enVar

Waste Management Services

Organic Waste Treatment

About Envar Composting

Based in Cambridgeshire, Envar Composting's site is the United Kingdom's largest waste in-vessel and windrow composting facility, currently processing 105,000 tons per annum. The facility produces quality PAS100 and CQP certified soil conditioner for the agricultural, viticultural and horticultural markets, through the processing of green waste, food waste, co-mingled food and green waste, and specific organic waste.

Envar Composting is the latest addition to the portfolio of companies owned by Trevor Heathcote and forms a natural progression for sister company FGS Organics who already supply compost solutions within their portfolio of services.

Not only do Envar Composting supply organic waste treatment solutions, we also provide equipment hire, operated or self-drive, to customers.

Waste Management Services

Envar is a waste management and recycling company specialising in organic waste and market/product development. Envar has over 30 years experience in composting and work with a number of Local Authorities helping them to achieve key performance indicator targets.

Cost Effective Solutions

Local authorities are faced with recycling and LATS targets to divert organic waste from landfill. Envar works with a number of local authorities and industrial clients to compost waste in a sustainable manner.

Animal By-Product Compliant Process

Envar utilises a double ended batch tunnel in-vessel composting system. The technology partners GiCom are recognised industry leaders. The system is fully enclosed with a biofilter to minimise emissions. The system is ABPR compliant.

Proven Track Record

Envar staff have over 30 years experience in composting. The GiCom system has been developed over a 25 year period.

Envar Comprehensive Service includes:

- ABPR compliant in-vessel composting
- Collection schemes
- Waste transfer facilities
- Planning and licensing
- Liaison with regulators
- Compost market development
- Design, build, finance and operate facilities

Waste to Compost Process:

1. Organic waste delivered to Envar is weighed and visual check undertaken.

2. Incoming material streams are then shredded and blended to produce a homogenous mix for composting.

3. Blended material is loaded into one of the enclosed in-vessel bunker systems complete with aeration system, temperature control & wireless data logging probes. Decomposition is carefully controlled to ensure EU composting standards are met.

4. Over a period of 7 to 10 days, temperatures of 60°C are achieved & sustained for at least twenty four hours. Procedure is managed at all times to comply with ABPR and ensures the destruction of any weed seeds & pathogens in the material.

5. Product is moved from the IVC bunkers to nearby maturation bays where the material is left to mature further. During this phase, (8 & 12 weeks), the product remains carefully monitored to ensure optimum temperature & moisture content.

6. After screening and grading the result is a range of stablised, nutrient-rich, peat-free products suitable for use as soil improver, mulch, compost or soil replacement material.

Organic Waste Treatment

Composting is the aerobic decomposition of organic material by micro-organisms, under controlled conditions, into a soil-like substance called compost. At Envar's site in Cambridgeshire green waste material and/or green and food waste included materials are composted to meet the standards of BSI PAS100 and the Compost Quality Protocol. We can also supply non-PAS100 material if preferred. Various grades of compost are available to best fit the end use, whether it is for use as a soil conditioner on arable land or for use as mulch in the horticultural market.

The team at our sister company, FGS Organics are FACTS qualified professionals who are able to find markets for the compost produced at Envar. They are able to match crop requirements with the nutrients available from an application of the product. FGS Organics arrange delivery of the material direct to their farmers or you can collect BSI PAS100 standard compost direct from our Envar site in Cambridgeshire.

The Technology

The technology that is utilised at the Cambridgeshire site has a GiCom designed computer controlled batch tunnel system. The technology incorporates measurement and control devices, biotechnical process control, and air handling systems, all designed to work together for optimum efficiency with the software system. The technology has a number of different applications, including the composting of biowaste, food waste, sewage sludge, industrial sludges, manure, municipal solid waste and anaerobic digestion residue; the biological drying of municipal solid wastes and other waste streams containing organics; and the production of mushroom composts from poultry litter and straw.

Green Compost

Benefits of open windrow green compost include:

- eligible for use in organic systems
- provides slow release major and micro nutrients
- improves soil structure / workability & rooting potential
- increases moisture retention & soil drainage
- good source of organic matter (average 7t/ha)

Average dry matter content: 57%

In-Vessel Compost

Benefits of in-vessel compost include:

- provides slow release major and micro nutrients
- improves soil structure / workability & rooting potential
- increases moisture retention & soil drainage
- good source of organic matter (average 5.91t/ha)

Average dry matter content: 75%

Manner NPK results: Cambridgeshire Sandy Clay Loam over Clay Loam soils at (application rate of 43t/ha)

Manure analysis

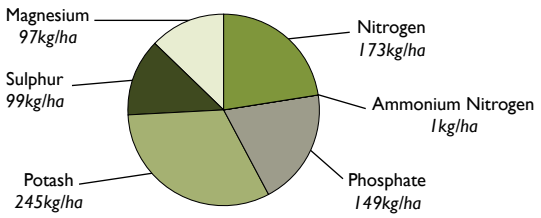
Application	DM (%)	Total N	NH_4-N	Uric acid-N	Nitrate-N	Total P_2O_5	Total K_2O	Total SO_3	Total MgO
		kg/t or kg/m^3							
App 1	75.2	5.77	0.05	0	0	4.97	8.18	3.31	3.23

MANNER-*NPK* Results

			Nitrogen losses (kg/ha)			Crop available N (kg/ha)		
Application	Total N (kg/ha)	Mineralised N (kg/ha)	Nitrate-N	Ammonia-N	Denitrified-N	Current crop	Following crop year 2	N use efficiency (%)
App 1	248	10	2	1	0	9	8	4

Application	Total P_2O_5 (kg/ha)	Available P_2O_5 (kg/ha)	Total K_2O (kg/ha)	Available K_2O (kg/ha)	Total SO_3 (kg/ha)	Total MgO (kg/ha)
App 1	214	107	352	281	142	139

In-Vessel Compost: average kg/ha of nutrients from this product (application rate of 30t/ha)



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