Yagdi K, Sozen E , Cifci EA (2007) Heritability and correlation of yield and quality traits in durum wheat (Triticum durum). Indıan Journal of Agrıcultural Sciences 77(9):565-568.

Abstract

A study was carried out during 2001-2005 to determine the inheritance of agronomical and quality traits and correlations between the traits in durum wheat (Triticum durum Desf.). The environment variance was significant for seeds/spike, 1000-kernel weight, seed weight/spike and test weight (hectolitre mass). Plant height, spike length, spikelets/ spike and test weight showed significant genotypic variance. For seed yield, sedimentation and protein content were found significant in both years and genotype x environment variance component. Gluten content showed significance in both genotypes and genotype x environment interaction. Protein content had the lowest broad sense heritability value (2.08 %), whereas spike length had the highest (35.48 %). Heritability values were 9.07, 15.01, 2.97, 3.0, 9.22 and 5.61 % for plant height, spikelets/spike, seeds/spike, seed weight/spike, 1000-kemel weight and seed yield respectively. The gluten content had the highest heritability (25.82 %), followed by sedimentation (13.89 %) and test weight (10.67 %) in quality traits. Significant positive correlation was found between seed yield and plant height (0.39) and plant density (0.29). Negative and significant correlations were found between test weight and plant density (-0.62), seed yield (-0.44), gluten content and seeds/spike (-0.20), seed weight/ spike (-0.23), sedimentation and spike length (-0.21), spikelets/ spike (-0. 19), seeds/spike (-0.25), protein content and seeds/spike (-0.3 1) and seed weight/spike (-0.20).