

Composting for Soil and Personal Health

Resource Sheet



Composting is the breakdown of organic material to form humus, the basis of healthy soil. It has the ability to provide air channels in clay soil and places for nutrients and water to be released in sandy soils. The process itself is easy, brings the family together, and, if done with attention to basic details, produces little in the way of odors. It reduces one's use of water in the garden, provides nature's best soil amendment, releases major and minor nutrients to soil and plants, encourages the proliferation of beneficial soil microorganisms, reduces or eliminates a dependence on chemical pesticides and additionally, allows an individual to be proactive in providing for the health of the environment.

Specific conditions to consider include:

Location of the Pile

- Locate in an area close to the garden (or convenient to you). A semi-shady area is best.
- Preferably do not locate the pile in a direct SW location.

Volume

- The minimum size of the pile should be about 3 ft. x 3 ft. (about a cubic yard). Piles over 5 or 6 feet are difficult to turn.

Surface Area

- Aim to increase surface area (reduce particle size) by chopping everything up in 1-2" pieces. Use a machete, mattock, shovel (chopping on a piece of heavy wood), lawnmower, weed trimmer, pruners, etc.
- Microorganisms utilize food supplies more efficiently when they are in small pieces.

Food

- Provide a mix of carbon and nitrogen. Carbonaceous materials are tougher, older, woody, sometimes brown in color and lower in water content. Nitrogenous materials are younger, sometimes green in color, more pliant and higher in water content.
- Carbon sources include: leaves, thatch, small amounts of newspaper, tough stalks of broccoli and cabbage, straw, garden and landscape prunings, sunflower and cornstalks and perennial prunings.
- Nitrogen sources include: pesticide-free grass trimmings (although you should ideally leave them on the lawn), weeds that do not have mature seed-heads, manure from herbivores (rabbits, horses or cows), vegetable or fruit trimmings, any non-meat leftover food and thinnings from the vegetable or flower garden.
- Do not use dog or cat manure, meat, fat, cheese, bones or garden material that is severely infected with diseases or insects. Also, avoid weeds with mature seed-heads.

Water

- The pile should always feel as moist as a wrung-out sponge (all parts of the pile, about 40-60% moisture). The surface of the pile will appear to be glistening.

Air

- Turn the pile once every week or so. When turning, rotate the pile so material on the sides is drawn into the middle and the top and bottom are rotated.

Process

- Gather separate piles of chopped up, mixed brown (carbon) and green (nitrogen) materials. Think of the piles as mixed salads, both brown and green, with many different materials and textural variations.
- Begin by opening the ground where your pile will be, about an inch, with a shovel or fork.
- Lay down 4-6" of mixed, chopped carbon material, followed by 2-3" of mixed, chopped nitrogen material.
- Sprinkle on a handful of garden soil or partially decomposed compost to add bacterial inoculants.
- Mix the carbon-nitrogen layers.
- Water until it feels like a wrung-out sponge.
- Continue the above process until the pile reaches 3 and a half to 4 ft. in height.
- Cover the top of the pile with black plastic (if building the pile without a compost container).
- Turn the pile in a week or so, remembering to check the moisture content. When turning, it is ok to incorporate chopped up non-meat food scraps, as long as you remember to add them towards the middle or bottom of the pile. When compost pile ingredients can no longer be individually recognized and the pile remains at ambient temperature, the process of active composting is finished. Before compost can be safely utilized, allow the product to stabilize (process of maturation for several months), which results in pH approaching neutral (7.0).

Composting truly allows you to participate in the process of garden renewal, utilizing all parts of growing materials to produce optimum health in a system that views the whole as more than just a sum of its parts.

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