Composting

Commonly asked questions about composting

Moisture – how do you maintain moisture levels to get the most out of your compost bin?

Why is moisture needed?

All living systems require moisture to carry out their metabolic functions. Compost heaps are living systems made up of hundreds of billions of microorganisms and the food they eat (our garden and kitchen waste). To get optimum composting we need to maintain moisture levels at an optimum for these microorganisms.

What is the optimum level of moisture in a compost heap?

Large composting operations try to maintain a moisture content of between 50 – 60% in their compost piles. They do this by measuring the moisture levels with instruments and then add water as required. With this level of sophistication moisture levels can be maintained with a high degree of accuracy. In an Aerobin, maintaining moisture to similar levels of accuracy is more difficult but there are some useful tips that help (see below).

What happens if you have too much moisture?

If the moisture levels get too high then a number of problems develop. Air flow into the composting materials is reduced, resulting in slowing of the composting process. If the compost gets very wet this may result in the development of anaerobic conditions. This means no oxygen is getting to the microbes, they die off and microbes that live in the absence of oxygen takeover. Eventually the material in the bin will still be broken down but there will be problems. Firstly anaerobic conditions result in the production of some very foul smelling gases. These gases are also generally bad for our increasing greenhouse problem. The broken down material (not really compost) is likely to be highly acidic (low pH) and not good for the garden unless it sits for a very long period of time to chemically stabilize (it may take years) This is the problem with using conventional type compost bins if they are not turned continually.

What happens if you have too little moisture?

If the moisture levels drop too low then metabolic activity slows and eventually stops as the microbes dehydrate. If you let the compost get too dry it can be difficult to re-wet it

as the surface of the waste materials can become hydrophobic (repels water). In a drying environment, lots of the microbes produce spores that can aerosol and cause health problems. These problems include asthma and other allergic type responses. Avoid letting composts, or any soil related materials, get too dry.

How do you maintain the correct levels of moisture in your Aerobin?

1. The aeration technology in the Aerobin helps as it allows the moisture to move in the bin helping to prevent areas of high moisture build up

2. Mix up materials when adding to compost bins – this tends to avoid pocketing (areas that are very wet or dry) in the bin.

3. Use a watering can to sprinkle water evenly across the surface of the Aerobin

4. Use a stake or a tool to push holes down into the compost. This will aid water penetration (and aeration!) and greatly improve the composting process – especially if done regularly.

If you let the compost get too dry it may become water repellant and can become very hard to "re-wet".

Avoid putting dry materials (dry leaves, newspaper, straw) in the bin unless moistened or mixed with high moisture-containing materials such as kitchen scraps.

Moisture Bonus

Mature compost, when added to your garden, is very good at holding moisture and thus likely to save you a significant amount of money on your water bills.