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## Role of nutrition on fish reproduction for development of aquaculture industry and ornamental fish trade

Statement of the Problem: The science of fish nutrition has advanced over the last 2-3 decades primarily in response to development in commercial aquaculture. Proper nutrition is one of the most important factors influencing the ability of cultured fishes to attain the genetic potential for growth, reproduction and longevity. Food quality and quantity affect fish reproduction. Adequate protein is essential for egg development, spawning, formation of follicles, ovarian tissues, growth and development of embryo. Feed should be formulated to meet the nutritional needs of the reproducing fish which is the key factor of attaining desired brood and seed quality. The brood stock diet should be cheap, low cost, with low conversion efficiency and high conversion ratio with less wastage and will improve the reproductive potential and yield maximum production of fry, high larval survival and fry growth ultimately increasing the profit. A sustainable and cost effective technology for brood stock development and mass production of fry and fingerlings will be the key factor for developing aquaculture industry. Dietary protein significantly affects fertility, gonad maturation, fecundity, hatching and viability of fish eggs and larval growth. Egg size and composition are useful indicators of seed production in terms of hatchability and larval quality. Larger fish egg size will eventually result in larger fry at hatching. Larger fries possess the advantage of better survival and growth through more efficient prey capture and tolerance to survival. Thus nutrition plays a major role in the reproductive performance and production of quality eggs and larvae which in turn enormously enhances gross fish production and improves aquaculture industry and ornamental fish culture trade globally.

## Biography

Vasu Jayaprakas is currently working as a professor at Amity University Uttar Pradesh, India. He is a scientist with a wide range of experience in Fisheries, Aquaculture and Marine Science. An aquaculture expert with vast experience and knowledge in commercial farming of marine shrimps, brackish water and fresh water fishes. He is associated with academic agencies, policy makers, Government bodies and NGOs to carry out aquaculture projects in coastal areas. He is the Incharge of Integrated Research Project on Fish-cum Livestock culture, pig-cum fish culture and composite culture of carp and giant fresh water prawn.

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