

## Varijabilnost komponenti prinosa hrvatskih i austrijskih sorata ozime pšenice

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### Sažetak

U cilju ispitivanja divergentnosti germplazme pšenice i pronalaska novih roditeljskih parova za križanja provode se istraživanja komponenti prinosa hrvatske germplazme pšenice te se germplazma pšenice iz hrvatskih oplemenjivačkih programa uspoređuje s germplazmom europskih oplemenjivačkih centara. U poljski pokus uključene su 53 sorte i linije ozime pšenice (31 genotip hrvatske selekcije i 22 strana genotipa). Ocjena komponenti prinosa (broj biljaka /m<sup>2</sup>, broj zrna po klasu i masa 1000 zrna) provedena je tijekom 2009. godine u poljskom pokusu postavljenom u tri ponavljanja po slučajnom bloknom rasporedu. Analiza rezultata provedena je u SAS Software 9.1.3 (2002-2003). Za sva ispitivana svojstva utvrđene su statistički značajne razlike ( $P < 0,01$ ) između ispitivanih genotipova. Najveću masu 1000 zrna postigao je genotip Barbara (53,1g) dok je najniža vrijednost zabilježena kod genotipa Valerius (40,7 g). Provedeno istraživanje pokazalo je varijabilnost ispitivanih svojstava komponenti prinosa zrna ozime pšenice, te ukazuje na mogućnost odabira najboljih roditelja iz različitih oplemenjivačkih programa za buduća križanja i selekciju visokoprinosnih sorata ozime pšenice.

Ključne riječi: ozima pšenica, komponente prinosa, varijabilnost, germplazma

## Variability of yield components of Croatian and Austrian winter wheat varieties

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### Summary

Variability of yield components in winter wheat is very important for future breeding programs. Research work on yield components diversity towards finding new parents for future crossing and selection are underway. Croatian wheat germplasm are being compared with wheat germplasm from European breeding centers. Fifty-three breeding lines and varieties (33 Croatian and 22 foreign genotypes) are included in field experiment. During 2009 vegetation year evaluation of yield components (plant/m<sup>2</sup>, number of grains/spike and thousand kernel weights) were conducted, plants were sown in three repetitions by RCBD method. Analyses of results were conducted using SAS Software 9.1.3 (2002-2003). For all analyzed traits ANOVA showed highly significant differences ( $P < 0,01$ ) between examined genotypes. Genotype Barbara had the highest thousand kernel weight (53,1g) while variety Valerius had the lowest (40,7g). Conducted research showed variability of yield components which indicates the selection possibility of the best parents originating from different breeding programs for future crossing and selection of high yielding winter wheat varieties.

Key words: winter wheat, yield components, variability, germplasm