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Response of Okra (Abelmoschus Esculentus (L). Moench) to Soil Amendments and Weeding Regime

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Abstract : Field trials were conducted in 2020 and 2021 at the Teaching and Research Farm of the Federal University of Agriculture Abeokuta, Ogun State, Nigeria, to evaluate the effect of biochar application under different weeding regimes on the growth and yield of okra. Treatments were laid out in a split- plot in a randomized complete block design with three replications. Main plot treatments were three levels of biochar, namely 0t/ha, 10t/ha and 20t/ha while sub-plot treatments consisted of four weeding regimes (weeding at 3, 6 and 9 WAS, weeding at 3 and 6 WAS, weeding at 3 WAS and weedy check as control). Data collected on growth and yield of okra and weed parameters were subjected to analysis of variance, and treatment means were separated using the least significant difference at $p < 0.05$. Results showed that biochar applied at 20 t/ha increased okra yield by 47.5% compared to the control. Weeding at 3, 6 and 9 WAS gave the highest okra yield. Uncontrolled weed infestation throughout crop growth resulted in an 87.3% yield reduction in okra. It is concluded that weed suppression, growth and yield of okra can be enhanced by the application of biochar at 20t/ha and weeding at 3, 6 and 9 WAS hence recommended.

Keywords : biochar, okra, weeding, weed competition, yield
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