

**INFLUENCE OF IRRIGATION REGIME AND NITROGEN  
FERTILIZATION ON THE GROWTH AND FLOWERING OF  
Gerbera jamesonii. ( HOOK ) PLANTS .**

**BY**

**H . A . HASSAN , S . M . MOHAMED AND E . M . ABO-EL-GHAT  
Fac . Agr . at Moshtohor . Zagazig Univ .**

**ABSTRACT**

This investigation included studying the effects of three water regimes as 3383 , 2034 and 1828 m<sup>3</sup> Y / feddan and four levels of N fertilizations as 0.00 , 40 , 60 and 80 gms of N / plot . The moderate irrigation regime ( 2034 m<sup>3</sup> Y / feddan ) produced the highest number of leaves / plant and the maximum fresh and dry weight of leaves in both seasons .

Nitrogen fertilization especially at the level of 60 gms / plot significantly increased the number of leaves / plant . The two high levels of N fertilization ( 60 or 80 gms / plot ) increased the fresh , dry weight of leaves , the number of inflorescences , the length of peduncle and the head diameter . The increase in the number of offsets / plant was significant due to fertilization rather than irrigation .

The combination between 2034 m<sup>3</sup> Y / feddan and 60 gms of N / plot increased the number of leaves / plant in the first season . But the combination between 2034 m<sup>3</sup> Y / feddan and 80 gms of N / plot realized the maximum fresh weight of leaves . Gerbera plants need long interval of irrigation coincided with moderate quantity of N for the best flower quality and production . The chemical analysis indicated no obvious trend in the leaf N and K percentages as affected by irrigation and fertilization . The higher level of N fertilization as 60 or 80 gms / plot obviously increased the percentages of N , P and K .