Effect of Combined Use of Organic and Inorganic Fertilizers on Yield and uptake of Nutrients in Maize

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ABSTARCT

A field experiment was conducted at Agricultural college farm, Bapatla, during *kharif*, 2018 to investigate the effect of organic, inorganic and biofertilizers on yield and uptake of maize. Experiment was laid out in randomised block design with different combination of organic and inorganic sources in different splits and replicated three times. Among the treatments highest grain and stover yields were recorded significantly with 100% of RDF (N in Four Splits) + vermicompost + azosprillum + PSB + KSB (5721 kg ha^{-1} and 5968 kg ha^{-1} in grain and straw, respectively). Highest N uptake was recorded with 100% RDF (N in three splits) + vermicopost + azosprillum + PSB+KSB in grain (79.1 kg ha^{-1}) but in stover highest uptake was observed with 100%RDF (N in four splits) + vermicompost + azosprillum + PSB + KSB (47.1 kg ha^{-1}). The highest P and K uptake of maize were recorded in treatment applied with 100% of RDF (N in four splits) + vermicompost + azosprillum + PSB + KSB in grain were 27.5 and 49.0 kg ha^{-1}, respectively whereas in stover were 16.7 % and 82.2 kg ha^{-1}, respectively.

Keywords: *Maize, Yield, Uptake, Organics, Inorganics, Bio fertilizers and Vermicompost*