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Effect of Raffinose Oligosaccharide and *Pediococcus acidilactici* bacteria on carcass composition of goldfish (*Carassius auratus*) exposed to silver nano particles

***F.Z. Jafari[1], S.A.A. Hedayati[2], S.H. Hoseinifar[3], A. Jafar Nodeh[4] and T. Bagheri[5]**

[1]M.Sc. Graduate, Dept. of Aquatic Ecology, Gorgan University of Agricultural Sciences and Natural Resources, Gorgan, Iran, [2]Associate Prof., Dept. of Aquatic Production and Exploitation, Gorgan University of Agricultural Sciences and Natural Resources, Gorgan, Iran, [3]Associate Prof., Dept. of Aquaculture, Gorgan University of Agricultural Sciences and Natural Resources, Gorgan, Iran,
[4]Senior Expert of of Aquaculture, Gorgan University of Agricultural Sciences and Natural Resources, Gorgan, Iran,
[5]Assistant Prof., Offshore Fisheries Research Center, Iranian Fisheries Science Research Institute, Agricultural Research Education and Extension Organization, Chabahar, Iran
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Abstract

Aim of this study was to investigate the protective effect of pre-treatment of bacteria *pediococcus acidilactici* and *oligosaccharide raffinose* on carcass composition of Goldfish (*carassius auratus*) in exposure to nano silver. Accordingly, 250 fish with a average weighing of 26.3±0.18 fed for 6 weeks in four treatments and each treatment with three replications including diet without food supplement (control 1), probiotic diet of bacteria with a concentration of 10^7 colonies per gram (treatment 2), food containing probiotic raffinose (1 g/kg) and synbiotic (treatment 4). After the end of the feeding period, 50% of the nano-silver concentration (0.5 mg/L) was added to the treatments for 14 days. At the end of the 14-day exposure, blood and carcass sampling was performed. Analysis of the data showed that there was no significant difference between moisture content, ash, protein and carcass fat ($P<0.05$). According to the results, Rafinose supplementation had the greatest effect on carcass fat. Among the supplements, the synbiotic food on carcass protein, ash and moisture showed more effect.

Keywords: Goldfish, Nanosilver, Peribiotic, Probiotic

*Corresponding author: jafarizahra293@yahoo.com