

GENETIC VARIABILITY AND TO DETERMINE SOME GENETIC PARAMETERS FOR YIELD AND ITS COMPONENTS IN PEAS (*Pisum sativum* L.)

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ABSTRACT

This study was conducted to evaluate the performance of eight varieties of Peas (*Pisum sativum* L.) viz, (Carina , Early on World , English , Granger , Green Feast , Jof , Little Marvel and Major).The experiment was carried out in the Field Dept. of Hort. & Landscape Design, College of Agric. & Forestry , Mosul University , during growing seasons 2009/2010 and 2010/2011 , were sowing by using Randomized Complete Block Design (R.C.B.D) with three replications. To study genetic , phenotype variations , heritability and expected genetic advance and determine phenotypic and genotypic correlation for studied characters.

Combined analysis results exhibited significant differences that the mean squares varieties between the two growing seasons for all the studied characters. A significant varieties x year interaction effect was found for all the studied characters except the number of pods/plant , pod length and 100 seed weight. The results showed that the mean varieties were differed significantly for all the studied characters , Little Marvel variety was highly superior for green , dry pods yield , seeds yield and biological yield. There was a high genetic variation for number of pods/plant , for green , dry pods yield , seeds yield and biological yield. High heritability for pod length , number of seeds/pod , 100 seed weight , green , dry pods yield and seeds yield , which means that most of the phenotype variation between varieties was due to genetic. High expected genetic advance for number of pods/plant 100 seed weight , green , dry pods yield and seeds yield. The higher phenotypic and genotypic correlations were found between dry pods yield and seeds yield.

Key words: Peas (*Pisum sativum* L.) , Genetic Variability , Genetic Advance , Heritability , Yield.