

**GROWTH PERFORMANCE OF THE FRESHWATER PRAWN *MACROBRACHIUM ROSENBERGII* POST LARVAE FED WITH *OCIMUM SANCTUM* (TULSI) AND *WITHANIA SOMNIFERA* (ASHWAGANDHA) INCORPORATED FEEDS**

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**ABSTRACT**

The feasibility of uses of *Ocimum sanctum* and *Withania somnifera* as herbal nutrients to promote the growth and survival of the freshwater prawn, *Macrobrachium rosenbergii* post larvae (PL) was evaluated in a sustainable manner. Feeds were formulated with fishmeal, soya bean meal, groundnut oilcake, coconut oilcake, and green gram as basal ingredients. Tapioca flour and egg albumin were used as binding agents. Cod liver oil was added as lipid sources. Vitamin B-complex and a pinch of salt were also mixed. Diets with incorporation of *O. sanctum* and *W. somnifera* separately were served as experimental feeds, and diet without herbal incorporation was served as control. These feeds were fed to the *M. rosenbergii* PL in a triplicate feeding trial conducted for a period of 45 days (PL15-65) under laboratory condition. The growth performance in terms of nutritional indices (weight gain, specific growth rate, condition factor and survival rate), energy utilization (feeding, absorption, conversion and metabolism) and concentrations of biochemical constituents (total protein, amino acid, carbohydrate and lipid, and profiles of individual amino acids) were found to be significantly ( $P<0.05$ ) changed in PL fed with herbal incorporated feeds when compared to that of control. Among the two herbs used, the PL fed with *W. somnifera* incorporated feed has showed better growth performance followed by *O. sanctum*. Therefore, *W. somnifera* incorporated feed proved to be more beneficial than *O. sanctum* for the overall growth and maintenance of *M. rosenbergii* PL.

**KEY WORDS:** *Macrobrachium rosenbergii*, *Ocimum sanctum*, *Withania somnifera*, Growth, Biochemical constituents