

## ABSTRACT

Present study evaluated the suitability of poultry by product meal as a substitute for dietary fish meal protein in the diet of grass carp fry. Feed ingredients collected from the local market were analyzed for %age protein, %age fat, %age ash, %age fiber, %age moisture and energy. Five experimental diets were formulated with poultry by product meal replacing 0, 25, 50, 75, and 100% of the fish meal protein. The control diet was prepared with fish meal as the sole source of protein. All the diets were iso-nitrogenous, iso-lipidic and iso-energetic with 35% protein, 10% lipid and 429-431kcal energy. An eight week trial was conducted under laboratory conditions. 0% PBM (Control) had almost similar growth to 25% PBM but slightly higher growth than 50% PBM while 75% PBM had significantly higher ( $P<0.05$ ) and 100% PBM had slightly higher growth than control. Similar trends were also observed in feed conversion ratio. The results of the present study indicate that poultry by product meal can 100% replace fish meal without compromising growth and feed conversion ratio in grass carp fry diet without adding amino acids. Present results also reveal that poultry by product meal produce significantly lower ( $P<0.05$ ) concentrations of ammonia and nitrite.