

EVALUACIJA OSOBINA KVALITETA I PRINOSA NS SORTI JEČMA U VEGETACIONOJ SEZONI 2023/24

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Sažetak:

Oplemenjivanje pivarskog ječma u Institutu za ratarstvo i povrtarstvo u Novom Sadu ima tradiciju dužu od sedamdeset godina. Tokom ovog perioda je stvoren i registrovan veliki broj sorti ječma ozimog i jarog tipa, koje su se izdvojile po visokom genetskom potencijalu za prinos i dobrim karakteristikama tehnološkog kvaliteta potrebnim za proizvodnju slada. Cilj ovoga rada je bio da se ispituju sorte dvoredog ozimog ječma koje su u poslednjih 10 godina stvorene u Institutu za ratarstvo i povrtarstvo i registrovane za potrebe industrije slada. Ukupno je ispitivano 6 NS sorti na lokalitetu Rimski šančevi u 2023/24. godini. Ogled je postavljen po slučajnom blok dizajnu na 10 m² u četiri ponavljanja uz primenu standardnih agrotehničkih mera. Kod tri ponavljanja su primenjeni svi potrebni tretmani za zaštitu od bolesti, dok je četvrto ponavljanje poslužilo kao kontrola, odnosno tretiranje je izostavljeno. Tokom vegetacione sezone i nakon žetve beležena su važna agronomska svojstva: klasanje, broj klasova po m², pojava bolesti, poleganje, prinos zrna, sadržaj proteina i svi važni parametri tehnološkog kvaliteta dobijeni u procesu mikroskladovanja. Sve ispitivane sorte su imale ujednačeno klasanje u vremenskom intervalu od tri dana (10. 4 – 13. 4. 2024.). Sadržaj proteina u tretiranom bloku se kretao od 9,4% do 11,2%, dok su se proteini kod sorti u netretiranom bloku bili viši i kretali su se od 9,9% do 13,3%. Zrno I klase je kod svih sorti iznosilo preko 95%. Vrednosti suvog ekstrakta su se kretale od 76,7%, do 80,3%. Kolbahov indeks je varirao od 33,4 do 42,1, a vrednost Hartonga je iznosila od 33,2% do 40,7%. Sve sorte su pokazale odličnu otpornost na poleganje. Sve veći zahtevi industrije i potražnja za novim ukusima piva, kako u velikim multinacionalnim kompanija tako i u malim zanatskim pivarama, predstavljaju odličnu mogućnost za upotrebu novosadskih sorti pivarskog ječma u proizvodnji slada čime bi se obezbedila veća divergentnost postojećeg dostupnog sortimenta, izvrsnost, stvorili novi izazovi i posebnost u proizvodnji piva.

Ključne reči: agronomske karakteristike, kvalitet, mikroskladovanje, sorte ječma

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EVALUATION OF QUALITY TRAITS AND YIELD IN NS BARLEY VARIETIES DURING THE 2023/24 GROWING SEASON

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Summary:

Breeding of malting barley at the Institute of Field and Vegetable Crops in Novi Sad has a tradition spanning more than seventy years. During this period, a large number of winter and spring barley varieties have been developed and registered, which have stood out for their high genetic yield potential and good technological quality required for malt production. The aim of this study was to examine two-row winter barley varieties that have been developed at the Institute of Field and Vegetable Crops over the past 10 years and registered for the malt industry. A total of six NS varieties were tested at the Rimski šančevi location in the 2023/24 season. The experiment was set up in a randomized block design on 10 m² plots with four replications, applying standard cultivation practices. All necessary pathogen control treatments were applied in three replications, while the fourth replication served as a control and was untreated. During the growing season and after harvesting, important agronomic traits were recorded: heading, number of ears per m², disease occurrence, lodging resistance, grain yield, protein content, and all important technological quality parameters obtained from the micro-malting process. All tested varieties had uniform heading within a three-day interval (April 10–13, 2024). Protein content in the treated block ranged from 9.4% to 11.2%, while protein levels in the untreated block were higher, ranging from 9.9% to 13.3%. The percentage of first-class grain for all varieties was over 95%. Dry extract values ranged from 76.7% to 80.3%. The Kolbach index varied from 33.4 to 42.1, and the Hartong value ranged from 33.2% to 40.7%. All varieties demonstrated excellent lodging resistance. Increasing demands from the industry and the growing demand for new beer flavors, both in large multinational companies and small craft breweries, present an excellent opportunity for the use of NS malting barley varieties in malt production, which would ensure greater diversity in the available assortment, excellence, and create new challenges and uniqueness in beer production.

Keywords: agronomic traits, barley varieties, micro-malting, quality

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