

Integrated Nitrogen Management for Enhancing Productivity of Maize

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ABSTARCT

A field experiment was conducted at Agricultural college farm, Bapatla, during *kharif*, 2017 to investigate the effect of nitrogen levels, bio fertilizers, FYM and vermin compost on yield nutrient content and uptake of maize. Experiment was laid out in thrice. Results of the experiment indicated that highest grain and Stover yields were recorded significantly with 100 % recommended dose of nitrogen (5827 kg ha⁻¹ and 6026 kg ha⁻¹ respectively) Further, it was observed that highest N content and uptake of maize were recorded with 100 % recommended dose of nitrogen in both grain (1.19 % and 69.62 kg ha⁻¹, respectively) and Stover (0.74 % and 44.92 kg ha⁻¹, respectively) whereas highest P & K content in grain was recorded with 50 % RDN + 50 % N through FYM. In grain, highest P & K uptake was observed with 75 % RDN + 25 % N through FYM (14.02) kg ha⁻¹) and 100 % recommended dose of nitrogen (29.14 kg ha⁻¹), respectively. In post-harvest soil, highest available nitrogen (170.3 kg ha⁻¹) was recorded with 100 % recommended dose of nitrogen, whereas highest available phosphorous and potassium were recorded in treatment applied with 50 % RDN + 50 % N through FYM.

Key words: *Bio fertilizers, Content and Uptake and Post-harvest soil, FYM, Vermicompost, Nitrogen.*