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ABSTRACTS

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POD FORMATION AND YIELD OF OKRA (*Abelmoschus esculentus*) AS AFFECTED BY ORGANIC MANURE APPLICATION

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A study was carried out at the Eastern region of Sri Lanka to examine the effect of organic manure as a basal fertilizer on pod formation of okra (*Abelmoschus esculentus*). The treatments included basal applications of cattle or poultry manure alone or in combination of both at the rate of 10t/ha and also recommended inorganic fertilizer as a control. Top dressing was done to all experimental plots by using inorganic fertilizer as recommended by the Department of Agriculture of Sri Lanka. The results showed that there was significant variation ($P < 0.05$) in cumulative number of harvested green fruits per plant. Inorganic basal dressing gave significantly ($P < 0.05$) lower number (6.8) of fruits per plant than the treatments with organic manures and no significant difference ($P > 0.05$) was found among the treatments of organic manures. At 45 days after planting (DAP) i.e. at first picking, okra produced higher number of fruits. Peak production was achieved in combined use of farm yard manures. There was a fluctuation in pod yields at alternative picking times. Ten pickings were done until 76 DAP. It was further noted that dry weight of green fruit was high at 45 DAP due to the higher number of fruit production and declined thereafter as stated earlier. The number of harvested green fruits per plant and its dry weight was increased by 24.4% and 65.3% respectively in combined application of cattle and poultry manures as basal dressing when compared to the control. The results of the study revealed that the combined use of locally available organic manure could be used as a substitute of inorganic basal fertilizer application for a greater yield of okra in sandy regosol.

Keywords: *Abelmoschus esculentus*, Organic Manure, Pod Formation