

HOW TO BUILD THE TILTH WORM COMPOSTING BIN

This system is designed for composting vegetable food wastes using red worms. Food wastes and worms are "bedded" in moist shredded newspaper, cardboard, sawdust or brown leaves. The worms turn both food wastes and bedding into a high-quality compost suitable for house plants, seedlings or garden use.

To maintain this system, simply rotate burial of food wastes throughout the bin. Every 3-6 months compost should be moved to one side of the bin and new bedding added to the empty half. Then start burying wastes in the new bedding only. Within one month worms will populate the new bedding, finished compost may be harvested, and the rest of the bin can be rebedded. In winter, worm bins may be kept in a cool indoor space (warm enough to avoid freezing) such as a basement or garage. Bins can be placed in a shady outdoor space the remainder of the year. A properly maintained worm bin is orderless. Flies may be controlled by completely covering food waste with bedding and placing a sheet of plastic over the bedding.

This bin can be built for about \$35 with new wood and hardware, or less using recycled materials. Bins can also be made from wooden boxes or other containers. Any worm bin must have drainage in the bottom and a tight-fitting lid to keep moisture in and pests out. A starter batch of red worms can be purchased or dug from a friend's worm bin. WSU Waste Warrior volunteers often have extra worms from their own bins. Call the WSU Waste Warrior office at 679-7391 or 321-5111, ext. 7491 for more information on worm composting, worm sources, composting, and other waste reduction topics. Also see Mary Appelhof's book, Worms Eat My Garbage.

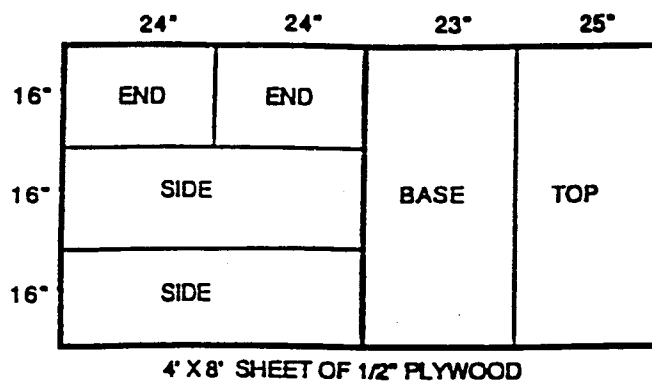
Materials:

- 1 1/2" sheet of exterior plywood or chipboard
- 14 ' utility 2 x 4
- 1 16 ' utility 2 x 4
- 1/2 lb 4d galvanized nails or 1-1/4" drywall screws
- 12 16d galvanized nails
- 2 3" galvanized door hinges

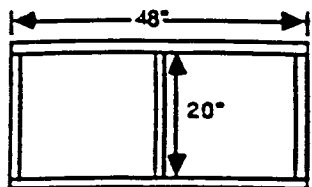
Tools:

- Tape measure, skill saw or 1 rip hand saw, hammer, saw horses, long straight edge or chalk snap line, screwdriver, and drill with 1/2" bit.
- Use eye and ear protection*

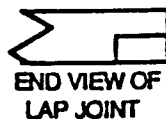
Construction Details:



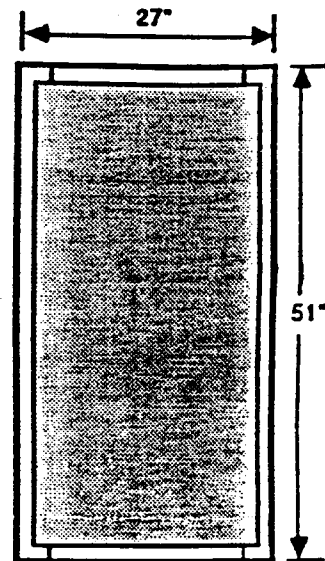
4' X 8' SHEET OF 1/2" PLYWOOD



BASE FRAME 2X4s ON EDGE



END VIEW OF LAP JOINT



TOP LID 2 X 4 FRAME WITH PLYWOOD COVER

Measure and cut plywood as indicated in drawing above. To make the base, cut the 14' 2 x 4 into five pieces: two 48" and three 20" long. The remaining 12" piece will be used to make the sides. Nail the 2 x 4's together on edge with two 16d nails at each joint as illustrated in the Base Frame diagram. Nail or screw the plywood base piece onto the 2 x 4 frame using the 4d nails or drywall screws.

To build the box, cut three 12" pieces from the 16 foot 2 x 4. Place a one foot 2 x 4 along the end of each side panel so that the top of the 2 x 4 is flush with the top and side edges of the plywood panel, and nail the boards into place. Nail or screw the side pieces onto the base frame. To complete the box, nail the ends onto the base and sides. To reinforce the box place a nail or screw staggered every 3-4 inches wherever plywood and 2 x 4's meet. Drill twelve holes, 1/2 inch in diameter, through the bottom of the box for drainage.

To build the lid, cut the remainder of the 16 foot 2 x 4 into two 51" pieces and two 27" pieces. Cut lap joints in the corners, then glue and nail or screw the frame together. Center the plywood lid onto the 2 x 4 frame and attach with 4d nails or 1-1/4" screws. Position hinges on the lid so that screws will attach to 2 x 4's on the box frame. Attach hinges on the under side of the 2 x 4 lid frame, then place lid on box and attach.