

**GROWTH AND YIELD RESPONSE OF OKRA
(*Abelmoschus esculentus*) TO POTTING MEDIA
CONTAINING VERMICOMPOST PRODUCED
USING COW DUNG WITH AGRICULTURAL
WASTE**

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by

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ABSTRACT

Organic agriculture is a novelty is now a day because it is fully eco-friendly and cost-effective. Vermicompost is one of the technologies in converting organic waste to organic fertilizer. Earthworms play a major role in vermicompost production. The study was designed to assay the influence of vermicompost, produced from cow dung with agricultural waste generated at Leslie's Agro Products (Pvt) Ltd, on the growth and yield response of Okra (*Abelmoschus esculentus*) Haritha variety plants in potting media experiment. A common potting mix was prepared with topsoil, sand, garden compost and bio charcoal in 2:1:1:1/2 proportion and vermicompost was amended with it in 5%, 10%, 15%, and 20% ratio. A total of five different potting media were prepared including control. Before harvest, growth parameters at 2nd, 4th, 6th weeks from the plantation and yield parameters at post-harvest, yield parameters at 40th day to 60th day from plantation were observed and recorded. Maximum plant height was recorded in the potting media containing 20% of vermicompost and minimum was recorded in the control (common potting mix without vermicompost). The maximum number of leaves was produced in the potting media containing 10% of vermicompost. The high leaf area was recorded in the potting media containing 15% of vermicompost. The highest yield was produced in the potting media containing 10% of vermicompost. Results represented that the addition of vermicompost in appropriate quantities, to potting media, has synergistic effects on plant height, no. of leaves, leaf area, pod lengths and yield.

Key words: Vermicompost, Earthworms, agricultural waste, Okra, potting mix, Growth parameters