

## **Effects of Rice Mill Waste and Poultry Manure on Some Soil Chemical Properties and Growth and Yield of Maize**

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### **Abstract**

An experiment was conducted at the Michael Okpara University of Agriculture, Umudike Western Farm, to investigate the effect of rice mill waste and poultry manure on some soil chemical properties and growth and yield of maize (*Zea mays* L.). The study was laid out in a Randomized Complete Block Design (RCBD) with three replicates. Soil amendments were applied at the rates of 0, 2, 4 and 8 t ha<sup>-1</sup>. The results showed that the addition of the organic materials improved the soil chemical properties with the poultry manure alone giving the highest value for all the parameters analyzed, which included soil pH, available phosphorus and organic carbon. However total nitrogen was highest when the mixture of rice mill waste and poultry manure was applied. Growth and yield parameters of maize were significantly increased by the application of the organic materials. Rate of application at the different times was statistically significant, in affecting all the chemical characteristics of the soil, and the growth and yield parameters investigated.

**Keywords:** Poultry Manure