

## Hot Composting

### What is hot composting?

Hot composting uses the same process as normal/cold composting however by managing the material used in the composter and using a more insulated bin this process generates greater microbial action and therefore more heat, encouraging the material to break down faster and create compost quicker than a traditional compost bin.

While a standard compost bin can take 12-18 months to produce compost a hot composter could produce compost in as little as 3 months.

### What can be composted in a hot box composter?

Generally a mix of approx. 50% garden/food waste and 50% household dry waste would provide a good quality mix to produce compost. A mix of wet and dry material encourages good airflow and avoids smelly anaerobic composting which can attract flies and result in slimy produce. Wet materials might include grass clippings and food waste, whereas dry material might be woodchips and ripped up cardboard.

Unlike cold composting where you add material gradually, it is better to have more material to start with when hot composting. The more waste you have the quicker the process will work, maintaining 50% capacity of the bin is recommended for the best results. As the material breaks down the capacity will drop, when adding more material try to save up a mix of wet and dry materials to add all at once.

**Top Tip: Try to rip up or cut the material into smaller pieces before placing in the bin as this will also help to speed up the process.**

Yes Please✓	No Thanks✗
<b>Garden Waste</b> Weeds Cut flowers Grass clippings	Animal waste or bedding Cooked food Fish, meat and bones Plants with diseases Liquid food waste e.g. fat, oil, yogurt Plastic, glass or metal items
<b>Food Waste (uncooked)</b> Fruit and veg peelings Egg shells Coffee ground Tea bags	
<b>Household Waste</b> Soft cardboard e.g. toilet/kitchen roll tubes, egg boxes, cereal boxes Paper shredding Woodchips Dustpan or vacuum cleaner contents	

### Where to buy a hot box composter?

There are many types of hot compost bins available on the market. However, they are generally more expensive than a standard compost bin due to having a more insulated layer to trap in the heat. Check with your local DIY store for the best value option or have a look online for one that suits your budget and size requirements.

### How to make your own hot box composter

There are many videos available online which show how to make a hot compost bin using a variety of materials. Here are some suggestions to create your hot compost at home:

### Heap

If you don't have a bin you can still create a hot compost heap in your garden, however this will require more space than a standard cold compost heap. It is recommended that in order to create sufficient heat the pile should be 1.2m x 1.2m in size from the outset. Material will breakdown and more should be added to maintain this size. You may also have to cover the heap to help maintain the heat. When setting up a heap ensure that you put straw, twigs/leaves on the bottom.

### Use an existing bin

A more cost effective option would be to recycle something you already have at home, such as a bin or box. If repurposing a bin/box the below features will help ensure the composting is successful:

- Ensure it is dark in colour to help absorb heat
- It should have thicker sides or wrap the bin in an insulating material
- Ideally it should have a tap at the base to allow for draining water
- Ideally it should have a door or access to the bottom to remove compost
- Allow for aeration, perhaps drill a couple of holes in the side of the bin.

### Where to place the hot composter

Choose a flat level location for your box/pile in a sunny and sheltered area. While your bin shouldn't smell if managed correctly please also be aware of neighbouring properties so the bin doesn't cause a nuisance.

### How to hot compost step by step

1. Add as much material as you can to try and fill the bin/box, at least 50% is recommended for best results.
2. Add in some pre-prepared compost to help activate the process
3. Give the pile a good mix together
4. The pile should heat within 48 hours, if you want to be precise use a thermometer to check the temperature, around 60°C is optimal.
5. If the pile starts to cool down, aerate the material by using a fork to turn it over and give it a mix.
6. As the material breaks down add more to the pile with a mixture of wet and dry materials.
7. After a few weeks you should see dark brown, crumbly compost forming which can be removed and more material added. This process can be continued all year round!

### Trouble Shooting

1. Cover the pile/box to avoid too much rain and moisture in the material, this will create slimy and smelly produce which may also attract flies.
2. If the pile looks too wet, add more dry materials such as paper, cardboard or woodchips.
3. If the pile looks too dry add some water or grass clippings.
4. If the temperature is not rising firstly try mixing the material with a garden fork. The pile may also be too dry therefore try adding more garden/food material and giving it a mix to encourage aeration.

5. You may find that water is released from your hot composter, depending on the type of bin you have this might be collected separately. This water is full nutrients and can be diluted and added to flower beds as a liquid fertiliser.

### Benefits of hot composting

1. The main benefit of hot box composting is how quickly compost is produced compared to a normal compost bin. A hot box can produce compost in as little as 6-12 weeks in comparison to cold composting which usually takes up to a year.
2. More material can also be added all at once in a quicker time frame than with cold composting, meaning this is ideal for those with a higher volume of waste.
3. Waste reduction, by recycling your own biodegradable waste at home you will save space in your kerbside bins and help contribute to a more circular economy.
4. The compost and liquid produced are very high in nutrients and make excellent fertiliser to support your garden throughout the growing season.

### Using your compost

The compost produced can be used for:

- Soil conditioner which can be mixed in with old compost to create a more nutrient rich soil.
- A nutrient rich mulch for fruit trees/bushes.
- Spreading in the Spring time over the top of existing soil/veg patches to allow for slow release of nutrients down into the soil over the growing period.

### References

Polytunnel Gardening – <https://blog.firsttunnels.co.uk/hot-composting/>

RHS – <https://www.rhs.org.uk/soil-composts-mulches/composting>

Allotment Book – <https://www.allotmentbook.co.uk/contents/hot-composting/>

Ideal Home - <https://www.idealhome.co.uk/garden/hot-composting-247917>