

**Composting as an alternative for the disposal of  
*Ceratotherium simum* (white rhinoceros) manure**

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The disposal of excrement from *Ceratotherium simum* creates a lot of concern to the technicians of the Dr. Juan A. Rivero Zoo of Puerto Rico. The objective of this study was to evaluate composting as an alternative to dispose *C. simum* manure (M). The treatment evaluated consisted of M with yard trimmings (YT) as a bulking agent (BA). The materials were blended in a 3:1 ratio (M: YT) and placed in composting bins of identical dimensions (3 ft<sup>3</sup>). Moisture level was maintained at approximately 40-60% throughout the composting phases. Temperature was recorded daily to determine when the first and second heat cycles were reached. Composting characteristics such as: carbon to nitrogen (C:N) ratio, organic (OM) and inorganic matter (IM), and nitrogen (N) concentration were measured at 0 d, at the peak of the first and second heat cycles, and 0, 20, 40 and 60 d of maturation. Data was analyzed according to a completely randomized design using the ANOVA procedure of SAS. As expected, C:N decreased (P<0.05) from the beginning of the process (26.15) to 20d of maturation (17.76) while there were no differences between stages in OM (62.88 to 50.51%), IM (37.12 to 49.49%), and N (1.34 to 1.61%). Results showed thermophilic temperatures continuously for 22 days reaching a maximum of 132.6°F. These results suggest that composting can be an alternative to reduce this type of organic residue.

