

Effect of organic and inorganic fertilizers on plant growth and bulb yield of Asiatic *Lilium* Hybrid courier under shadenet conditions

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ABSTRACT : An investigation was carried out on Experimental field, Department of Horticulture, Sam Higginbottom Institute of Agriculture Technology and Sciences [formerly known as Allahabad Agriculture Institute, Deemed University, AAI-DU] during rabi season of 2015-2016. The treatments consisted of different combinations of organic and inorganic fertilizers, which were tested in randomized block design with three replications. Different combinations of inorganic fertilizer and organic manures like FYM, poultry manure, and vermicompost were used in this investigation. The treatment T₈ (70% RDN through inorganic fertilizer +30% RDN through VC) recorded maximum plant height (17.46 cm), maximum plant spread (11.05 cm), maximum number of leaves per plant (16.25), maximum Leaf Area Index (1.73), maximum stem diameter (6.37), maximum number of bulbs/plant (3.33), maximum number of bulbs/m² (48.61), minimum Days taken to bulb sprouting (37.67) and maximum number of buds/plant (0.66) was recorded in treatment T₉ (70% RDN through inorganic fertilizer + 30% RDN through poultry manure) provided better growing condition to Asiatic *Lilium* (Hybrid Courier) under the agro-climatic conditions of Allahabad.

Key Words: *Lilium*, N, P, K, farm yard manure, vermicompost and poultry manure.