EFFECT OF PULSING IN PRESERVATIVE SOLUTIONS, GROWTH REGULATORS AND COLD STORAGE ON THE LONGEVITY OF CHRYSANTHEMUM AND LILY CUT FLOWERS

By

NERMEEN MAHDY TAHA EL-SAYED BADAWY

B. Sc. Agric. Sc. (Horticulture), Ain Shams Univ. (2002)

M. Sc. Agric. Sc. (Horticulture), Ain Shams Univ. (2010)

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This thesis for Ph. D. degree has been approved by :

Dr. Emam Mohammed Saber Emam Nofal ……

Emeritus Prof. of Ornamental Horticulture, Faculty of Agriculture, Kafrelsheikh University

Dr. Ibrahim Seif Eldin Ibrahim Aly ……

Prof. of Plant Physiology, Faculty of Agriculture, Ain Shams University

Dr. Hesham Abd El-Raouf Saeed El-Shoura ……

Associate Prof. of Ornamental Horticulture, Faculty of Agriculture, Ain Shams University

Dr. Sohair El-Sayed Mohamed Hassan ……

Emeritus Prof. of Ornamental Horticulture, Faculty of Agriculture, Ain Shams University

Date of Examination : **21 / 4 / 2016**

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Under the supervision of :

Dr. Sohair El-Sayed Mohamed Hassan

Emeritus Prof. of Ornamental Horticulture, Department of Horticulture, Faculty of Agriculture, Ain Shams University (Principal Supervisor)

Dr. Hesham Abd El-Raouf Saeed El-Shoura

Associate Prof. of Ornamental Horticulture, Department of Horticulture, Faculty of Agriculture, Ain Shams University

Dr. Mostafa Hassan Mohamed El Shreif

Prof. of Plant Physiology, Department of Agricultural Botany, Faculty of Agriculture, Ain Shams University

ABSTRACT

Nermeen Mahdy Taha El-Sayed Badawy: Effect of Pulsing in Preservative Solutions, Growth Regulators and Cold Storage on the Longevity of Chrysanthemum and Lily Cut Flowers. Unpublished Ph. D. Thesis, Department of Horticulture, Faculty of Agriculture, Ain Shams University, 2016.

The interaction of pulsing in preservatives, growth regulators and cold storage on vase life and quality of Chrysanthemum (*Dendranthema grandiflora* Tzevlev) and Lily (*Lilium hybrida*) cut flowers were investigated.

Chrysanthemum and lily cut flowers were treated with benzyl adenine (BAP), silver nitrate ($AgNO_3$), cobalt sulfate ($CoSO_4$), sodium hypochlorite (NaOCl), gibberellic acid (GA_3) and silver thiosulfate (STS) and then were placed in cold storage at 5 ºC for periods of 1, 2 and 3 weeks. Vase life, fresh weight, chlorophyll reading, total carbohydrates, proline and activity of catalase enzyme were determined.

Cold storage for one week and pulsing with BA, $AgNO_3$, GA_3 and STS showed the longest vase life, the lowest decrease of chlorophyll reading, the highest total carbohydrates, the lowest proline and the lowest catalase enzyme activity.

Key words: ***Dendranthema grandiflora, Lilium hybrida,*** **Pulsing, Preservative solutions, Growth regulators, Cold storage, Longevity, Chrysanthemum, Lily, Cut flowers.**

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