

The Role of Home Composting in Waste Management Cost Reduction

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Abstract : Due to the economic and environmental benefits of producing less waste, the US Environmental Protection Agency (EPA) introduces source reduction as one of the most important means to deal with the problems caused by increased landfills and pollution. Waste reduction involves all waste management methods, including source reduction, recycling, and composting, which reduce waste flow to landfills or other disposal facilities. Source reduction of waste can be studied from two perspectives: avoiding waste production, or reducing per capita waste production, and waste deviation that indicates the reduction of waste transfer to landfills. The present paper has investigated home composting as a managerial solution for reduction of waste transfer to landfills. Home composting has many benefits. The use of household waste for the production of compost will result in a much smaller amount of waste being sent to landfills, which in turn will reduce the costs of waste collection, transportation and burial. Reducing the volume of waste for disposal and using them for the production of compost and plant fertilizer might help to recycle the material in a shorter time and to use them effectively in order to preserve the environment and reduce contamination. Producing compost in a home-based manner requires very small piece of land for preparation and recycling compared with other methods. The final product of home-made compost is valuable and helps to grow crops and garden plants. It is also used for modifying the soil structure and maintaining its moisture. The food that is transferred to landfills will spoil and produce leachate after a while. It will also release methane and greenhouse gases. But, composting these materials at home is the best way to manage degradable materials, use them efficiently and reduce environmental pollution. Studies have shown that the benefits of the sale of produced compost and the reduced costs of collecting, transporting, and burying waste can well be responsive to the costs of purchasing home compost machine and the cost of related trainings. Moreover, the process of producing home compost may be profitable within 4 to 5 years and as a result, it will have a major role in reducing waste management.

Keywords : compost, home compost, reducing waste, waste management

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