COMPARISON OF DIFFERENT GENOTYPES OF CARP (*CYPRINUS CARPIO*) ON FATTY ACID COMPOSITION

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Summary. The aim of the study was to evaluate different genotypes of carp on fatty acid composition, influence of Ukraine and Hungary carps breed on Šilavotas carp fatty acid composition.

Šilavotas pure-bred carp, and their crosses with the Hungarian and Ukrainian carp was 6.5 months grown on identical area, volume and the bottom of the soil in relation to the ponds. Water temperature, oxygen saturation, and the pH was identical.

Studies have shown that for all of the total carp groups of polyunsaturated fatty acids (PUFA) content was 25.951 percent. This is a good indicator, whereas a similar PUFA percent fatty acids, is among the more valuable the marine species. Large and monounsaturated fatty acids (MUFA) the total amount - 47.775 percent. The total amount of saturated fatty acid (SFA) was relatively small, so the PUFA and SFA ratio was close to one. In experimental groups, the n-6/n-3 ratio were positive and it's range from 0.95 to 4.72.

Analysis of different genotypes of carp fatty acid composition, we determined that pure-bred carp had more PUFA, but among the most useful of polyunsaturated fatty acids- eicosapentaenoic (EPA) and docosahexaenoic (DHA) was less than combinated with The Ukrainian and Hungarian experimental carps groups. Especially good positive effect had Šilavotas carp on EPAfatty acid in relation to Ukrainian carps. Compared with the pure – bred EPA fatty acid crossbred with Ukrainian carp was 1,171 % higher. The amount of DHA fatty acid, the highest concentration was determine in Hungarian carp, it increased 0,422 %. So, in concluded, it can be said that carps of Šilavotas crossing with Ukrainian and Hungarian carps had a positive effect on fatty acid composition.

Keywords: Breeds of carps, crossbred, aquaculture, fatty acid, polyunsaturated fatty acids, monounsaturated fatty acids, saturated fatty acid