Relationship of durum wheat yield to agronomical and physiological growth parameters

B.A. MONPARA
Department of Agricultural Botany, Junagadh Agricultural University, JUNAGADH (GUJARAT) INDIA

ABSTRACT
A set of 21 elite genotypes of durum wheat selected based on maturity time were evaluated for grain yield and some agronomical and physiological growth parameters. Variability and association analysis for 13 traits were carried out. Wide range of variation was observed for all the characters. The genotypic coefficient of variation was moderate for all the characters, except days to maturity, vegetative period and grain filling period, for which, the low magnitude was noted. High heritability coupled with high genetic advance was observed for days to ear emergence, plant height, flag leaf area, spike length, spikelets per spike, grains per spike and 100-grain weight. However, low heritability along with moderate genetic advance was observed for grain yield per plant, indicating that direct selection for grain yield would not be effective. Grain yield per plant was correlated in desired direction only with effective tillers per plant, therefore, this character should be considered as an important component of grain yield and emphasis should be given to this trait during selection programme. However, altering in relationships of days to ear emergence, days to maturity and vegetative period with grain yield through breeding programmes utilizing genetic variation, like Kiwi’s identified in this study, was suggested.

Key words: *Triticum durum*, Grain filling period, Vegetative period, Yield traits