

Waste Suitability – HotRot in-vessel composting systems

Odorous and Putrescible

These are the waste categories for which HotRot is ideally suited. These wastes are often the most difficult and costly to dispose of and should be the main materials used to size the HotRot composting system.

These materials often need no pre-treatment although mechanical dewatering can be used and can offer a major advantage with wetter materials.

- Source separate organics (food and garden/yard waste) – including meat.
- Commercial and industrial food waste (restaurants, hotels, canteens and food manufacturing)
- Sewage sludge (biosolids) as well as other sewage residues such as screenings
- Animal waste including faecal material, sludge or “litter” from wash-down or pens and dirty bedding. Animal mortalities
- Animal processing wastes – offal, paunch grass, mortalities
- Special industrial organic wastes – spent grain and hops from breweries, fruit and vegetable peelings, organic sludge from industrial wastewater treatment

Amendments and Bulkers

These materials are traditionally referred to as “brown” waste. While organic, they are slow to degrade. On their own they can usually be easily composted in basic open-windrow systems. Their use in HotRot should be restricted to ensure the waste entering the HotRot unit has the right moisture content (45-60%) and the right porosity (usually 600-750kg/m³).

These materials will generally need shredding, chipping or grinding.

- Paper and cardboard – these materials should generally be less than 10% of any material being composted.
- Yard or garden waste – green leaf matter and lawn clippings need to be considered separately from woody tree and shrub prunings
- Straw, hay and other similar materials
- Construction and demolition timber waste – all forms included treated timber, particle and ply board can be used in the composting process with care.
- Palm fronds and similar materials may need specialist shredding.

Waste to avoid

These materials should be excluded from the composting process if possible.

- Glass – this is very difficult to remove from the final product and may represent a hazard to end-users.
- Oil, detergents and soaps in high concentrations will retard the composting process.
- Pesticides, herbicides, fungicides and household chemicals such as bleach other than in trace amounts.
- Metal items – these can damage plant and machinery
- Plastic items – will contaminate compost and can be difficult to remove in order to get a saleable product