

**EFFECT OF FERTILIZER TYPE ON QUANTITATIVE AND  
QUALITATIVE YIELD CHARACTERS OF TOMATO  
(*Lycopersicon esculantum* Mill.) AND SOME ESTIMATE GENETIC  
PARAMETERS .**

**Othman Kalid Alwan AL-mfargy\* Faisal Moafaq Mazher AL-mfargy**

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

**ABSTRACT**

This study was conducted evaluation to the genetic parameters for seven genotypes of tomato.( *Lycopersicon esculantum*.Mill) are: (local, Polaris, SG112, Sumaya, Red Rock, Sun, Mercar) under the effect of three types of fertilizers are: (poultry manure, Alheiomk compounds, chemical fertilizers) in Diyala governorate during the 2012 spring planting season, according to Strip- Plot Design with three replications to study the genotype effect and types of fertilizer in the yield characters of quantitative and qualitative. and some genetic parameters .

The results of the variance analysis showed significant differences between the mean for all varieties squares studied characters and the superiority of the product Mercar genotype plant gave the being of 4.788 kg / plant, and significant effect between the types of fertilizers for all characters except for firmness and total acidity.

As the interaction between genotype and types of fertilizers no significant effect for all characters and yield highest per plant was 7.348 kg / plant when the interaction with poultry manure cultivar Mercar.

The broad sense heritability was high for all characters except (TSS), which was medium. It also showed the genetic variation and phenotypic difference significant for all characters except (TSS) of the genetic variation, while the differences did not significant for environmental variation for all characters . The percentage of genetic improvement was expected for the high qualities of the average fruit weight and number of fruits and ratio of soluble solids TSS and the degree of firmness and the average for the rest of characters. It was not the genetic correlation between moral qualities while the link environmental and positive treatment effect between the number of fruits and yield of plant and better correlation phenotypic was negative and significant treatment effect between the number of fruits and average fruit weight .

**Key words:** genetic variation, genetic improvement, heritability yield , fertilization, tomato

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