DRUŠTVO ZA ISHRANU SRBIJE SERBIAN NUTRITION SOCIETY

12. KONGRES O ISHRANI sa međunarodnim učešćem
12th CONGRESS OF NUTRITION with international participation

ISHRANOM DO ZDRAVLJA U 21. VEKU
NUTRITION TO HEALTH IN 21st CENTURY

IZVODI RADOVA
BOOK OF ABSTRACTS

Hotel «M», Bulevar Oslobođenja 56a

Beograd, 31. oktobar – 3. novembar 2012. godine
Belgrade, October 31st – November 3rd 2012

DRUŠTVO ZA ISHRANU SRBIJE SERBIAN NUTRITION SOCIETY

12. KONGRES O ISHRANI
sa međunarodnim učešćem

12th CONGRESS OF NUTRITION
with international participation

ISHRANOM DO ZDRAVLJA U 21. VEKU
NUTRITION TO HEALTH IN 21st CENTURY

IZVODI RADOVA
BOOK OF ABSTRACTS

Hotel «M», Bulevar Oslobođenja 56a

Beograd, 31. oktobar – 3. novembar 2012. godine
Belgrade, October 31st – November 3rd 2012

02.P10 HRANLJIVA I ENERGETSKA VREDNOST MEŠAVINE BRAŠNA PŠENICE I PEČURKE BOLETUS EDULIS

Stojanović J[1], Nikolić N[1], Karabegović I[1], Lazić M[1], Mastilović J[2]
[1]Univerzitet u Nišu, Tehnološki fakultet u Leskovcu, [2]Naučni institut za prehrambene tehnologije, Univerzitet u Novom Sadu, Novi Sad

Boletus edulis je jestiva pečurka, bogata kvalitetnim proteinima. Pečurke pored hranljive vrednosti imaju i medicinski značaj. Poznato je da se koriste u lečenju mnogih bolesti kao što su epilepsija, bolesti kože, reumatoidni artritis, dijareja, disenterija, za lečenje bolesti jetre i žučne kese, za jačanje srca i dr. Primenom brašna pečurke *Boletus edulis* za zamenu pšeničnog brašna, prehrambeni proizvod se obogaćuje proteinima i drugim hranljivim komponentama pečurke. U radu je ispitana hranljiva i energetska vrednost mešavine pšeničnog i brašna od pečurke, u odnosu 80:20 m/m. Korišćeno je pšenično brašno "Fidelinka", Subotica, tip 500. Brašno pečurke je dobijeno sušenjem sveže pečurke ubrane na lokalitetu Piskupovo, Leskovac, na 35 °C, mlevenjem i sejanjem kroz sito veličine otvora 0.30 mm. Sadržaj proteina (SP) odredjen je metodom po Kjeldahl-u (Nx5.7), sadržaj ukupnih ugljenih hidrata (SUH) metodom po Luff-Schoorl-u, a sadržaj celuloze standardnom metodom po Kürschner-Hanak-u. Sadržaj lipida odredjen je dvostrukom ekstrakcijom sa trihloretilenom (1:20 m/v) uz refluks, na temperaturi ključanja rastvarača, u toku 45 minuta, a sadržaj pepela spaljivanjem materijala na 800°C, u toku 5 h. Energetska vrednost sračunata je kao EV=(SP+SUH)x17+SLx37. Rezultati hemijskog sastava pšeničnog i brašna pečurke ukazuju da dodatak brašna pečurke povećava sadržaj celuloze za 49.7%, proteina za 38,8%, lipida za 24.5% i sadržaj pepela za 4.1%, a smanjuju sadržaj glutena za 20.0%, ugljenih hidrata za 10.1% i energetsku vrednost za 4.0%.

Ključne reči: pšenica, mešavina brašna, *Boletus edulis*, hranljiva vrednost, energetska vrednost

NUTRITIONAL AND ENERGETIC VALUE OF WHEAT AND BOLETUS EDULIS MUSHROOM FLOUR MIXTURE

Stojanović J[1], Nikolić N[1], Karabegović I[1], Lazić M[1], Mastilović J[2]
[1]University of Niš, Faculty of Technology, Leskovac, [2]Institute of Food Technology, University of Novi Sad, Novi Sad

Mushroom *Boletus edulis* is edible fungi, delicious nutritional food and good source of high quality protein. Mushrooms have medicinal importance too. It was reported they cure many diseases as epilepsy, skin diseases, heart ailments, rheumatoid arthritis, cholera, diarrhea, dysentery, liver and gall bladder diseases etc. The replacement of wheat flour by *Boletus edulis* mushroom flour, the food products are enriched by protein and other nutritional components of mushroom, and the content of gluten is decreased. In the present work the nutritional and energetic value of wheat-mushroom flour mixture (80:20 w/w) was observed. The wheat flour, type 500 by "Fidelinka", Subotica, Serbia, was used and *Boletus edulis* flour was obtained from fresh mushroom, originated from region Piskupovo, Leskovac, Serbia, after drying at 35 °C, milling and sieving through a 0.30 mm riddle. The protein content (PC) of flours was determined by the Kjeldahl method (Nx5.7), the total carbohydrates content (CHC), by Luff-Schoorl's method and the content of cellulose according to the standard procedure of Kürschner-Hanak. The lipids content (LC), was determined by trichloroethylene duplicate extraction, for the same sample, by using reflux (1:20 w/v), at boiling temperature, during 45 minutes and the ash content by staking of material at 800°C, during 5 h. The energetic value was calculated as EV=(PC+CHC)x17+LCx37. Based on results on chemical composition of wheat and mushroom flour, it is shown that the addition of *Boletus edulis* flour increases cellulose content for 49.7%, protein content for 38,8%, lipid content for 24.5% and ash content for 4.1% while decreases gluten content for 20.0%, carbohydrates content for 10.1% and energetic value for 4.0%.

Key words: wheat, *Boletus edulis*, flour mixture, nutritional value, energetic value