عنوان مقاله:

Dietary effects of Padina algae on growth indices and hematology of common carp Cyprinus carpio exposed to Zinc oxide nanoparticle

محل انتشار:

ششمین کنگره بین المللی تحقیقات شیلات و آبزیان (سال: 1401)

تعداد صفحات اصل مقاله: 1

نویسندگان:

A Jahaniyan - *Faculty of Fisheries and Environmental Sciences, Gorgan University of Agricultural Sciences and Natural Resources, Gorgan, Iran*

A.A Hedayati - *Faculty of Fisheries and Environmental Sciences, Gorgan University of Agricultural Sciences and Natural Resources, Gorgan, Iran*

S.A Hosseini - *Faculty of Fisheries and Environmental Sciences, Gorgan University of Agricultural Sciences and Natural Resources, Gorgan, Iran*

M Mazandarani - *Faculty of Fisheries and Environmental Sciences, Gorgan University of Agricultural Sciences and Natural Resources, Gorgan, Iran*

Gh Rashidian - *Faculty of Natural Resources, Tarbiat Modarres University, Noor, Iran*

خلاصه مقاله:

Todays, due to the increasing use of nanoparticles in various industries and their detrimental effects on aquatic life, the use of different supplements have become increasingly important in improving aquatic resistance. The purpose of this study was to investigate the effect of Padina astraulis on growth and hematological indices of common carp (Cyprinus carpio) in exposed to nano zinc oxide. Accordingly, ۲۵۰ common carp ۲۰ g were distributed and fed for ۴۲ days in four treatments and each treatment with three replications included: no algae feed (control treatment), ۰.۵% algae feed (treatment ۱), feed Foods containing ۱% algae (treatment ۲) and food containing ۲% algae (treatment ۳). All treatments were then exposed to a lethal concentration of ZnO for ۱۴ days. The results of data analysis showed that the highest percentage of weight gain, specific growth rate was observed in treatment ۲ and the least in control group but there was no significant difference between treatments (p>۰.۰۵). Also, the highest feed conversion ratio was observed in the control group and the lowest in the treatment ۲, but there was no significant difference between treatments (p>۰.۰۵). The number of red blood cells, M.C.H, M.C.H.C and blood hemoglobin were significantly different from the control group (p<۰.۰۵). But for blood indices, algea have been able to have a positive effect on M.C.H, M.C.H.C, M.C.V, hemoglobin and red blood cell counts. Overall, the results showed that zinc nanoparticles alone have a damaging hematological effect on common carp. The dietary supplement of padina algae has been able to reduce to some deleterious effects of zinc nanoparticles on carp, although this has not had any effect on growth indices. In general, .the use of algae dietary supplements such as padina is recommended for further research

کلمات کلیدی:

Growth indices, Common carp, Padina algae, Dietary supplement, Hematology