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## Biodrying under Greenhouse Conditions as Pretreatment for Horticultural Waste

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### ABSTRACT

The biodrying process was studied as an alternative technology to reduce the mass and volume of horticultural waste. Four static piles were prepared inside a greenhouse: two containing whole waste and two consisting of shredded waste. All the piles were compared with a test pile containing whole waste and placed outside the greenhouse. In two cases, ventilation ducts were installed to improve aeration. Each greenhouse was 2.0 m wide, 3.5 m long and 1.16 m high. The air temperature and relative humidity were monitored both inside and outside the greenhouse. Mass, humidity, organic matter and total nitrogen in the waste were measured. Piles inside the greenhouse showed decreases of 80% and 75% in weight and volume, respectively, during the first 16 days. The data obtained in this work suggest that biodrying could improve the handling and transport of horticultural waste while also minimizing the impact of pollutants.

### KEYWORDS

Solid Waste; Aerobic Degradation; Stabilization; Greenhouse

### Cite this paper

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