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ABSTRACTS OF PAPERS

The Effect of different dietary lipid levels on the spawning performance of Guppy (*Poecilia reticulata*)

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A 10 week experiment was carried out to study the effect of dietary lipid level on spawning performance of Guppy (*Poecilia reticulata*). Twenty one days old females and 45 days old males of Red Blond Tuxedo (RBT) variety of guppy were fed on four dietary lipid levels of 6% (L6), 12% (L12), 16% (L16) and 20% (L20) and a commercial diet (prima diet). The experimental feeds were prepared by using different combinations of Soybean oil with, fish meal, Punnak, shrimp meal, wheat flour, Soybean and vitamin & a mineral mixture. Fish were fed *adlibitum* and feeding frequency was maintained at 3 times per day.

Growth performance as length and weight, %SGR and GSI, HSI was calculated and reproductive performance (Number of larvae, Inter spawning interval, initial length of larvae and weight of larvae after two weeks) were measured. The females in L16 were larger (4.2 ± 0.1 cm & 0.97 ± 0.06 g) than those in other treatments. The Gonado somatic Index (GSI) showed a positive linear relationship with the increasing lipid level (female- $r=0.842$, $P<0.05$; male- $r= 0.934$, $P<0.05$). The highest GSI for females were recorded for L16 (31.22 ± 1.49) and the lowest for L6 diet (16.13 ± 0.18).

The number of larvae and larval performance were significantly influenced by dietary lipid level. Where L16 treatment showed the highest no of larvae (38 ± 4) and the lowest was recorded from L6 treatment (20 ± 2). However the inter spawning interval (ISI) was not significantly influenced by the dietary lipid level. Larval production, initial length of larvae and weight of larvae after two weeks were the highest for the fish fed with L16 diet, where lower values were resulted for the L6 diet. Fish fed on the commercial diet (Prima Diet) showed poor spawning performance and larval quality when compared to other diets.