Photo - Hamilton Permaculture Trust

What is compost?

Quite simply it is a mixture of organic material that is used as fertiliser! Generally, the ingredients used to make compost come from our gardens and kitchens (food scraps), although organic material is anything that was once living.

Compost results from the decomposition or break down of garden and food scraps (organic material). It can take anywhere between 2 and 18 months before compost is ready to use. The length of time depends on the compost method used, what gets put into the bin, the time of year and how often the material is turned.

As the organic material breaks down, it changes and becomes what is known as humus. During the process, soil micro-organisms, worms and insects convert the organics into a soil-like material which can then be used in the garden.

How to get started

- Choose a site carefully. Ideally, it should be warm and sheltered.
- Start with a layer of coarsely chopped twiggy woody material on bare soil or grass.
- Add alternate layers of green matter (nitrogen rich) and brown matter (carbon rich) preferably in layers no more than 5-10 cm deep
- If you cannot be bothered layering, just make sure there is a mixture of green and brown matter. NB: Smaller pieces make quicker compost.
- Limit all materials, including grass clippings, to thin layers.
- Avoid cat/dog/human faeces, meat, fish, bones, oil and invasive weeds.

The benefits of compost

- It returns organic matter to the soil, and adds elements essential for plant growth.
- It reduces the harmful effects of organic waste in landfill (e.g. water pollution, emissions of the potent greenhouse gas methane and bad smells).
- It reduces the need for chemical fertilisers in your garden.
- It reduces rubbish collection costs.
- It reduces the space needed for landfills.
- Producing your own compost saves money.
- It helps retain moisture in the soil.

- The heap should have a cover, e.g. plastic lid, underfelt, tarpaulin.
- Rodents can be kept out by cutting out a piece of chicken wire larger than the bin base. Place it underneath the bin on the soil and fold the edges 10cm up the sides of the bin.
- Compost activators such as a dried blood and bone can be added to the compost to speed things up.
- Sprinkling on garden lime and untreated wood ash can help balance pH and reduce smells.
- The heap should be as moist as a wrung out sponge.
- Avoid excessive moisture by keeping the heap covered.
- To work properly, your compost heap needs to reach temperatures between 30 and 60°C. From time to time, check that it is heating up in the centre; it should feel warm.
- Compost needs air - turn and mix it up to aerate and speed up decomposition.
- Once an open heap is 1 metre in height, you should finish it by turning it with a pitchfork and mixing it up every couple of weeks.
- Compost is ready when it becomes a sweet, dark, crumbly material and the original components are unrecognisable.
- If compost is well maintained and turned often, it can be ready in as little as 6-8 weeks. If it is never turned, it will be ready in 12-18 months.
- When it is ready, put it on the soil or dig it into your garden. You can also use it for pot plants and for potting up seedlings.

Photo: Rachael Goddard

Trouble shooting

Problem	Cause	Solution
Heap slimy and smelly	Inadequate aeration Too wet	Turn compost and add high carbon material
Heap moist but not building up	Lack of nitrogen	Add nitrogenous materials like grass and blood and bone
Heap too small to insulate itself	Heap is warm and moist in middle only	Increase size of heap, rebuild in area more sheltered
Layers of partially decomposed material	Not mixing with fine materials	Break up matted material with fork
Heap dry with poor decomposition	Not enough moisture, maybe too much coarse material	Turn heap, moisten and add more green material
Heap too cold	Air has been used up	Mix and turn again

Photo: Rachael Goddard

Types of compost bins

Before you choose a compost bin you should consider what you will be putting in it. Larger, open bins are better for people with large amounts of garden waste. Smaller, enclosed bins are more suitable for households with large quantities of food waste as they provide a barrier to rodents.

You may find you need both! There are a number of points to consider before you buy a bin:

- The number of people in your home
- The size of your garden
- The capacity of your bin, taking the above into consideration
- Your ability to turn compost with a garden fork

Reuse old pallets for a free large bin

Compost is made up of brown stuff and green stuff:

Brown (Carbon)
Brown leaves
Sawdust
Paper
Vacuum cleaner dust
Wood ash

Green(Nitrogen)
Grass
Food scraps
Manure
Hair
Seaweed

Composting can reduce your household waste by over 40%

Make your own compost bin

If you are making your own bin, you can use a wide range of material, including chicken wire, wood, plywood, bricks, concrete blocks, etc.

It must be on the soil and no smaller than 1m high x 1m wide x 1m deep and no larger than $5m^3$.

For large amounts of garden waste, units can be made from wood, bricks or concrete blocks. Ready access from the front is necessary.

Stacking bins have the advantage of being moveable and can be extended to cope with large amounts of waste. Black polythene or sacks may be used for lining, warmth and moisture control or wrap a netting frame around wooden stakes. Line these with newspaper or cardboard to retain heat.