Influence of Biochar on Yield and Yield Attributes of Sweet Corn

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ABSTRACT

A field experiment was conducted in field number 28 of northern block, Agricultural college farm, Bapatla, Andhra Pradesh to study the influence of biochar on soil properties and yield of maize (sugar cane-var. sugar 75) during *kharif* season of 2014-15. The experimental soil was clay loam in texture, slightly alkaline reaction, low in organic carbon, low in available nitrogen, medium in available phosphorus and high in available potassium. All the micronutrients were sufficient in the soil with values above their critical limits. The treatments comprised of control (no fertilizers) (T_1), RDF (T_2), RDF+Azophos (T_3), 75% RDF+biochar @ 5 t ha^{-1} (T_4),75% RDF+biochar @ 5 t ha^{-1}+Azophos (T_5), 75% RDF+FYM @ 5 t ha^{-1} (T_6), 75% RDF+FYM @ 5 t ha^{-1}+ Azophos (T_7) were replicated thrice in randomised block design (RBD) with three replications. Biochar, FYM and Azophos were incorporated one week before sowing. Entire phosphorus was applied as basal dose in the form of SSP, nitrogen and potassium were applied in 3 and 2 splits, respectively in the form of urea and MOP as per the treatments. Application of 75% RDF+biochar @ 5 t ha^{-1} +Azophos favoured the growth, yield and its attributes besides increasing the content, uptake and post harvest soil fertility with reference to N and P. The results further showed that combined application of 75% RDF and Azophos along with either biochar or FYM have been proved to be superior treatments for the best management of soil fertility in clay loam soils.

Key words : Azophos, Biochar, FYM, RDF and Yield.