

Evaluation of agro-morphological characters for increasing grain yield in wheat (*Triticum aestivum* L.)

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ABSTRACT : The present experiment was conducted to evaluate the yield and yield components of 30 wheat varieties for identification of desirable genotypes. Field trial was conducted during two consecutive *rabi* cropping seasons of 2015 and 2016 at Crop Research Farm (CRF), Department of Agronomy, SHIATS, Allahabad. Morphological data for agronomic characters were recorded for leaf area index (LAI), days to heading, spike length, spike weight, grain yield (t/ha) and biological yield (t/ha). The analysis of variance for agronomic traits (days to heading, grain yield and biological yield) revealed significant variation in first and second year as well as pooled data. Leaf area index (LAI) and spike length showed significant variation in second year and in pooled data, while, the difference was non-significant in first year, but the spike weight was non-significant in second year. Majority of the wheat genotypes possessed higher yield levels. The wheat varieties with maximum leaf area index recorded higher grain yield and biological yield, due to their higher genetic potential. The overall findings conclude that the variety HD 1941 followed by HD 2428 and K 9533 showed better performance as compare to other genotypes for grain yield, thus could be further utilized.

Key Words : Wheat (*Triticum aestivum* L.), variety, leaf area index (LAI), days to 50% heading, spike weight, grain yield and biological yield.