



Comparative Yield Responses of Wheat Genotypes Under Sowing Date Mediated Heat Stress Conditions on Basis of Different Stress Indices

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Abstract: To evaluate the sensitivity or tolerance level of 24 wheat genotypes grouped in to early maturing genotypes (EMG) and late maturing genotypes (LMG) to heat stress, seven indices namely TOL, STI, stress susceptibility index, mean productivity, geometric mean productivity, relative performance and heat susceptibility index (HSI) were studied. Correlation coefficient analysis was performed between grain yield in timely and late sown environments with other yield indices. With respect to relative performance in yield components and HSI, EMG was characterized as tolerant to high temperature but it was found to be low yield potential group while LMG was found to be the sensitive group and high yield potential group. STI and GMP were found the strong indices which positively correlate with the yield under timely (Y_p) and late (Y_s) sown conditions in both the maturing groups and therefore these can be considered as a produced potential indices. In consideration of grain yield in timely and late conditions, different tolerance indices and correlation coefficient analysis on these traits, early maturing genotypes were selected for terminal heat stress tolerance.

Key Words: Early Maturity, Late Maturity, Heat Stress, Wheat, Yield Indices
