

EFFECT OF MAGNETICALLY TREATED WATER AND TRAINING METHODS ON SOME YIELD QUANTITATIVE TRAITS OF THREE GENOTYPES OF MUSK MELON (*Cucumis melo* L.) GROWN UNDER GREENHOUSE CONDITIONS

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ABSTRACT

The experiment was conducted at new Baquba Nursery, Diyala Agriculture Directorate, Iraq, during 2014 season. The objective of the study was to study the effect of magnetically treated water and training methods on yield quantitative traits of three genotypes of musk melon (*Cucumis melo* L.).

The experiment included 24 treatments as combinations of three genotypes of muskmelon RAND, NADA, and IDEAL, with two types of water (natural water, magnetically treated water 3000 Gauss), and using four training methods (without training, one stem, two stems, three stems). Factorial experiment with Spilt – Split plots system, in completely randomized complete Block Design CRBD with three replications were used. Duncan test as used to examine the significant differences among means. Result showed superiority of RAND genotype in fruit weight while IDEAL genotype had significant difference in fruit number per plant. Plants irrigated with magnetically treated water showed superiority in fruit number per plant, high yield per plant, and total high yield per green house. Plants trained on one stem showed least number of days required for first fruit maturity. Plants trained on two stems showed superiority in high yield per plant, and total high yield per green house. Plants trained on three stems significant differences in fruit number per plant. IDEAL genotype trained with three stems had a high number of fruit. Plants trained with three stems and irrigated with magnetically treated water showed high number of fruit. RAND genotype irrigated with natrual water, and trained on three stems showed superiority in fruit weight. NADA genotype trained on two stems and irrigated with magnetically-treated water showed superiority in yield per plant, and total yield per green house. IDEAL genotype grown without training and irrigated with magnetically treated water showed least number of days required to fruit maturity. IDEAL genotype trained on three stems and irrigated with magnetically treated water showed superiority in fruit number.

Key words: musk melon, yield, Training, Magnetically treated water.