**Water Quality Management for Sustainable Aquaculture Production in Mekong delta: A Case Study in Thot Not District, Can Tho Province of Vietnam**

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**Abstract**

*Production intensification of semi-intensive and intensive culture system has become a trend in the Mekong delta. However, the practice of these systems by small farm households usually results in water pollution, then placing negative consequences on aquaculture yield and quality. Water quality management is therefore nowadays one of the most important in aquaculture production in the Delta. The purpose of this paper is to investigate the water quality management of aquaculture farm households in Mekong delta then to propose the feasible solutions for better water quality management in aquacullture farm in the delta. In addition to the secondary data, a total of 32 aquaculture households at ThotNot district, CanTho province was selected for direct interviews to collect the necessary primary data. The study findings show that**over 46% households rated that the quality of the pond water was more polluted than it had been 3 years ago. Several causes of the pollution are chemical residues and antibiotics; too high density of fish (especially for catfish); and no sewage system. A number of measures to manage pond water quality are initially recognized such as changing water and sucking mud of ponds after each harvest; planting trees around ponds; sprinkling lime on pond bottoms and using potassium permanganate to disinfect pond water.*

Keywords: Aquaculture production; farm household; Water quality management