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Stability analysis for yield and its contributing traits in wheat (*Triticum aestivum* L.)

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Abstract : The stability of 10 parents and their 45 F_1 s and 45 F_2 s of wheat were studied for days to 75% flowering, number of ear bearing tillers, plant height, spike length/plant, number of grains/spike, grain weight/spike, days to maturity and grain yield/plant at three diverse locations of Uttar Pradesh, India. The stability analysis revealed that the genotypes, environments, genotypes x environments interaction including environments (linear) were highly significant for all the characters, indicating significant variability among the genotypes and significant involvement of environments with different genotypes. The non-linear component (pooled deviation) was also highly significant for all the attributes, exhibiting considerable genetic diversity in yield and its contributing traits. Among parents, K 9107 was found to be high yielder and stable across environments. The crosses namely, K 68 x K 9107, K 68 x K 7903, K 68 x HP 1633, DL 784-3 x K 9107, DL 784-3 x K 9644, K 9107 x K 9644, K 8027 x C 306, K 8027 x K 9644, C 306 x K 9644 and GW 373 x K 9644 were identified as stable and high yielder across environments in both the generations. These crosses can be exploited in further breeding programmes for developing high yielding stable varieties.

Key Words: Wheat, Grain, Yield, Stability

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