BIOCHEMICAL STUDIES ON AQUACULTURE FISH FED ON DIFFERENT DIETS

BY

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Approval Sheet

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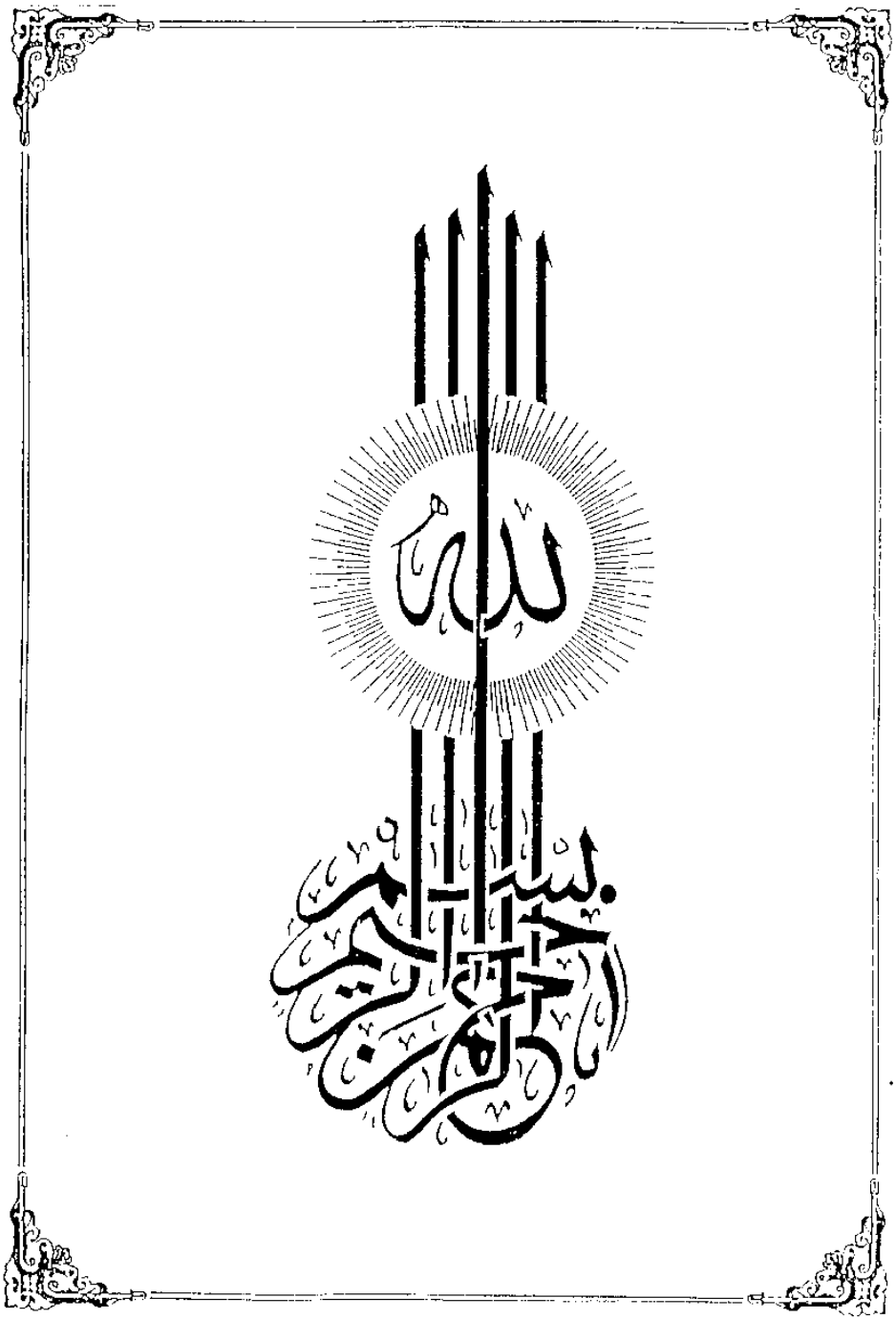

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ABSTRACT

Four dry ingredients, brewer tefla, activated sludge, single cell algae,and brewer yeast were tested with Tilapia niloticus. Chemical composition, amino acid content,fatty acid content, nucleic acid content and digestibility coefficient were determined for the test ingredients. All the test ingredients were well digested, assimilation values ranging from 59.9% (activated sludge) to 94.4% (brewer yeast). Four experimental diets and the control have been prepared to reach 25% crude protein. The experimental period was 12 weeks. We found that there is a highly correlation between fat content of fish and growth r = 0.879. and negative correlation between ash and growth r=-0.771, but low correlation between protein content and growth were observed. We found that all the fish fed the experimental diets characterized by high percentage of total unsaturated fatty acids and a higher correlation between w3 fatty acids and crude fat, moisture, weight gain r=0.995,

since the correlation between w6 fatty acids and the previous parameters was 0.713, Enzyme activities of fish liver tissue were studied, GOT activity was higher in fish fed diet contain algae. GPT activity did not differ significantly among treatments. We notice a highly relation between RNA/DNA concentration in tested ingredients and RNA-DNA concentration in fish muscle. Body weight increament after 12 weeks of experiments showed no significant difference between the average body weight of fish fed diet contain yeast and diet contain algae. However, there were a significant different in average body weight of fish fed diet contain brewer tefla and diet contain activated sludge.

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