

## RESPONSE OF NARCISSUS PLANT (*Narcissus poeticus*) TO FOLIAR APPLICATIONS OF PLANT GROWTH REGULATORS, SALICYLIC ACID AND KT-30 .

Nasreen K. A. Aziz\* Abdul Kareem A. J. M. Saied\*\* Karima A. Edan\* Sami K. M. Ameen\*

\* Dept. of Hort. – College of Agric. – Univ. of Baghdad.

\*\* Dept. of Hort. – College of Agric. – Univ. of Diyala.

### ABSTRACT

An experiment to study the influence of plant growth regulators (Salicylic acid and a synthetic cytokinin KT-30) on growth, flowering and bulbs characteristics of Narcissus plant (*Narcissus poeticus*) was conducted. Foliar sprays of four concentrations of both PGR's were applied; SA concentrations were 0, 20, 40, 80 mg/l. While KT-30 levels were 0, 3, 6, 9 mg/l. Narcissus plants were sprayed three times .The first one was applied 60 days after planting, the second spray after 20 days; the last application was carried out after 20 days from the second spray. The results were as follows:

A concentration 80 mg/l of SA was superior on increasing plant height 22.74 cm; no. of branches/plant 4.90; leaf area 21.47 cm<sup>2</sup>; % of chlorophyll 19.88%; fresh weight 25.78 g; no. of flowers/plant 4.96; flower diameter 4.71 cm; vase life 6.04 days; no. of bulbs 2.95; fresh and dry weight of produced bulbs 11.66, 0.99 g respectively.

Most of vegetative growth characters were improved when plants were sprayed with KT-30. The concentration 9 mg/l was more effective on plant height 22.66 cm; no. of leaves/plant 4.60; no. of branches/plant 6.60; leaf area 20.35 cm<sup>2</sup>; date of first flower appearance 104.00 days; no. of flowers/plant 5.13; flower diameter 6.32 cm; flower stem length 7.32 cm; vase life 6.21 days; dry weight of flowers 1.22 g; fresh weight of new bulbs 12.20 g. The interaction between the two studied factors was effective on more characters studied.

**Key words:** *Narcissus poeticus*, Foliar spray, Salicylic acid, KT-30, Vegetative growth, Flowering, Bulbs characteristics.

Diyala Agricultural Sciences Journal, 7 ( 1 ):111-120, ( 2015 ). ISRA impact factor 4.758.

<http://www.agriculmag.uodiyala.edu.iq>

<http://www.iasj.net/iasj?func=issueTOC&isId=4427&uiLanguage=en>