

GENETIC EVALUATION FOR SOME CHARACTERS IN SUMMER SQUASH (*Cucurbita pepo*, L.)

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(Received: Mar. 23 , 2010)

ABSTRACT: *The experiments included in the present investigation were carried out during 2005 and 2006 seasons in Six squash (*Cucurbita pepo* L.) cultivars and breeding lines, viz., UR7-64 , UR33-A-4, Virginia Blanco, Alba , Ronde de Nice , Lungo di toscan, and breedig lines Esk₁ and Esk₂. On December under plastic house the crosses among these cultivars were made at suitable flowering stage in a diallel mating design excluding reciprocals, to produce the required F₁'s.*

All genotypes were evaluated in a field trials at Al-Dalgamoon village,, Kafr El-Zayat, El-Gharbia Governorate in the summer season of 2006, and obtained that general combining ability and specific combining ability were highly significant for all studied traits, except average seed weight which was insignificant.

Also indicated that the additive gene action was more important than non-additive gene action in the inheritance of most studied traits.

High heritability estimates in broad sense were detected for all studied traits, suggesting the importance of the genetic variance for inheritance of these traits. While, low estimates of heritability in narrow sense were observed for seed yield and in the other seed yield components.

Keywords: *Cucurbita pepo* L., General combining ability, Specific combining ability, Diallel, Heritability.