EFFECTS OF DIETARY REPLACEMENT OF FISHMEAL BY MEAT MEAL MADE OUT OF REJECTED CHICKEN AT SLAUGHTER HOUSE ON THE GROWTH PERFORMANCE OF KOI (*Cyprinus carpio*)

BY

W. S. MALINDA HARSHA KUMARA

FACULTY OF AGRICULTURE

EASTERN UNIVERSITY

SRI LANKA

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ABSTRACT

Because of declining global availability and increasing demand, fishmeal is a major contributor to the rising cost of fish feeds and fish production. Higher feed cost, is due to the high price for the animal protein ingredients used *viz* fishmeal, to prepare the fish feeds. Therefore, there is a great economic and environmentally sustainable incentive to find less expensive protein sources to replace fishmeal in feeds for aquaculture. Therefore a study was undertaken to investigate the suitability of using rejected chicken form slaughter house as a replacement protein source for expensive fishmeal in the diet of *Cyprinus carpio haematopterus*. Chicken meat was collected from "Crysbro" meat processing unit, Gampola and meat meal was prepared. The meat meal contained 70% protein, 19% lipid, 1% ash on dry weight basis. Four different diets (T_1= commercial koi carp pellet, T_2= imported fishmeal diets, T_3= meat meal diets and T_4= local fishmeal diets) were used to feed the fish as treatments. The experiment was done at the Nutrition Laboratory of the Department of Animal science, Faculty of Agriculture, Eastern University, Sri Lanka for six weeks. One hundred and twenty fry of *Cyprinus carpio haematopterus* (0.796 g/fry) were stocked in 12 glass tanks (experimental unit) at a density of 10 fry/tank. Each experimental unit was replicated three times. The experimental was conducted under Completely Randomized Design (CRD). Water quality parameters were within the acceptable range during the experimental period. The best growth was obtained on the diets with imported fishmeal, meat meal, and on the commercial diet ($T_2>T_3>T_1$). The T_2 recorded the highest final body weight (3.34±0.39 g) and the least (2.55±0.35 g) was in T_4 (local fishmeal). The weight gain was 2.54±0.34 g ($p<0.05$) higher on T_2 than on T_4 (1.74±0.36 g). There were no significant differences of survival rate,

TABLE OF CONTENTS