

VARIANCES ESTIMATION AND GENOTYPIC, PHENOTYPIC CORRELATION AND BROAD HERITABILITY PERCENTAGE IN MAIZE (*Zea mays* L.)

Adel Hais Abudlgaffor

Nawfal Adnan S.

Ahmed Abdulwahed M.

College of Agriculture -Anbar University

**ABS
TRA**

CT

A field experiment was conducted at the farm of field crops in the foundation of agricultural Research / Abu Gharib during the autumn season of 2009. Five genotype of maize were used (ART-B40, S182, P-3, P-4, Syn23), as a randomized complete block design with three replications, in order to study variances, broad sense heritability percentage and genotypic and phenotypic correlation coefficient were estimated.

The results showed that the values of variances were varied among studied characters. The values of the genotypic and phenotypic variance were more than environment variance for all characters. The higher values for broad sense heritability appeared in plant height as 91.12%.

The genotypic correlation was positive and high significant between yield of plant and leaf area and positive signification with the number of rows/ear, while it was negative and highly significant between yield and negative and significant with (plant height, ear height, ear length). While it was negative and no significant among yield of plant and number of grain/row and the weight of 500 grains). Mean while the phenotypic correlation was positive and high significant too, between yield of plant and leaf area, was positive and no significant with number of rows/ear, while it was negative and high significant with ear height and negative and significant with plant height, ear length, while it was negative and no significant with number of grain/row and the weight of 500 grain.