

Home Composting in a Bin Composter

What is compost and what is composting?

(Aug 15, 2016)

Composting is a natural process, which under controlled conditions, breaks down organic kitchen- and garden waste into a friable humus and nutrient rich product, named compost.

This natural process is taking place due to the actions of natural occurring **micro-organisms** (fungi, bacteria), and **macro-organisms** (red composting worms and insects (millipedes, centipedes, sow bugs, springtails, beetles, ants, flies, maggots), and spiders, and mites.

Organic waste that you cannot use immediately as mulch in the garden is composted. To make the best compost, you need to apply a good mixture of **green organic waste** (nitrogen-rich, moist, soft organic garden and kitchen waste) and **brown organic material** (carbon-rich, dry, stiff, rough garden waste).

When the composting conditions are ideal, the process will start immediately and, after regular turning, you will get good quality compost.

Home-made compost is dark brown in colour and feels crumbly (friable) and smells like a forest soil.

How long does it take to make quality compost?

Provided that all the conditions (which are described here) are met, you will be able to produce compost of good quality after 6 to 9 months. Those who make home compost of their own organic garden and kitchen waste will close the nutrient cycle and will provide a positive contribution to the environment and the climate.

What can and cannot be composted?

CAN

Fruit and Vegetable Waste
Coffee grounds and Coffee filters
Tea leaves and Tea bags
Nuts, Nut shells, and egg shells
Garden and Flower waste
Hedge, tree and shrub prunings
Grass clippings (in limited amounts)
Leaves (mixed with grass clippings)
Manures of herbivores (plant eaters)
Newspapers

CANNOT

Cooked meal left-overs
Sauces, fats, grease and oils
Animal wastes (bones, fish and meat wastes)
Disposable synthetic materials
Disposable diapers
Soil, wood ashes, lime
Contents of vacuum bags
Diseased and insect ridden plant material
Manures of carnivores (flesh eaters)
High absorbent paper towels (contain polymers)

How do I Compost?

Place the compost bin on 5- 6 large patio stones in a half-shaded area not too far from the kitchen door.

Make sure that there is about 1 inch (2 ½ cm) of drainage area (gravel) underneath the patio stones to ensure that excess water can drain out and away from the compost bin.

Add 4 – 6 inches (10-15 cm) of brown organic carbon material (small branches, hedge prunings, pine needles, straw and wood shavings (untreated)) to the bottom of the compost bin, then add 1- 2 inches (2 ½ to 5 cm) of green organic waste (kitchen and garden waste).

Be careful with the quantity of grass clippings you add to the compost bin. If you add too much grass clippings the compost, bin heats up too fast and may ignite. Spread excess grass clippings on flower beds and vegetable garden as mulch in a very thin layer.

Alternate the adding of brown and green organic material. The ratio of green to brown material should be around 1:5.

Biweekly, aerate the compost with a long-handled compost aerator, a steel tool that turns into the compost and folds out its wings when pulled back aerating the compost. This will speed up the composting process by adding oxygen to the compost and allows the micro- and macro organisms to work more efficiently in breaking down the organic waste.

After nine months or so, provided the composted material is dark brown in colour and smells nice, empty the container and store the finished compost in a dry place (under a roof) for future use.

How to restart the composting process?

Clean the compost bin with soap and water, especially clean all air holes. Place 4- 6 inches of brown material in the bottom of the bin. Then add a 1 inch layer of finished compost on top of the brown material. This finished compost will act as a compost starter. Add unfinished compost to the layer of finished compost. This will allow the composting process to start in 1 to 2 days. Then continue to add alternate layers of brown and green material until the bin is filled again.

What does the composter need?

You, the composter, are responsible to provide all necessary environmental parameters for the process to run smoothly and that all organisms can work under optimal conditions.

These **optimal composting conditions** are:

Food: The nutrients that are present in the kitchen and garden waste is what the micro- and macro require to break down the organic material.

Air: By mixing the green and brown material in a ratio of 1:5 will provide enough air to the organic waste to break down properly.

Moisture: Not enough moisture slows down the composting process. Too much moisture causes the organic material to “rot” and creates a rotting egg smell emanating from the bin.

Heat: the organic material in the compost bin will start to heat up as soon as the micro- and macro organisms get to work in breaking down the organic waste.

What are the benefits of home composting?

You reduce the output of organ waste at the landfill site and secondly you will manage the output of carbon that would otherwise end up in the atmosphere and contribute to global warming.

Finally you will have an ample supply of slow-release nutrients for the flower beds and vegetable gardens, and lawn.