

4th International Conference on **Pollution Control & Sustainable Environment**
&
6th Edition of International Conference on **Water Pollution & Sewage Management**
July 26-27, 2018 Rome, Italy

Effect of dietary supplementation of flavonoids against Cypermethrin-induced oxidative stress in *Tilapia zillii*

Mohammad Wahsha^{1,2*}, Mohammad Al-Zibdeh²

¹Marine Science Station, The University of Jordan and Yarmouk University, Jordan

²Faculty of Marine Sciences, Department of Marine Biology, The University of Jordan, Aqaba branch, Jordan

Increased environmental pollution can be attributed to a variety of factors resulting from different industrial and agricultural activities. In fish, pollutants can be captured from various sources including the persistent contaminants of agricultural origin. Such pollutants can seriously affect the aquatic organisms by inducing the oxidative stress through the generation of extremely harmful substances known as free radicals. Exposure to stress and diseases and resulting losses are among the major constraints in the aquaculture business, and even more so in intensive production such as re-circulating aquaculture system (RAS). Thus diseases are a major cause for morbidity and mortality, causing substantial financial economic losses. However, one of the most promising methods of oxidative stress and diseases control in aquaculture is the strengthening of defense mechanisms in fish through prophylactic administration of immunostimulants. On the other hand, antioxidants such as the flavonoids are agents that inhibit or neutralize these free radicals. Flavonoids are naturally occurring polyphenolic compounds in plants of positive effects on human health. In this study, we investigated the influence of incorporation of some natural antioxidants in fish feed on the oxidative stress induced by the aquaculture pesticide cypermethrin which promote severe tissue injury in Redbelly tilapia (*Tilapia zillii*) reared in mega flow re-circulating aquaculture system (RAS).

Biography

Dr. Mohammad Wahsha has completed his Ph.D in Ecotoxicology at the age of 30 years from Ca' Foscari University of Venice. He is a researcher at the Marine Science Station The University of Jordan and Yarmouk University, and a faculty member in the department of marine biology, The University of Jordan, Aqaba branch, Jordan. He has published more than 50 papers in reputed journals and has been serving as an editorial board member in several international journals and congresses.

m.wahsha@ju.edu.jo

Notes: