



Effect of integrated nutrient management on yield attributes and yield of maize hybrid

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Abstract : The effect of organics and fertilizer levels with foliar spray on hybrid maize (*Zea mays* L.) NK-6240 was evaluated during winter seasons of 2011-12 and winter 2012-13 at Tamil Nadu Agricultural University, Coimbatore. The experiments were laid out in Split Plot Design with three replications. In the main plot, three organic sources were tried (FYM, biochar and vermicompost) and sub plot comprised of seven treatments having combinations of two fertilizer levels (100 % and 75 % of recommended dose of fertilizers) along with foliar spray of 1 or 2 per cent polyfeed (19:19:19 NPK) and pink pigmented facultative methylophilic bacteria (PPFM). The results of the study revealed that application of vermicompost @ 5 t ha⁻¹ significantly increased the yield attributes and yield of maize followed by FYM 12.5 t ha⁻¹. Among the fertilizer level with foliar spray treatments, application of 100 per cent RDF with foliar spray of 2% poly feed spray significantly (P =0.05) enhanced the yield attributes and grain yield. The interaction effect between organics and fertilizer levels with foliar spray on maize grain yield was significant. In both the years of study, vermicompost application along with soil application of 100 per cent RDF with 2 per cent poly feed as foliar spray recorded the highest grain yield of 9293 and 8830 kg ha⁻¹ and stover yield of 13403 and 12802 kg ha⁻¹, during 2011-12 and 2012-13, respectively. From the result of the study, application of vermicompost @ 5 t ha⁻¹ along with 100 per cent RDF (150:75:75 kg NPK ha⁻¹) with foliar spray of 2 per cent poly feed on 30th and 45th DAS may be recommended for increasing hybrid maize yield, particularly in the study area.

Key Words : FYM, Grain yield, Maize, NPK levels, Polyfeed, Vermicompost, Yield attributes

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