

STABILITY ANALYSIS FOR GRAIN YIELD AND IT'S CONTRIBUTING TRAITS IN BREAD WHEAT (*TRITICUM AESTIVUM* L.)

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Abstract: The present investigation carried out by to assess the phenotypic stability for grain yield and its contributing traits under three varied environmental conditions using 10 diverse wheat genotypes and 45 F₃S. The mean sum of squares due to genotypes and environments were found to be significant for all the characters, indicating differential effect of environment on the genotypes. G x E interaction was found significant for all the characters except spike length and biological yield per plant. Similarly the pooled analysis of variance showed that the mean squares due to E + (G x E) interaction was partitioned into G x E (linear) and pooled deviation (nonlinear components). Mean sum of squares due to G x E (linear) component and pooled deviation (nonlinear component) was significant for all the characters. The genotypes Raj 3765, Raj 3777, Raj 4238 x WH 1021, Raj 3077 x Raj 3777 had higher yield and were suitable for variable environmental conditions. These genotypes could be utilized as a donor in routine breeding programme to improve grain yield and its contributing traits in bread wheat.

Keywords: Bread wheat, Stability, Grain yield, Genotype x environment interactions

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