

## **Potency of *Hermetia illucens* Linnaeus, 1758 Larvae to Replace Fishmeal in *Labeo rohita* Hamilton, 1822 Diets**

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A 42-day feeding experiment was conducted to investigate the efficacy of different incorporation rates of black soldier fly larvae (BSFL) meal in the diets of *Labeo rohita* (Rohu) fry (Initial mean weight  $\pm$  SE -  $0.177 \pm 0.0007$  g). Four experimental diets with different levels of BSFL meal (0%, 25%, 50% and 75%) were prepared in iso-caloric ( $3100 \text{ kcal kg}^{-1}$ ), iso-nitrogenous (35%) and iso-lipidic (11%) manner. Fish were kept in a flow through system with a stocking density of  $80 \text{ fish m}^{-3}$ . Fish were fed to meet their daily requirement and tanks were cleaned three times per week. Body weights and body lengths were measured in weekly manner and water quality parameters were recorded once in two weeks. *L. rohita* fry fed with 25% BSFL meal diet showed the significantly highest ( $p < 0.05$ ) body length gain ( $1.857 \pm 0.014$  cm), body weight gain ( $0.687 \pm 0.001$  g), specific growth rate ( $3.781 \pm 0.006\% \text{ day}^{-1}$ ) and protein efficiency ratio ( $1.467 \pm 0.006$ ). Feed conversion ratios of diets % (2.071  $\pm$  0.009) and 25% (1.946  $\pm$  0.008) were only within the acceptable range. Survival rates ( $85.3 \pm 1.33 - 89.3 \pm 1.76\%$ ) were consistent among each treatment. Water quality parameters were also remained within the general limits. Our study suggested that, 25% BSFL meal incorporated diet was the best demonstration for obtaining an optimum growth in *L. rohita* fry.

**Keywords:** Fry, *H. illucens*, *L. rohita*, Fishmeal Replacer, Fish Feeds