

## ***Hermetia illucens* Larvae as A Feed Ingredient for Food Fish Culture**

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Sri Lankan food fish production has remarkably increased within the past few decades, and at present, aquaculture has emerged as one of the famous industries among Sri Lankans. However, similar to terrestrial livestock farming, feed was a major concern in aquaculture due to rising feed costs, particularly for the major protein source (fishmeal) included in the feeds. Therefore, fish nutritionists have paid their attention towards the investigation of alternative and more reliable protein sources for fishmeal. This study was an overview of such an attempt made under the Sri Lankan conditions to replace fishmeal with an alternative protein source. However, the overall objective was to evaluate the suitability of *H. illucens* larvae as an alternative for fishmeal in Sri Lankan food fish culture. Rohu (*Labeo rohita*) was selected as the food fish species and few feeding trials were carried out to find the best feed formulations for different life stages (post-larval and fry) of *L. rohita*. Feed formulations were developed by using *Hermetia illucens* larvae as the alternative protein source to replace different levels (0%, 25%, 50%, and 75%) of fishmeal in the feed. As per the results of the feeding trials, the formulation that gave the best growth performances i.e., weight gains, length gains, feed conversion ratios, was identified with the aid of the scientific analysis methods. The results implied that the 25% fishmeal replacement with *H. illucens* larva as the best rate for the *L. rohita* diets. Moreover, chitin was suspected as a possible anti-nutritive factor available in *H. illucens* larval diets that reduces the growth performances at higher fishmeal replacement rates. However, further research trials were planned to be carried out to investigate the microbiological aspects (histopathological, haematological and gut microbiota) of the use of *H. illucens* larvae as a feed ingredient for *L. rohita*.

**Keywords:** *Feed Ingredient, Fry, H. illucens, Labeo rohita*