PE1) Substitution of Fish Meal by Mealworm (*Tenebrio molitor*) in Practical Diets for Pacific White Shrimp, *Litopenaeus vannamei*

정태호 · 김남정[1] · 박철[2] · 김주민
중부대학교 바이오융합학부, [1]농촌진흥청 국립농업과학원, [2]전북대학교 수의과대학

Abstract

Mealworm (*Tenebrio molitor*) was evaluated to investigate the effect of partial or total replacement of fish meal in diets for white shrimp, *Litopenaeus vannamei*. Experimental groups of shrimp with average initial body weight (2.43 ± 0.54 g) were fed each with 4 isonitrogeneous (38% crude protein) diets formulated to include 0, 25, 50 and 100% (diets 1 to 4, respectively) of fish meal substituted with mealworm. After eight weeks of feeding trials, shrimp fed with diet 3 and 4 revealed the highest values for live weight gain(8.01 ± 2.51 and 7.93 ± 1.12), specific growth rates (2.70 ± 1.12 and 2.59 ± 0.51) as well as better feed conversion ratio (2.69 ± 0.09 and 2.72 ± 0.19) compared to the control group with statistically significant manner ($p<0.05$). Survival range was 98% in all the treatments. An increase in weight gain and other growth associated parameters was observed with higher replacement. These results clearly indicate that 50% and 100% of fish meal protein in shrimp diet can be replaced by mealworm not only without any adverse effect but also the effect of promoting growth performance.