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**BOOK OF
ABSTRACTS**

*XIII International Scientific Agriculture Symposium
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Abstract

This research was conducted on Rimski Šančevi at the Institute of Field and Vegetable Crops, Novi Sad, Serbia. Fifteen divergent wheat genotypes different in their morphological and physiological characteristics as well as to originate from different parts of the world were selected. For wheat breeding to be successful it is necessary to know the interrelationship of a large number of components which together affect the yield height and quality. Grain yield and its components (spike length, plant height, grain weight per spike, and heading time) were analyzed. For the data obtained from the experiment, the following parameters were calculated: mean, minimum, maximum value, coefficient of variation and standard deviation. Also, analysis of variance (ANOVA), correlation coefficient and Principal Component Analysis (PCA) were calculated. By applying the ANOVA model, it was found that among analyzed genotypes significant differences between tested traits were recorded. The coefficient of variation ranged from 5.02% to 30.85%. Correlation analysis showed that a strong positive relationship occurred between grain yield and grain mass per spike ($r = 0.815$), as well as between plant height and heading time ($r = 0.665$). A negative correlation occurred between heading time and yield ($r = -0.650$) and grain weight per spike and heading time ($r = -0.549$). Genotypes Apache, Pobeda and Acciaio achieved the highest results which were confirmed by Principal Component Analysis. By analyzing the obtained final results, it was concluded that between genotypes there was a variability that ranged widely for all tested traits.

Keywords: *wheat, yield, yield components, correlations, Principal Component Analysis.*

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