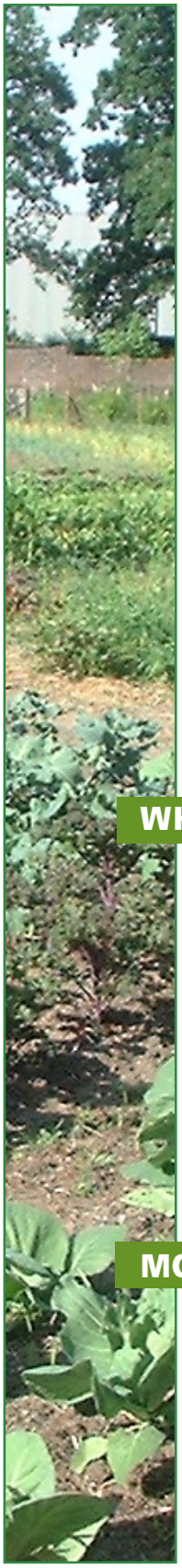

ORGANIC SYSTEMS (commercial)

Organics form a significant portion of the NSW waste stream. It comprises about 60% of municipal (household) waste sent to landfill, but can account for over 80% of waste from some commercial enterprises. 'Organic waste' covers a wide range of materials including garden wastes, food wastes (including fruit, vegetable, cereal, and meat by-products) and wood wastes (like sawdust and offcuts). Impacts from the disposal and processing of organic wastes include air emissions (particularly greenhouse gases), water pollution, odour, and health risks (WRAPP).

Organic waste processing technologies such as composting, land applications, digestion and fermentation can now turn many previously unusable materials into valuable resources like soil improvers, liquid fertilisers and energy products in the form of biogas.

Composts and fertilisers can be used in agriculture, land rehabilitation, landscaping and domestic applications, while biogas can be used as an alternative fuel. Other alternatives include companies that use scraps from other industries to create a new product. For example, meat by-products used for pet food and yeast extract from breweries used in the production of food spreads.

Mechanical Biological Treatment (MBT) systems consist of a mechanical stage, where recyclables and rejects (like batteries and tyres) are separated and a biological stage, for treatment using composting and digestion techniques. These can be either through large scale composting (provide link), or worm farming and produce soil improvers and organic fertilisers.Anaerobic digestion involves harnessing the methane produced from rotting organic waste and generates a clean fuel - biogas - that requires minimal processing and can be burnt with low emissions to be used as either a natural gas or vehicle fuel. The use of biogas as a vehicle fuel has benefits for the global environment through reduced fossil carbon emissions, as well as reduced vehicle emissions compared with traditional and renewable liquid fuels.

Organic matter digestion makes the resulting remains more stable and protects the environment from the uncontrolled degradation of the waste. Thus, it reduces the potential for the production of atmospheric methane and leachate. It also reduces the impacts from more local environmental impacts such as odour, flies and vermin and helps to reduce the plant and animal pathogens that can be spread by wastes.Reference: WRAPP, available at www.wrapp.nsw.gov.au/material/veg.shtml

WHAT CAN I DO?

- Businesses interested in implementing an organics system should undertake a waste audit of their organic waste. A wide range of environmental consultants can identify the volume and waste types and then provide recommendations for suitable systems specific to your needs. Consider how different systems could be used or combined.Research how different types of organic materials can be used. In particular, investigate cost savings associated with not buying synthetic materials.
- Substitute synthetic landscaping and agricultural products with recycled organic products where you can. Ensure they meet the Australian Standard such as AS4454 (1999) for composts, soil amenders and mulches and AS3743 (1996) for potting mixes.

MORE INFORMATION

- www.recycledorganics.com - The Recycled Organics Unit at the University of NSW offers a diverse selection of information and links relating to organic waste recycling.
- www.wormsrus.co.nz/commercialworm.html - a range of commercial worm digesters explained
- www.juniper.co.uk - mechanical biological systems
- www.anr.state.vt.us/dec/wastediv/compost/commercial.html - a comprehensive site on small and large scale commercial composting
- www.compost.me.uk/ - commercial composting in the UK