

Role of selenium and calcium on cadmium toxicity in Tilapia

Environmental problems have increased exponentially in recent decades throughout the world because of pollution including heavy metal pollutants. Their presence in the atmosphere, soil and water can cause serious problems to all organisms and bring more attention on this. The natural aquatic bodies are extensively contaminated with heavy metals like cadmium (Cd), mercury (Hg), lead (Pb) and arsenic (As) etc., released from domestic, industrial and other anthropogenic activities. This may cause serious effects on the ecological balance of the recipient environment. Among the heavy metals, Cd is one of the most deleterious heavy metal pollutants in environment, either terrestrial or aquatic. A small step towards this, the present work is carried out to study the Cd induced bioaccumulation, levels of lipid peroxidation, antioxidant mechanism and purification and quantification of metallothionein protein in gill, liver, kidney and intestine tissues of freshwater fish, *Oreochromis mossambicus* (Tilapia) with reference to the nutrient elements (selenium and/or calcium) supplementation against Cd induced toxicity.

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Cadmium toxicity: Selenium and Calcium

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