

عنوان مقاله:

Effects of enriched artemia with selenium nanoparticles on growth, survival and biochemical factors of guppy (Poecilia reticulata)

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نویسندگان:

S. Ziaei-nejad - Fisheries Department, Faculty of Natural Resources, Khatam Al-Anbia University of Technology, Behbahan, Iran

S.S. Shojaei - Fisheries Department, Faculty of Natural Resources, Khatam Al-Anbia University of Technology, Behbahan, Iran

M. Amini Chermahini - Fisheries Department, Faculty of Natural Resources, Khatam Al-Anbia University of Technology, Behbahan, Iran

خلاصه مقاله:

This study was carried out to investigate the effects of enriched Artemia with selenium nanoparticles on growth and survival rates and biochemical factors in guppy *Poecilia reticulata* larvae over a six-week period. Guppy larvae with a mean weight of ۳۳.۵۵ mg in three treatments and one control group (each with three replicates) were fed with Artemia franciscana enriched with ۵, ۱۰, and ۵۰ mg L^{-۱} selenium nanoparticles. In terms of growth indices, significant differences were observed among treatments in length increment, weight gain, specific growth rate and survival rate ($p < 0.05$). There was no significant difference in condition factor ($p > 0.05$). Regarding biochemical factors, significant differences were observed between treatments. Artemia - fed treatments enriched with ۵ and ۱۰ mg of selenium nanoparticles (treatment ۱ and ۲) showed the lowest and in the treatment fed with Artemia - enriched ۵۰ mg nanoparticles (treatment ۳) showed the highest levels of aspartate aminotransferase, alanine aminotransferase, alkaline phosphatase, creatinine phosphokinase and lactate dehydrogenase. The highest total protein content was observed in treatment ۲, which was significantly different from the other treatments ($p < 0.05$). Overall, if the goal of using selenium-enriched Artemia in fish larval diet is to increase survival and growth rate and improve biochemical indices, the use of selenium nanoparticles at the levels of ۵ and ۱۰ mg L^{-۱} is appropriate for enriching Artemia to feed the fish larvae.

کلمات کلیدی:

Selenium nanoparticles, Guppy, Artemia, Growth, Enzyme

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