

Energy recovery from garden waste in a LCA perspective - DTU Orbit (08/11/2017)

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According to the common strategies regarding waste management and energy supply in EU countries, more efficient utilization of organic waste resources (including garden waste) with both nutrient and energy recovery is desired. Each of the most common treatments applied today – composting, direct use on land and incineration – only provides one of the two services. A technology ensuring both nutrient and energy utilization is anaerobic digestion (AD) that has become applicable for treatment of garden waste recently. In this study, life cycle assessment aimed to compare four garden waste treatment alternatives (AD, composting, direct use on land and incineration) was conducted. The results showed that none of the scenarios assessed was best in all impact categories simultaneously, i.e. an overall ranking of the technologies was not possible. Moreover, many trade-offs between nutrient and energy recovery were observed.

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