



backyard composting – IT'S EASY!

What is composting?

Why compost?

Getting started

Harvesting your compost

Using finished compost

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What is composting?

Composting is easy to do in your own backyard!

Composting is a natural process by which organic material decomposes to form a rich soil amendment. A properly maintained compost bin or heap enables the process to occur faster than in nature, producing a high quality end product.

Backyard composting doesn't require a lot of technical know-how. In fact, it is almost impossible to stop organic material from composting. With some understanding of this practice and a minimal amount of effort, you can easily create a pleasing and productive compost system that's right for you.

Why compost?

Composting is the right thing to do! Here are some great reasons to compost:

Money and Resource Savings

- Finished compost that you produce yourself is free.
- Compost helps soil retain moisture and nutrients so you can save money on watering and fertilizer.
- It saves fossil fuels used to transport organic waste to the landfill.
- By reducing garbage volume, civic costs for waste collection and disposal can be lowered.
- Composting extends the life of current landfills.

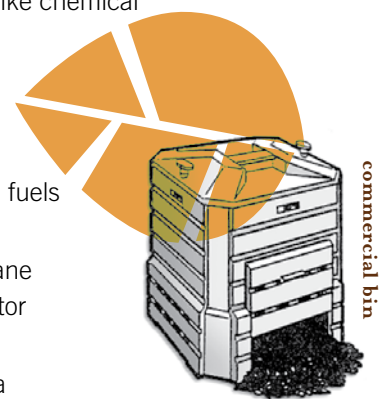
Environment

Healthy soils

- It returns valuable nutrients to the soil to help maintain soil quality and fertility.
- Finished compost is a mild, slow-release, natural fertilizer that won't burn plants like chemical fertilizers.
- It improves the soil's texture, water retention and drainage.

Climate change and pollution prevention

- Transporting compostable wastes to the landfill produces air pollution, which also fuels climate change.
- Organics in landfills break down anaerobically (without oxygen) to produce methane gas— a greenhouse gas 21 times more harmful than carbon dioxide as a contributor to climate change.
- Buried organics can react with metals in the landfill to produce a toxic leachate, a potential source of groundwater pollution.
- Chemical fertilizer may leach nitrogen, phosphorus and potassium into sewer systems, lakes and streams resulting in water pollution whereas compost is a pollution-free alternative.



How do I get started?

Choose the right compost bin

A compost bin acts to help keep pests away, keeps your yard looking tidy and protects your pile from the elements, which can cause it to become overly wet or dry.

There are many different types of compost bins. When choosing your compost bin there are a couple of things that you should keep in mind:

- The volume of organic waste your household creates
- The space you have available in your yard
- If you want to buy a bin or build your own
- The amount of effort you are willing to put into the composting process

The best place for your bin is in an easily accessible location in a well-drained area, preferably with partial shade and partial sun. It can sit on grass or dirt but cement is not recommended.

For apartment dwellers, indoor composting known as vermicomposting is possible by using Red Wiggler worms.

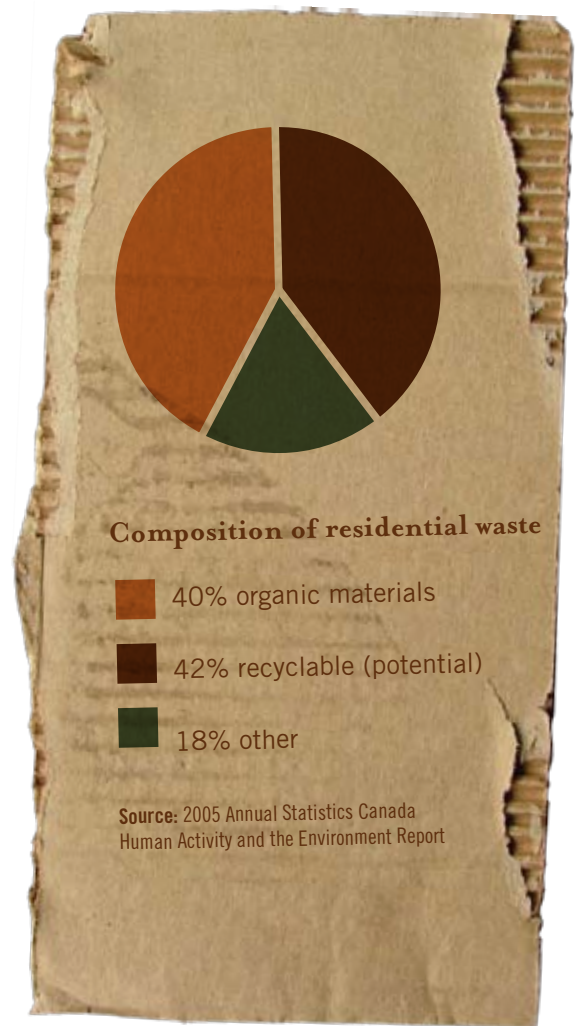
For more information on vermicomposting, compost bin types, do-it-yourself building plans, please visit our website at: www.resourceconservation.mb.ca or call (204) 925-3778.

| | |
|---------------------|---|
| 2 to 3 bin system | Handles large waste volumes; easy to harvest finished compost |
| Commercial bin | Easy set up; pest-resistant |
| Recycled pallet bin | Uses recycled material; inexpensive |

Collect your organics

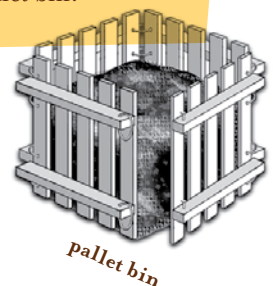
Most people collect their kitchen scraps in a pail that has a tight-fitting lid. The lid helps to keep smells and fruit flies at bay. You simply collect your organic waste and bring it out to your compost bin as often as you like.

If you are worried about smells or insects or have pets at home that might get into the collection pail, you might consider putting your pail in the fridge or your freezer between trips to your bin.



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You may be able to get free pallets at your local grocery store or warehouse to build your own pallet bin.



5 key factors

There are five key factors that you will need to consider: food, water, air, surface area and volume.

The most important factor is food. If you are a casual composter and don't pay attention to the other 4 factors, it will take much longer to get finished compost. However, if you follow all 5, you could get compost in no time. The reason is that micro-organisms live in the compost pile and require the right amount of food, water and air to thrive. A by-product of their work is heat energy. A healthy environment for these critters results in an increase of their population which means an increase of heat in your compost heap. Your pile could reach 55 degrees Celsius or more! The most efficient bacteria at decomposing are those who prefer higher temperatures. So, the hotter your pile the faster you get finished compost!

1 Food

There are two main types of organics that can be put into your compost bin: greens and browns.

GREENS are wet materials high in nitrogen.

BROWNS are dry materials high in carbon.

When putting foods into your compost bin you should try to maintain a mixture of 50% greens and 50% browns (by weight, not by volume). Since browns tend to be lighter, you will typically need to add 2 to 3 pails of browns for every 1 pail of greens.

2 Water

The micro-organisms in your pile need water to survive, but not too much or they will not be able to "breathe". Ideally, you want your compost to have a moisture content of 50% or so. If you squeeze a handful it should leave your hand moist but not drip more than a few drops. Remember when you add greens, you are also adding water since greens have a high moisture content.

3 Air

Air may only reach the top and sides of the compost pile but to keep the micro-organisms in your compost bin healthy, oxygen must get into the bottom and centre as well. To increase decomposition, aerate your compost pile about every 2 to 3 weeks either by using a shovel, pitchfork, rake or a compost aerating tool. This could involve mixing the whole pile or simply poking holes to make air channels throughout your heap. If you don't aerate your pile, there is also a risk that your pile may begin to compost anaerobically (without oxygen), producing an unpleasant smell and methane gas. Turning your pile too often may slow down decomposition since your pile won't have the time to heat up and could dry out.

Good compost foods

Green materials:

Vegetable and fruit scraps, fresh grass clippings, garden waste, fresh weeds without seeds, coffee grounds/filters, tea leaves/bags.

Brown materials:

Dry leaves, straw, dry hay, sawdust, woodchips from untreated wood, dried grass clippings, shredded paper, dried weeds without seeds.

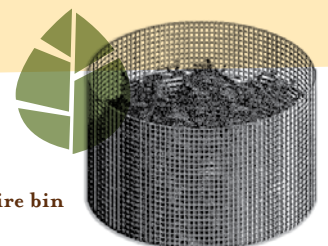
Other materials:

Eggshells, wood ash (small amounts), plain rice, plain pasta, bread.

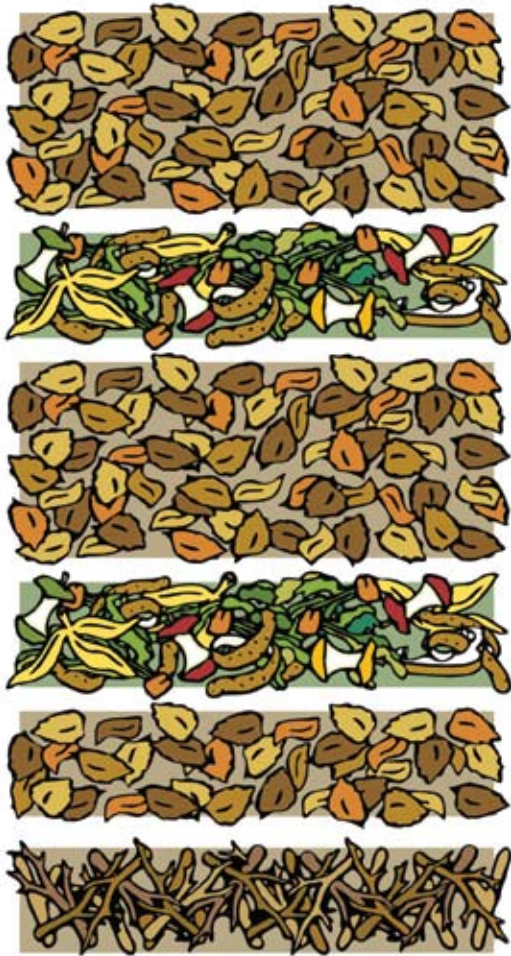
Bad compost foods

Do not add:

Meat, fish, eggs, dairy products, oily foods, bones, dog or cat manure, weeds with mature seeds, plants infected with disease, anything treated with pesticides or chemicals.



chicken wire bin



When building your compost pile it is often helpful to add alternating layers of green and brown materials.

Alternate layers – greens and browns

Add a layer of “greens” to the pile. This layer does not have to be evenly distributed throughout your bin.

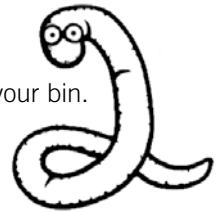
Always cover the “greens” with a generous layer of “browns” to prevent odours and unwanted pests.

Second layer – browns

Add an even layer of “browns” to the bottom of your bin.

First layer – twigs (optional)

This base layer decomposes slowly to provide long-lasting aeration to your pile.



NOTE: You can also add soil at any stage of the layering process. A shovel-full of soil will introduce many soil organisms into your pile and acts as an accelerator. A thin layer of soil added on the top of your pile also helps to discourage pests and odours.

4 Surface Area

A general rule to follow is that “smaller is better” when it comes to the size of your compost food. If you have time to cut, chop, or shred your organic waste before putting it into your compost bin, you will see faster decomposition rates.

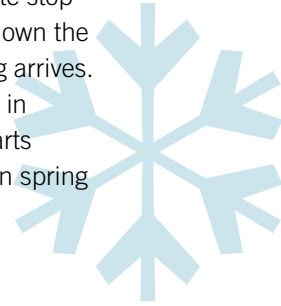
5 Volume

If you are building your own compost bin, you should keep in mind that the ideal volume for your bin is about 1 meter cubed. A bin that is too small cannot retain enough heat and a bin that is too large won't allow enough air to reach the centre of your compost pile. It is also easier to manage two or three medium bins than one large one.



Composting in winter

Keep composting all year round! In winter, decomposition might come to a complete stop because the materials will freeze up. However, the freeze-thaw cycles help break down the cellular structure of the materials, so the pile will compost very quickly when spring arrives. If your bin is full before the end of winter, you could start storing your compostable in separate garbage cans or containers and dump the contents in your bin once it starts thawing. Also, there is no need to add browns in winter but make sure you do when spring comes around.



Harvesting your compost

Achieving finished compost can take a few months to 3 years depending on how much effort you put into it. Finished compost is found at the bottom of the bin. It is ready to use as a natural fertilizer when it is dark brown, smells like earth and crumbles in your hand. If it still has a lot of large lumps or is still warm, let it sit for another couple weeks.

If compost is used before it has fully finished decomposing, the microorganisms may rob the soil and plants of nitrogen in order to finish the process.

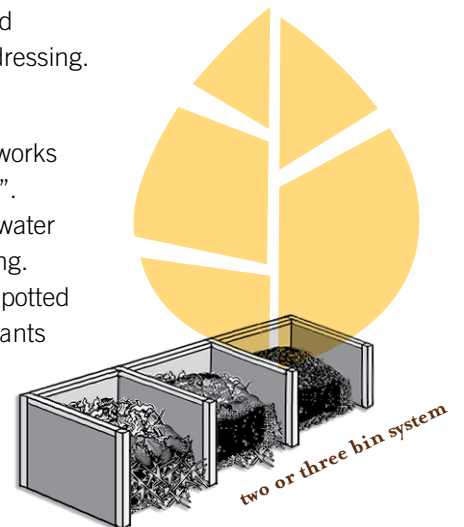
To harvest your compost, you can move your bin away from your pile, shovel any unfinished compost back into the bin and scoop out the finished compost. You may also be able to utilize the small door that many compost bins have to access the finished compost. You can also simply shovel your compost out of the bin.

Having more than one bin can facilitate the composting process since one bin can be used to add new materials while the others are utilized for curing or storage.

How to use finished compost

Finished compost can be used in a number of ways. You can use it both outdoors and indoors as a natural fertilizer for gardens, a lawn dressing, a potting mix and a plant dressing. You can also make compost tea from your finished compost.

Compost tea is a liquid fertilizer. To make compost tea, simply fill a sock (nylon sock works well) or a burlap bag with finished compost and tie it with a string to make a “tea bag”. Steep the bag in a container or a jar filled with water, stirring it occasionally, until the water becomes a light or medium brown colour. The tea should be sweet and earthy smelling. Use the tea within a few days if possible. Tea bag content can then be added to your potted plants or garden. Compost tea increases the amount of nutrients easily available to plants and, when sprayed on plants, can help suppress leaf disease.



Full bin? No problem!

Save your leaves

Don't put all your leaves at once in your compost bin. By saving your leaves in the fall you can have them available as a brown source all year round! Don't forget that leaves can help treat or prevent compost odours.

Grasscycle

"Grasscycling" is the practice of leaving grass clippings on the lawn when mowing and which enables all of the beneficial nutrients and moisture found in the clippings to return to the soil. By doing this, your soil will be healthy and so will your lawn. Ideally, your grass blades should be approximately 8 centimeters (3 inches) tall. When mowing, try not to remove more than one-third of the grass blade as this affects the health of your grass.

Mulching

This process is similar to what happens in nature on the forest floor. It involves spreading materials like dry leaves, wood chips and grass on top of the soil, around plants and on garden paths. This process helps to control weeds, retain moisture and heat, and prevent erosion.

Direct soil incorporation

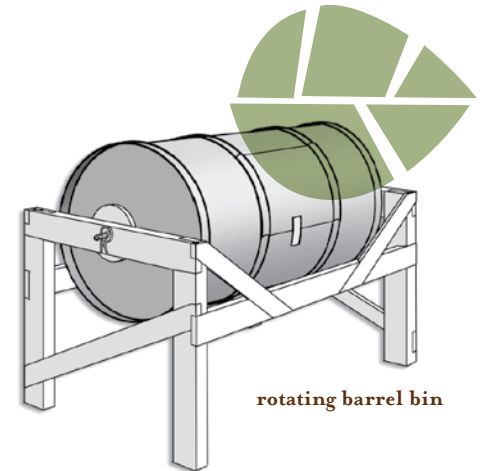
This is a form of composting in which organics are deposited into the ground in a pit or trench. Some people find this to be a simple and convenient approach. It works well if you have a lot of room in your yard. Make sure the materials are fully decomposed before planting in that area.

Harvest Your Compost

Maybe your compost is ready to harvest. Removing your finished compost in autumn will provide room in your bin for winter.

Start a new bin

Consider getting an additional bin if your current bin is overloaded. An extra bin designated for curing also makes it easier to harvest the mature compost since fresh organics are kept separate from the finished product.



rotating barrel bin

Problems?

Odours

If your compost bin is releasing smells, it might mean your pile is too wet. To treat this problem, turn your pile to add oxygen and add more brown materials like dried leaves. Also, make sure you top off your pile with a layer of browns to act as an odour filter.

Unwanted Pests

If you have too many ants or other insects, your pile may be too dry. Add water or more greens to correct the problem. You may find fruit flies and wasps around your pile if your kitchen scraps are exposed. Make sure that your fresh waste is covered with browns. If raccoons, cats or mice are visiting your pile, check to see if you have added any meat, bones, fish or dairy products and, if so, they should be removed. Also, make sure your greens are covered with browns. Pest-proofing your bin is also an option if the problem persists. Ask for our free publication on pest-proofing.

Slow decomposition

Simply follow the 5 key factors and you should get compost in less than a year.

Composting – gotta love it!

Organic materials in landfills create greenhouse gases. (see p.2)

Composting is easy, cheap and requires minimum effort. (see p.2)

Chemical fertilizers pollute our waterways whereas compost doesn't. (see p.2)

You can compost in winter! (see p.6)

About 40% of household waste is compostable. (see p.3)

Compost piles can get steaming hot. (see p.4)



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CONTACT US

RCM has additional publications on composting topics such as: vermicomposting, compost bins types, do-it-yourself building plans, seasonal checklist, composting in winter, troubleshooting, grasscycling, leaf composting, pest-proofing, northern composting, finished compost and compost tea.

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