EFFECT OF GRADED LEVELS OF NITROGEN ON VEGETATIVE GROWTH AND REPRODUCTIVE PERFORMANCE OF JASMINE (*Jasminum sambac* L.) IN BATTICALOA DISTRICT

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ABSTRACT

An experiment was carried out to evaluate the effects of graded nitrogen levels on plant growth and flower yield of Jasmine (*Jasminum sambac* L.) cv. Local in Batticaloa district during the period of May to September 2015. The experiment was arranged in a completely randomized design with three replications. Graded levels of nitrogen were defined as treatments viz. 0 (T1), 50 (T2), 100 (T3), 200 (T4), 300 (T5), and 400 (T6) g of nitrogen/plant/year. Phosphorous and potassium levels were kept constant throughout the experiment and applied as basal dressing. Urea was used as nitrogen source in this experiment. Split application of nitrogen was practiced at one month interval. Agronomic practices were followed uniformly for all treatments. Growth parameters viz. plant height, leaf area, number of leaves, plant biomass and flowering parameters viz. number of flowers, weight of ten flowers, days taken to first flower emergence and diameter of the flower were measured at monthly interval. Analysis of Variance was performed to determine significant difference among treatments ($p < 0.05$). Results revealed that plant height, leaf area, number of leaves, plant biomass, number of flowers, weight of ten flowers, days taken to first flower emergence and diameter of the flower were significantly higher in T4. Plants grown at this nitrogen level would have received optimum amount of nitrogen. Therefore growth and flower production of Jasmine was higher at this treatment.

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