

# Composting Handbook



Easy as dirt!

# Congratulations!

You are one of the wise earthlings who has realized the value of composting! Your new Speedibin is the ideal tool for easy efficient backyard composting.

#### Safe, Easy Composting with Speedibin

The Speedibin composter enables you to convert garden and kitchen refuse into rich compost in one to three months (longer in colder weather) without attracting mice, rats, raccoons, etc. Its 405 litres (107 US gallons) is ideal for most home owners, small enough to fit discreetly in the garden, yet large enough to heat up and work efficiently. It keeps moisture in, rain out and is properly ventilated. Made from baked enamel pre-coated steel, it will give many years of trouble-free service.

Please read and save these instructions!

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# Why Compost

Backyard composting is one thing an ordinary citizen can do to actually help the environment. The disposal of huge quantities of urban garbage is a serious problem for cities throughout the world. About 30% or more of this refuse is kitchen and garden waste, which can be composted by individual homeowners with tremendous corresponding savings in collection, disposal and greenhouse gases from landfills. Each participant assisting the natural recycling of these organics is benefiting both themself and the community.

As well as that, gardening and composting are happy activities, available to all ages. They encourage fresh potatoes rather than couch potatoes and help promote physical and mental health in their practitioners. A nation of more self-sufficient individuals is less vulnerable to disasters. Even small garden and composting activities are steps towards a better world. The makers of Speedibins hope you find this to be true and we wish you many bins full of top grade compost!

Fred and Peg Francis Victoria, BC, Canada 1992



## Location

- Place your Speedibin in a location that will be handy to your source of materials, usually the kitchen. You will appreciate this in the winter!
- The ground needs to be level so that the screen sits flat—no rocks poking the screen up.
- There needs to be drainage under so that puddles won't form.
- If you place it in a sunny spot, it may compost slightly faster but may also necessitate watering.
- If possible, avoid placing it under a tree as roots may infiltrate and make turning difficult.
- You may want it close to vehicle access for bringing in leaves, straw bales or other resources.
- It's best to leave walking space on all four sides for ease of turning. Also, pests don't like the open space.

 Some insightful people set up their composter right on the garden or a raised bed. The soil under the composter will become luxuriously rich in life. After each batch of compost has

finished its active stage and cooled down, you can turn out the compost onto the raised bed for final curing, move the bin to the next bed and fill it up again. Brilliant!



# **How it Works**

The Speedibin assists and speeds the natural decomposition of organic wastes brought about by billions of micro-organisms, including thousands of different kinds of bacteria, fungi, algae, protozoa, worms and other life-giving soil creatures. They all work eventually but the more desirable microbes which produce faster, less smelly action, require a warm, moist, dark, well-aerated, thoroughly mixed blend of organics containing the right proportions of nitrogen, carbon, oxygen and water. The time taken for kitchen and garden wastes to convert into rich earthlike compost is proportional to the degree to which this environment is attained.

### **Getting Started**

1. The first layer in the bottom of your new Speedibin should be coarse and fluffy carbon-rich material such as straw, leaves, shredded paper and twigs. This is a great place to dispose of dry annuals such as sunflower or corn stalks. The airy bottom will help to keep your bin aerated.

2. Next, layer on some nitrogen-rich material such as kitchen scraps, grass clippings and coffee grounds. Continue to alternate the layers. Toss in a shovelful of soil for grit to help worms digest their food.

 Top off with a cover of old compost or a carbon-rich material like dry leaves. This will inhibit fruit flies, flies, smells and the loss of nitrogen.

# What to Compost

f you are careful to exclude a few harmful materials, most kitchen and garden organic wastes make good compost material: vegetables, fruit, tea bags, coffee grounds, crushed egg shells, grass, plants, leaves, seaweed, small amounts of sawdust, shredded paper, cardboard and weeds if they have not gone to seed, etc. Woody or large material should be shredded with a machete, a lawn mower or a shredding machine. Thin layers of

the pile. Manure from grass eating animals such as horses, cows and chickens, can be used to enrich the mixture.



# What Not to Compost

o not add any dog or cat feces, kitty litter, human waste, diseased plants, fat, sludge, mud, gravel, BBQ ashes or coals, invasive plants, coloured paper, non-biodegradable or toxic

materials. It would be a shame to spoil the brew with any of these undesirable materials.

# **How to Make it Work**

ost organic materials will convert into compost in one to twelve months, depending on how many of the basic principles are followed, outlined below.

#### The Ratio:

To achieve the optimum ratio of carbon to nitrogen (about 28:1) you need about equal parts of nitrogen-rich material called GREENS and carbon-rich material called BROWNS. GREENS include grass cuttings, young leaves, plants, weeds, food wastes, coffee grounds, seaweed and manure, which cause the pile to heat up faster. BROWNS include straw, old leaves, dried plants and weeds, sawdust and cornstalks, which supply the necessary balance.



#### Mixing:

- The more the materials are mixed the better, and one easy way is to put them in thin layers. For example, alternate layers of BROWNS and GREENS interspersed with kitchen waste and perhaps a little old manure or compost would be excellent.
- Grass, in particular, composts best when well mixed with coarse browns to keep it from matting.
- Always cover the greens with a brown layer to prevent smells and loss of nitrogen, with the added bonus of suppressing fruit flies.
- Achieving the ultimate mix may require stock-piling autumn leaves or other brown material in a separate pile, or in a second Speedibin, where it is vermin resistant.
- Leaves and coarse materials decay faster when chopped or mulched in a shredding machine or by running a rotary lawn mower over them and collecting the particles in a bag.

# Suggestions of nitrogenrich GREENS:

- ✓ Kitchen scraps
- ✓ Grass clippings
- Coffee grounds (and filter)
- Yard waste
- ✓ Seaweed
- ✓ Weeds (no seeds)
- ✓ Manure from grass eaters
- ✓ Egg shells, crushed
- ✓ Alfalfa meal
- ✓ Fish meal

#### Suggestions of carbonrich BROWNS:

- ✓ Old leaves
- ✓ Straw
- Dried weeds and plants
- ✓ Sawdust
- ✓ Cornstalks
- Shredded newspaper or cardboard
- ✓ Paper towels
- ✓ Bark
- ✓ Peanut shells

### **Aerating:**

Air is essential to non-smelly action. The Speedibin is just the right height for turning over the top layer with a pitch fork or using an aerating poker to get the lower parts. Push to the bottom, twist and pull it up. The pile keeps shrinking but, as you continue to add material, it reaches a stage where the bin is full and you should leave it. If this aerating is done several times a week during the lawn cutting season and the other principles are followed, you should have compost in a month from the last fill-up. To speed the action even more, remove the door, and fork the material from one bin into a second bin during the composting period.

#### **Moisture:**

Too much or too little water spoils the brew. Inside materials should look like a wrung-out sponge with no water drops and no dry places. If necessary, sprinkle lightly with water. It is generally best to always keep the lid on. It keeps moisture and heat in, rain and creatures out. Rapid decaying, such as after a lawn cutting, will produce moisture, which will condense on the underside of the lid. This is good, but, if the material gets too wet, leave the lid ajar for a day of extra drying.

#### **Build it Hot:**

Decaying organics produce heat and the more such heat, the faster the action. Larger volumes produce more heat. So, if you want extra fast action, add the components all at once (at least half a bin full), mix well and aerate frequently.

Chemical compost starters are not necessary though a little well-rotted animal or bird manure, compost or bone meal may speed it slightly.

It is interesting to measure the temperature in the middle of the pile with a soil thermometer or from the feel of an inserted steel poker. If the temperature reaches 60 C (140 F) most weed seeds will be killed. When the temperature stops increasing after being turned, it has finished its active stage and is ready for the curing stage.

#### Or Build it Slow:

Passive (slow) composting makes equally rich compost. It just takes a little longer. Most backyard composters make passive compost and add small quantities regularly. When the bin is full, either start a second bin or let the last addition decompose until nicely decaying, a few days in the summer. Then fork it out to cure and start filling the bin again.



# How to Use Your Finished Compost

Compost is arguably the best soil additive you can apply to your garden and can generally be used anywhere. It improves the texture, the mineral content and adds needed micro-organisms.

- To remove compost before the whole bin is fully converted, slide up the front door partly and shovel out finished compost from the bottom.
- If you have two Speedibins, you can leave one to finish "cooking" while you work on the second. When the second is full, the first will probably be ready for using.
- Remove the door and shovel the compost into a wheelbarrow. For better ergonomics, remove the top brace, too, by simply undoing its two wing nuts and popping out the bolts. Spread your compost on the vegetable or flower gardens. Or tuck some under shrubs and trees. Or rake a thin layer onto your grass for a lush, chemical free lawn.

 You may wish to use a coarse screen to remove the larger pieces, which can be returned to the bin for a second processing. The screened compost makes excellent potting soil.

### Common Issues

### My compost isn't heating up

Make sure you have a good balance of carbon-rich browns and nitrogen-rich greens. Aerate. Add moisture. Most gardeners do passive composting, adding materials regularly and never getting hot compost. This will make excellent compost. It just takes a few months instead of weeks.

#### There are flies in my compost

Cover the compost with carbon-rich browns, for example some shredded newspaper. Or bury the fresh material in the older compost.

#### There are ants in my compost

Actually ants are decomposers too. But they are a sign of dryness so water your compost. Turn it to dissuade the ant infiltration.

### The dogs and raccoons keep sniffing my compost

Make sure fresh nitrogen-rich greens are covered with carbon material. Aerate. Bury fresh scraps in the pile and cover with browns or old compost. If they are still a problem, don't add animal products.



### How long does it take to get usable compost?

Hot composting, where you add a mix of brown and green material at once, can finish the active stage in a few weeks. To cure it, let it sit covered and damp for another few weeks until it smells earthy and you can see worms. Many experienced composters let it cure while using it as mulch in the garden. Passive composting typically takes several months.

## The pile is wet and smells like rotten eggs

The sulphur smell is associated with anaerobic decomposition. The compost probably has pockets with too much nitrogen and/or water. Aerate the pile and add some carbon material such as leaves. Make sure there is drainage under you composter. You don't want puddles under it.

### Can I compost meat in my Speedibin?

Yes, very carefully. The problems are smells, animals, slow decomposition, bacterial pathogens and flies. To address these problems, chop the pieces up, mix them in sawdust or a carbon source, bury them at least six inches deep in your compost and cover with compost or carbon-rich browns. Then wait patiently. Meat takes months rather than weeks to decompose. Ensure a good nitrogen source such as grass clippings for the pile to heat up and decompose the pathogens. The bones will remain but you can crush them to make bone meal.

### How long will my Speedibin last?

About 30 years, depending on the abuse it gets.

# Why is backyard composting better than municipal composting?

Organic material is not trucked back and forth from neighbourhoods. You're saving municipal costs and land requirements as well as reducing traffic and pollution, while improving your own soil.

#### Do I need to inoculate my compost?

Contact with soil underneath is enough. Also, materials that you add have bacteria on them. If you want to speed the initial process, add some manure, soil or red wiggler worms if none appear.

# Can I compost lawn clippings and yard waste with pesticides?

The bacteria in compost are diverse and plentiful, which will normally neutralize pesticide compounds. Lawn herbicides will break down in compost but may take from one to 12 months depending on conditions. It is better to leave treated lawn clippings on the lawn. Insecticides usually break down in light within a week at which point plant residues can be added to compost. Fungicide treated material is harmful to the compost life and needs to be left out of the compost for about a month after treatment.

### Things are sprouting in my compost. Why?

Tomato seeds, avocado pits and other tropical seeds may feel right at home in your hot pile. It's OK! For one thing, this indicates that the pile is almost ready to use. However, make sure that you don't add weed seeds to your compost.

# The Speedibin Story

The Speedibin composter was first designed in 1989 by Fred and Peg Francis of Victoria, BC, Canada. After attending university together, Peg taught elementary school and Fred taught mathematics in high schools and college. They have also designed other commercial products including the clean-burning Seefire woodstove, children's building sets and the meeting rules book *Democratic Rules of Order*.

Idealists and avid gardeners, they worked to design the ultimate pest-proof backyard composter for themselves, then friends and finally commercially. Although many were sold, it didn't compete well in the market place next to less expensive plastic bins. Production stopped.

However, twenty years later world thought has changed. Composting and backyard food production is becoming mainstream. This is a relief for the planet: less waste, less trucking to the landfill and more nutrients returned to the soil. But a concern was vermin.

Could the Speedibin design be the solution? The daughter of the inventors said "Let's build them again". Now working with

a talented team, the new company

Fresh Earth Products has fine-tuned the original Speedibin design to make it sturdier and easier

to use.

The family hopes that the safe, easy Speedibin encourages others to discover the wonders of making living soil. We wish you a continuous cornucopia of garden delights!



#### **Contact Us**

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#### Warranty



Fresh Earth Products warrants, to the original purchaser of the Speedibin composter, for a period of 15 years from the date of purchase, that the Speedibin composter will remain free from all defects in materials or workmanship not caused by the purchaser. No warranty in respect of the Speedibin composter is made by Fresh Earth Products except as expressly stated above.

#### WARRANTY CLAIMS

Fresh Earth Products will, free of charge, repair any defective labour or replace any defective materials covered by the Warranty set out above, free of charge to the original purchaser of the Speedibin composter, upon receipt from the purchaser of a written warranty claim delivered to Fresh Earth Products. Delivery of a warranty claims may be made by mail to the offices of Fresh Earth Products or by email to compost@speedibin.com.