

## Make good compost

Home composting involves using billions of bacteria, fungi, algae and micro-organisms to breakdown organic material to create food for your plants. It is a way of productively using your garden and kitchen waste to create a useful soil conditioner which will restore the balance of nutrients in the soil, increase it's capacity to hold moisture and improve the depth of your vegetable beds/borders.

When is it done and used?

- Active composting usually occurs between late April to late October when the temperatures are high enough to allow for the soil bacteria to work efficiently
- Compost is generally used at the end of the year, or the start, depending on what you want to use it for

What makes a good compost bin?

- A good compost bin needs to be big enough to enable sufficient material to be incorporated to allow it to heat up
- If you build one from wood the optimum size is around 1 cubic metre
- Sides keep the compost stable and tidy, they should allow air to enter and insulate the compost within
- A lid or cover will prevent excess rain from making the compost too wet
- Place the bin on the ground to allow excess water to drain and allow worms to enter and leave
- Full sun can help the heap heat up

What can be composted?

- Most garden waste can be safely composted
- Very woody material can be shredded first or used at the base of the heap to allow air to circulate and the compost to drain
- Do not add cooked food or meat/bones or you will attract rats
- Persistent weeds (dock, nettle, couch grass, ground elder) can be rotted or dried before adding to the heap to prevent the roots regrowing
- Seriously infected plant material should be burnt – brassica club root, onion white rot
- Potato blighted material can be added
- Sawdust is too demanding of nutrients unless mixed with animal manure
- Do not add inorganic matter

Recipe for good compost

- patience – anaerobic system
- effort – aerobic system
- a mixture of 30 parts brown – carbonaceous – to 1 part green – nitrogenous – materials ( the nitrogen is used by the soil organisms to breakdown the carbon)
- more than one compost bin
- temperature, water and air

What is green material?

- Any fresh material, ie grass cuttings, annual weeds, plant material which has been actively growing
- seaweed
- nettle tops are as active as grass cuttings

Kitchen waste can be considered a form of green waste, in that it usually has a high water content, but it depends on the contents. If there is a large amount of tea bags/coffee grinds they are high in carbon so can be considered brown.

What is brown material?

- Any woody, fibrous material
- newspaper/cardboard, shredded paper
- prunings, stalks, roots (dried)
- damp straw/hay
- green bracken (avoid spring bracken)
- wood ash
- wool or organic fibres

Why does it go wrong?

- Too much carbon = cold, won't heat up
- Too much nitrogen = heats up too fast and left with sticky mess

### **Two systems : aerobic and anaerobic**

#### **Aerobic**

- fast (under 2 months) – requires attention
- hot – can reach temperatures of 60°C
- likely to destroy weed seeds – turn to reheat
- likely to destroy diseased material – needs more precision between carbon and nitrogen
- better decomposition – insulation and size of heap more critical

For aerobic composting you need to build a large heap in one go. This requires storage of the brown waste to mix with green waste when you have enough of it. That, for most people, will be when you have cut the lawn! Once the lawn is cut you will build up the heap in loose layers, this allows plenty of air to circulate. Start with coarse material, prunings, stalks at the base. Then cover with a little layer of grass/green weeds and soil, kitchen waste etc. Follow with a layer of brown material, then grass and keep building up. The brown layers should be around twice the size of the green layers. If the brown waste is dry add some water as you build the heap. Urine or poultry waste will make a good starter. Once the heap is built you can top it with soil/old carpet/wool blanket and cover it from rain. The heap should heat up over the next 4 days to it's peak temperature, then slowly begin to cool. After two weeks the heap will need to be turned. It is easiest to fork the contents from one bin to another, the material will have reduced in size but do not be tempted to add more material. This time just make sure the material is loosely heaped, turning the sides into the middle, only adding water if any of the material looks dry. The compost should be ready to use after around 2 months, but can be used earlier if wanted for a bean trench or under courgettes.

## **Anaerobic**

- slow – less effort
- doesn't require a dedicated compost bin - can be any size
- not likely to heat up – less likely to destroy weed seeds and diseased materials
- requires less green material – less likely to breakdown woody material

An aerobic heap can be built up over a number of weeks and does not require as much care in the quantities added. Generally the heap will remain quite cool and therefore compost production will be up to a year in the making. This is generally the way small gardens will produce compost due to the lack of enough waste. You can still speed up the process by layering green and brown waste as you build the heap to prevent a soggy mess in one part and a pile of twigs in the other. Turning will also improve the speed at which the material breaks down.

## Using your compost

- Compost is plant food, full of nutrients which will be released only during warm weather when the plants are needing them
- Compost will add organic matter to sandy soil and open up clay and peaty soil
- Outdoor vegetables that benefit from compost are brassicas, legumes and potatoes
- Polyunnel plants that relish compost are tomatoes, cucumbers and courgettes
- Poorly made compost is best used in trenches under beans, in containers for courgettes and beans, after use the contents of the containers can be used on borders etc.
- Adding compost as a mulch to beds in the autumn will allow worms to draw it into the soil during the winter
- Foliar spray can be made from compost soaked in 5 – 10 times it's volume in water for up to 10 days, drain the water off and spray on crops to reduce mildew problems
- Keep unused compost in bags until needed

If you have an abundance of leaves in the autumn it is better to either fill black bags with them or pile them into a chicken wire container. Leaf mould takes a long time to develop but makes a lovely top dressing material which is free of weed seed.

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