

## Effects of Poultry Manure Rates on Some Growth and Yield Attributes of Cucumber in Owerri, South Eastern Nigeria

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**Abstract :** The investigation here reported examined growth and yield responses of Cucumber to manure rates in Owerri, Southeastern Nigeria. Fruit vegetables are widely cultivated and produced in Northern Nigeria but greatly consumed in Southern Nigeria where cucumbers command high demand and price but are minimally cultivated. Unfortunately, farmers in northern Nigeria incur lots of losses because cucumber is a perishable vegetable and is transported all the way from the northern Nigeria where cucumbers are produced to Southern Nigeria where cucumbers are consumed, hence the high cost of cucumber fruits in Southern Nigeria. There is a need, therefore, to evolve packages that will enhance cucumber production in Southern Nigeria. The main objective of this study was to examine the effects of poultry manure rates on the growth and yield of cucumber in Owerri, South Eastern Nigeria. Specifically, this study was designed to assess the effect of poultry manure rates on number of days to 50% seedling emergence, vine length/plant, leaf area per plant and the number of leaves produced per plant. The design used for the experiment was Randomized Complete Block Design (RCBD) with three blocks (replications). Treatment consisted of four rates of well-decomposed poultry manure at the rate of 0 tons/ha, 2 tons/ha, 4 tons/ha and 6 tons/ha. Data were collected on number of days to 50% seedling emergence, vine length per plant at two weeks interval, leaf number per plant at two weeks interval, leaf area per plant at two weeks interval, number of fruits produced per plant, and fresh weight of fruits per plant at harvest. Results from the analysis of variance (ANOVA) showed that there were highly significant effects ( $P=0.05$ ) of poultry manure on growth and yield parameters studied which include number of days to 50% seedling emergence, vine length per plant, leaf number per plant, leaf area per plant, fruit number and fruit weight per plant such that increase in poultry manure rates lead to increase in growth and yield parameters studied. Therefore, the null hypothesis ( $H_0$ ) was rejected, while the alternative hypothesis was accepted. Farmers should be made to know that growing cucumber with poultry manure in southeastern Nigeria agro ecology is a successful enterprise

**Keywords :** cucumber, effects, growth and yield, manure

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