products.
- Pet wastes, such as dog or cat feces or soiled cat litter.
- Swine or other omnivore wastes.

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Compost helps Nevada's thin soils

than this may lack sufficient air in the middle of the pile and are more difficult to turn. Many avid compost makers have a series of three or more bins, all at different stages of decomposition.

3) Ingredients. Start by creating a series of layers. Maintain a ratio of 1:2, green materials to dry or woody materials. A wide variety of substances can be used, including yard wastes, manure, etc. The finer the size of materials, the quicker they will compost. See the sidebar for materials to avoid. Sprinkle a small amount of soil or finished compost on each 8- to 12-inch layer of organic materials to start the biologic processes. Add a small amount of all-purpose fertilizer if you have less green material than dry material. Continue adding materials in layers until the pile is the desired size.

4) Particle size. The size of the materials you add to your compost pile plays a role in how fast the material breaks down. Large particles allow air to circulate, but bacteria and other organisms can only work on them from the outside. Very fine particles restrict airflow and are easily compacted. Aim for materials that are one-half inch to 1.5 inches in size. Chip, chop or shred woody materials before adding them to the pile.

5) Water. This is often our biggest barrier to effective composting in Nevada! Moisture content can often be insufficient for effective composting. The pile should be about as wet as a sponge that has been wrung out. Water the pile as needed to keep it damp, but be cautious about over-watering. Runoff can carry valuable nutrients out of the compost pile, and the excess water may fill the air spaces. Composting requires oxygen. Decomposition will continue without oxygen, but anaerobic decomposition is a slower process that can smell really bad. Anaerobic decomposition also encourages the growth of human and plant pathogens, which should be avoided. Cover the pile during heavy rains so it will not get too wet.

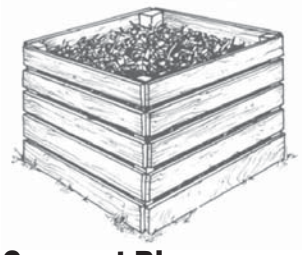
6) Mixing. Once the pile is built, it should begin composting quickly. Turn the pile weekly, using a pitchfork or shovel. Turning adds air to the pile. It also mixes the material from the outside of the pile to the inside of the pile, where greater biological activity usually occurs. Check for moisture content while turning and water the pile if needed. Some gardeners do not add to the pile once it starts heating, starting a second pile instead. Others add fresh material to the middle of the pile and work it into the pile. To gauge the temperature of the pile, use a long-stemmed compost thermometer or your hand. The center of the pile should reach temperatures of 120 degrees to 160 degrees, or be uncomfortably hot to the touch.

7) Curing. Depending on the speed of decomposition, the pile should stay hot for several weeks to two months. The pile will decrease in size to about half the original volume. Then the pile needs to sit for another four to eight weeks to "cure." During the curing phase, pile temperatures will decrease to about 80 degrees to 110 degrees. Turn the pile at least weekly during the curing phase. The compost is ready to use when the material in the pile no longer heats up when turned, the pile has a pleasant, earthy smell and the material in the pile is uniform, crumbly and dark brown in color. Add the material to your garden beds.

This article is the 10th in a series on starting your own vegetable garden. The complete series is at www.unce.unr.edu

About the author

Susan Donaldson is water quality and weed specialist for the western area of University of Nevada Cooperative Extension.



Compost Bins

Bins are not required for successful composting, but they are helpful for corralling your materials and maintaining the compost pile dimensions. There are many methods and designs for compost bins or compost systems. Below is a short list of Web resources:

Building your Own Composting Bin: Designs for Your Community, California Integrated Waste Management Board, http://www.ciwmb.ca.gov/Publications/organics/44295054.pdf

Build-your-own Composting Bins, Pierce County Public Works, Washington, http://www.co.pierce.wa.us/pc/services/home/environ/waste/recycle/compost/compostbins.htm

Composting at Home, Ohio State University Extension Fact Sheet COM-0001-99, http://ohioline.osu.edu/com-fact/0001.html

How to Build a Compost Bin, University of Missouri Extension G6957, http://extension.missouri.edu/publications/DisplayPub.aspx?P=G6957