

EFFECT OF PLANT DENSITY AND FERTILIZATION LEVELS ON THE GROWTH AND FLOWERING OF CARNATIONS

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ABSTRACT

Carnation Cv . white sim planted as 40 , 30 , 20 , or 10 plants / m² received three levels of NPK as full dressing wider planting resulted in higher number of branches / plant . , fresh weight of leaves / flower stem , fresh weight and stem length of flower than closer spacing . The planting density increased the flower production per unit area , increased but the flower yield per plant fell . The flower quality was slightly affected concerning the fertilizer , the higher level of NPK [200 kg ammonium nitrate (31% N) , 300 kg super phosphate (15.5% P₂O₅) , 100 kg potassium sulphate (48% K₂O) per feddan] proved to be the most effective on for producing better growth and flowering characters of carnation plants .

In conclusion , the density of 30 or 40 plants / m² with higher level of fertilization could be advised for planting white sim carnation in Egypt especially for the exportation during winter .

As for chemical analysis , the nitrogen , phosphorus and potassium percentages increased in levels with increasing fertilizer level and spacing .