

Effect of different levels of alga and prebiotic on growth performance, survival rate and intestinal microbial flora in rainbow trout (*Onchorhynchus mykiss*)

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Abstract

The aim of this study was to investigate the effect of alga and prebiotic on growth performance, survival rate, intestinal microbial flora and some blood metabolites of rainbow trout. In a completely randomized design 400 fish were allocated to 5 treatments with 4 replicates and 20 fish per replicate. Fish were fed with 1000 g prebiotic, 0 (control), 100, 150 and 200 g alga /ton of diet to 56d. The results showed that in treatment received probiotic and 200 g alga had significantly higher body weight and FCR better than the other groups ($P < 0.05$). The survival rate in fish with prebiotic and 200g alga significantly increased ($P < 0.05$). Also, supplementation prebiotic and 200g alga to diet decreased *coliforms* counts and increased *bacillus* counts in intestine compared to the control treatment.

Keywords: Prebiotic, alga, growth performance, intestinal microbial population, rainbow trout