

# Composting Organic Waste Fact Sheet April 2016



## What is composting?

Composting is the common name we give to the natural decomposition of organic matter (anything that was once alive), into a soil-like material we call compost. The process of decomposition occurs through the action of beneficial microscopic organisms, and other living creatures in healthy soils. Composting food and garden waste, known as **organic waste**, can be undertaken at your home, school or workplace through the use of a compost bin or heap.

## Why should we compost?

### Reduce your waste and help the planet

Composting your organic waste can dramatically reduce the amount of waste you send to landfill. It is estimated that around 45% of the waste in Victorian kerbside bins is food waste. When organic waste rots in landfill, under anaerobic (without air) conditions, it creates a toxic liquid called leachate, and methane, a greenhouse gas. Leachate can seep into the earth and contaminate precious groundwater, while methane is 25 times more warming to the planet than carbon dioxide.

### Create food for your garden

Transforming food and garden waste into rich black soil at your home, school or workplace, is extremely useful and satisfying. It can also save you money on fertiliser and other gardening products.

### Great for kids

Managing a compost heap or bin is a great way to educate kids on topics like art and science since, it deals with biology and soil chemistry. It also enables direct experiential learning.

## How does composting work?

There are five things you will need to turn your organic waste into nutrient-rich compost. Getting the correct balance is the trick.

**Micro-organisms:** Micro-organisms include bacteria and fungi which are compost activators; they are introduced into the heap along with the raw materials.

**Nutrients:** A lot of garden refuse is dry, brown and high in carbon. Soft green garden waste and kitchen scraps tend to be high in nitrogen.

**Air:** Air is essential for composting. At first, your compost heap or bin will be loosely mixed and have lots of air space. As the material settles, it is important to turn it over to re-aerate the pile. The micro-organism population and the temperature will vary according to how regularly you aerate it.

**Water:** The moisture content of your heap or bin should be around 50%, this is for the micro-organisms. Aim to have your compost the consistency of a squeezed out sponge. Keep an eye on the moisture level each time you turn your compost.

**Time:** If all is well within the compost heap or bin, your compost may take as little as ten weeks to be ready, though in most cases it takes around three months. The key to faster composting is getting the right balance of nutrients and keeping your heap or bin aerated with regular tumbling or mixing.

## Worm composting or vermicomposting

Worm composting or vermicomposting is a method for recycling food waste into a rich soil conditioner by using compost worms. The worms consume the food waste and produce worm castings and worm tea which can both be used as fertiliser for your garden. A compost worm can eat equal to its own weight in food and may even be able to eat more, given the desired conditions.

Worm farms can live outdoors or indoors, and are a great option for schools and offices. You can buy a worm farm from most hardware stores or you can make one yourself. Instructions on how to do this can be found online.

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## Mulch

Mulching is simply a very slow method of composting. It helps to reduce water loss, regulate soil temperature, prevent soil compaction and suppress weeds. To mulch, spread organic materials in a layer over the surface of the soil. Common organic materials used for mulching include wood chips, lawn clippings, compost, sawdust, straw and leaves

## Starting a compost heap or bin at home

Starting a compost bin or heap is very easy. You will need a collection of coarse material such as garden clippings, straw, dry leaves and torn newspaper which are known as your 'browns', and organic food and garden waste such as fruit and veggie scraps, known as your 'greens'. Your browns are a source of carbon, and your greens are a source of nitrogen. The two work together to break down the organic waste.

To start your compost bin or heap, make layers of your materials starting with a layer of browns on the bottom and then add your greens and alternate between the two.

Now that the bin or heap is started, just gradually add your kitchen scraps (greens) and browns as you make them. You may not always have the same amount of browns as you do greens, but try to keep things as balanced as you can for your organics to break down most efficiently. During spring and summer when there's less brown material around, you can use shredded newspaper in your compost.

Your compost will need air to break down. Commercial tumbling compost bins make it easy to aerate your compost, if you have a heap or a stationary bin, you'll need to aerate it manually by using a garden fork.

Your compost is ready once it is a rich, dark colour and smells earthy with no lumps. Depending on the heat of your compost bin or heap this normally takes around three months.

## Common problems with compost and how to fix them

### It's wet, soggy, slimy or smelly

Three factors are usually to blame for this: poor aeration, too much moisture, or too much green material. Add some dry, brown material to balance out the bin/heap and ensure you keep tumbling or aerating it regularly. If you have a compost heap that's wet due to weather, place a loose fitting tarp over the pile and give it a good fluff up with a garden fork.

### I've got millions of tiny flies. What do I do?

The tiny flies are vinegar flies, which look just like fruit flies. To control them, or common black flies, cover your food scraps with a light layer of soil, then a layer of brown material (leaves, straw or stripped up newspaper), and give it a good mix/tumble. You can also try putting a small container of apple cider vinegar in or next to your compost. The flies will be attracted to it and lay their eggs. Just be careful not to tip the vinegar over into your compost.

### It's growing plants

Even a hot compost pile doesn't always heat up enough to kill all the weed seeds it contains. The heat causes weed seeds or even vegetables such as tomatoes or pumpkins to sprout. If the plants are weeds, just pull them up and toss them back into the unfinished compost. If you would like to keep the plants, (sprouted veggies etc.) you can transplant them to your garden.

### It's too dry

Your compost should feel about as wet as a squeezed out sponge. If it's dry or dusty, it will take much longer to break down. To fix this problem, simply add some water to your pile or heap to adjust it to the desired consistency. Once your compost is cooking again, keep an eye on the water levels. Micro-organisms use a lot of water, so you may need to top up fairly regularly.