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Effects of organo-mineral and inorganic fertilizers on the growth, fruit yield, quality and chemical compositions of okra

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ABSTRACT

Objective: To determine the effect of different levels of organo mineral and inorganic fertilizers on the growth, yield quality and chemical compositions of okra.

Methodology and results: The treatments consisted of three levels of NPK fertilizer (0, 150 and 200kg NPK ha^{-1}), and four levels of organo mineral fertilizer (0, 2, 3 and 4 t. ha^{-1}) used solely or in combination in a factorial laid out as a complete randomized block design with three replications. The data collected were number of leaves, plant height, number of fruits and fruit yield. The leaves, fruits nutritional contents and quality were also assessed. The results showed that application of organo mineral and inorganic fertilizers singularly or in combination influenced the parameters assessed. Sole application of 150kg NPK ha^{-1} or 3 t. ha^{-1} organo mineral fertilizer gave the highest growth, yield and quality of okra. However, there was no significant difference in the crop performance under these two fertilizer regimes. The combined application rates of 75kg NPK and 3 t. ha^{-1} organo mineral

fertilizer gave the best okra performance compared to other treatments.

Conclusion and application of findings: From the results, combined application of the two fertilizers type will reduce the farmer's budget for crop fertilization. Inclusion of organic fertilizer in the combination would be suitable to reduce pollution of the environment.

Key words: *Abelmoschus esculentus*, organo mineral fertilizer, inorganic fertilizer, okra quality, fruit yield.