

Composting

Is the process where organic waste, (garden and food waste,) is broken down within a compost bin or heap, and is converted into soil improver.

Why should I Compost at Home?

Did you know that over a third of household waste can be composted?

Positives:

- ***It can save you money:*** As your compost is created at home, there is less of a need to buy it.
- ***It reduces the damage to peat bogs:*** Peat is not removed from its natural habitat to make peat based composts, which can be extremely harmful to the environment.
- ***It improves the water holding capacity, nutrient content and structure of the soil.*** As it creates air pockets in the soil, which helps moisture to be retained. This increases the nutrient content and adds structure to the soil.
- ***It is a perfect 'closed-loop-system':*** As what we are disposing of is converted into something useful (we are the waste producer, processor and end user).
- ***It reduces the need to transport waste:*** By cutting down traffic movements this reduces carbon emissions and the use of fossil fuels.
- ***It avoids sending organic waste to landfill.*** This will reduce methane emissions, which is a greenhouse gas 23 times more damaging than CO₂¹.

Negatives:

- ***It can take time:*** As the composting process can take between six to 12 months to produce a great soil improver for your garden.
- ***It does not always look like the compost you buy:*** Home made compost can have some things left in it which have not fully broken down. You can still use them with your compost around the garden, or just put them back in the top of your compost bin and they can break down with the new material you have added. If your compost is too wet add drier 'brown' items (see over), and add wetter 'green' items to a drier heap to balance out the moisture content.
- ***It requires space:*** As you need to keep the composter in the garden and many people like to keep a container in the kitchen to collect their fruit and vegetable waste.

Composting Information Sheet

Composting Process:

This is what happens in the typical home's compost heap or bin.

1. Add the correct mix of 'greens' and 'browns' to the compost bin. The ideal mix is 50% greens to 50% browns, as this ensure the correct moisture balance and will give you the best compost.

Examples of GREENS	Examples of BROWNS
Fruit peelings, skins and cores	Shredded paper
Uncooked vegetable peelings	Egg shells
Grass cuttings	Teabags
Green leaves	Ripped cardboard

2. **Green materials** have a high water content and will add moisture to your compost.

Brown materials are drier materials which provides structure for your compost.

3. **Micro-organisms (bacteria)** break down the green material, and increase the temperature to encourage further decomposition.

Macro-organisms (worms) burrow into the mixture which creates air pockets. These pockets allow air to get into the bin, which aids the decomposition .

4. After six to 12 months the material will be ready to use in your garden.

Sources: ¹ www.defra.gov.uk

Composting Options Information Sheet

There are many different options to help you start composting at home. Some are better suited to beginners (Dalek), and others are better suited to people who have very little space, or live in flats (Bokashi). The information below can be used to find the option best suited to you.

Types of bins:

Dalek - most commonly used bin. Organic waste goes in the top and compost comes out of a door at the front once the process has finished. This bin is suitable for raw fruits and vegetables along with dead plants, trimmings, grass cuttings, teabags, eggshells, paper and cardboard as the system is not completely sealed



Please Note:
Animal or human excreta cooked food, or animal meats cannot be put into a Dalek style compost bin



Green Cone / Food waste Digester - This system allows meat and cooked waste to be digested at home as the process is completely sealed, so no vermin (rats etc.) can get in. Organic material is turned into its component parts of carbon water and CO₂ with the help of solar energy. No compost is obtained from this method.

For further information, go to:
http://www.greencone.co.uk/how_it_works.asp?prid=10

Green Johanna - The fully enclosed system is ideal for composting animal, plant and food waste including meat, fish, bones and dairy products. Again solar energy is used to heat the degradable material up so that they break down quicker. Compost is obtained from this method.



For further information, go to: http://www.greencone.co.uk/how_it_works.asp?prid=28

Tumbler - Organic material (meat, fruit and vegetable waste) is placed in the container, which is then rotated to allow moisture to drain off and aerate, which enables material to break down quicker. The final product is very coarse and ideal to dig into the garden or can be placed in a compost bin or heap to mature.

Composting Options Information Sheet

Bokashi - The airless system uses bacteria to ferment and break down all kitchen waste, including meat, fish, bones and dairy products. Bran, which contains micro-organisms, is added to the waste material. This material is then broken down by the organisms. This produces a liquid residue, which can be diluted and used as a liquid fertiliser for house plants. Solid residues can be dug into the ground or added to a traditional compost bin to break down further. This allows composting to be carried in the home as no odours are created.

Wormeries - deal with smaller amounts of compostable materials, such as pasta, cheese rinds and bread, in a sectioned or staged process. Avoid meat, fish and bones as worms are vegetarians! Also avoid acidic fruits, onions and garlic, as worms cannot digest these due to their acidity and strong flavours. Material is deposited in the top of the wormery, and is digested by the worms. This is then excreted as nutrient rich worm casts (*these are dark brown worm faeces*), which can be used as a fertilizer in the garden.



Liquid fertiliser is also created. This can be drained and used in diluted form for house plants.

Conclusion

Composting is simple and easy way of dealing with our organic waste, which makes up over a third of the average household rubbish bin (Source: DEFRA)

This reduces our need for landfill and can reduce carbon emission by reducing the transportation of our waste, while giving us something to put back into our gardens.

Sources:

- www.defra.gov.uk
- "All about Compost" - Pauline Pears, Search Press
- "Composting - An easy Household Guide" - Nicky Scott, Green Books
- "Compost - The Natural Way to Make Food for your Garden" Ken Thompson, Dorling Kindersley
- www.wigglywiggers.co.uk