Effect of prebiotic A-Max-Ultra on Some of the hematological parameters in rainbow trout fry (*Oncorhynchus mykiss*)

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Abstract

To investigate the effect of dietary supplementation of A-Max Ultra on some of hematological parameters in rainbow trout (*Oncorhynchus mykiss*) juvenile, an experiment was carried out on 600 pieces of *O. mykiss* with averaged 18 ± 2 g in initial weight for 45 days. Experimental treatments consisted of four levels of 0, 1, 2 and 3 g/kg prebiotic, each with three replicates in a completely randomized design. During the experimental period, feeding was performed by hand and the fish were fed to satiation three times a day. At the end of experimental, blood samples were taken from 60 fish juvenile were apparently healthy (5 fish fry in each replicate) through the caudal vein and hematological parameters measurement of the factors desired by conventional methods. There were no significant ($P>0.05$) differences in amount of MCV of fish fed with the experimental and control diets ($p>0.05$). The highest number of WBC and the lowest amount of MCH and MCHC were recorded in the treatment containing 1 g probiotic per kg of diet ($p<0.05$). As well as the highest RBC, Ht and Hb were observed in treatment containing 2 gr prebiotic per kg of diet ($p<0.05$). It could therefore be concluded that addition of a-Max Ultra to daily diet of *Oncorhynchus mykiss* fry can be improvement of some hematological parameters and enhance immunity system.

Keywords: Prebiotic, Supplementation, Hematological parameters, *Oncorhynchus mykiss*