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Research Article

Effect of biochar application on growth, yield and soil fertility status in cotton

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Summary

A field experiment was conducted to investigate the effect of biochar on growth parameters and crop productivity in cotton Bt RCH 530 in a clay soil at eastern block (field No. 36-B) of Tamil Nadu Agricultural University experimental farm, Coimbatore during 2011-12. The experiment was carried out in Split plot Design with five levels of biochar (0, 2.5, 5.0, 7.5 and 10 t ha^{-1}) and two levels of fertilizers (75 and 100% recommended dose of N, P, K ha^{-1}) with and without FYM in three replications. The results revealed that application of biochar @ 10 t ha^{-1} significantly registered the higher values when combined with 100 per cent NPK and FYM especially in plant height, number of fruiting points, number of flowers and number of bolls and seed cotton yield (35.42% over control). The results also indicated that addition of biochar to clay soil not only increased the yield of cotton but also improved the available nutrients *viz.*, N, P and K contents in the post-harvest soil.

Key words : Biochar, Cotton yield attributes, Soil available nutrients

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