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Effect of Organic and Inorganic Fertilizers on the Growth and Yield of Physic Nut (Jatropha curcas)

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Abstract : The research was conducted in 2011 cropping season at the Teaching and Research farm of the Faculty of Agriculture and Natural Resources Management, Enugu State University of Science and Technology, Enugu, Nigeria to study the effect of organic and inorganic fertilizers on the growth and yield of physic Nut (Jatropha curcas). There were five treatments namely, control, (no application of treatment), NPK 20:10:10, NPK 15:15;15, poultry droppings and goat dung. The treatments were laid out in a Randomized complete Block Design (RCBD) with five replications. The total land area used was 228m2 (19x12m) while the plot size was 3mx2 (6m2). The growth parameters measured were plant height, number of leaves, and leaf area, index (LAI). The results obtained showed that there were significant differences at P=0.05 among the different treatments in 30, to and 90 DAP. Based on the results T4 (poultry droppings) had higher effect at P=0.05 at 30, 60, 90 DAP than the other treatments when compared and is hereby recommended as the best type of fertilizer for the optimum growth and production of physic Nut (Jatropha Curcas) in South Eastern Nigeria.

Keywords : organic, inorganic fertilizers, growth, yield, Jatropha curcas
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