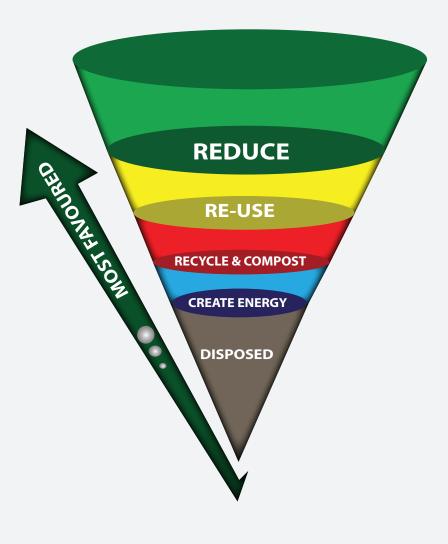
THE NATIONAL ORGANIC WASTE COMPOSTING STRATEGY



Participate in the project

To participate in the project, please register as a stakeholder on the following website: www.jgi.co.za and click on the link to the **National Waste Composting Strategy**

For any enquiries or comments, please contact: Stuart Gower-Jackson Tel: 011 807 0660 E-mail: stuart@jgi.cp.za

> Department of Environmental Affairs Private Bag X447, Pretoria, 0001 Tel: +27 12 310 3911 Fax: +27 12 322 2682 Call Centre: +27 86 111 2468 E-mail: callcentre@environment.gov.za www.environment.gov.za







What is composting?

Compost is derived from organic matter/waste that has been decomposed and recycled, it is used as a fertiliser and soil amendment. The composting process is simplified as the biological process of breaking up organic waste through means of micro-organisms and oxygen.

What is organic waste?

Organic waste is biodegradable waste, typically originating from plant or animal sources



Methods of Composting

Here are some of the various methods that are being used for composting. These have been divided into Open systems (Non-Reactor) and closed systems (Reactor)



Open Systems (Non-reactor): Backyard composting – Small scale composting in back yards (mainly residential, but could be institutional, commercial establishments, etc)





Turned Windrow / Pile - Production of compost by placing organic biodegradable waste in long rows (called "windrows"), or piled heaps, which are turned occasionally or frequently





Static Windrow / Pile - Systems used to biodegrade organic material without physical manipulation during primary composting without turning or agitation





Vermicomposting - Vermicompost is the product of composting utilizing earthworms (and sometimes other species of worms) to create a mixture of decomposing vegetable or food waste (excluding



meat, dairy, fats, or oils), bedding materials, vermicast (worm casings) and nutrient-enriched liquid (tea).



Closed Systems (Reactor): In-Vessel / Enclosed System - The term "in- vessel composting" is used to cover a wide range of composting systems which feature enclosed



systems, therefore allowing a higher degree of process control of air flow, temperature and moisture conditions. In-vessel systems can be broadly categorised into five types: containers, silos, agitated bays, tunnels and enclosed halls. Off gases can be collected and treated thereby reducing odour emissions from the facility.

Why is a National Organic Waste Composting Strategy Needed?

In fulfilling its waste management objectives, the Department of Environmental Affairs (DEA) has initiated a process to develop the National Organic Waste Composting Strategy (NOWCS) to divert organic waste from landfill sites.

To this effect, DEA has appointed Jeffares & Green (Pty) Ltd to assist with the development of the strategy. The National Waste Management Strategy (NWMS) promotes composting as one of the approaches towards achieving the objectives of the waste management hierarchy, amongst other measures.

The overall aim for this project is to ensure that organic waste generated in the country is diverted from landfill sites for composting through integrated and sustainable waste management planning. Landfilling is the most common disposal method of waste in South Africa and this has resulted in the development of a looming waste crisis, as:

a) the amount of waste being produced is ever-increasing due to the escalation of people's material standard of living, and;
b) the fact that landfills are inherently unsustainable due to limited airspace and the correlating environmental impacts.

Minimising waste is a critical priority in South Africa, as provided for in the National Environmental Management: Waste Act (Act 59 of 2008) and emphasised further in the National Waste Management Strategy. However, many local municipalities have made little progress towards the goals of waste minimisation.

Landfills are highly contentious and complex entities to establish due to environmental constraints, time constraints (takes approximately 5-8 years to establish a landfill site) and social constraints, as they are considered to be generally undesirable by the broader public. Beside the municipalities' own interests in reaching financial and environmental sustainability, minimising waste also forms part of the South African national vision of a plan for zero waste to landfill by 2022.

Composting is one of the effective methods for waste minimisation and can be accomplished through fairly simple and cost efficient technologies, as well as producing positive, sustainable environmental impacts. The NOWCS will inform guidelines in an environmentally beneficial manner for composting and other alternative organic waste treatment processes in an integrated and sustainable manner.

What will NOWCS do?

- It will assess the current National and International trends in organic waste treatment and disposal
- It will identify and engage all stakeholders that play a role in the management of waste in order to identify problems, needs and key issues associated with organic waste management;
- Provide a National Organic Waste Composting Strategy for public and private entities

Who is NOWCS aimed at?

The project is aimed at all stakeholders who play a role in the management of organic waste in South Africa. This includes stakeholders in the following sectors:

- Public entities (e.g. Municipalities)
- Private entities (e.g. Private companies or individuals
- Public Private Partnerships (e.g. facilities that are owned by a Municipality but operated by a private company)

How does the NOWCS system work?

The following table is taken from the online NOWCS system which is currently being used to capture data for the project:

