

An Overview of Food Waste Management Technologies; The Advantages of Using New Management Methods over the Older Methods to Reduce the Environmental Impacts of Food Waste, Conserve Resources, and Energy Recovery

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Abstract : Continuous increasing food waste produced on a global as well as national scale may lead to burgeoning environmental and economic problems. Simultaneously, decreasing the use efficiencies of natural resources such as land, water, and energy is occurring. On the other hand, food waste has a high-energy content, which seems ideal to achieve dual benefits in terms of energy recovery and the improvement of resource use efficiencies. Therefore, to decrease the environmental impacts of food waste and resource conservation, the researcher has focused on traditional methods of using food waste as a resource through different approaches such as anaerobic digestion, composting, incineration, and landfill. The adverse environmental effects of growing food waste make it difficult for traditional food waste treatment and management methods to balance social, economic, and environmental benefits. The old technology does not need to develop, but several new technologies such as microbial fuel cells, food waste disposal, and bio-converting food waste technology still need to establish or appropriately considered. It is pointed out that some new technologies can take into account various benefits. Since the information about food waste and its management method is critical for executable policy, a review of the latest information regarding the source of food waste and its management technology in some counties is provided in this study.

Keywords : food waste, management technology, innovative method, bio converting food waste, microbial fuel cell

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