Compost making

These are my tips for compost making, gained from experience of a 2.5 acre site, books and various websites.

Space required

Three bins are a minimum; 1st to store material as it is created from the garden, 2nd to receive the contents of the first in readiness for heating to take place and to be thoroughly mixed from the first bin and 3rd to receive the contents of bin 2 for a second turning and mixing. Bin 2 can be topped from Bin 1 as the level falls during heating and modification but be ready to turn into Bin 3 if the original contents are showing signs of maturity.

Size of material

The size of the material is critical; it must be small to increase the surface area for the microorganisms to work on. Woody stems need to be crushed open. A shredder is ideal for this purpose but an area next to the bins where material can be thrown down and then cut up with shears, a spade or smashed using a rotary mower, can be used. But again, the material must not be so long that the blades cannot pick it up for smashing.

Mix of materials

The mix of materials is critical. It is claimed that a mix of 25:1 of carbon (brown) materials to nitrogen (green) materials is the best but with the amount of grass cuttings and weeds that I generate this ratio is very difficult to achieve. If you have time then shredded paper and/or cardboard or sawdust helps to achieve the balance.

The material, at whatever stage, needs to be covered. A layer of black plastic helps to condense the steam from a hot compost and allows any worms that may be trying to escape from the heat not to get tangled in the carpet/insulating material on top of the bin. The retention of moisture helps to ensure the right level of moisture in the heap. The microorganisms will struggle to work if the material is too dry - this is not usually a problem given the amount of green material and the smashing of the weeds tends to expose the moisture in the material.

You will discover that there is a critical mass at which composting can start even if the ambient temperature is high enough, say 15ºC.

The turning of the compost is essential to ensure the correct level of air in the mixture, as oxygen is essential for the microorganisms. It also allows you to transfer back into the first heap any material that needs more time or for removing it altogether for burning. However I often have difficulty achieving heat in the turned compost, probably because I have left the turning too long due to the other bins holding mature compost.

I have no problem with composting anything that has been growing. Some books advocate not putting in roots of, say, couch grass but I have seen little evidence that these have survived in my heaps. However, if creating a large amount of this type of root or weed seed then it would be better to burn it.

Time to maturity

There can be no fixed time for compost to achieve 100% maturity. At best with hot composts regularly turned 80% is achievable with 20% finishing off when dug in. Most of my compost has reached this stage after 12 months. The heap can heat up very quickly and cool down just as quickly as the microorganisms work so be attentive and be ready to add more mixed materials or turn the heap. Easier said than achieved!

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