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**INOPTEP**

# **BOOK OF ABSTRACTS**

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INOPTEP 2023**

and

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Padinska Skela,

## FAT CONTENT IN FINELY COMMINUTED COOKED AND LIVER SAUSAGES ON SERBIAN RETAIL MARKET

Miloš ŽUPANJAC<sup>1</sup>, Tatjana PEULIĆ<sup>1</sup>, Jovana DELIĆ<sup>1</sup>, Predrag IKONIĆ<sup>1</sup>, Jasmina LAZAREVIĆ<sup>1</sup>,  
Snežana ŠKALJAC<sup>2</sup>, Marija JOKANOVIĆ<sup>2</sup>

<sup>1</sup> University of Novi Sad , Institute of Food Technology, Bulevar cara Lazara 1, 21000 Novi Sad, Serbia

<sup>2</sup> University of Novi Sad , Faculty of Technology Novi Sad, Bulevar cara Lazara 1, 21000 Novi Sad, Serbia  
Contact: milos.zupanjac@fins.uns.ac.rs

Finely comminuted cooked sausages and liver sausages, which belong to emulsion type of sausages, are among the most popular meat products worldwide. Taste, convenience and low price are just a few of the reasons why these products are so popular. On the other hand, these meat products have a high content of fat that is required for sensory perception of juiciness, flavor and texture. However, fat from meat and meat products contain high amount of saturated fatty acids, which are frequently recognized as dietary elements that may contribute to the development of chronic noncommunicable diseases. Consequently, high fat content, typically 20–30% in finely comminuted cooked sausages and up to 40% in some liver sausages/pates, may be perceived negatively by consumers, as consumers nowadays become more aware of the link between food and health.

The aim of this paper was to conduct a comparative analysis of the fat content in total of 34 meat samples produced by 14 most represented meat producers on the Serbian retail market. Twenty one (n=21) sample belonged to a group of finely comminuted sausages (11 were chicken hot dogs and 10 pork hot dogs) and thirteen (n=13) samples belonged to a group of liver sausages (13 liver pates).

Fat content in the finely comminuted cooked sausages ranged from 13.5 to 20.9 g/100 g, of which fat span in chicken hot dogs was from 13.5 to 20.7 g/100 g and in pork hot dogs was from 15.5 to 20.9 g/100 g. The most of the chicken hot dogs samples (27.3%) contained between 18 and 19 g/100 g of fat, while spans of 13-14, 14-15 and 16-17 g/100 g were noted in 18.2% samples, separately. The highest fat content among chicken hot dog samples of 19-20 and 20-21 g/100 g ranges was found in two groups of 9.1% samples. The largest group of pork hot dogs (40%) was characterized by fat content of 16-17 g/100 g, while two groups of 20% of samples contained between 15-16 g/100 g and 20-21 g/100 g fat share. Fat content between 17-18 and 19-20 g/100 g were detected in two groups of 10% of samples.

The fat content in the examined samples of liver sausages varied from 22.1 to 32.0 g/100 g. In the majority of the liver pate samples (30.8%) fat content ranged from 23 to 24 g/100 g. In two groups of 23.1% samples, fat content ranged from 22 to 23 and from 25 to 26 g/100g. Fat content from 24 to 25, from 30 to 31 and from 32 to 33 g/100 g were detected in three groups of 7.7% of samples, separately.

The fat content of finely comminuted cooked sausages and liver sausages produced by the 14 represented meat producers on the Serbian retail market was consistent with literature data and represents normal fat contents in that type of meat products. As most current dietary guidelines recommend keeping relative fat intake to 30% of total daily energy, meat processors can think about the reducing fat content.

**Key words:** fat content, finely comminuted sausages, liver sausages

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## SADRŽAJ MASTI FINO USITNJENIH BARENIH I KUVANIH KOBASICA NA SRPSKOM TRŽIŠTU

*Miloš ŽUPANJAC<sup>1</sup>, Tatjana PEULIĆ<sup>1</sup>, Jovana DELIĆ<sup>1</sup>, Predrag IKONIĆ<sup>1</sup>, Jasmina LAZAREVIĆ<sup>1</sup>, Snežana ŠKALJAC<sup>2</sup>, Marija JOKANOVIĆ<sup>2</sup>*

<sup>1</sup> *Univerzitet u Novom Sadu , Naučni institute za prehrambene tehnologije, Bulevar cara Lazara 1, 21000 Novi Sad, Srbija*

<sup>2</sup> *Univerzitet u Novom Sadu , Tehnološki fakultet Novi Sad, Bulevar cara Lazara 1, 21000 Novi Sad, Serbia  
Kontakt: milos.zupanjac@fins.uns.ac.rs*

Fino usitnjene barene i kuvane kobasice, koje pripadaju proizvodima od mesa u tipu emulzija, ubrajaju se među najpopularnije proizvode od mesa u svetu. Uкус, jednostavna upotreba i niska cena samo su neki od razloga zbog kojih su ovi proizvodi toliko popularni. S druge strane, ove proizvode od mesa karakteriše visok sadržaj masti koja je neophodna za senzorsku percepciju sočnosti, ukusa i teksture. Međutim, mast iz mesa i proizvoda od mesa sadrži veliku količinu zasićenih masnih kiselina, koje se često prepoznaju kao komponente hrane koje mogu doprineti razvoju hroničnih nezaraznih bolesti. Shodno tome, visok sadržaj masti, koji se u fino usitnjenim barenim kobasicama kreće u intervalu od 20-30%, a u nekim kuvanim kobasicama/paštetama i do 40%, potrošači mogu negativno da ocene, pošto potrošači danas postaju svesniji veze između ishrane i zdravlja.

Cilj ovog rada bio je da se izvrši komparativna analiza sadržaja masti u ukupno 34 proizvoda od 14 najzastupljenijih proizvođača na maloprodajnom tržištu Srbije. Dvadeset jedan (n=21) uzorak pripadao je grupi fino usitnjenih barenih kobasicama (11 uzoraka viršli od pilećeg mesa i 10 uzoraka viršli od svinjskog mesa), a trinaest (n=13) uzoraka je pripadalo grupi kuvanih kobasicama (13 jetrenih pašteta).

Sadržaj masti u fino usitnjenim barenim kobasicama kretao se u intervalu od 13,5 do 20,9 g/100 g, od čega je sadržaj masti kod viršli od pilećeg mesa bio u intervalu od 13,5 do 20,7 g/100 g, a kod viršli od svinjskog mesa od 15,5 do 20,9 g/100 g. Najveći broj uzoraka pilećih viršli (27,3%) sadržao je između 18 i 19 g/100 g masti, dok su intervali od 13-14, 14-15 i 16-17 g/100 g zabeleženi u 18,2% uzoraka, za svaki interval. Najviši sadržaj masti među ispitanim uzorcima viršli od pilećeg mesa od 19-20 i 20-21 g/100 g pronađen je u dve grupe od 9,1% uzoraka. Najveću grupu viršli od svinjskog mesa (40%) karakterisao je sadržaj masti od 16-17 g/100 g, dok su dve grupe od 20% uzoraka sadržale između 15-16 g/100 g i 20-21 g/100 g. Sadržaj masti između 17-18 i 19-20 g/100 g detektovan je u dve grupe od po 10% uzoraka.

Sadržaj masti u ispitivanim uzorcima kuvanih kobasicama kretao se u intervalu od 22,1 do 32,0 g/100 g. U većini uzoraka jetrenih pašteta (30,8%) sadržaj masti se kretao od 23 do 24 g/100 g. U dve grupe od 23,1% uzoraka, sadržaj masti se kretao od 22 do 23 i od 25 do 26 g/100g. Sadržaj masti od 24-25, 30-31 i 32-33 g/100 g detektovan je u tri grupe od 7,7% uzoraka.

Sadržaj masti u fino usitnjenim barenim i kuvanim kobasicama zastupljenim na maloprodajnom tržištu Srbije je u skladu sa literaturnim podacima i predstavlja normalan sadržaj masti za tu grupu proizvoda od mesa. Kako većina aktuelnih vodiča o ishrani preporučuje da ukupan dnevni unos masti ne bude veći od 30 % ukupnog dnevnog energetskog unosa, proizvođači proizvoda od mesa mogu razmišljati o smanjenju sadržaja masti.

**Ključne reči:** *sadržaj masti, fino usitnjene barene kobasice, kuvane kobasice*

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