

Effect of organic manures on the growth and yield of elephant foot yam under bamboo based agro forestry system

Anshuman Singh, B. Mehera, Anil Kumar and J.S. Dhewa

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ABSTRACT : The field experimental study was conducted at Forest Nursery, School of Forestry and Environment, Sam Higginbottom Institute of Agriculture, Technology and Sciences (Deemed-To-Be-University) Allahabad during 2014-2015 to evaluate the Elephant Foot Yam (*Amorphophallus campanulatus*) with different organic manures under Bamboo (*Bambusa vulgaris*) based Agroforestry system. The experimental results observed in the present study at successive stage 225 DAS, application of Farmyard Manure (FYM) 18.18 t/ha (T₁) produced significantly maximum plant height (114.30 cm), collar diameter (6.92 cm), canopy spread (81.52 cm) and maximum recorded or highest yield (25.50 t/ ha). As far as the various treatments is concerned, all growth indices and yield attributes were realized with application of Farmyard Manure (FYM) 18.18 t/ha in (T₁) compared to treatments Vermicompost (T₂), Neem Cake (NC) (T₃), 50% FYM + 50%NC (T₄), 50% FYM + 50% Vermicompost (T₅), 50% FYM + 50% Leaf Mould C (T₆), 50% NC + 50% Vermicompost (T₇), 50% Vermicompost + 50% LMC (T₈) and Control (T₀) elephant foot yam significantly superior.

Key Words: Elephant Foot Yam, Farmyard Manure, yield, collar diameter.