

Compost Units Series

Three-Bin Turning Compost Bins

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Waste Management

Concrete Block Three-Bin Unit

A concrete block holding unit is sturdy, durable and easily accessible. If used concrete blocks are available, the unit will be inexpensive to build.

Another option is a single-bin or double-bin unit. About 46 concrete blocks are needed for one bin and about 32 blocks are needed for a second bin.

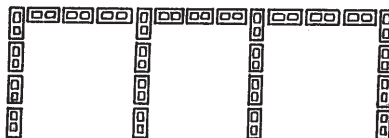
Building a Concrete-Block Turning Unit

Materials

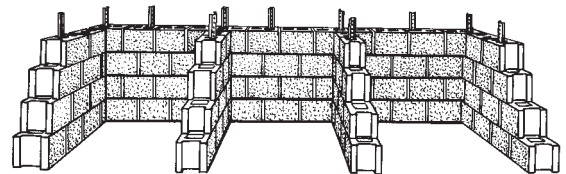
- 86 concrete blocks
- 4 concrete half-blocks
- Work gloves
- Wooden or metal posts to stabilize the bin



1. Place 25 concrete blocks along the ground at the composting site as shown in the illustration below. Leave about 1/2 inch between each block to let in air.



2. Add a second layer of blocks, staggering them to increase stability. Using the turning unit illustration above as a guide, place 10 full and 2 half-blocks along the back wall and 3 blocks along each side. Leave about 1/2 inch between each block.



Concrete Block Three-Bin Unit

3. Add a third layer of blocks, again staggering them to increase stability. Place 12 blocks across the back of the enclosure and 3 blocks on each side.
4. The last, and top, layer should have 10 full and 2 half-blocks across the back and 2 full blocks along each side.
5. To make the unit more stable, drive wooden or metal posts through the holes in the blocks.

Adding Wastes

With this type of bin, do not add wastes as they become available. Collect enough waste to fill one of the three bins. Collect woody as well as nonwood wastes. Chopping and shredding materials are recommended. Layer different materials in, or you can mix the wastes together.

Maintaining the Compost Pile

After a few days, the temperature of the pile should reach between 130° to 140°F. In a few days, the temperature will start to drop. (You may want to monitor the temperature with a thermometer.) When the temperature starts to drop, turn the compost into the next bin. The temperature of the pile will increase again and then, in four to seven days, start to drop. Turn the compost into the third bin. The total time for composting should be four to six weeks.

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Wooden Three-Bin Turning Compost Unit

This turning unit is a permanent, sturdy structure, but it may be difficult to space the posts to the exact dimensions illustrated. Before cutting the removable slats that slide into the grooves at the front of each bin, cut one slat and check for proper fit in each bin.

Building a Wooden Turning Bin

Materials

Lumber should be cedar, pine painted with non-toxic wood preservative or latex paint, or recycled composite lumber:

- 8 4-inch x 4-inch x 6-foot posts
- 7 1-inch x 6-inch x 12-foot back slats
- 14 1-inch x 6-inch x 4-foot end/side slats
- 4 1-inch x 6-inch x 4-foot fronts
- 14 1-inch x 6-inch x 46 1/4-inch dividers
- 24 1-inch x 6-inch x 42 13/16-inch (approximate) front slats

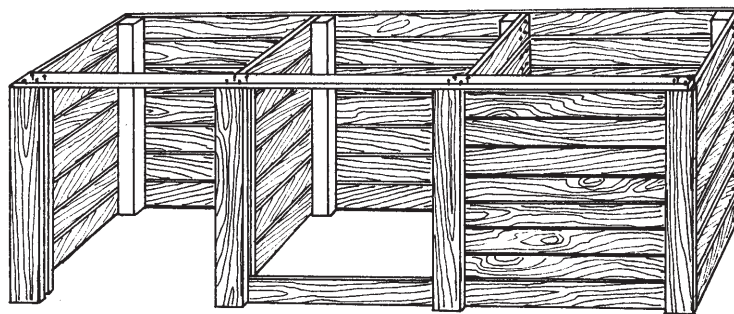
(NOTE: Before cutting all the front slats, cut one and check for proper fit in each bin.)

- 4 1-inch x 1(+)-inch x 4-foot cleats, rip cut from 1 4-foot 1 x 6 (the cleats are retainers for slats)
- 8d galvanized deck nails or deck screws
- One tube exterior construction adhesive
- (Optional) 1 1-inch x 6-inch x 12-foot top rail
- Post hole digger
- Hammer
- Saw
- Tape measure
- Drill

1. On level ground, set the eight posts as shown above using a post hole digger. (The posts are shown as darkened squares after item 3.) Embed each post 2 feet into the ground. Be sure all posts are plumb (perpendicular to the ground). The top of each post should be at the same distance above the ground (48 inches).

(NOTE: Dimensions given for the back are included to assist in post spacing.)

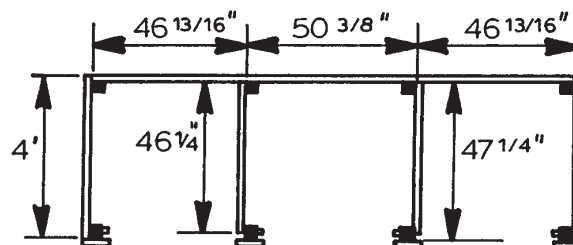
2. Nail (or screw) on the back and side slats and dividers (pre-drill all holes to prevent splitting). Use adhesive on all joints. The bottom slats should be at ground level. Leave 1 1/2-inch



Wooden Three-Bin Turning Compost Unit

(horizontal) spaces between slats. Note that the ends of the dividers should come out to 1 inch behind the front of the front posts, as shown in the illustration below.

3. Install the fronts and cleats, as shown below, for one of the center divider posts.



4. After the front slats have been sized and cut, slide them into place between the fronts and cleats as shown in the completed bin illustration above.
5. (Optional) Nail the top rail to each front post, as shown in the completed bin illustration above. Do not use adhesive, and do not drive the nails in fully, as they will be removed to allow access to the slats. The top rail is suggested to prevent the front posts from moving laterally. Another option to discourage this is to use 4-inch x 4-inch x 7-foot posts and embed them 1 foot deeper.

Adding Wastes

For this unit, use the same procedures as the concrete block three-bin compost unit.

Maintaining the Compost Pile

Pile should be maintained the same as the concrete block three-bin unit.

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