



## Composting in the home garden makes \$ense

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As concerns continue over building new landfills or current landfills at their limit, recycling becomes more and more important. Composting organic material is a very effective recycling strategy. With a minimum of effort, homeowners can reduce their garbage volume, protect the environment and produce an organic product that provides essential plant nutrients and improves soil water-holding capacity and texture.

Many items normally thrown away can be turned into nutrient-rich compost rather than being hauled to a landfill. The resulting product will become an important contribution to a beautiful lawn or garden. Material from the yard (such as grass clippings and leaves), vegetable scraps, coffee grounds, old newspapers, and many other items are appropriate to include. Not all organic materials are appropriate for a composting. Avoid pet wastes because of the potential to transmit diseases. Also avoid meat, bones and dairy products because they attract rodents.

By following a few simple guidelines, gardeners can convert this “garbage” material into sweet smelling and beneficial compost. One simple method is to prepare a compost heap in which you alternate layers of organic matter with layers of soil. Currently most municipalities sell composting bins that are engineered to boost the composting process and contain the material. The organic layer should be 6 to 12 inches deep, and the soil layer 1 to 2 inches deep. Once you have completed the initial layers, wet the heap to begin the decomposition process. Apply enough water to moisten the material, but do not make it soggy. Turn the pile over every two to four weeks to ensure uniform decomposition. As microorganisms break down the materials, the pile will give off a great deal of heat. A carefully managed pile will generally take about four months to decompose thoroughly—although the precise time will vary depending on climate and materials. In general, when the mixed material generates no more heat, it is ready to be used.

Compost can be applied as a mulch, a soil amendment and/or a plant-nutrient source. To use it as fertilizer at an appropriate rate, you need to know how rich it is in plant nutrients. Reference books may provide average estimates, but actual values will vary depending on source materials.

To determine the true nutrient content of a compost, submit a sample to the NCDA&CS Agronomic Division for waste analysis. This test will measure pH as well as total concentrations of 12 essential plant nutrients (C, N, P, K, Ca, Mg, S, Fe, Mn, Zn, Cu and B), sodium and soluble salts as well as provide an estimate of the nutrients available within the first year of application.

If you till compost into the soil as an organic fertilizer, you should also submit a representative sample from the tilled area for soil testing. The additional information will further help manage soil fertility and plant nutrition. There is no charge for soil testing.

For N.C. residents, waste analysis of compost costs \$8 per sample; special tests for heavy metals, liming equivalent and inorganic forms of nitrogen cost extra. For detailed fee information, visit [www.ncagr.gov/agronomi/fees.htm](http://www.ncagr.gov/agronomi/fees.htm). The sample information forms to fill out and submit with your samples are also available online at [www.ncagr.gov/agronomi/forms.htm](http://www.ncagr.gov/agronomi/forms.htm).

For more specific information on how to compost, request Horticulture Information Leaflet No. 8100, Composting for home gardens, or visit [www.ces.ncsu.edu/depts/hort/hil/hil-8100.html](http://www.ces.ncsu.edu/depts/hort/hil/hil-8100.html).