

# Composting in Business

Biological waste (i.e. cooked food, uncooked food and organic waste) can be composted. There are a number of different types of composting systems which can be employed to compost Commercial quantities of biodegradable waste.

## What is Commercial Composting?

Commercial or industrial composting is large-scale composting which is designed to handle a very high volume of organic waste, as opposed to home composting, which handles organic waste from one household or facility.

The compost produced by a commercial composting facility can be sold to garden centres, farms and nurseries, applied to municipal landscaping, or sold to individuals, depending on how the facility is organised.

A typical commercial composting operation collects waste from **restaurants, hotels, grocery shops, and other commercial facilities which handle food**. It may also collect garden waste from nurseries and landscaping companies.

## Food Waste Regulations

Regulations pertaining to the management of food waste "Waste Management (Food Waste) Regulations, 2009 requires any premises that



produces > 50kg/week of food waste to make provisions for the treatment of this waste type by 1 July 2010. In addition, premises producing <50kg of food waste, as provided for in the Regulations, must have provisions in place by 1 July 2011. It is advisable to contact your Local Authority for more information on this matter.

## Collection

Waste collection is accomplished with a fleet of specially adopted lorries which deliver the organic waste (usually collected in a brown bin) to a central facility for composting. Some commercial composting companies also allow people to drop off compost, usually in the form of large lorry loads from farms and agricultural facilities. The sheer volume of waste requires a lot of space for composting, and it's ideal for anaerobic composting, in which compost is broken down quickly by anaerobic organisms which generate tremendous heat as a waste product.

 *Eliminates waste*

 *Valuable by-product*

 *Clean & economical*



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## Types of commercial composting in Ireland

The two main types of commercial composting that exist in Ireland are:

1. In-vessel composting
2. Turned windrow composting

These are very specific methods of composting but both will produce a rich soil like material (compost) which can be used as a soil fertiliser/ improver or mulch.

## CASE STUDY

### Laois County Council Canteen Composting Programme

Organic waste from canteens can include waste from food preparation as well as left-over food. Serving over 200 staff and visitors a day, the potential for significant waste generation in Laois County Council's canteen was worthy of further investigation to address how to reduce biodegradable waste going to landfill.

Building on the existing canteen recycling programme for plastic bottles, aluminium drink cans and cardboard packaging, in 2008, Laois County Council began a canteen composting programme for both cooked and uncooked food waste.

After reviewing various composting technologies, potential products on the market and discussing these products with current users in the catering, college and community composting sectors, it was decided to get an automated invessel

composting system called the Jora 5100 food digester. Using this automated unit, both cooked and uncooked food waste is turned into valuable nutrient rich compost in a period of 6 to 8 weeks on a continuous basis.



### How the composting occurs:

The unit consists of a twin chamber system and food waste is put down a chute at the front of the machine. Each chamber is equipped with its own mixing system where food is automatically shredded. Wood pellets are added automatically (they are very important for absorption and also are a carbon source) to aid the composting process. The contents are then passed on to the first composting chamber.

Mechanical arms periodically rotate to draw air into the waste to aid the compost process. The waste spends 2 weeks in this chamber (average temperature 65°C), killing bacteria and leaving the compost inactive and ready for use.

The contents are then passed on to the ripening chamber which further breaks down the waste resulting in a dry fine ready to use compost.

Each digester is capable of processing over 20 tonnes of organic

waste per year (50-60kgs daily, average) while the biological activity of composting within the digester reduces the volume of waste by up to 90%.

One of the main benefits of our composting programme is that Laois County Council has reduced the amount of biodegradable waste going to landfill. Analysis of the produced compost, found it is rich in potash and potassium and is therefore suitable for use in vegetable gardens, around fruit trees as well as window boxes.



This compost has been used by our County Horticulturalist in green areas and parks and a quantity been distributed amongst staff.

***“The biological activity of composting within the digester reduces the volume of waste by up to 90%”***

Further information is available from Ann-Marie Kelly, Environment Awareness Officer, Laois County Council or view a demo video on [www.growgreensolutions.com](http://www.growgreensolutions.com)

