

**EARLINESS IN MANY GENOTYPES OF COTTON.**

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**ABSTRACT**

A field experiment was carried out during 2008-2009 at the experimental field of the Dept. of Field Crop / College of Agriculture / Abu-Graib, to evaluate genotypes, with higher yield capacity and measuring of earliness in cotton. However estimate of heterosis. Seventeenth genotypes of cotton (*Gossypium hirsutum*) included Cocker-310, Abu-Graib, Dise, Marsoomi-5, Lashata, 113, Pamair, Kafco, Ashur-1, Macneer, Rabeeaa-122, Pac- cot-189, Marsoomi-4, W888, 4447, 4435 and 4200 were crossed, during the season of 2008. The traits for 79 single crosses and 17 parents were tested during 2009 using RCBD with three replications. Significant differences were found among genotypes (parents and crosses) for all characteristics studied. The parents 4200 and 4447 attained highest seed cotton yield (104.77 and 98.83 g.plant<sup>-1</sup> respectively), also, crosses (Macneer x Marsoomi-5 ) and (Kafco x 113) were gave higher seed cotton yield (112.19 and 109.23 g.plant<sup>-1</sup>, respectively) for giving highest no. of sympodials. The parent Marsoomi-4 and the crosses (4200xKafco and KafcoxRabeea-122) showed better of earliness (62.49, 78.67 and 75.27%, respectively), the first cross gave highest positive value and significant hybrid vigor (111.13%) . However, Cross (Kafco x 4435) showed high hybrid vigor of seed cotton yield (42.25%). It can be concluded that no single trait for measuring earliness, that is depend on growing season in target area. Some genotypes showed high hybrid vigor, so that indicate to be resources for non additive effects for breeding program to produce early hybrid cotton.

**Key words:** Earliness, Genotypes, Hybrid Vigor, Seed cotton yield.