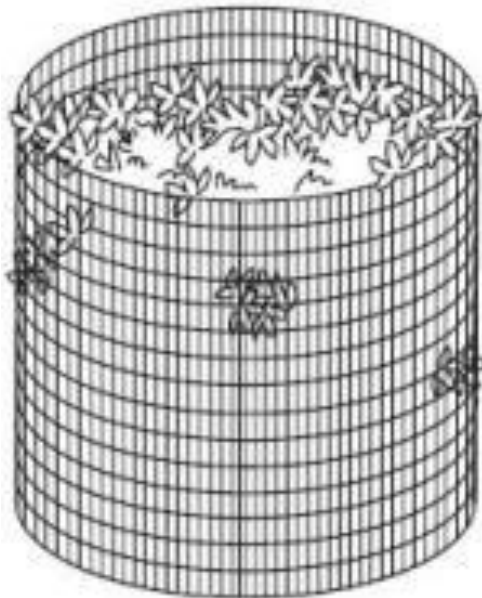


# Wire Mesh Compost Bins

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## Compost Bins

While a compost bin is not necessary for decomposing food and yard debris, it does make the process more efficient and helps organize the materials. There are a variety of bins you can buy or make. The Spokane County Master Composters/Recyclers have found the most efficient to be the following:

- *Wire Mesh Compost Bins (pictured at left)*
- *Portable Wood & Wire Bin*
- *Wood & Wire Stationary 3-Bin System*

## Wire Mesh Compost Bins

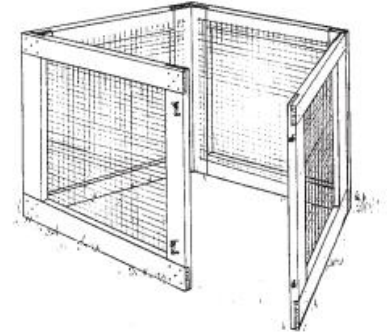
Wire mesh composting bins are versatile, inexpensive and easy to construct. They may be used as holding bins for composting moderate amounts of food and yard wastes, or as turning systems for quick composting of larger volumes. Holding bins are a convenient way of composting organic wastes with little effort. Simply add waste as it is cleaned up from the yard or gathered in the kitchen, and with little effort and occasional moistening, compost will be ready in 6 months to 2 years. If you give special attention to chopping materials, maintaining moisture, and occasional turning, compost can be produced in less time.

Wire mesh bins can be moved to turn piles or to harvest finished compost. To do this, simply undo the latches, pull the mesh away from the compost, and set it up elsewhere. The pile may be turned into the bin at its new location, and compost can be removed from the bottom.

The circular design illustrated above is usually the sturdiest, easiest to install, and most cost effective, since it may be made from poultry wire or hardware cloth. Poultry wire is the least expensive material, but it can quickly lose its shape with use, unless it is supported with posts and frequently replaced. For a slightly higher cost, hardware cloth creates a self-supporting circle which is easier to manipulate and more durable. (See Page 3 for materials needed and construction directions.)

## Portable Wood & Wire Bins

This portable bin provides a convenient way to compost or store moderate volumes of yard waste. To use the bin as a turning unit, chop or shred yard waste, add moisture, and mix. To turn the pile, undo the latches, pull the sides apart, and move to a nearby location. Then turn the compost into the bin at its new location, adding moisture and moving outside materials to the inside of the pile and inside materials to the outside. Occasional turning of the pile while adding moisture may produce finished compost in only a few weeks.



If you prefer a storage unit or a passive compost, yard waste can be added to the bin as it is generated. With no effort besides occasional moistening, compost will be ready in 6 months to 2 years.

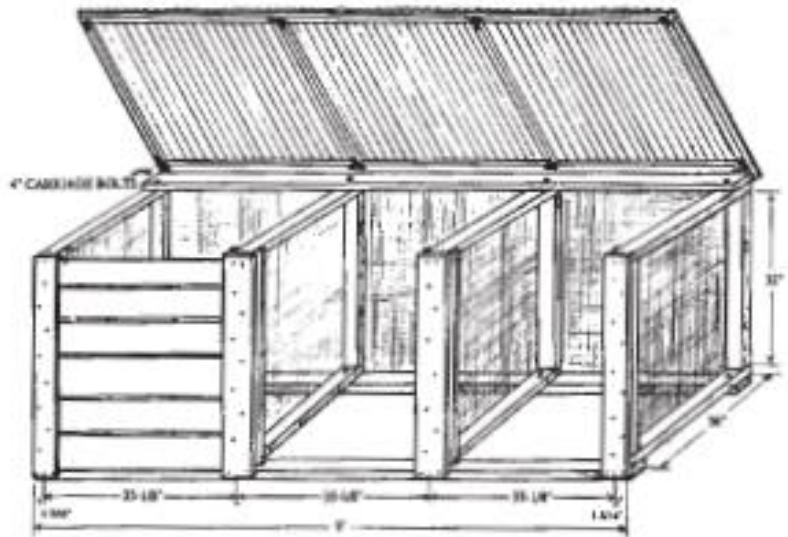
The unit pictured can be built for approximately \$75 using untreated lumber. Plastic lumber is more expensive. Project requires basic carpentry skills and tools. (See Page 3 for materials needed and construction directions.)

## Wood and Wire Stationary 3-Bin System

Compost can be made without a bin, but the process is typically faster if piles are turned. This is easily accomplished using a moveable bin or rotating through a series of stationary bins, like the composter pictured here.

Materials can be gathered/stored in the middle bin until it is full. Materials are then chopped, moistened, and mixed in one of the end bins. Periodically, piles are turned (moved to the next bin) and moistened (if needed) to ensure hot compost.

The unit pictured can be built for approximately \$130. (See Page 4 for materials needed and construction directions.)



## Constructing a Wire Mesh Bin

*Materials Needed for a bin 3 ½ ft in diameter:*

- 12 ½ ft of 36" wide 1" poultry wire *or* ½" hardware cloth *or* 16 gauge coated wire mesh
- 4 metal or plastic clips *or* copper wire ties
- 3 to 4 four-foot wooden *or* metal posts

*Tools:*

- heavy duty wire or tin snips (a heavy-duty scissor like tool), pliers, hammer or metal file
- work gloves

*Directions for a Circular Bin:*

- Roll out and cut the poultry wire, hardware cloth, or plastic coated wire mesh (see below for variation instructions for each). Set wire circle in the location chosen for your compost pile and secure the ends with clips or wire ties. Set bin in place for composting.
- **Poultry wire:** When cutting, roll the wire back three to four inches at each end of cut piece to provide a strong, clean edge which will be easy to latch and won't poke or snag. Space wood or metal posts around the perimeter *inside* the wire circle. Pound posts firmly into the ground while tensing them against the wire to provide support.
- **Hardware cloth,** trim ends flush with a cross wire to eliminate loose edges that may poke or scratch. Apply a file to each wire along the cut edge to ensure safer handling when opening and closing the bin. Bins made with hardware cloth should be strong enough to stand alone without posts.
- **Plastic coated wire:** Bending this heavier material into an even circular shape will require extra effort. Also, filing the wire ends may cause the plastic coating to tear. Instead, strike the end of each wire with a hammer a few times to knock down any jagged edges.

## Constructing a Portable Wood & Wire Bin

*Materials Needed (quantities in parentheses):*

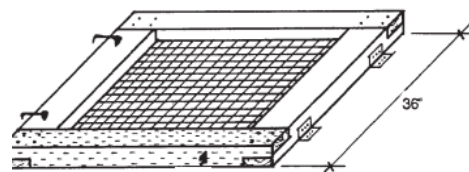
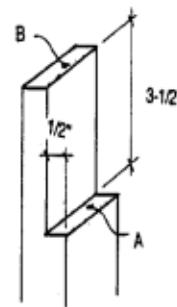
- 12' untreated *or* "plastic" 2x4 lumber (4)
- 36" wide ½" hardware cloth (12')
- 5/16 x 1 ½" lag screws (32)
- galvanized butt door hinges (4)
- poultry wire staples *or* power stapler with 1" staples (150)
- 10oz tube exterior wood adhesive (1)
- large hook and eye gate latches (4)

*Tools:*

- hand saw or circular power saw *or* hand saw and hammer/chisel *or* radial arm saw with dado blade *or* circular/table saw
- socket wrench *or* nut driver
- tin snips (a heavy-duty scissor like tool)
- caulking gun
- screwdriver
- small carpenter's square
- pencil
- eye and ear protection

### Directions:

- Cut each 2x4 into 3'-long pieces, resulting in 16 pieces.
- Cut a  $\frac{3}{4}$ " deep by 3  $\frac{1}{2}$ " wide lap joint out of each end of the cut 2x4s (see diagram). Both cuts should be on opposite ends on the same side of each board. *(If using a handsaw and chisel, cut  $\frac{3}{4}$ " down at the 3  $\frac{1}{2}$ " line at A in the diagram. Then cut a  $\frac{1}{2}$ " deep groove into the end of the board at B in the diagram. Place a thick wood chisel in the end groove and split the wood with a hammer to the 3  $\frac{1}{2}$ " cut. If using a radial arm saw, circular saw or table saw, set blade depth to  $\frac{3}{4}$ " and make multiple passes until the entire section is removed.)*
- Make four 3'-square frames from the lap-jointed 2x4s. Before screwing the sections together, apply enough construction adhesive to fill the gaps when the lap joints are screwed together. Fasten each joint with two lag screws.
- Cut the hardware cloth into four 3'-square sections. Bend the edges of the cloth back on itself 1" for strength. Lay one hardware cloth square on each of the four frames. Center and tack each corner with a poultry wire staple. Place a staple every 4" along all the edges of the hardware cloth. Try to tension the cloth so it doesn't sag when filled with compost.
- Connect each pair of frames together with two hinges. Put the hook and eye gate latches on the other ends so the sections latch together.



## Constructing a Wood & Wire Stationary 3-Bin System

### Materials Needed (quantities in parentheses):

Building material can be untreated wood, cedar or "plastic lumber".

- 18-ft 2x4s (2)
- 12-ft (4) or 6-ft (8) 2x4s
- 16-ft 2x6 (2)
- 6-ft 1x6 (9)
- 36"-wide  $\frac{1}{2}$ " hardware cloth (22 ft)
- $\frac{1}{2}$ " x 4"-long carriage bolts (12)
- washers and nuts for bolts (12 each)
- 16d galvanized nails or screws (3 lbs)
- 8d galvanized casement nails or screws ( $\frac{1}{2}$  lb)
- poultry wire staples or power stapler with 1" staples (250)

### Tools:

- hand saw *or* circular power saw
- drill with a  $\frac{1}{2}$ " bit
- tin snips (a heavy-duty scissor like tool)
- hammer
- screwdriver
- carpenter's square
- tape measure
- pencil
- $\frac{3}{4}$ " socket *or* open-ended wrench
- eye and ear protection

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## Directions:

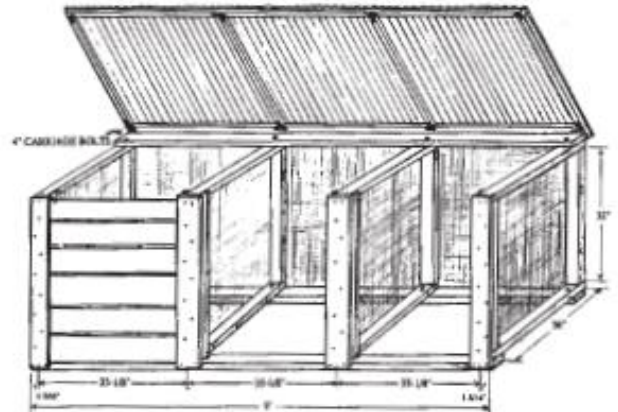
### Assemble Dividers

- Using the 12-ft 2x4s, cut two 31½" and two 36" pieces from each.
- Butt end nail the four pieces into a 35" x 36" square. Repeat to make three more squares.
- Cut four 37"-long sections from the hardware cloth. Bend back edges 1" and stretch across each square frame. Make sure the frames are squared, then staple the hardware cloth tightly into place every 4 inches around the edges.



### Set Up Dividers

- Set up each divider parallel to one another and 3' apart. Measure and mark centers for the two inside dividers.
- Cut the 18-ft 2x4s in half, resulting in four 9-ft pieces.
- Place two of the 9-ft pieces on top of the dividers and measure the center positions for the two inside dividers. Mark a center line for each divider on the 9-ft pieces. With each divider lined up with the marked center lines, the base board should be flush against the outer edge of the divider.
- Drill a ½" hole through each junction, centered 1" in from the inside edge. Secure the base boards with carriage bolts, but do not tighten yet.
- Flip the bin and repeat the process (you are making a top and bottom).
- Using the carpenter's square (or measuring between opposing corners), make sure the bin is square and then tighten all bolts securely.
- Fasten a 9-ft piece of hardware cloth securely to the back of the bin with staples every 4" around the frame.



### Prepare Front Slats and Runners

- Cut four 36"-long sections from the 2x6 to be used as slat runners for the front of the bin.
- Rip cut (cut with the grain of the wood) two of these boards to 4 ¾" wide and nail them securely to the front of the outside dividers and baseboard, making them flush on the top and outside edges.
- Center the remaining full-width boards on the front of the inside dividers, making them flush with the top edge, and nail or screw them securely.
- To create the runners in back, cut a 34"-long piece from the remaining piece of the 2x6 board, rip cut it into 4 equal pieces.
- Leaving a 1" gap for slats, nail or screw the back runners directly behind the front runners, being sure they are parallel to the front runners. Nail or screw to the sides of the dividers.
- Cut the 1x6 boards into 31 ¼"-long pieces to be used as slats (each board makes 2 slates).

## Optional Fiberglass Lid (useful in an area with a lot of rainfall)

### Materials Needed (quantities in parentheses):

- 9-ft 2x2 (1)
- 6-ft 2x2s (2)
- 10-ft and 8-ft sheets (2 ft wide) of 4-oz clear corrugated fiberglass (1 of each)
- 8-ft lengths of wiggle molding (3)
- Gasketed aluminum nails *or* screws for corrugated fiberglass roofing (40)
- 3" zinc-plated hinges for lid (2)
- flat 4" corner braces with screws (8)
- flat 3" T-braces with screws (4)

### Directions:

- Cut four 32 ½" long sections from the 6-ft 2x2s.
- Using the last 9-ft 2x4, the 9-ft 2x2s, and the four sections of 2x2 just cut, lay boards into position on the ground as per lid illustration inside. Use the 9-ft 2x4 for the back (hinge side) of the lid.
- Be sure the boards are squared up.
- Screw in corner braces (outer sections) and T-braces (inner sections) on bottom side of the frame. Center the frame with the braces facing down onto the bin structure and attach with hinges.
- Cut wiggle molding to fit the 9-ft sections of the lid frame. Pre-drill board with 1/8" drill bit and nail with 8d casement nails.
- Cut five pieces of fiberglass to fit flush with front and back edges of the frame (approximately 35-36"). Lay the pieces next to each other and overlay them at least one channel wide. Pre-drill fiberglass and wiggle molding every third hump for nail holes.
- Screw lid to frame or nail lid to frame with gasket nails.

Sourced from:



**Spokane Regional  
Solid Waste System**

**Spokane Master  
Composter/Recycler Program**

221 N. Wall, Suite 410, Spokane, WA 99201

*The Master Composter/Recycler Program is sponsored by the Spokane Regional Solid Waste System. Master Composters/Recyclers are volunteers who are working to promote the practice of home composting throughout Spokane County.*

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