Dietary effects of extruded feed on biochemical and hematological indices of Rainbow trout (*Oncorhynchus mykiss*)

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Abstract

The effect of 0, 70, 80, and 100% levels of extruded feed on biochemical and hematological indices of rainbow trout (*Oncorhynchus mykiss*) was studied at 480 fry with an average weight of 90±5 g in the form of a completely randomized design. 16 fish were randomly collected from each treatment at the middle and end of the 90-s experiment. According to the findings, the highest amount of protein in the carcasses was related to fish fed with 85% extruded feed. Also, the protein content of carcass was significantly different from that of extruded food before consumption ($p < 0.05$). The highest amount of carcass Ca and Mn was related to 85% extruded food. There was also a significant difference between Mn and Ca levels in carcasses before and after extruded feed ($p < 0.05$). There was no significant difference in albumin levels during the treatments. In the mid-period measurement, a significant difference was observed between total blood protein of 100% pellet and 70% extruded treatment ($p < 0.05$). The highest was observed in 5.2 g/dl of fed with 70% extruded feed and the lowest was 4.24g/dl in the group of fed with 70% pellet. In general, the results showed that the use of high levels of extruded could be replaced with pellet supplements in the diet of rainbow trout (*Oncorhynchus mykiss*) without any negative effect on blood indices.

Keywords: albumin, rainbow trout, total protein, extruded.