



How-To Guide

Three-Bin Compost Bin

Building Instructions

Material List

- 2 4" x 4" x 10' Treated Lumber
- 4 2" x 4" x 12' Treated Lumber
- 1 2" x 4" x 10' Treated Lumber
- 7 2" x 6" x 12' Treated Lumber
- 1 ½" x 36" x 25' Roll of Hardware Cloth
- 4lb 2½" screws
- 2lb 2" galvanized nails
- 2lb 1" fence staple nail

Note: Hand staplers do not work well for this because the staples pull out easily; we highly recommend using fence staples.

- Hammer
- Drill
- Tin Snips
- Saw

Information About the Compost Bin

Most people know that compost is simply decayed plant and animal matter that is full of nutrients and microorganisms that are beneficial for your soil, and the plants you grow in it. What's lesser known is that compost also helps to hold more water in soils that drain too fast and help poorly draining soil drain faster.

It even helps bring soil closer to a neutral pH.

It is important to note that you do not need anything special to have a compost bin. All you really need to make compost is a place to pile plant materials, so if this compost bin seems too expensive or complicated, or you can't make it for one reason or another, rest assured that you can still compost!

This three-bin composting system is a relatively simple system designed to encourage you to use composting best practices while producing compost efficiently, neatly, and fast (if you follow those best practices). The most obvious benefit of a compost bin is that it allows you to turn food waste, yard waste, and weeds into a valuable soil amendment.

Aesthetics is also a primary reason many gardeners want a compost bin. Composting in a pile is unsightly for many people (and oftentimes neighbors) whereas using bins contains the material making it more presentable. Bins can even be enclosed, deterring curious animals.

The three-bin system has the added benefit of allowing the continuous addition of new materials. With one bin or pile, you have to stop adding new material long enough to allow all the materials to compost before using it. The three-bin system allows you to add material to one bin while the others are composting so a whole bin will be ready at once. The removable front door boards also increase the ease of turning and removing the compost.

Where to Site the Compost Bin

There are a few things to consider when placing your compost bin. Ideally it should be located somewhere that is sheltered from strong winds and full sun, in part to full shade. This helps keep the composting material moist. It's also good to site the compost bin where you can get water to it in case the material gets too dry. Most importantly you should place the compost bin somewhere you will use it. Keep in mind, if you put the bin far away from the garden in order to put it in the shade and that distance prevents you from using it, it doesn't matter that it's in the shade!

Assembling the Compost Bin

Step 1 - Construct Dividers

From the four 2" x 4" x 12" cut eight 2" x 4" x 33" and eight 2" x 4" x 36".



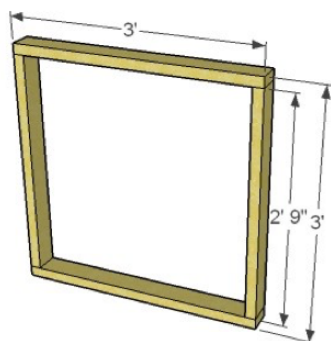


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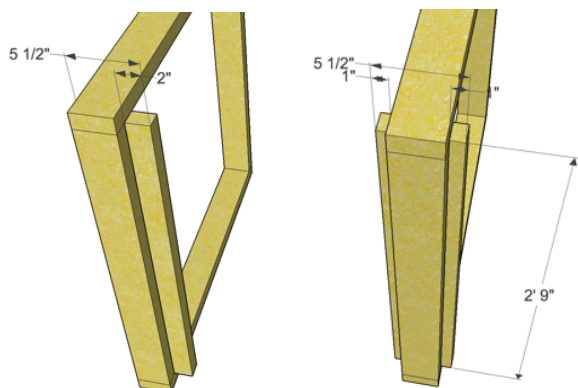
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Screw together four squares, measuring 36" x 36" using 2½" screws as shown to the right. Note: Use two screws per corner. These will be the ends and dividers of your compost bin. Save the scrap for Step 4.



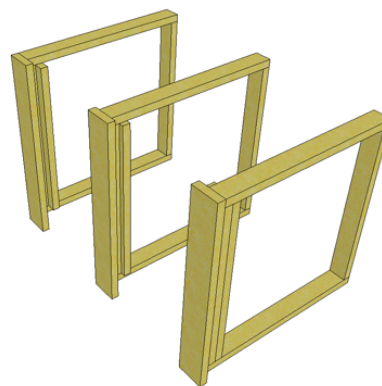
Step 2 - Attach Divider Guides

Cut four 2" x 6" x 33" and four 2" x 6" x 39" from two of the 2" x 6" x 12' boards. Note: You must cut two 33" and two 39" pieces per board in order to have enough lumber. These will be the inner and outer guides for the door boards of your compost bin. You will need to make two end and two middle dividers. A left end divider is illustrated below left and a middle divider is illustrated below right.



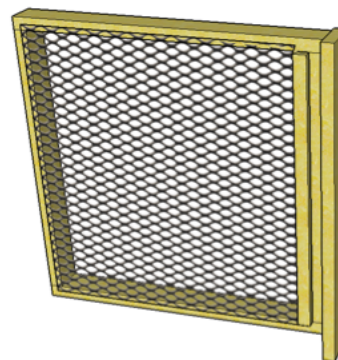
The 2" x 6" x 33" are attached to the inside of the dividers using 2 ½" screws on one of the 2' 9" sides.

Note: Three-four screws spaced evenly per board will be plenty. The end dividers will have a 2" overhang on the inside as seen in the above left image. The middle dividers will have a 1" overhang on both sides as seen in the above right image.



The 2" x 6" x 39" are screwed to the front of the dividers using 2 ½" screws. Note: Three-four screws spaced evenly per board will be plenty. The front guides will have the same overhang as the inside guides. They will also be flush with the top of the square and overhang the bottom in the fashion shown in the images above.

Step 3 - Attach Hardware Cloth to Dividers





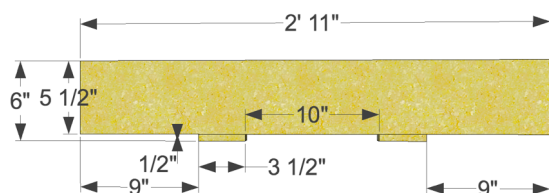
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Using tin snips cut four 36" x 36" squares off of the roll of hardware cloth. Use a hammer and 1" fence staple nails to attach the hardware cloth to the dividers as shown above. Make sure to attach the cloth to the outside sides of the end dividers.

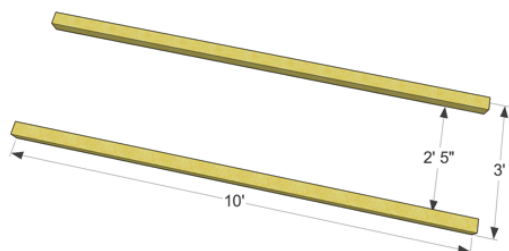
Step 4 - Construct Door Boards



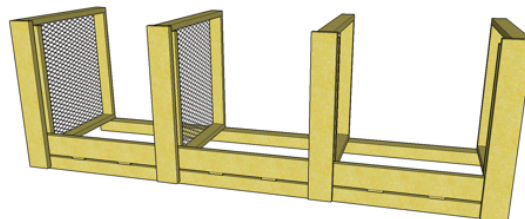
You will need eighteen door boards, six for each bin. Cut eighteen 2" x 6" x 35" boards from five 2" x 6" x 12' boards and cut thirty-six 1 1/2" x 3 1/2" x 1/2" spacers, from the scrap you saved earlier. Nail two spacers, using 2" nails, to each door board, approximately 9" from each end. Note: Pre-drill the nail holes and use two nails per spacer.

Step 5 - Lay Out the Base

Lay the two 4" x 4" x 10' boards parallel on the ground 36" apart. These will become the base of your compost bin.



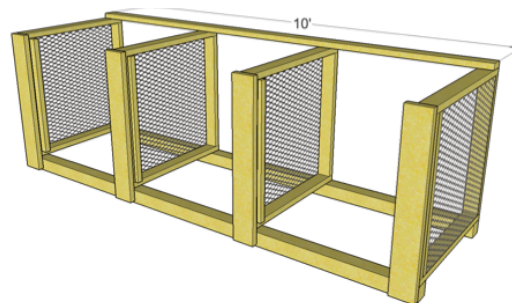
Step 6 - Attach Dividers



Screw the end dividers to the base using 2 1/2" screws. Make sure the dividers and base are square. Then space the inside dividers using the door boards as guides, again making sure they are square with the base.

Note: Use four screws per divider, two into each of the 4" x 4" x 10' boards. If you only use two screws it won't stay square.

Step 7 - Attach Stretcher



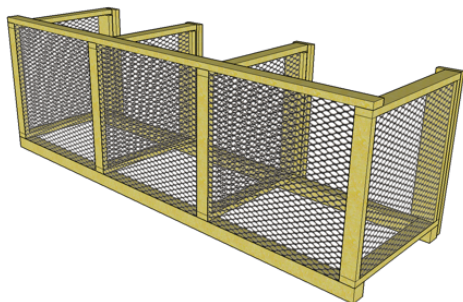
Screw a 2" x 4" x 10' stretched to the top of the back edge of the dividers using 2 1/2" screws. The stretcher will provide structural support for the back of the compost bin.



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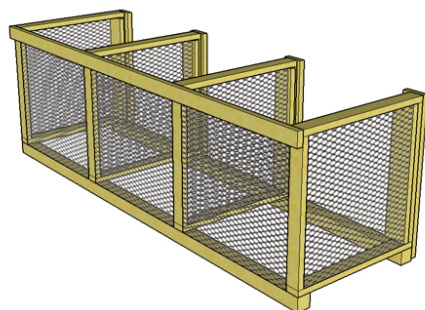
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Step 8 - Attach Hardware Cloth



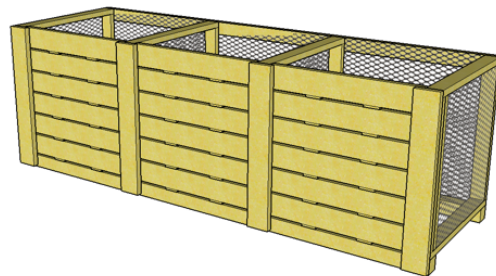
Attach hardware cloth to the back of the compost bin, starting on one end of the bin. Use a hammer to attach the hardware cloth with 1" fence staple nails.

Step 9 - Reposition Stretcher



Remove the stretcher board and put it on top edge of the backside of the compost system, over the hardware cloth. Then using a hammer and 1" fence staple nails, attach the hardware cloth to the stretcher board.

Step 6 - Install Front Boards



To complete your three-bin compost system, slide six door boards in the guide slots of each of the three bins. The spacers allow airflow in the front.

Using the Three-Bin Composter

You are now ready to start adding material to the composter, ideally adding both "greens" and "browns," (discussed below) like you would in other composters. The distinguishing factor of this system is the fact that there are three bins. You should only add new material to the left bin.

Once the far left bin is full turn the materials from the left bin into the middle bin. Continue adding material to the left bin until it is filled a second time, then turn everything from the middle bin into the right bin. Next move everything from the left bin into the middle bin. Once the left bin is filled a third time the compost in the right bin should be fully composted and ready to be added to your garden. Repeat this process every time the left bin is full.

The more frequently the material is mixed within the bin the faster the material will decompose and the less likely it is to stink. Correct moisture is also important to successful and rapid production of compost.





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You want the materials to be a cake batter level of moisture - wet but not overly saturated. Too dry and the material won't compost, too wet and it will start smelling foul. Breaking large pieces of material into smaller pieces will also speed up the composting process.

What to Add to the Compost Bin

If it came from a plant or is a plant, you can add it to your compost bin. However, there are things you might not want to add, like woody materials such as sticks and wood chips that can take a year or more to compost. In addition to plant materials you can add livestock manure (not dog or cat for health safety reasons), hair, and eggshells to the compost bin.

The materials you add to your bin can be broken down into two main categories: greens and browns. Ideally you want to add twice as much browns as greens to your compost bin.

Greens are high nitrogen materials and provide the fuel for the composting process. This includes plants that were killed (harvested, weeded, etc.) when they were still alive and green including food scraps, weeds, bolting vegetables, and grass clippings. It also includes coffee grounds and livestock manure.

The second category is browns. Browns are high in carbon and provide the substance of compost. Browns include dead plant material like tree leaves that fall in autumn, straw, sawdust (from untreated lumber), cardboard, paper, dryer lint, and the dead plants from your garden like brown corn stalks, dead sweet potato vines, and dead tomato vines.

Resources

Lumber Source

Most of GGI's lumber for raised garden beds is purchased from:

Fehlig Brothers Lumber Company

1909 Cole Street

St. Louis, MO 63106

Phone: (314) 241-6900 Fax: (314) 436-0315

<http://fehligbrotherslumber.com/>

