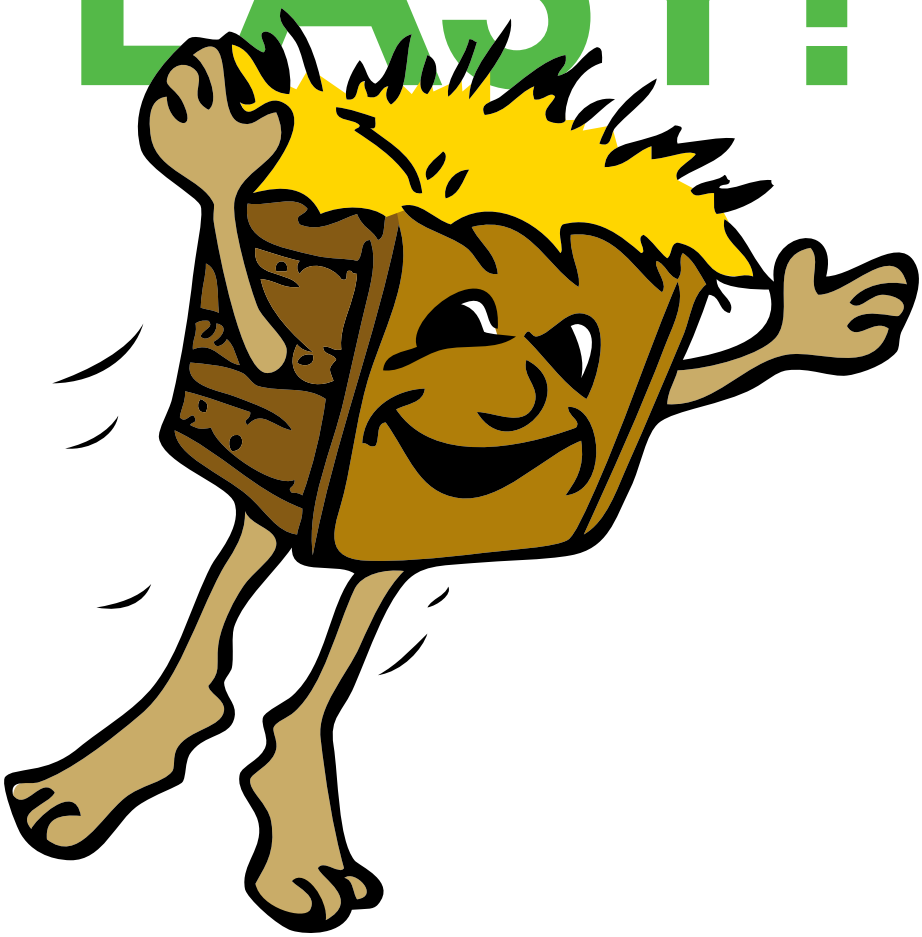
green ACTION centre

BACKYARD COMPOSTING

IT'S EASY!



WHAT IS COMPOSTING?

Composting is a natural process by which organic material decomposes to form a rich natural fertilizer. Composting doesn't require a lot of technical know-how, in fact it happens naturally. With some understanding of composting and minimal effort, you can easily create a pleasing and productive system that's right for you.

WHY SHOULD I COMPOST?

Money and Resource Savings

- Save money on fertilizers! Finished compost that you produce is free.
- Save money on watering. Compost helps soil retain moisture.
- The nutrients from your compost will not be washed away by rainfall, unlike chemical fertilizer.
- It reduces civic costs for waste collection and extends the life of landfills.

Environment

Climate change and pollution prevention

- Transporting compostable wastes to the landfill produces air pollution, which 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.
- Buried organics can react with metals in the landfill to produce a toxic leachate, a potential source of groundwater pollution.
- Chemical fertilizer applied in your garden may leach nitrogen, phosphorus and potassium into sewer systems, lakes and streams resulting in water pollution whereas compost is a pollution-free alternative.

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.

Composition of residential waste

- 40% organic materials
- 42% recyclable (potential)
- 18% other

Source: 2005 Annual Statistics Canada Human Activity and the Environment Report

HOW DO I GET STARTED?

Choose a bin

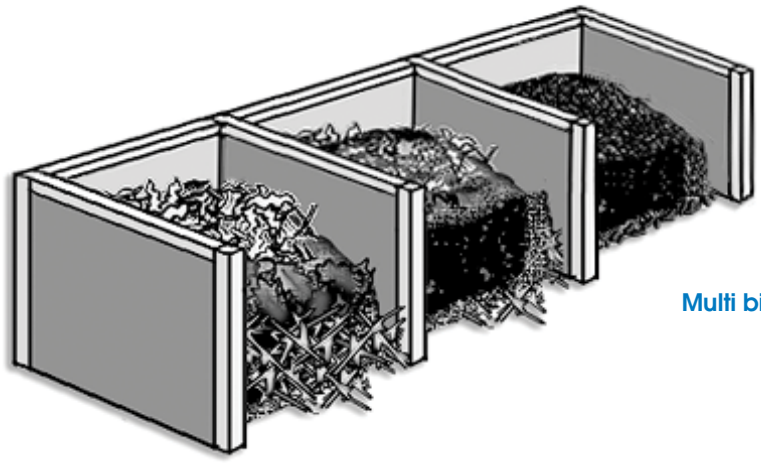
You don't need a bin to compost, however most people prefer to keep their compost confined, and in some cases covered as well. A compost bin can also help keep pests away and protect your pile from the elements.

There are many different types and styles of compost bins. You can buy them or build your own. **When choosing a compost bin, there are a few things to consider:**

- 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 it yourself

The best place for your bin is in a well drained, easily accessible location.
It is best if it sits on grass or soil.

In all cases it is important that you assess your specific requirements and tailor a system that suits your needs. It is also helpful to understand the basics of composting before making a decision on your composting needs, so read on!



Multi bin system

Bin ideas	Benefits
Plastic bin	Easy set up; pest-resistant
Garbage can compost bin	Easy to build; fits in small area
Wire bin	Easy to build; inexpensive
Wood pallet bin	Uses existing material; inexpensive (old pallets are often free)
Multi bin system	Handles large volumes; easy to harvest

If you are building a bin, remember that the ideal size of a compost bin should be approximately 1 cubic metre. Large bins can be hard to turn and maintain. You can always start small and grow your composting system as your needs change.

For apartment dwellers, indoor composting known as vermicomposting is possible using Red Wriggler worms. For more information on vermicomposting, please visit our website at: www.greenactioncentre.ca.

Plastic bin

Garbage can bin

Wire bin

Wood pallet bin

WHAT CAN I PUT IN MY BIN?

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

"Greens"

These are wet materials high in nitrogen and include:

Vegetable and fruit (fresh, cooked, or canned), coffee grounds/filters, tea leaves/bags, garden waste, fresh weeds without seeds, and fresh grass clippings

"Browns"

These are dry materials high in carbon and include:

Dry leaves, straw, dry hay, sawdust, woodchips from untreated wood, twigs, dried grass clippings, dried weeds without seeds, shredded paper napkins, and tissue paper

Other materials you can add include:
Eggshells, wood ash (small amounts), plain rice, plain pasta, bread, hair, wool, and cotton.

Do not add:

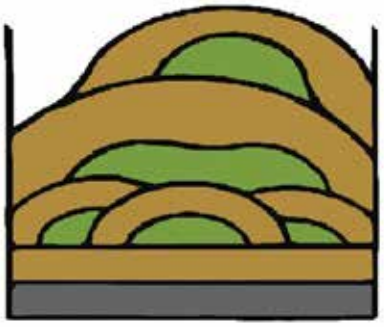
Meat, fish, eggs, dairy products, oily foods, bones, pet waste, weeds with mature seeds, plants infected with disease, plastic/ petroleum products, metals, and synthetic materials

Most people collect their kitchen scraps in a pail that has a tight-fitting lid. The lid helps to keep odours to a minimum and fruit flies at bay. Simply collect your organic waste and bring it out to your compost bin as often as you like. If you are concerned about odours or insects or have pets that might get into the collection pail, you can put your pail in the fridge or freezer between trips to your bin.

FEEDING YOUR COMPOST

The key to composting is to balance the "greens" and the "browns" or the wet and the dry. When feeding your compost pile, here are a few things you should know:

- Start your pile with a generous layer of "browns" on the bottom.
- You should put 2 to 3 times more "browns" then "greens".
- Always cover your "greens" with a generous layer of "browns" to prevent odours and avoid attracting unwanted pests (like rodents, flies and wasps).
- Store leaves or other brown materials to make sure you have some available all year round.
- The smaller the material the faster it will break down
- 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.



You do not have to distribute the layers evenly over the pile, however you should always cover your "greens" with "browns".

For ideas on pest-proofing your compost bin, please visit our website at: www.greenactioncentre.ca

CAN I COMPOST IN WINTER?

Even though your compost might freeze solid and decomposition comes to a complete stop, there is no need to stop composting. In fact the freeze-thaw cycles will help to break down the materials that you are adding and so they will decompose even faster when spring arrives.

Here are a few tips to help you compost all winter:

- You don't have to cover your "greens" with "browns." Simply dump your kitchen scraps and let it pile up. By not adding browns, you will save the much needed room in your compost bin for your kitchen scraps. But don't forget to add "browns" in your bin as soon as the material starts to thaw.
- If your bin fills up, you can always stockpile your "greens" in pails until it warms up. Once spring comes, the materials in your compost bin will compress, leaving you room to add brown materials and your stockpiled kitchen scraps. Don't forget to dump your pail contents in your compost bin as soon as it starts to thaw or else you will have to deal with a stinky mess!
- You can reduce the number of trips to your compost pile in winter by storing your "greens" in a pail or similar container. Place the container in a convenient location outside or in your unheated garage.

IS THERE ANYTHING ELSE I NEED TO DO?

If you are not concerned about how quickly your compost is ready for use, then there is little else you need to do. Just feed your pile the right foods in the right proportions. If, however, you would like to speed up the process, you need to consider water and air.

Your compost pile is full of living micro-organisms and if they are in a healthy environment, their population and activity will increase, which in turn increases the heat in your compost pile. The hotter your pile, the faster you get finished compost!

Water

Micro-organisms in your pile need water to survive, but not too much or they will not be able to "breathe". To determine if your compost has the ideal moisture, take a handful and squeeze it. It should form into a ball in your hand and leave your hand moist. Some water may drip out when you squeeze it, but it should not be more than a few drops. Remember when you add "greens", you are also adding water since "greens" have high moisture content. If you find that your pile is too dry, you can add water as needed.

Air

To keep the micro-organisms in your compost bin healthy, oxygen needs to get to the bottom and centre of your bin. To increase decomposition, aerate your compost pile about every 1 to 3 weeks in warm weather, either by turning the pile with a shovel or pitchfork, or by simply poking holes using a compost aerating tool. Using this tool is a simple and easy way to create air channels throughout the pile.

You do not have to aerate your pile, however if you do not, the pile may begin to compost anaerobically (without oxygen), producing an unpleasant odour, especially if you are not adding browns. Turning your compost too often could slow down decomposition since your pile could dry out and lose the heat that was built up.

Compost aerating tool

WHEN IS MY COMPOST READY?

Finished compost can take a few seasons to a few years depending on how well you manage the food, air, and water. It's ready to use as a natural fertilizer when it is dark brown, smells like earth, and crumbles in your hand. If it still has large lumps, recognizable food content, or is still warm, let it sit for another couple weeks and check it again. However, if it looks ready but you still have twigs and other hard materials like fruit pits it can still be considered finished. If compost is used before it has fully matured, the microorganisms may rob the soil and plants of nitrogen and oxygen in order to finish the process.

HARVESTING YOUR COMPOST

Finished compost is always found at the bottom of the bin. How you harvest your compost is dependant on what kind of bin you have. If you have a single compost bin, you might need to remove the top portion of the pile, remove the finished compost, and then shovel the unfinished material back into the bin. With some plastic bins, there is a small door at the bottom where you can access your finished compost.

Having more than one bin can be much easier when it come to harvesting the finished compost since one bin can be used to add new materials and when it's full you can start putting the fresh materials in another bin. The curing bin will eventually have finished compost throughout so there will be no need to separate fresh materials from finished compost like it would occur if you only had one bin.

HOW DO I USE MY FINISHED COMPOST?

Finished compost can be used both outdoors and indoors as a natural fertilizer for plants. Mix it in the soil before planting, or use it to top dress your indoor and outdoor plants, including your lawn and shrubs.

Compost can also be used to make a rich liquid fertilizer called compost tea which can not only be used to provide nutrients for your plants, it can also suppress leaf disease when sprayed directly on the plant leafs.

To make compost tea, simply fill an old 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 bucket or a jar filled with water, stirring it occasionally, until the water becomes a light or medium brown colour. The tea should be earthy smelling. Water your plants with the tea within a few days if possible. Tea bag content can then be added to your potted plants or garden.

You may also want to screen your compost to remove any twigs or fruit pits. Screened compost makes a great top dressing for your lawn.

FULL BIN?

Save your leaves

Don't put all of your leaves into your compost bin at once. Save your leaves in the fall so you can have them available as a brown source all year round!

Grasscycle

Leave your grass clippings on the lawn when mowing. This enables all of the beneficial nutrients and moisture in the clippings to return to the soil. Your soil will be healthier and so will your lawn. When mowing, try not to remove more than one-third of the grass blade as this affects the health of your grass.

Mulching

Spread materials like dry leaves, wood chips, or grass on top of the soil, around plants and on garden paths. This helps to control weeds, retain moisture, and prevent erosion.

Direct soil incorporation

Deposit your compostable materials into a ground pit or trench and cover the compostables with soil. This works well if you have the available space in your yard, however make sure the materials are fully decomposed before planting in these areas. Ideally wait at least one year.

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 adding another bin. An extra bin designated for curing makes it easier to harvest mature compost since fresh organics are kept separate from the curing/finished product.

COMPOSTING.
IT'S WORTH IT!

CONTACT US

If you have questions about composting, Green Action Centre is there to help. Visit our website at **www.greenactioncentre.ca** for detailed information on home, school and workplace composting, vermicomposting, compost bin plans, and many other subjects. You can also call us on our toll free compost info line at 1-866-394-8880 or in Winnipeg at 925-3777.

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Manitoba

Green Action Centre is a non-profit hub that promotes greener and better living by sharing practical solutions and advocating for change.

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