

EFFECT OF POND FERTILIZATION ON SURVIVAL RATE OF Catla POST LARVAE

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Survival rate of post larvae (PL) of catla (*Catla catla*) up to the fry stage is 62% at Udawalawa Carp Breeding Center. Pond fertilization affects the survival rate and larval growth is regulated by different nutrient inputs. This study was carried out to investigate different organic fertilizer inputs on survival rate and growth performance of PL. The experiment was conducted in a Completely Randomized Design (CRD) with four treatments; 250 g m⁻² cow dung (T₀), 125 g m⁻² cow dung + 64 g m⁻² *Ipil ipil* (T₁), 125 g m⁻² cow dung + 350 g m⁻² rice straw (T₂) and 125 g m⁻² cow dung + 32 g m⁻² *Ipil ipil* + 175 g m⁻² rice straw (T₃). Each treatment consisted of three replicates. Catla PL were stocked after 7 days of pond fertilization in cement ponds at a density of 1500 PL m⁻². Water quality parameters were recorded at three-day intervals up to nine days. Total body length, weight, and number of survivals were recorded at the end of the experiment. Number of phytoplankton and zooplankton were counted on the day of stocking. Survival rate, specific growth rate and body length gain were calculated. Data were analyzed using Analysis of Variance (ANOVA) in SAS. Length gain, specific growth rate and survival rate of PL were significantly different ($p < 0.05$) among the treatments and the highest growth performance and survival rate were recorded in T₁. Water quality parameters were not significantly different among the treatments ($p > 0.05$). The amount of zooplankton and phytoplankton were significantly different ($p < 0.05$) among the treatments on the day of stocking of PL and the highest numbers of zooplankton were observed in T₁. It might be the reason for highest survival rate and growth performance of catla PL. In conclusion, cow dung with *Ipil ipil* would be a better fertilizer mixture for rearing of catla PL.

Keywords: *Catla catla*, Cow dung, *Ipil ipil*, Post larvae, Rice straw