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SRBIJA

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MUNICH, GERMANY

MEĐUNARODNI VETERINARSKI
KONZORCIJUM ZA BIOSIGURNOST
AKVATIČNIH ORGANIZAMA
LUDVIG-MAKSIMILIJAN UNIVERZITET
MINHEN, NEMAČKA



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FATTY ACID COMPOSITION OF HOT SMOKED COMMON CARP MEAT

JELENA BABIĆ¹, SUZANA VIDAKOVIĆ¹, SLAĐANA RAKITA², BRANKICA
KARTALOVIĆ¹, ĐORĐE OKANOVIĆ¹, MARIJA BOŠKOVIĆ³, MILICA GLIŠIĆ³,
MIROSLAV ĆIRKOVIĆ¹, VLADO TEODOROVIĆ³

¹Naučni institut za veterinarstvo "Novi Sad", Rumenački put 20, Novi Sad

²Naučni institut za prehrambene tehnologije, Bulevar Cara Lazara 1, Novi Sad

³Fakultet veterinarske medicine, Univerzitet u Beogradu Bulevar Oslobođenja 18,
Beograd

MASNOKISELINSKI SASTAV TOPLO DIMLJENOG ŠARANA

Apstrakt

Proizvodnja dimljene ribe je jedan od najvažnijih sektora u ribarstvu Evrope. U našoj zemlji su zastupljeni dimljeni šaran (*Cyprinus carpio*) i dimljena pastrmka (*Oncorhynchus mykiss*) koji su u poslednje vreme sve prisutniji na tržištu. Dimljenje riba je jedan od najprihvatljivijih načina prerade mesa riba, ne zahteva skupu opremu, proizvodnja kratko traje, a prihvatljivost proizvoda na našem tržištu je, s obzirom na navike potrošača (kao što je dimljeno svinjsko meso), veoma dobra. Dimljena riba predstavlja značajan deo ishrane ljudi u svetu pre svega zbog poželjnih senzornih svojstava, kao i zbog visoke nutritivne vrednosti, visokog sadržaja polinezasićenih masnih kiselina, liposolubilnih vitamina, esencijalnih minerala i esencijalnih aminokiselina. Pored optimalnih količina esencijalnih masnih kiselina, veoma je bitan i njihov odnos. Prema preporukama Svetske zdravstvene organizacije odnos polinezasićenih i zasićenih masnih kiselina treba da bude iznad 0,4, a unutar polinezasićenih masnih kiselina, odnos $\omega 6$ i $\omega 3$ polinezasićenih masnih kiselina manji od 4. Ovaj odnos je u mesu riba uglavnom adekvatan.

U ovom radu je analiziran masnokiselinski sastav toplo dimljenog šarana prethodno upakovanog u vakuum i u modifikovanu atmosferu (MAP) sa argonom. Za određivanje sastava masnih kiselina je korišćen gasni hromatograf Agilent 7890A sa plameno-jonizujućim detektorom (FID) i kolonom Supelco SP-2560 (100 m x 0,25 mm; debljina stacionarne faze 0,20 μm).

Odnos polinezasićenih i zasićenih masnih kiselina u ovoj studiji je u skladu sa preporukama i iznosi čak i preko 1. Odnos $\omega 6$ i $\omega 3$ toplodimljenog šarana je u skladu sa prepo-

rukama, odnosno manji je od 4. Rezultati ove studije potvrđuju da bi toplodimljeni šaran s aspekta masnokiselinskog sastava trebalo da bude značajan deo balansirane ishrane.

Ključne reči: *riba, vakuum, MAP, polinezasićene masne kiseline*

Abstract

Production of smoked fish is one of the most important sector in European aquaculture. Smoked common carp (*Cyprinus carpio*) and smoked trout (*Oncorhynchus mykiss*) are present in our country and they are more present on the market in the recent years. Smoking fish is one of the most acceptable method of fish meat processing which is relatively inexpensive, has short time of production, and is very acceptable on our market by the consumers due to their preference to smoked products (smoked pork). Smoked fish is significant part of human nutrition worldwide, due to the desirable sensory properties, high nutritional value, high content of polyunsaturated fatty acids, liposoluble vitamins, essential minerals and essential amino acids.

Apart from optimal amounts of essential fatty acids, the ratio of essential fatty acids is very important. The World Health Organization has recommended that the ratio of polyunsaturated and saturated fatty acids should be above 0.4, and within polyunsaturated fatty acids, the ratio of $\omega 6$ and $\omega 3$ polyunsaturated fatty acids should be less than 4. This ratio is adequate in the most type of fish and fishery products.

In the present study, fatty acid composition of hot smoked common carp meat packed in vacuum and modified atmosphere (MAP) with argon was analysed. For determination of fatty acid composition, gas chromatograph Agilent 7890A with flame ionization detector (FID) and column Supelco SP-2560 (100 m x 0,25 mm; width stationary phase 0,20 μm) was used. The ratio of polyunsaturated and saturated fatty acids was according to recommendation of the World Health Organization and it was above 1. Within polyunsaturated fatty acids, the ratio of $\omega 6$ and $\omega 3$ polyunsaturated fatty acids also was according to recommendation, less than 4.

The results obtained from present study confirm that hot smoked common carp meat should be significant part of well-balanced diet.

Keywords: *fish, vacuum, MAP, polyunsaturated fatty acids*

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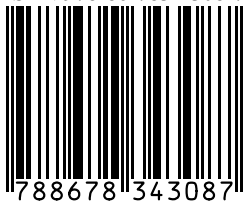
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