

## IN VITRO MICROPROPACATION OF *Lilium longiflorum*

Sami K.M. Ameen\*

Fadia H. Taha\*

Haider I. Mohammed\*

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

### ABSTRACT

A study on effect of several factors on *in vitro* micropropagation of *Lilium longiflorum* was conducted in the plant tissue culture Lab./Hort. Dept./ College of Agric./ Uni. Of Baghdad from Oct.2009 to June 2010. The experiments were carried out to improve shoot multiplication and rooting . Seculent leaves were separated from the liliun bulbs , they were surface sterilized and cultured on MS medium . Multiplication experiments included ;using modified MS with 0 , 1.0, 2.0, 4.0 or 8.0 mg/l of BA or and 0,0.2, 0.4or 0.8 mg/l of CPPU .The second experiment was modifying MS medium with 0,0.2, 0.4 or 0.8 mg/l of NAA to the medium which contained the concentrations of BA or CPPU mentioned above .

Rooting experiments were ; shoots cultured on MS medium supplement with 0,0.2, 0.4 or 0.8 mg/l of NAA ; 1/2 MS salt strength modified with 20 , 30 or 40 g/l of sucrose ; the last rooting experiment was supplementing 1/2 MS salt strength with 0,0.2, 0.4 or 0.8 mg/l of NAA . The results can be summarized as follows : BA levels reduced No. of shoot/ explants and length of shoots , while CPPU at 0.4 mg/l enhanced shoot multiplication and No. of leaves/ shoot . High concentration of sucrose increased rooting % and no. and length of roots/shoot . Reducing MS salt strength to a half was not effective on rooting .