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## **“Comparing Open versus In-Vessel Composting”**

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### **1 ABSTRACT**

*The paper describes the most important differences between two common composting systems: Open type composting systems i.e. windrows or aerated static pile system and container type systems with air recirculation. The factors that are investigated are: Land requirements, possibilities of encapsulation, effectiveness and speed of decomposition, compost quality, odor and dust generation, independence to climatic situations, leachate and condensate problems, amount of exhaust air to be treated, skill of the staff needed, health and safety standards, composting in underdeveloped countries .*

### **2 INTRODUCTION**

Composting plays an important role in the waste management systems of many countries worldwide. As an example up to the year 1998 in Germany 520 composting-plants have been built and 6.3 million metric tons of biowaste are processed annually.

It is to be noted that although only 30% of the composting plants in operation have technical composting equipment, they process more than 50 % of the total biowaste stream. These figures emphasize the growing importance of technical systems for this type of waste management. In the following paper the advantages and disadvantages of uncontrolled windrow systems are compared to high tech in-vessel systems.