

# Culture of Pangasius Hypopthalmus in Ponds

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*Pangasius hypopthalmus* is a large freshwater catfish indigenous to the countries within the Mekong Delta. It is regarded as the third most important freshwater aquaculture species because of its fast growth, hardiness and versatile feeding habit. It is an air-breathing fish and its ability for ecocyclic production makes it highly suitable for species diversification to sustain freshwater fish production.

*Pangasius* was introduced in the Philippines both by the private sector and the Bureau of Fisheries and Aquatic Resources as an alternative species for freshwater aquaculture. Various culture methods of *Pangasius* in ponds were conducted involving polyculture, integrated farming and organic farming aimed towards increasing fish production while reducing waste discharge through nutrient recycling and the dependence of commercial feeds through the development and utilization of indigenous feeds.

Integrated farming of *Pangasius* and pig was conducted at the facilities of the National Inland Fisheries Technology Center of the BFAR. Two ponds each measuring 290 m<sup>2</sup> were stocked with post fingerlings of *Pangasius* with an average weight of 120g at a rate of 1 fish/2 m<sup>2</sup> in combination with post fingerlings of tilapia stocked at a rate of 5 pcs./m<sup>2</sup> using pig manure as organic fertilizer. Culture period lasted for 5 months.

Organic farming and pond culture using commercial feeds were conducted in cooperators ponds in Isabela and Nueva Vizcaya in collaboration with the BFAR Regional Field Office No. 2. For organic farming, post fingerlings of *Pangasius* were stocked in a 250 m<sup>2</sup> pond at a rate of 1 fish/m<sup>2</sup> and fed with vegetable peelings while for pond culture using commercial feeds, post fingerlings of *Pangasius* were stocked in 3 units 150 m<sup>2</sup> ponds at a rate of 4-5 pcs/m<sup>2</sup>. Culture period lasted for 6 months.

*Pangasius* attained an average growth rate of 1.5 g per day and a survival rate of 100% in the polyculture with Tilapia under the integrated farming system. In an organic farming system, it attained an average growth rate of 3 g per day and 90% survival; while its culture in ponds using commercial feeds attained an average growth rate of 5.5g/day and a survival rate of 90%.



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The highest Return of Investment (ROI) was obtained in the polyculture in integrated farming at 191.8%. Pond culture using commercial feeds attained an ROI of 66.2% while an ROI of 51.46% was attained in organic farming.

The above studies show the high potential of Pangasius culture in ponds using low-cost and environment friendly technologies like polyculture, integrated farming and organic farming thus contributing to food security and alleviating poverty particularly in the upland and landlocked areas of the country where freshwater aquaculture plays a primordial role in rural development. It also shows Pangasius as a low-risk species unable to reproduce naturally which reduces the risk of its invasiveness in inland waters.