DETERMINATION OF OPTIMAL PROTEIN AND LIPID RATIO FOR GROWTH OF FARMED CATFISH, *Pangasius Sutchi*

A dissertation submitted to the
Faculty of Animal Science and Export Agriculture
Uva Wellassa University
in partial fulfillment of the requirement of
the degree of
Bachelor of Aquatic Resources Technology

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2013

ABSTRACT

The effect of different protein and lipid levels for growth of farmed catfish, *Pangasius sutchi* fry were studied for six experimental diets using a 3 × 2 factorial design with triplicates. Groups of 12 fish per tank, with initial mean weights of 1.07 ± 0.18 g were fed with six test diets comprising combination of three crude protein levels (25%, 30%, 35%) and two lipid levels (6%, 10%). Feeds were incorporated with an inert marker (Chromic oxide) to measure the digestibility .The fish were fed until satiety twice a day for 7 weeks by manually. Feed Conversion Ratio (FCR), Specific Growth Rate (SGR) and Condition Factor (K) were calculated for each diet. FCR and SGR were significant among the test diets while K was not significantly differ ($p>0.05$) among the test diets. The highest SGR and lowest FCR was recorded for the diet contain 35% protein and 10% lipid and it was not significant ($p>0.05$) from the diet that contained protein 35% lipid 6%. The lowest SGR and highest FCR were recorded for the diet contained protein 25% lipid 10% also. The digestibility was also not significantly different among all the test diets. Results of the experiment indicate that the use of combination 35% protein and 6% lipid for the diet of *Pangasius sutchi* most effective protein and lipid level for the growth performance.

Key words – Digestibility, Feed conversion ratio, Specific growth rate, Aquaculture