

GRAIN YIELD AND AGRONOMIC CHARACTERISTICS OF CROATIAN WHEAT CULTIVARS UNDER THE AGRO ECOLOGICAL CONDITIONS OF KOSOVO

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Abstract

Deficit of domestic wheat cultivars is imminent condition and the need to import large quantities of seeds, mainly from neighbouring countries, to meet the demands and needs of agriculture in Kosovo. In this sense, thirteen wheat cultivars, which were introduced into Kosovo, from BC-Institute - Croatia, were evaluated for grain yield and agronomic characteristics among different cultivars. Field trials were conducted during the growing seasons 2010/11 and 2011/12, at the Plant Testing units of seed company "Semenarna Kosov" shpk, Prishtina, in Locality-Livadhi, located in geographical position: N42°05' 54", E 21° 06'36", and 581 M.A.S.L. The experimental design was complete in random block with three replications (RCBD), according to combinations: (Years, Y-2 x Cultivars, C-13 x Replication, R-3 x Parameters, P-8) = 624 results. For data analyses were used ANOVA, LSD-test, and Multiple Comparisons with the Best, Fisher Method and Pearson correlation coefficient, according to the program MINITAB -16©. The aim of the research was to investigate variability for ability productions among wheat cultivars from Croatia and to determine the most promising cultivars suitable to Kosovo agriculture conditions. Based on two-year investigation, average values for different parameters were: plant high ($PH\mu=69.57\text{cm plant}^{-1}$), spike length ($SL\mu=7.76\text{ cm spike}^{-1}$), spikelet per spike ($SS\mu= 15.15$), grain number per spike ($GNS\mu= 40.75$), spike weight ($SW\mu=1.90\text{ g spike}^{-1}$), grain weight spike ($GWS\mu=1.4\text{ g spike}^{-1}$), test weight ($TW\mu= 79.85\text{ kg}$) and grain yield per square meters ($GY\mu= 574.55\text{ g m}^2$). All evaluated parameters and interaction between genotype and years, showed significant difference for LSD 0.05 and 0.01 on level ($P < 0.05$ and 0.01). It has been found variability among Wheat cultivars originated from Croatia, growing under agro-ecological conditions of Kosovo, for grain yield and agronomic characteristics, determined by specific reaction of cultivars, influenced from genotype, environment and growing conditions.

Key words: *Wheat cultivars, plant, spike traits, grain yield, variability.*