Building a Bin
Portable Wood and Wire Composting Bin

Construction Details

1. Cut each 12-foot 2x4 into three footlong pieces.

2. Cut a 3/4" deep and 3 1/2" wide section of each end for a total of 32 lap cuts:
   - If using a hand saw and chisel, cut 3/4" down at the 3 1/2" line (See A in diagram). Then cut a 1/2" deep groove into the end of the board (See B in diagram). Place a thick wood chisel in the end groove and split the wood with a hammer to the 3 1/2" cut.
   - If using a radial saw, circular saw or table saw, set the blade depth to 3/4" and make multiple passes until the whole section is removed.

3. Make four 3 foot square frames from the lap jointed 2x4s. Use one pressure treated 2x4 on each frame. Put enough construction adhesive to fill the gaps when the lap joints are screwed together.

4. Fasten each joint with four screws.

5. Cut the hardware cloth with the tin snips into four 3 foot square sections. Bend the edges of the cloth back over 1" for strength.

6. Lay one onto each of the four frames. Centre and tack each corner with the poultry wire staple. Hammer a staple into place every 4" along all four edges of the hardware cloth. Try to tension the cloth so it will not sag when the bin is filled.

7. Make sure the composting material is spread evenly. It is an excellent soil conditioner. The value of compost is that the nutrients are released slowly, making them available to plants longer than the “quick fix” that is provided by commercial fertilizers. While fertilizers provide the major nutrients, they do not add any organic matter or microbial life to the soil as compost does. You can sprinkle compost on the lawn, in the flower and vegetable gardens, on soil around trees and shrubs or use it for house plants and planter boxes. You can also use the compost into the soil when:

   - Turning waste into a valuable resource you can use at home.
   - Returning valuable nutrients to the earth.
   - Producing chemical-free fertilizer.
   - Minimizing pollution and waste.
   - Preventing climate change.

   The Solution is in Your Bag!

   Why compost? Up to 1/3 of household waste is compostable and another 1/3 is recyclable. You could be carrying one bag to the corner each week instead of three!

   What is Composting?

   Composting is nature’s way of recycling. Anything that once lived will decompose and become part of the Earth. Composting is a natural process in which organic materials (kitchen and yard wastes) are broken down to produce nutrient-rich soil.

   Materials (Total Cost ~ about $50):
   - One 12-foot pressure treated 2x4
   - Three 12-foot 1x2 2x4
   - Four 36" wide pieces of hardware cloth
   - Four 3" galvanized butt door hinges
   - One 12oz. Tube exterior wood adhesive
   - Six large hook and eye gate latches
   - One 10oz. Tube exterior wood adhesive
   - One 12-foot pressure treated 2x4
   - Three 12-foot fir 2x4
   - Eight 5" screws per hinge
   - Six large hook and eye gate latches
   - One 120 vol. 600 watt bulb three pronged plug
   - Small cooper's square
   - Saw and Chisel
   - Screwdriver
   - Hammer
   - Tin Snips
   - Caulking Gun
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   Directions:

   In your compost bin, mix together composting material. For rapid decomposition activity is the key. Alternate equal layers of nitrogen-rich "green" wastes and carbon-rich "brown" wastes. Keep them submerged or chipped to speed up the process. Turn the pile once or twice a week during warm weather to add air to the mixture. Check water content by squeezing a handful of material. It should be moist to the touch, but yields no liquid when squeezed. Repeat the process as needed. When the compost is dark brown, crumbly and emits an earthy odour, it is ready for use. It can be used as a fertilizer in flower & vegetable gardens, on soil surface around trees and shrubs, for house plants and planter boxes, or as lawn top dressing.

   Other Options

   1. Snow Fence Bin: Make a circle with wood or plastic fencing and tie it with a metal wire.

   2. Re-used Pallet Bin: Lash 4 pallets together with rope. Keep the rope tied loosely at one corner to gain access to the pile.

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   To buy a bin or get additional plans, visit Fort Whyte Centre.

   Return to Your Roots – COMPOST!

   If it’s time to treat your garbage like dirt! (Cheryl Bowman)

   Garbage - we all throw it away, but it never really goes away. If you were to visit a local landfill, you would see 25 year-old junk and read newspapers from the 1960s! It’s not cheap (economically or environmentally) to haul garbage to landfills. The City of Winnipeg budgets almost $17 million annually to deal with household waste. Garbage trucks burn fossil fuels hauling garbage to landfills where the land, water and air can become polluted. Composting is one simple way to reduce the amount of waste we produce.

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Return to Your Roots – COMPOST!

Choosing a Bin
It is possible to compost without a bin, but a composting container will save space, hasten decomposition and keep your yard looking neat. Bins should be located in a shady, well-drained, well-ventilated area. If possible keep the composter away from your garden to reduce the risk of attracting slugs to the garden. For optimum composting conditions bin size should be one cubic metre.

Several types of composting bins can be made or purchased, depending on your needs. Factors to consider include:

- **Time**: How much time do you want to spend on composting?
- **Labour**: How much labour do you want to commit to this activity?
- **Space**: How much space do you have for your composting unit?
- **Appearance**: How important is it to you to have an attractive system?
- **Materials**: What materials will you put into your compost pile, and how much organic material do you want to produce?
- **Cost**: How much do you want to spend on making/buying a bin?
- **How fast**: How quickly do you want to produce finished compost?
- **Pest control**: How much pest control is needed?

You can compost a whole heap of things!

<table>
<thead>
<tr>
<th><strong>Goes In</strong></th>
<th><strong>Stays Out</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon-rich “brown” wastes</td>
<td>Nitrogen-rich “green” wastes</td>
</tr>
<tr>
<td>Hay</td>
<td>Meat</td>
</tr>
<tr>
<td>Saw Dust</td>
<td>Meat Products</td>
</tr>
<tr>
<td>Snow</td>
<td>Bones</td>
</tr>
<tr>
<td>Dead Grass</td>
<td>Dairy Products</td>
</tr>
<tr>
<td>Dead Leaves</td>
<td>Cooking Oil</td>
</tr>
<tr>
<td>Wood Chips</td>
<td>Salad Dressing</td>
</tr>
<tr>
<td>Pot cage Clearings (bird/rodent)</td>
<td>Peanut Butter</td>
</tr>
<tr>
<td>Feathers</td>
<td>Peat Mosses</td>
</tr>
<tr>
<td>Cotton Rags (clean)</td>
<td>Weeds</td>
</tr>
<tr>
<td>Felt (clean)</td>
<td>Diseased/Pest infested plants</td>
</tr>
<tr>
<td>Pet/Human hair</td>
<td>BBQ Charcoal</td>
</tr>
<tr>
<td>Rope</td>
<td>Dog/Cat Droppings</td>
</tr>
<tr>
<td>Shing</td>
<td>Rhubarb Leaves</td>
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Compost Conundrums

<table>
<thead>
<tr>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flies.</td>
<td>Cover kitchen scraps with thick layer of soil or leaves. Turn pile frequently.</td>
</tr>
<tr>
<td>Pile is dry in the centre.</td>
<td>Water pile with garden hose.</td>
</tr>
<tr>
<td>Only the centre is damp and warm.</td>
<td>Add a nitrogen (green) source and moisten.</td>
</tr>
<tr>
<td>Compost is not warming up.</td>
<td>Add a nitrogen (green) source.</td>
</tr>
<tr>
<td>Unpleasant odour.</td>
<td>Turn pile, add dry leaves or grass.</td>
</tr>
<tr>
<td>Ammonia smell.</td>
<td>Add a carbon (brown) source.</td>
</tr>
<tr>
<td>Dogs, cats or rodents.</td>
<td>Place wire mesh around the bottom of the bin. Have a securely fastened lid.</td>
</tr>
</tbody>
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For more information on:
- **Backyard Composting/Plans to build bins**: Fort Whyte Centre: 989-8358
- **Bins for sale/Upcoming composting workshops**: Fort Whyte Centre Nature Shop: 989-8364
- **Vermicomposting/Purchase of worms**: Wriggler Ranch: 589-0241
- **Backyard Composting**: City of Wpg (Water & Waste Dept.): 986-4777

References:
- **The Real Dirt**: Mark Cullen & Lorraine Johnson, 1992.

**Friend or Foe**
Worried that those bugs in your bin are pests? Compost-friendly organisms include bacteria, fungi, springtails, wolf spiders, centipedes, sow bugs, ground beetles and earthworms.

**Tips:**
- Wooden bins lose more water, but have better air circulation than plastic bins.
- Covered bins are best for keeping out pests.
- Some bins have bottom access for easy removal of compost.
- Black plastic bins speed up decomposition by absorbing the sun’s heat.
- You can continue to compost in the winter. Decomposition slows down as the pile cools, but frost breaks down the material so it decomposes more rapidly when the weather warms up again.