Return to Your Roots – COMPOST!

continued

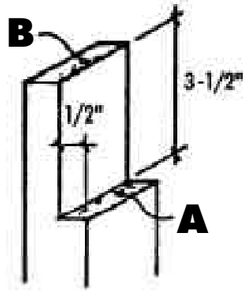
Building a Bin

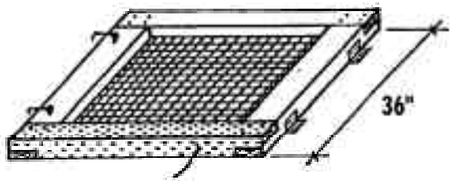
Portable Wood and Wire Composting Bin

Construction Details

1. Cut each 12-foot 2x4 into three foot long 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.





Pressure Treated Lumber on Bottom

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.

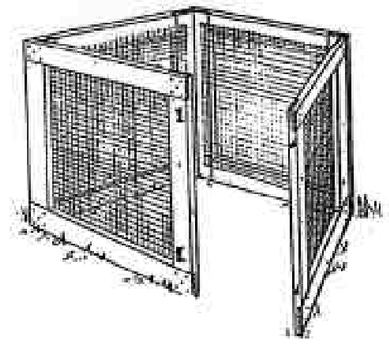
4. Fasten each joint with four screws.

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.

7. 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 with compost.

8. Connect each pair of frames together with two hinges. Then put the hook and eye gate latches on the other ends so that the sections latch together.



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

Materials (Total Cost - about $50):

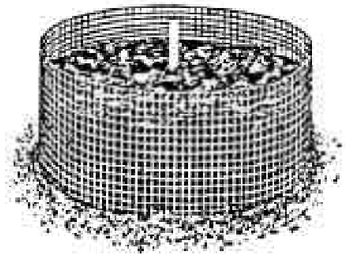
- One 12-foot pressure treated 2x4
- Three 12-foot fir 2x4
- 12 feet of 36"wide $\frac{1}{2}$" hardware cloth
- Four 3" galvanized butt door hinges
- 150 poultry wire staples or power stapler
- One 10oz. Tube exterior wood adhesive
- Six large hook and eye gate latches

Tools:

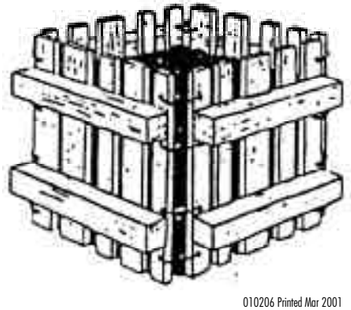
- Saw and Chisel
- Hammer
- Screwdriver
- Tin Snips
- Caulking Gun
- Small carpenter's square
- Eye & Ear Protection

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.



010206 Printed Mar 2001

Fort Whyte centre **Branta** bulletin

Return to Your Roots – COMPOST!

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.

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.

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! The *lawn*-term benefits include:

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

Finished Product

Tired of spending hard earned dollars on commercial fertilizers? Use finished compost as a fertilizer instead. Compost 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 dig compost into the soil when

Tea Time

Use finished compost to give house and yard plants a special treat. Place equal amounts of compost and water into a bucket or watering can. You can use the same compost to make several batches of tea by first placing the compost into a "tea bag" - use a burlap sack or an old pair of pantyhose. Stir a few times and let the tea steep for one day. Remove the bag and water your plants with a nutrient-rich drink!

Recipe for Backyard Composting

Ingredients:

- Living organisms (bacteria, fungi, worms, insects)
- Composting material (kitchen & yard wastes)
- Compost bin
- Moisture
- Air
- Time & patience

Directions:

In your compost bin, mix together composting material. For rapid decomposition variety is the key. Alternate equal layers of nitrogen-rich "green" wastes and carbon-rich "brown" wastes. Keep items small (shredded or chopped) 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 this 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 the soil surface around trees and shrubs, for house plants and planter boxes, or as lawn top dressing.

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!

Goes In		Stays Out
Carbon-rich "brown" wastes	**Nitrogen-rich "green" wastes**	
Hay	Fruit scraps (peels, cores, pits)	Meat
Saw Dust	Vegetable scraps	Meat Products
Straw	Egg Shells (crushed)	Bones
Dead Grass	Corn Cobs (chopped)	Dairy Products
Dead Leaves	Coffee Grounds	Cooking Oil
Wood Chips	Coffee Filters	Salad Dressing
Pet cage Cleanings (bird/rodent)	Tea Bags	Peanut Butter
Feathers	Nut Shells	Pesticides
Cotton Rags (clean)	Oats	Weeds
Felt (clean)	Plant stalks/clippings	Diseased/Pest infested plants
Pet/Human hair	Pumpkins (chopped)	BBQ Charcoal
Rope	Fresh Grass Trimmings	Dog/Cat Droppings
String	Green Leaves	Rhubarb Leaves
		Pet Waste

Did you know?

North Americans produce enough garbage each day to fill 70 000 garbage trucks! Lined up over one year, they would stretch halfway to the moon.

No Space? No Problem!!

Try vermicomposting indoors! Ideal for apartments, condominiums, school classrooms, offices, or cafeterias. Vermicomposting is composting using Red Wriggler earthworms, a relative of our garden earthworm. These industrious worms eat their own bodyweight in kitchen wastes each day, without producing any foul odours! Vermicomposting bins are made of plastic or wood with well ventilated lids and drainage holes in the bottom. The box should provide a dark, moist environment for the worms.

1. Start with a bedding layer composed of equal amounts of damp, shredded newspaper and soil.
2. Place the worms in this bedding and add kitchen wastes.
3. Mix kitchen waste with bedding and replace lid.
4. Worms eat both the wastes and their bedding.
5. Compost can be harvested every three months or so. Move the compost to one side of the box and place fresh bedding on the other. The worms will migrate to the fresh material in a few days. Remove compost.

continued

Compost Conundrums

Problem	*Solution*
Flies.	Cover kitchen scraps with thick layer of soil or leaves. Turn pile frequently.
Pile is dry in the centre.	Water pile with garden hose.
Only the centre is damp and warm.	Add a nitrogen (green) source and moisten.
Compost is not warming up.	Add a nitrogen (green) source.
Unpleasant odour.	Turn pile, add dry leaves or grass.
Ammonia smell.	Add a carbon (brown) source.
Dogs, cats or rodents.	Place wire mesh around the bottom of the bin. Have a securely fastened lid.

For more information on:	**Call:**
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.

Let it Rot! The Gardener's Guide to Composting, Stu Campbell, 1990.

Photo: Fort Whyte Nature Day Campers enjoy gardening and learn about composting.

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:

The Real Dirt

- ***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.***