

عنوان مقاله:

Effect of dietary canola oil level on the growth performance and fatty acid composition of fingerlings of rainbow trout
(Oncorhynchus mykiss)

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خلاصه مقاله:

This study evaluated the suitability of canola oil as a source of supplemental dietary lipid for rainbow trout. Triplicate groups of the ۳۰ fingerlings held under identical culture conditions were fed twice daily by iso-nitrogenous, iso-calorific and iso-lipidic diets for eight weeks. Experimental diets consisted of ۳۰.۳% protein, ۱۸.۷ kJg^{-۱} energy and ۱۶.۷% lipid from fish oil (FO), canola oil (CO) and ۱:۱ blend of the two oils (FCO). Moisture, ash, protein, lipid, final body weight, condition factor, feed conversion ratio, survival and hepatosomatic indices were not affected by treatments. Specific growth rate and weight gain of fish reared on fish oil diet (FOD) and canola oil diet (COD) were significantly higher than those fed with the fish and canola oils diet (FCOD). Protein efficiency ratio was highest in fish fed with the COD. Whole body fatty acid compositions mirrored those of diet treatments. The highest amounts of HUFAs were detected in fish fed with FOD, which was significantly different from other treatments. In all treatments PUFAs/SFAs and n-۶/n-۳ ratios were higher than ۰.۴۵ and lower than ۴, respectively. Our results indicate the fingerlings can be reared on diets .in which FO has been replaced with CO, with no significant effects on fish growth performance

کلمات کلیدی:

Rainbow Trout, Oncorhynchus mykiss, Fish oil replacement, Fish oil, Vegetable oil, Fatty acids, Body composition

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