

- yield of tropical winter Squash improved by transplants plastic mulch and cover . *Hort . Sci* .38(2) : 203-206 .
- Sperry , W.J. , J.M. Davis and D.C.Sanders.1996 . Soil moisture and cultivar influence cracking blossom –end rot peppers and yield staked fresh marker tomatoes. *Hort. Technology* . 6:21-24.
- Strang , J., S. April , S. John . and S. Chris . 2004. Spcialty Melon Variety Evaluation Dep. Of Hort. Unv. Of Kentucky Lexington ,Kentucky 40546 .
- Taha, M., A.E. Eljack and S. Omara . 2007. Estimation of genetic variability and broad sense heritability of some traits in melon (*Cucumis melo* L.). *Sudan J. Agric. Res.*, 8: 51-57.
- Walters , A.S. 1975 . Manual of an antitative genetic , (3ed edition) . Washington state Unvi .press .USA .
- Welsh,J.R.1981. Fundamentals of plant Genetics and Breeding Jhon Wiley and Sons Inc.New York,USA.
- Wien,H.C. 1997. The physiology of vegetable crops Cornell University ,CAB International , Ithaca ,NY, USA, PP 662.
- Zalapa, J.E. , J.E. Staub and J.D. McCreight .2008 . Variance component analysis of plant architectural traits and fruit yield in melon (*Cucumis melon* L.). *Euphytica*, 162: 129-143.

**THE EFFECT OF THE GENOTYPE AND METHOD OF
AGRICULTURE IN THE YIELD AND ITS COMPONENTS AND
ESTIMATE OF SOME GENETIC PARAMETERS MUSKMELON
(*Cucumis melon* L.) GROWTH IN GYPSUM SOILS.**

Othman KalidAlwan AL-mfargy* Zainab Ayad Omer AL Douri

* Dept. of Hort. and landscaping - College of Agri.- University of Diyala - Republic of Iraq.

ABSTRACT

An experiment was conducted at the College of Agriculture, University of Tikrit for two seasons 2008 and 2009 to evaluate the performance of six genotypes of Muskmelon which three local cultivars (Hafz nafsah , Kata'a nafsah and Kahdrawy) and three foreign Ananas , Golden beauty , and hybrid Judy using two methods of planting the seeds direct ,and planting of seedlings in the open field. using (R.C.B.D.) for split- plot design with three replications to study their effect on some quantitative and qualitative characteristics of Muskmelon and some genetic parameters.

The results showed the superiority significantly of Kata'a nafsah and Golden beauty in earliness yield and Ananas , Kata'a nafsah and Hafz nafsah scored increase the number of fruits , fruit weight and yield per plant respectively .also genotypes Golden Beauty and Khadrawy showed significant increase in the thickness of the pulp and Kata'a nafsah showed increasing percentage of total soluble solid and degree of hardness of fruit in Golden Beauty.

Method of planting was showed significantly increasing in earliness of yield for two seasons and number of fruits , fruit weight, and yield per plant for the first season only. The interaction between method of transplanting with Kata'a nafsah and Khadrawy gave earliness yield and significant superiority to the yield per plant while the interaction between Kata'a nafsah and Khadrawy with method direct agriculture caused significant effect on the thickness of the pulp fruit for two season respectively and interaction of Ananas and Hafz nafsah with transplanting in the fruits number , fruit weight and Golden Beuty with mothed of direct planting gave significantly increase of degree of fruit hardness for second season only .

While cracking of the fruit was showed that Annas ,Judy and Hafz nafsah were without cracking also genetic variation was different form zero of all quantitative and total soluble solid for both seasons and hardness of fruit for second season only

the degree of heritability broad sense was high for all characters and medium for degree of hardness of fruit and expected genetic advance showed low values for earliness yield and the degree of fruit hardness for two seasons and medium of number of fruits while it was high for the remaining characters .

Keywords : genetic variation, genetic improvement, yield, method of planting Muskmelon..