



Evaluation of Quantitative Traits, Correlations and the Distances in Some Wheat (*Triticum aestivum* L.) genotypes

Fetah Elezi^{1,*}, B.Gixhari¹, Alban Ibraliu²

¹Center for Genetic Resource, Agricultural University of Tirana, Tirana, Albania; ²Department for Plant Production, Agricultural University of Tirana, Tirana, Albania

Received February 02, 2012; Accepted March 12, 2012

Abstract: Twenty genotypes of common wheat (*Triticum aestivum* L.) are evaluated for the correlations among some quantitative characters such as: plant height, spikes length, number of spikelets per spike, number of grains per spikelet, number of grains per spike, total weight of spike grains, weight of 1000 grains and the realized production. We have also evaluated the phenological indicators, number of days until the flowering and number of days until ripening. The experiment is conducted on the randomized block scheme with four replications. The changes in plant height between wheat genotypes G15 and G19 reached 68%. The differences between the analyzed genotypes were significant for plant height, length of spike, number of spikelets and weight of 1000 grains. In relation to the plant height, positive correlations were observed, the weight of spike (0.65) and the weight of 1000 grains (0.72). Concerning the length of spike, positive medium connections appeared with the number of spikelets (0.52), the weight of spike (0.65) and the weight of 1000 grains (0.72). Regarding the number of days from emergence until flowering, the differences between the genotypes were 9% while for the period from emergence until full ripening the difference arrived up to 18 days or 11%. The grain production is characterized by significant differences between the different wheat genotypes studied. The average value of production was 5.73 t ha⁻¹ and the difference between the maximal value and the minimal one was 2.32 t ha⁻¹. The differences between all the genotypes were statistically significant with $p = 0.01$ of the probability level.

Keywords: *Wheat genotype, correlation, clustering, dendrogram.*

* Corresponding: E-Mail: elezi_fetah@yahoo.com; Tel: +3554320413; Fax: +3554320413