

## Effect of Nitrogen and Gibberellic Acid at Different Level and their Interaction on Calendula

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**Abstract :** The present investigation is carried out to know the effect of foliar feeding of nitrogen and gibberellic acid on vegetative growth, flowering behaviour and yield of calendula variety 'Golden Emporer'. The experiment was laid out in RBD in rabi season of 2013-14. There are 16 treatments are taken at different level such as nitrogen (at 0%,1%,2%,3%) and GA3 (at 50 ppm,100ppm,150 ppm). Among them maximum height at bud initiation stage was obtained at 3% nitrogen (27.00 cm) and at 150 ppm GA3 (26.5 cm), fist flowering was obtained at 3% nitrogen(60.00 days) and at 150 ppm GA3 (63.75 days), maximum flower stalk length was obtained at 3% nitrogen(3.50 cm) and at 150 ppm GA3 (5.42 cm),maximum duration of flowering was obtained at 3% nitrogen(46.00 days) and at 150 ppm GA3 (46.50days), maximum number of flower was obtained at 3% nitrogen (89.00per plant) and at 150 ppm GA3 (83.50 per plant), maximum flower weight was obtained at 3% nitrogen(1.25 gm per flower) and at 150 ppm GA3 (1.50 gm per flower), maximum yield was was obtained at 3% nitrogen (110.00 gm per plant) and at 150 ppm GA3 (105.00gm per plant) and minimum of all character was obtained when 0% nitrogen0 ppm GA3. All interaction between nitrogen and GA3 was found in significant except the yield .

**Keywords :** calendula, golden emporer, GA3, nitrogen and gibberellic acid

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