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I

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17:55-18:05	Uticaj različitih sistema mineralne ishrane na antioksidativni kapacitet zrna kukuruza The impact of different mineral nutrition on antioxidative capacity of maize grain	**Dragičević et al.** Institut za kukuruz „Zemun Polje“, Srbija Maize Research Institute Zemun Polje, Serbia

Datum (Date): Subota (Saturday), 6.10.2018.

Mesto (Place): Rektorat BU, Studentski trg 1, Rectory building Hall I floor

10:45-12:45 Svečana sala (Congress Hall)	**SEKCIJA (SECTION): FOOD QUALITY AND SAFETY**	Moderatori/Moderators: Dr Uroš Anđelković, Prof. Dr Dragana Stanić-Vučinić
10:45-10:55	Samonikla jestiva makromiceta *Pleurotus ostreatus* (Jacq.)P. Kumm sa teritorije Srbije: potencijalni kandidat za funkcionalnu hranu Wild growing edible mushroom *Pleurotus ostreatus* (Jacq.)P. Kumm from Serbia: a potential candidate for functional food	**Petrović et al.** Institut za biološka istraživanja „Siniša Stanković“, Univerzitet u Beogradu, Beograd, Srbija Institute for Biological Research „Sinisa Stankovic“, University of Belgrade, Belgrade, Serbia
10:55-11:05	Bioaktivna jedinjenja iz jestive gljive *Laetiporus sulphureus* (Bull.) Murrill. Antioksidativne, antifungalne I antibakterijske karakteristike. Bioactive compounds of the wild edible mushroom *Laetiporus sulphureus* (Bull.) Murrill. Antioxidant, antifungal and antibacterial properties	**Proestos (Petrovic et al)** Laboratorija za hemiju hrane, Odeljenje za hemiju, Univerzitet u Atini, Grčka Laboratory of Food Chemistry, Department of Chemistry, National and Kapodistrian, University of Athens, Greece
11:05-11:15	Antimikrobna svojstva ekstrakata Čage (*Inonotus obliquus*) Antimicrobial properties of Chaga extracts (*Inonotus obliquus*)	**Popović et al.** Univerzitet u Beogradu, Poljoprivredni fakultet, Beograd, Srbija University of Belgrade, Faculty of Agriculture, Belgrade, Serbia

Samonikla jestiva makromiceta *Pleurotus ostreatus* (Jacq.)P. Kumm sa teritorije Srbije: potencijalni kandidat za funkcionalnu hranu

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Interesovanje za povezanost lošeg načina ishrane i etiologije i razvoja različitih oboljenja ljudi dovelo je do porasta broja naučnih studija koje se bave mogućnostima konzumiranja određene hrane kao leka. Faktori koji tome doprinose uključuju brz napredak nauke i tehnologije, kao i povećanje svesti potrošača da kvalitetna ishrana koristi zdravlju u čemu funkcionalna hrana zauzima važno mesto. Samonikla bukovača *P. ostreatus* se tradicionalno koristi kao hrana, pa je zbog toga izabrana za detaljnu hemijsku karakterizaciju (profil nutrijenata i odabranih metabolita). Pored toga, procenjena je i sposobnost metanolnog ekstrakta bazidiokarpa ove gljive da inhibira *in vitro* rast odabranih patogenih mikroorganizama u cilju procene funkcionalnih svojstava koja mogu doprineti zdravlju korisnika. Dobijeni rezultati su pokazali da su ugljeni hidrati dominantni nutrijenti, a za njima slede proteini i masti. Od prostih šećera, trehaloza je prisutna u znatnoj količini, dok su glukoza i fruktoza prisutne u manjoj meri. Zahvaljujući niskoj energetskoj vrednosti, plodonosna tela bukovače predstavljaju zdravu, niskokaloričnu hranu koja može biti preporučena za svakodnevno konzumiranje. Analiza metabolita je pokazala prisustvo α-tokoferola, oksalne, jabučne, limunske, fumarne kao i *p*-hidroksibenzoeve kiseline. Rezultati antibakterijske aktivnosti metanolnog ekstrakta ukazali su njegovo moćno inhibitorno delovanje na rast osam vrsta bakterija, među kojima je *Pseudomonas aeruginosa* bila najosetljivija. Uzevši u obzir dobijene rezultate analize nutrijenata i energetske vrednosti, prisustvo različitih metabolita (fenolnih i organskih kiselina, kao i tokoferola) i antibakterijsku aktivnost, bukovača se može smatrati kandidatom za funkcionalnu hranu ili izvorom funkcionalnih sastojaka koji će biti korišćeni za razvoj novih, obogaćenih prehrambenih proizvoda.

Wild growing edible mushroom *Pleurotus ostreatus* (Jacq.)P. Kumm from Serbia: a potential candidate for functional food

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Renewed interest on relationship between poor nutrition and etiology and the development of various diseases affecting mankind has led to the increased number of scientific studies dealing with the consumption of certain food as medicine. Factors that contribute to this include rapid advances in science and technology and raising awareness of consumers in obtaining good health through quality diet wherein functional foods occupy an important place. Since renowned wild growing Oyster mushroom has a long tradition of use as a food, herein, we reported a detailed chemical profile regarding nutrient and selected metabolite profile. In addition, we evaluated the ability of methanolic extract obtained from mushroom basidiocarps to reduce *in vitro* growth of selected pathogenic microorganisms in order to assess functional properties of the mushroom that can provide health benefits for the consumers. Obtained results indicate carbohydrates were the most abundant compounds, followed by proteins and fat. Free sugar trehalose was present in considerable amount, unlike glucose and fructose. With low energy value, fruiting bodies of wild growing Oyster mushroom represent a healthy, low-calorie food, recommended for use on a daily basis. As for selected metabolite analyses, results revealed the presence of α-tocopherol, oxalic, malic, citric, fumaric and *p*-hydroxybenzoic acid. Results of antibacterial activity revealed potent activity against eight species of bacteria, among which *Pseudomonas aeruginosa* was the most susceptible to the activity of methanolic extract. Overall, proximate composition and energy value, as well as the presence of various metabolites (phenolic and organic acids as well as tocopherols) and antibacterial activity, indicate that Oyster mushroom may be a candidate for functional food or a source of functional ingredients used for the development of new, enriched food products.