

The effect of supplementation of A-Max Ultra prebiotic on Some Biochemical Factors of Blood Serum in rainbow trout fry (*Oncorhynchus mykiss*)

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Abstract

The purpose of this study was to evaluate the effect of A-Max Ultra prebiotic on some biochemical factors of blood serum in *Oncorhynchus mykiss* juvenile in farm culture of Hammon for 45 days. For this purpose, 600 juvenile rainbow trout averaged with initial weight 18 ± 2 g were obtained and after 7 days for adaptation to the new rearing conditions the fish were randomly distributed into four Raceway pound with three replicates containing levels of 0 (control), 1, 2 and 3 g prebiotic per kg of diet. During the experimental period, feeding was performed by hand and the fish were fed to satiation (Equivalent to 4 to 5 percent body weight) three times a day. At the end of treatment blood samples were taken from 5 fish juvenile in each replicate through the caudal vein and serum separation of the blood with help of a centrifuge machine. Measurement of the serum factors desired by autoanalyzer and laboratory kit. The results showed that there are no any significant differences between the amount of total protein, Glucose and lysozyme activity in experimental treatments compared with control group ($p > 0.05$). While, the levels of Cortisol hormone in treatments containing of 2 and 3 g/kg prebiotic, showed a significant increasing in to the control group ($p < 0.05$). In conclusion, addition of A-Max Ultra prebiotic daily diet of *Oncorhynchus mykiss* could enhance immunity system.

Keywords: Prebiotic, Feeding, Biochemical Factors, Blood Serum, *Oncorhynchus mykiss*