

# **Effect of Integrated Nutrient Management Practices on Soil Fertility and Production Potential of Hybrid Maize (*Zea mays* L.)**

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## **ABSTRACT**

A field experiment was conducted to evaluate the various organics and inorganic fertilizers on soil fertility and production potential of hybrid maize during *khari*f and *rabi* seasons of 2008 and 2009 at the irrigated upland farm of Tamil Nadu Agricultural University, Coimbatore. The experiment was laid out in randomized block design with three replications and ten treatments. The results revealed that significant increase in yield components, grain and stover yield of maize were recorded with the application of 50 per cent RDF through poultry manure + 50 per cent RDF through inorganic fertilizers followed by 50 per cent RDF through vermicompost + 50 per cent RDF through inorganic fertilizers. Among the different organic and inorganic treatments, higher net gain in soil available N and P at the end of two years of cropping sequence was recorded with 100 per cent RDF supplied through poultry manure treatment, while the higher net gain in soil available K was observed with the application of 100 per cent RDF through vermicompost treatment.

**Key words :** Integrated nutrient management, Maize, Productivity, Soil fertility.