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TOTAL POLYPHENOL CONTENT IN FIVE NUTS

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Experimental data increasingly support the hypothesis of a preventive effect of a diet rich in fruits and vegetables. It has long been thought that this effect should be attributed to the antioxidant effects of vitamins. Attention is increasingly paid to compounds that are not vitamins, and especially polyphenols.Nuts contain a large amount of unsaturated fatty acids, and are relatively stable, so we can conclude about the high content of antioxidant compounds. Earlier, it was considered that this activity mostly belongs to tocopherol, but new, extensive research has also pointed out the importance of polyphenols. Walnut, as the most commonly used nut, has been the most studied and more than 20 different polyphenols have been found, although it is believed that there are many more. The aim of this work was to evaluate total polyphenol content in several nuts. For this study, five types of nuts were selected from three different producers: peanuts, Brazil nuts, hazelnuts, almonds and walnuts. The content of total phenolic compounds was determined using spectrophotometric Folin – Ciocalteau method. Total polyphenol content in different types of nuts varied greatly both between the types and within the same type depending on the producer. The highest was in walnut 2228.68 ± 355.70 mgGAE/ 100g while the lowest value was obtained in almonds 102.40 ± 20.44 mgGAE/100g.

UKUPNI POLIFENOLI U PET VRSTA JEZGRASTOG VOĆA

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Eksperimantalni podaci sve više podupiru hipotezu o preventivnom učinku ishrane bogate voćem i povrćem na zdravlje. Dugo se smatralo da taj učinak treba pripisati antioksidativnom delovanju vitamina. Pažnja se sve više posvećuje jedinjenjima koja nisu vitamini, a posebno polifenolima. Jezgrasto voće sadrži veliku količinu nezasićenih masnih kiselina, a relativno je stabilno, stoga možemo zaključiti o velikom sadržaju antioksidativnih jedinjenja. Ranije se smatralo da ova aktivnost najviše pripada tokoferolu ali su nova, opsežna istraživanja ukazala i na značaj polifenolnih jedinjenja. Orah, kao najčešće korišćeno jezgrasto voće, je i najviše proučavan i pronadjeno je nešto više od 20 različitih polifenolnih jedinjenja, mada se smatra da ih ima mnogo više.Cilj ovog rada bio je da se odredi sadržaj ukupnih polifenola u različitim vrstama jezgrastog voća. Za ovo ispitivanje odabrano je pet vrsta jezgrastog voća od tri vrste proizvođača: kikiriki, brazilski orah, lešnik, badem i orah. Sadržaj ukupnih polifenola odredjen je spektrofotometrijskom metodom po Folin-Ciocalteau.Sadržaj u različitim vrstama voća izuzetno varira kako između samih vrsta tako i u okviru iste vrste u zavisnosti od proizvođača. Najviši je u orahu 2228.68 ± 355.70 mgGAE/100g dok je najniža vrednost dobijena u bademu 102.40 ± 20.44 mgGAE/100g.