

DISPOSAL OF MUNICIPAL WASTE ON AGRICULTURAL LANDS, ITS IMPACT ON SOIL ENVIRONMENTS, YIELD AND QUALITY OF MAIZE FODDER AND WHEAT GRAIN

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ABSTRACT

To explore the use of city waste as nutrient source for crops, a field experiment was conducted during 1995-96 on maize fodder and wheat. The treatments tested were NP (120-60 kg ha⁻¹), NP + solid city waste (20 t ha⁻¹), 1/2 NP(60-30 kg ha⁻¹) + solid city waste and city waste alone. City waste with half dose of NP gave nearly equal maize fodder yield (32.0 t ha⁻¹) to that with full dose of NP (31.6 t ha⁻¹). Similar results were observed in case of wheat grain. Grain yield ranged from 3756 kg ha⁻¹ in plots where city waste alone was applied to 5031 kg ha⁻¹ in plots received recommended dose of NP + 20 t ha⁻¹ city waste. Application of city waste alone gave lower yields of both crops than NP. Yields were improved significantly with combined application of city waste and inorganic fertilizers. City waste application did not show ill effects like soil salinity, sodicity and accumulation of heavy metals in soil and plant tissues. However, it polluted the field with undecomposeable materials like stones, plastic bags, clothes, leather, rubbers and glass pieces which offered a great hinderance against ploughing and sowing processes.