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FATTY ACID PROFILE IN DIFFERENT AGE CATEGORIES OF FARMED RAINBOW TROUT (*ONCORHYNCHUS MYKISS* WALBAUM, 1792)

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ABSTRACT

The objective of this study was to compare the fatty acid profile in different age categories of farmed rainbow trout (*Oncorhynchus mykiss* Walbaum, 1792) collected from the aquaculture facility—cold-water fish farm "Trofta"—located in the Republic of Kosovo.

Considering the results of the fatty acid profile, SFA participated with 25.76 % (I age group), followed by 25.67 (II), 18.28 % (III), and 18.46 % (IV). There is an evident decrease in the SFA content with increased fish age. Of those, the most dominant are palmitic fatty acids (16.13; 16.31; 10.68; 10.69, respectively). The content of MUFA is rapidly increasing with the ages (31.28 % - I; 29.14 % - II; 46.01 % - III and 46.39 % - IV). Of those, the most dominant is an oleic fatty acid with a double increase from the 8 - 9 to 12 -14-month-old fish (20.03 %; 18.21 %; 39.41 %; 40.48 %, respectively). PUFA participates with an average of 40.00 % in total fatty acid content, from which, the most dominant at the 8- and 9-month-old fish is cervonic fatty acid (27.68 and 30.40 %, respectively), with an evident decrease at 12- and 14-months fish (10.53 and 8.52 %, respectively). The biggest increase is determined in linoleic acid, starting with 4.95 and 4.22 % at 8 and 9-month-old fish, while the content at 12 and 14-month-old fish was enormously higher (14.73 and 16.70 %, respectively).