

STUDY ON THE USE OF NEW FEED SOURCES IN FISH NUTRITION

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Abstract

*The study aimed to evaluate the potential of alternative feed ingredients in common carp (*Cyprinus carpio*) nutrition within a recirculating aquaculture system. Two experimental approaches were carried: partial replacement of fishmeal with Black Soldier Fly (*Hermetia illucens*) larvae meal and supplementation with thyme essential oil. Ninety carp specimens were distributed in experimental groups and fed diets formulated with varying levels of insect meal (10% and 30%) or with thyme oil (0.2%). Growth performance, feed conversion, and muscle biochemical composition were analyzed. Results showed that the inclusion of insect meal improved lipid content and maintained growth performance comparable to the control diet, while thyme oil supplementation had positive effects on feed intake and health status. These findings highlight the potential of novel, sustainable feed ingredients to partially replace traditional fishmeal and support ecological and cost-effective aquaculture practices.*

Key words: aquaculture, carp, insect meal, Black Soldier Fly, thyme oil