



RESEARCH ARTICLE.....

## Economic evaluation of fermented water hyacinth leaf meal supplemented diet in common carp (*Cyprinus carpio*)

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**ABSTRACT.....** Economic evaluation of fermented water hyacinth (FWH) leaf meal supplemented diet in common carp (*Cyprinus carpio*) was performed. FWH was incorporated into test diet, as an energy source, at different levels (@ 0 (T<sub>1</sub>), 40 (T<sub>2</sub>), 80 (T<sub>3</sub>), 120 (T<sub>4</sub>) and 160 (T<sub>5</sub>) g/kg test diet, as a replacement for equal amount of rice bran. Fish were fed 5-3 per cent of body weight for 120 days. All the water quality parameters were within the range for carp culture. Net weight gain (NWG) and specific growth rate (SGR) were maximum in (24.63 g and 0.79) in T<sub>5</sub> and minimum (16.12 g and 0.60) in T<sub>1</sub> and the differences in NWG and SGR among treatments were significant ( $P \leq 0.05$ ). Feed cost decreased with increase in FWH inclusion level in the diet. Cost (Rs.) of 1kg feed was 19.52, 19.10, 18.68, 18.26 and 17.84 in T<sub>1</sub>, T<sub>2</sub>, T<sub>3</sub>, T<sub>4</sub> and T<sub>5</sub>, respectively. Cost of feed for producing one kg fish decreased with increasing levels of FWH supplementation in feed. Higher fish production in FWH supplemented diets resulted into additional net profit above control (%) 5.18, 10.21, 22.21 and 35.48 in T<sub>2</sub>, T<sub>3</sub>, T<sub>4</sub> and T<sub>5</sub>, respectively. The results indicate that FWH reduced the total feed cost and also enhanced fish production resulted into additional net profit over control in the tune of above 35 per cent in T<sub>5</sub> treatment (40% RB replacement level *i.e.* 160g/kg feed). Therefore, FWH can be incorporated in common carp diet upto 160g FWH/kg of feed for higher fish production at reduced cost. Fermented water hyacinth form an abundant alternative natural un-utilized resource for less expensive fish feed and higher fish yield to enhance farmer's income.

**KEY WORDS.....** Fermented water hyacinth, Silage, Common carp, Economic, Feed

**HOW TO CITE THIS ARTICLE** - Jafer Sadique, K., Pandey, Abhed and Khairnar, Sachin O. (2019). Economic evaluation of fermented water hyacinth leaf meal supplemented diet in common carp (*Cyprinus carpio*). *Asian J. Animal Sci.*, **14**(1): 10-15. DOI : 10.15740/HAS/TAJAS/14.1/10-15. Copyright@2019: HindAgri-Horticultural Society.

**ARTICLE CHRONICLE** - Received : 16.01.2019; Revised : 09.05.2019; Accepted : 22.05.2019

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