

ABSTRACT

Rohu (*Labeo rohita*), Mori (*Cirrhinus mrigala*), silver carp (*Hypophthalmichthys molitrix*) and Grass carp (*Ctenopharyngodon idella*) were polycultured in 26'x12'x12' size ponds. The species ratio was 7:4:4:3 respectively. Fish were fed daily 20% protein supplemented food @ 3% body weight, manuring and fertilization were also done. The effect of aeration was determined on fish growth, rate of mortality and water quality parameters, over a period of six month. The aerated ponds showed higher growth and survival rates, similarly dissolve oxygen, total hardness, calcium, magnesium, chloride, total ammonia nitrogen (TAN) and free CO₂ were measured in both sets of ponds. The concentrations of free carbon dioxide and TAN were higher in un-aerated ponds especially at dawn time. Dissolved oxygen levels remained high in aerated ponds during night and before dawn than un-aerated ponds. Planktonic life (Zooplankton and Phytoplankton groups) production was high in aerated ponds.

Aerated ponds yielded significantly higher fish production than un-aerated ponds.