



## COMPOST

Organic waste generation is a major environmental problem, comprising approximately 50 percent of all landfill waste annually, both in Australia and internationally (DEC). Sending organic waste to landfill is inefficient as the waste cannot break down properly as landfill is covered daily causing a lack of oxygen. This in turn dramatically slows down decomposition of the waste and produces methane gas and acidic leachate.

Home composting can recover valuable resources as well as greatly reducing the amount of waste sent to landfill. Composting occurs naturally in nature, continually recycling organic matter to condition the soil, allowing plants to thrive. Fruits, leaves, branches, etcetera fall to the ground where micro-organisms such as bacteria and fungi and invertebrates like worms break them down into smaller pieces until they eventually become part of the soil and the process begins again. Compost improves soil structure, texture, and nutrient levels, contributing to the soil's fertility and health.

While in nature decomposition of organic materials can take many months, home composting speeds up nature's

process and can produce soil conditioner, or compost, in just a few weeks. This is because with minimal effort, the ideal conditions for composting microorganisms to live are created with the help of a compost bin, tumbler or bay that can be turned with ease (for example, with a shovel or in the case of the tumbler a simple handle). Organic household waste like food scraps, lawn clippings, leaves, and garden prunings can all be composted with many benefits, including:

- Saves the environment and money by replacing chemical soil conditioners.
- Helps plants (indoor and outdoors) by improving the fertility and health of the soil. Saves water by helping the soil hold moisture and reduces water runoff.
- Recycles valuable organic resources
- Extends the life of our landfills
- Reduces landfill leachate and greenhouse gas emissions from landfills

References: DEC, online at <http://www.epa.nsw.gov.au/publications/html/downtoearth/composting.htm>

### WHAT CAN I DO?

Composting can be carried out at many varying levels, from home gardeners seeking to benefit their own gardens, to operators of commercial composting facilities over many acres. You can build your own compost bay, bin or tumbler, purchase one from your local Council, or visit a store that sells different types. You can also search on the internet for the one to suit your needs, for example if you wish to have separate food and garden waste or mixed (the websites listed below will be a good starting point). Some ideas are:

- plastic bins with or without ventilation holes or slits
- drums with holes punched in the side and with the base removed
- rotating drum (tumblers)
- enclosures (bays) made from planks, sleepers, bricks or chicken wire

Whichever system you choose, it is important that it is aerated so as not to produce methane or other odours. To do this, ensure:

- Roughly equal amounts of kitchen and garden waste (called 'greens') and fallen leaves and shredded paper/cardboard packaging (called 'browns') are added
- The heap is moist (but not wet)
- If using a bin or bay, the composting vessel is on well drained soil

It is turned frequently. If this is not possible, use a piece of wide pipe such as plastic agricultural pipe, cut slits into the sides and place insert it into the centre of the heap. This will then bring air into the centre of the organic material.

### MORE INFORMATION

- <http://www.mastercomposter.com/> - everything you need to know about composting including best methods to use, potential problems explained and much more!
- <http://www.ciwmb.ca.gov/Organics/> - comprehensive site on managing organics with many links
- <http://www.compostinfo.com/> - an 'online composting centre' with an in depth composting tutorial.
- <http://www.howtocompost.org/> - this site is specifically written for people with no experience in composting
- [http://compost.css.cornell.edu/Composting\\_homepage.html](http://compost.css.cornell.edu/Composting_homepage.html) - great website on the science behind composting as well as resources for schools