

Perspektivni genotipovi drijena (*Cornus mas* L.) izdvojeni iz prirodne populacije u Srbiji

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Sažetak

Drijen je jedna od rijetkih biljnih vrsta koja plodonosi bez primjene kemijskih preparata i rađa u znatno skromnijim agrotehničkim uvjetima. Kod nas za uzgoj drijena postoje izvanredni uvjeti, te bi širenje ove zanemarene voćne kulture i iskorištavanje njenog ogromnog potencijala za organsku proizvodnju voća bilo od velikog gospodarskog značaja.

U radu su prikazane morfometrijske osobine 16 genotipova drijena koji najviše obećavaju u pogledu krupnoće i kvalitete ploda, izdvojenih na području pokrajine Vojvodina i regiona Mačve, tijekom 2008 i 2009. godine. U prosjeku za obje ispitivane godine, genotip PPC1 imao je najveću dužinu (27,79 mm) i širinu ploda (18,97 mm), masu ploda (6,61 g), masu mezokarpa (5,86 g) i randman (88,46%). Najizduženiji plod zabilježen je kod genotipa Žuti. Utjecaj godine u prosjeku bio je statistički značajan kod svih ispitivanih svojstava, osim kod širine ploda i indeksa oblika ploda. Masa ploda, kao ekonomski najbitnije svojstvo, u prosjeku za obje godine, kretala se u intervalu 2,25 g do 6,61 g, sa velikim udjelom genotipova mase ploda preko 3 g. Svi ispitivani genotipovi imali su veoma zadovoljavajući randman, u prosjeku od 79,00% (CPC9) do 88,46% (PPC1). Najveća prosječna varijabilnost zabilježena je kod mase mezokarpa (36,48%) i mase ploda (33,19%) u 2009. godini, dok je randman bio najstabilnije svojstvo u obje ispitivane godine (CV = 3,84% odnosno 4,09%). Najveći sadržaj topive tvari (32,37%) imao je genotip SKC, koji se isticao i po najvećem sadržaju ukupnih (25,38%) i reducirajućih šećera (23,67%). Plodovi KC2 imali su najviše vitamina C (39,22 mg/100 g ploda) i ukupnih kiselina (3,60%). Najbolju obezbjeđenost antocijana pokazali su plodovi selekcije Apatinski rani (109,36 mg/100 g ploda). Zavisno od genotipa, sadržaj proteina kretao se u intervalu 1,43 - 2,71%, a tanina od 0,65% do 1,31%.

Na temelju dobivenih rezultata u ovom radu, može se zaključiti da je područje Srbije bogato populacijama drijena čiji su plodovi veoma različitih morfoloških i kemijskih osobina, te imaju veliki značaj u oplemenjivačkom programu. Također, izdvojeni genotipovi su pokazali pogodnost za uzgoj, za stonu upotrebu i za industrijsku preradu.

Ključne riječi: *Cornus mas* L., genotip, selekcija, morfometrijske osobine, kemijski sastav

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Promising Cornelian cherry (*Cornus mas* L.) genotypes from natural population in Serbia

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Abstract

The Cornelian cherry is a rare plant species that can preserve its natural form without application of chemicals and it is capable of fruit bearing under modest agrotechnical conditions. Our country has excellent conditions for Cornelian cherry growing and a reintroduction and expansion of this neglected fruit species and exploitation of its high potential for organic production would bring large economic benefits.

The paper reviews morphometric characteristics and chemical compositions of 16 Cornelian cherry genotypes collected on the territory of the Vojvodina Province and Mačva region, in 2008 and 2009, which were found to be superior in terms of fruit size and quality. On average for the two years, the genotype PPC1 had the highest fruit length (27.79 mm), fruit width (18.97 mm), fruit weight (6.61 g), mesocarp weight (5.86 g) and the flesh to stone ratio (88.46%). The genotype Žuti had the longest fruit. Fruit weight ranged in the interval from 2.25 to 6.61 g, with a large number of genotypes having the fruit weight over 3 g. All of the tested genotypes had highly satisfactory flesh to stone ratio, from 79.00% (CPC9) to 88.46% (PPC1) on average. The highest average variability was registered for mesocarp weight (36.48%) and fruit weight (33.19%) in 2009, while flesh to stone ratio was the most stable characteristic in both test years (CV = 3.84 and 4.09% in 2008 and 2009, respectively). The genotype SKC had highest contents of soluble matter (32.37%), total sugars (25.38%) and reducing sugars (23.67%). Genotype KC2 had highest contents of vitamin C (39.22 mg/100 g fruit) and total acids (3.60%). Apatinski rani had the highest content of anthocyanins (109.36 mg/100 g fruit). Protein and tannin content ranged from 1.43 to 2.71% and 0.65% to 1.31%, respectively.

Based on the results of the conducted study, it was concluded that the area of the Serbia abounds in Cornelian cherry populations whose fruits differ considerably in morphological and chemical characteristics, and on that account they are of great importance for breeding programs. Also, the selected genotypes showed to be suitable for cultivation, and their fruits can be used for both fresh consumption and industrial processing.

Key words: *Cornus mas* L., genotype, selection, morphometric properties, chemical content

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