

SUMMARY OF FINDINGS

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Implementation of an Urban Community Composting Programme

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During 2006 - 2008, an organic waste composting project was established within an urban apartment development in Ballymun. In-vessel composting technology was employed to process household organic waste and the compost produced was analysed to confirm chemical, physical and nutrient composition. Compost was used in horticultural trails to quantify benefits and highlight potential applications at the Botanic Gardens in Dublin. An effective education programme to encourage participation was developed. Marketing opportunities for local compost use were also assessed and defined.

Background

Composting is a highly developed activity across Europe. In 2006 over 1,800 plants were in operation throughout Europe with an annual capacity of more than 17 million tonnes of biodegradable waste. However current activity in Ireland is limited to less than 50 composting facilities primarily dealing with green waste only.

This study reviews the potential contribution of community composting initiatives towards achieving landfill diversion targets required under the Landfill Directive and investigates barriers to project implementation. The study assesses all aspects of community composting projects from waste collection and processing to compost production, quality assurance, utilisation, marketing, education and awareness.

Key Points

- In-vessel composting technology is an economically and technically viable process for small scale organic waste processing.

- Urban composting projects result in significant social, environmental and economic benefits.
- Effective education is paramount to the success of community composting initiatives.
- Small scale in-vessel composting can be employed to produce quality compost, which will meet compost quality standards
- The use of waste derived compost in horticultural applications can lead to increased growth rates and improved soil quality.
- There is a local market requirement for waste derived compost.
- Community composting initiatives, if established in all apartment developments in Dublin alone, have the potential to divert 14,680 tonnes of organic waste from landfill each year.

Findings/ Recommendations

This report recommends the co-ordination and rationalization of legislation, regulation and operational procedures for small-scale composting activities with low environmental impact. Adherence to the gamut of stipulations associated with the Animal By-Products regulations adds restrictive costs to small-scale projects and is impeding the development of community composting initiatives in Ireland. Community composting initiatives should be exempt from these regulations, or failing that separate regulations should be developed that would encourage small scale composting whilst mitigating potential risks.

Education and awareness programmes are also recommended to highlight the benefits of waste derived compost and the positive effects of compost use for soil improvement and horticultural applications. The development of a 'Master' composter group to support community composters and the establishment of an Irish community-composting network is also recommended.

Suggestions are made relating to improvements in management structures and waste charges within apartments to encourage recycling and composting programmes and to empower homeowners to take control of their environmental responsibilities.

A further recommendation is that waste management fees for apartments should be charged on a pay per use basis rather than apartment size to facilitate a shift in attitudes towards recycling and environmental behaviour and to encourage waste minimisation and resource conservation.

Further research is recommended on the environmental benefits of compost use relating to soil improvement, carbon sequestration and reduced fertilizer, pesticide and peat-based compost use.

Finally it is recommended that community composting should be promoted nationally as an effective and environmentally sound waste management option for organic waste in urban environments, highlighting the application of the Polluter Pays and Proximity Principles.

For Further Information

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