

Structures for Backyard Composting

COLLEGE OF AGRICULTURAL, FOOD AND ENVIRONMENTAL SCIENCES

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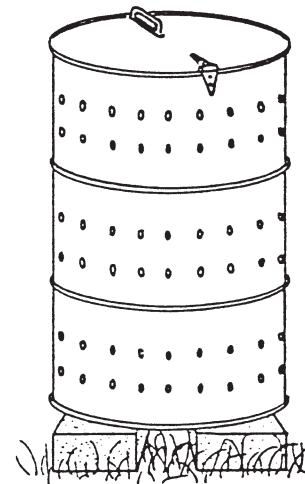
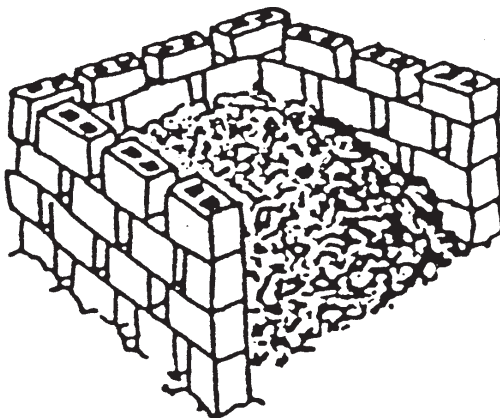
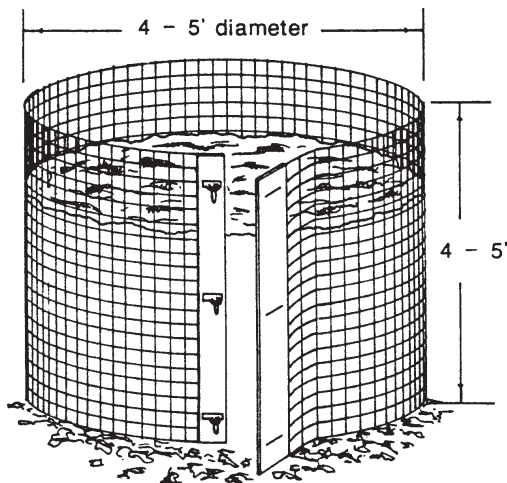
Why a Structure?

Un-enclosed compost piles are usually not permitted in an urban setting since these kinds of piles tend to spread out and become unsightly. Enclosing your compost pile in a structure helps keep materials from being blown around. It also encourages faster and more thorough composting because the outer portion of the pile acts as an insulator which allows higher temperatures to be reached and maintained near the center.

The style of structure that is right for you depends on how much space and compostable material you have available. There are many types of manufactured structures available through garden centers or mail-order catalogs, or you can build one yourself. It is also important to consult with your municipalities or townships regarding any restrictions or ordinances as to what constitutes an acceptable bin design and size.

The objective is to hold your compostable materials in a cylindrical or cubical mass that is about 3' to 5' in each direction. Smaller sizes tend to not develop enough heat, and larger sizes often do not allow adequate penetration of air and water. There should be openings to allow for the addition of water or removing finished compost. The structure can be built from cement blocks reinforced with 1/2 inch rebar, brick, wood or other materials. Wood should be rot-resistant such as redwood or cedar or pressure treated with a wood preservative. Timbers treated with creosote or pentachlorophenol should be avoided.

Several types of compost structures are shown below and on the back of this sheet. For more complete information on composting techniques, see Extension publication FO-3296 *Composting and Mulching: A Guide to Managing Organic Yard Wastes* or other literature which may be obtained from the University of Minnesota Extension Service in your county.

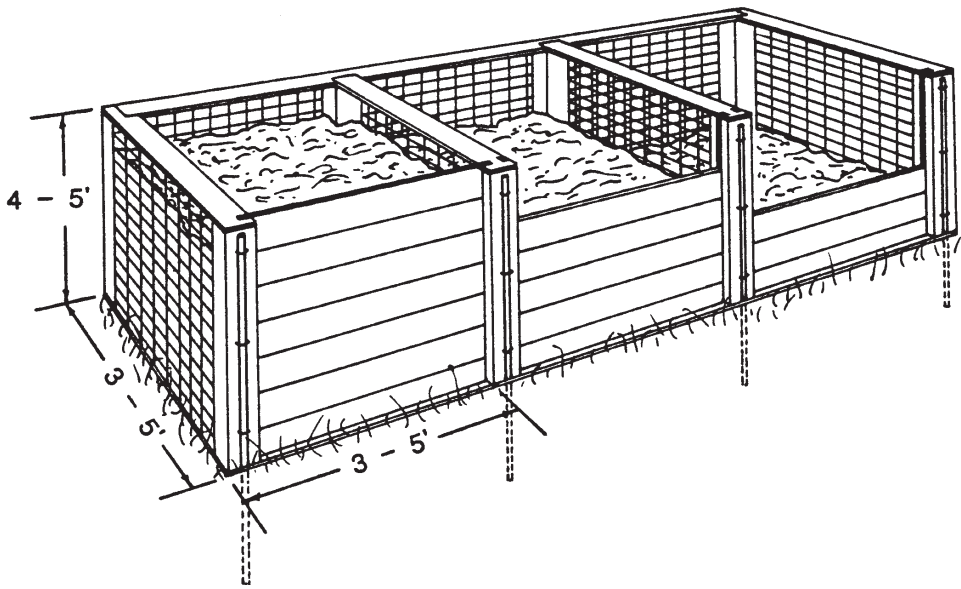


A simple structure can be made from wire fencing or snow fence. Multiply the diameter you want by 3.14 to determine the length of fence needed. Fasten with wire or 3 or 4 chain clips. When you need to turn the pile, peel the fence away and set it up nearby. Turn the compost into the structure in its new location.

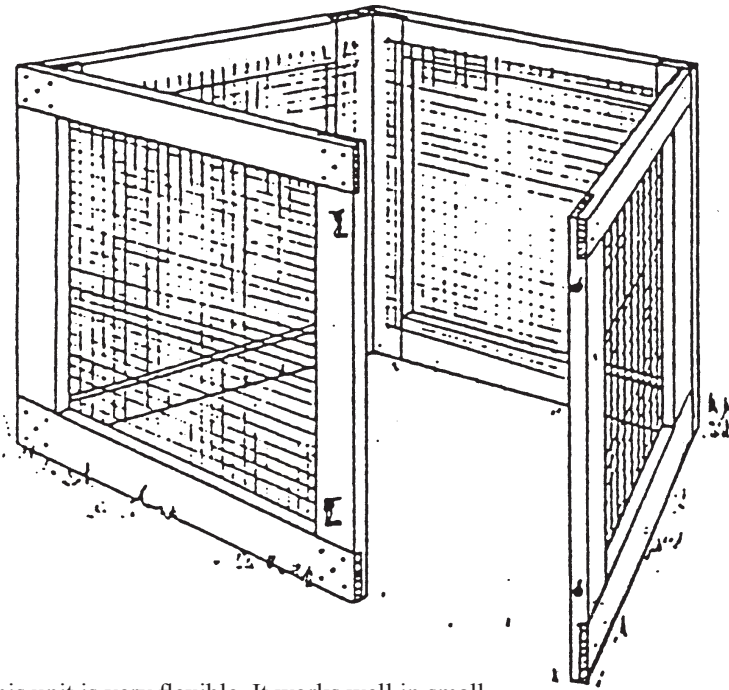
Compost bins can be made from cement blocks or bricks. Lay them without mortar, leaving spaces between blocks to permit aeration. Build a three-sided, square, or three-bin unit. The potential for instability of loosely stacked blocks or bricks may make this structure an inappropriate choice if located near areas where children play.

A barrel composter can be built from a 55 gallon drum. Drill 6-9 rows of 1/2" holes over the length of the barrel to let air circulate. Fill 3/4 full of material. Every few days lay it down and roll it over a few times to mix. Use a barrel that has not been used for toxic substances.

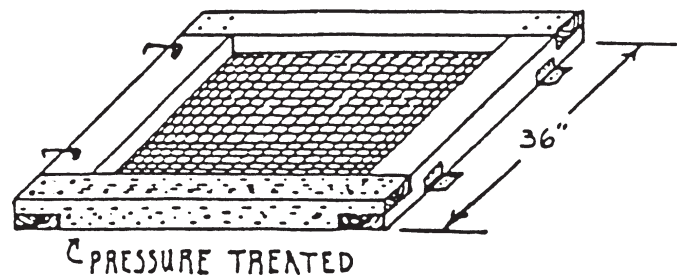
Portable Wood and Wire Composting Bin



A very efficient and durable structure for fast composting is a three-chambered bin. It holds a considerable amount of compost, and allows good air circulation. The three-chambered bin works on an assembly line idea, having three batches of compost in varying stages of decomposition. The compost material is started in the first bin and allowed to heat up for three to five weeks. Next, it is turned into the middle bin for another four to seven weeks, while a new batch of material is started in the first bin. Finally, the material in the middle bin is turned into the last bin as finished or nearly finished compost.



This unit is very flexible. It works well in small spaces as a holding unit for yard wastes or as a portable turning unit for kitchen and yard wastes. The unit can be easily moved to turn piles or build a new one: Simply undo the latches, pull the sides apart and move it.



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