CITY OF BLOOMINGTON MINNESOTA

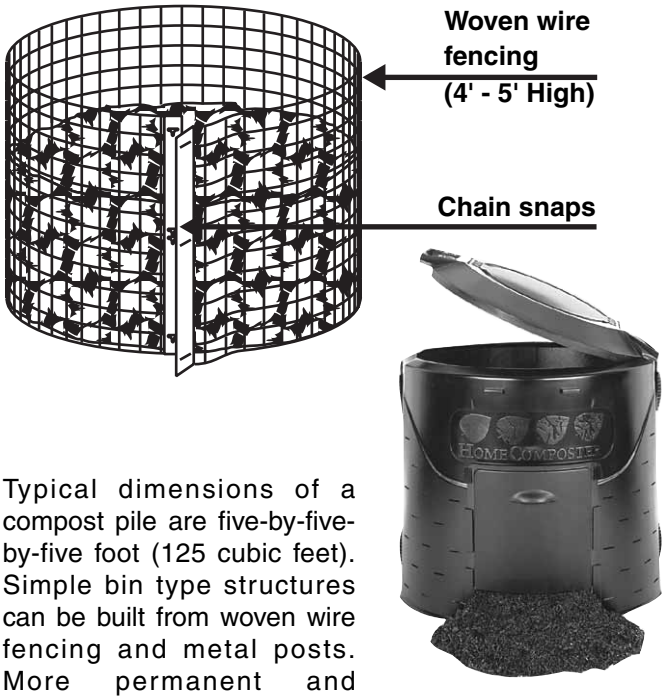
Backyard Composting Information Handout

Composting is a microbial process that converts plant materials such as grass clippings and leaves to a usable organic soil amendment or mulch. Gardeners have used compost for centuries to increase soil organic matter, improve soil physical properties and supply some of the essential nutrients for plant growth. Incorporating compost into light, sandy soil helps it hold both moisture and nutrients, while adding it to heavy soil improves drainage.

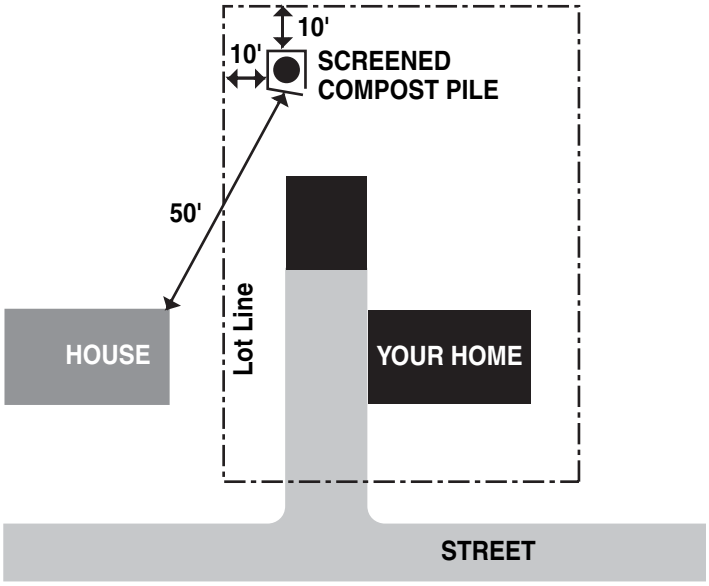
Several conditions must be met to produce compost efficiently from yard waste. The micro-organisms responsible for decomposition need oxygen, water and nitrogen. Particle size also affects efficiency. The smaller the plant pieces, the more rapidly they will break down. Use a shredder or power mower to chop leaves and little twigs into smaller bits before adding them to the pile.

Composting structures

To save space, keep your yard looking neat and speed composting time, place your compost in an enclosed container. City Code requires composting to be conducted within an enclosed container not to exceed a total of 100 cubic feet in volume for city lots less than 10,000 square feet and 150 cubic feet for lots greater than 10,000 square feet. The container must be of a durable material such as wood, block, sturdy metal fencing or rigid plactic.



Typical dimensions of a compost pile are five-by-five-by-five foot (125 cubic feet). Simple bin type structures can be built from woven wire fencing and metal posts. More permanent and elaborate structures can be made from rot-resistant wood, wire and metal posts or purchased at your local gardening store. There are many possible structures for composting; no one structure is best.



Compost pile placement

Locate your compost pile close to where it will be used so it won't interfere with activities in the yard or offend neighbors. The pile will do best where it is somewhat protected from drying winds, yet receives partial sunlight to help heat it.

Bloomington ordinances require compost piles to be screened from your neighbors' view. Locate your compost pile at least 10 feet from your lot lines, 5 feet from an alley and no closer than 50 feet from a neighbor's house. The illustration above shows a typical lot.

If you have questions about the required screening in Bloomington, contact the Environmental Health Division at 952-563-8934.

Avoiding unpleasant odors

Odors may arise from the addition of excessive amounts of wet plant materials like fruits or grass clippings, overwatering the pile or not turning an actively decomposing pile periodically. *C*ompost needs to be turned over and mixed within the container in order to keep the material aerated, to minimize odor generation and promote effective decomposition of the material. A properly prepared and adequately turned compost heap will generate little if any objectionable odor.

Also, keeping the compost damp but not waterlogged will go along way toward preventing unpleasant odors. Adding lime does not necessarily reduce odors and may result in the loss of nitrogen from the pile.

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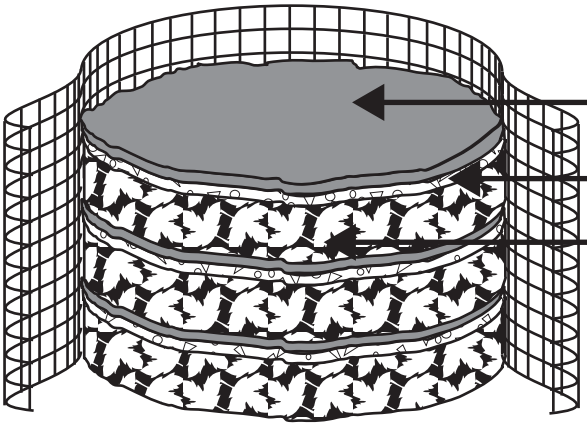

Liming

It is normally not necessary to add lime to your pile to improve the break-down of most yard wastes. Finished compost is usually slightly alkaline; if you add lime during the decomposition process, it will probably be too alkaline when completed. If your pile contains large amounts of acidic materials such as pine needles or fruit wastes, you might add lime, but no more than one cup per 25 cubic feet of material. Excessive lime application can lead to loss of nitrogen from the compost pile.

Preparing a compost pile

Build your compost pile in layers. Begin with eight to ten inches of leaves, grass or plant trimmings. Water it to the point of being moist, but not soggy. Then add a nitrogen source, such as ammonium nitrate, ammonium sulfate or an inexpensive high nitrogen lawn fertilizer without herbicide.

You may choose to add a one-inch layer of soil or completed compost over the nitrogen to increase the number of decomposing microbes. However, most leaves and plant scraps have enough micro-organisms to get the job done without the addition of soil or compost.

Repeat these layers until the pile reaches a height of five feet, watering each time you add new layers.

What can be composted

Many organic materials can be composted besides grass and leaves; non-woody shrub trimmings or twigs less than 1/4 inch in diameter, faded flowers, weeds, garden and aquatic plants, straw, shredded newspaper (black and white print), and small amounts of wood ash and sawdust. Sawdust requires the addition of extra nitrogen; wood ash raises compost alkalinity.

There should be little need to compost grass, since clippings may be left safely on the lawn if you mow regularly whenever grass blades are 1/3 longer than the desired height. If you do compost grass, mix it with other yard waste to aid decomposition and reduce any odors. Grass clippings, alone, pack down and restrict air flow. Some things should not be composted. Pet feces can transmit diseases. Meat, bones, grease, whole eggs and dairy products attract rodents and other animals. Badly diseased or insect-infested plants and weeds that are loaded with seed may not heat up enough to be rendered harmless.

Maintaining a compost pile

An active compost pile will heat up 130 to 160°F in the middle. As the center cools, turn the pile to help speed decomposition, perhaps once or twice a month. This also minimizes any objectionable odors. Continue to water it periodically to keep the pile moist but not soggy.

You can add a little fresh material when you turn the pile, but generally, you're better off beginning a new pile. A well-managed compost pile will be ready in two to four months in the warm season, whereas an untended pile may take over a year to decompose. When complete, a compost pile will be about half its original height and will have a pleasant, earthy smell.

For detailed information or questions about composting, contact the Hennepin County Extension Service or the Bloomington Solid Waste Section, 952-563-8750, TTY: 952-563-8740.

For specific regulations see *Bloomington City Code, Sections 10.04 and 10.05* or call Environmental Health at 952-563-8934.

Sources: Robert J. Mugaas, County Extension Agent, Horticulture, Minnesota Extension Service-Hennepin County, and Deborah L. Brown, Extension Horticulturist Service.

Additional references: "The Complete Book of Composting," J.I. Rodale, Rodale Books, Inc.

PLEASE RECYCLE