## Application of Unprocessed Urban Plant Debris Directly to Land

## \*Gerald Kidder, Marvin F. Weaver, David O'Keefe, and Richard Vories

## ABSTRACT

Urban plant debris (UPD) was taken directly from yard trash collection routes in Alachua County, Florida, and applied at rates of approximately 200 tons/a to a field that is in a watermelon [*Citrullus lanatus* (Thunb.) Matsum. and Nakai]-livestock-forage rotation. Applying unsorted UPD to land without any sorting, grinding, or composting is an uncommon means of handling this portion of the urban waste stream. Because of the unique nature of this approach to UPD utilization, observations made at the field site during the 1.5 yr following initial application were documented. Three

<sup>1</sup>G. Kidder, <sup>2</sup>M.F. Weaver, <sup>3</sup>D. O'Keefe and <sup>4</sup>R. Vories. <sup>1</sup>Soil and Water Science Dept., IFAS,Univ. of Florida, Gainesville, FL., <sup>2</sup>Gilchrist County Extension Service, IFAS, Univ. of Florida, Trenton, FL., <sup>3</sup>Full Circle Solutions, Inc., Gainesville, FL., and <sup>4</sup>Boone Waste Industries, Inc., Gainesville, FL. Manuscript received 2 April 1997. \*Corresponding author. forage crops have been produced since initial incorporation of the UPD material The presence of large woody debris 1.5 yr after UPD application would likely interfere with planting of watermelon. However, the farmer anticipates planting melons 2.5 yr after UPD application. About 9 mo after UPD application, decomposing yardwaste supplied enough N and other nutrients to produce a 2.5-ton dry weight sorghum-sudangrass (Sorghum bicolor x Sorghum vulgare sudanense) forage crop. However, there were indications that N mineralization during the winter was not sufficient for maximum growth of rye (Secale cereale). Soil fertility tests after UPD application showed high to very high P, K, and Mg and adequate Ca, Zn, Mn, and Cu levels. Application of unprocessed UPD directly to land appears to be a viable management option. It utilizes an urban waste material as a resource in agricultural production and provides an environmentally sound alternative to disposal methods.