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RESEARCH REPORTS

Sustainable Aquaculture for a Secure Future

Title: Analysis of efficiency of snakeahead (*Channa striata*) model culturing in earthen pond in the Mekong Delta

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Abstract: A survey of 131 households culturing snakehead with three scales production as following: 30 households with small scale (SS) 300 - 700 m^2; 70 households with medium scale (MS) 700 - 1,500 m^2 and 31 households with large scale (LS) > 1,500 - 8,000 m^2 was carried out in the main snakehead culture areas in three provinces of An Giang, Dong Thap and Tra Vinh from January to December 2017. The study aimed to analyze production efficiency of snakehead culture to find out the optimal scale for recommend of sustainable culturing scale in the Mekong Delta. The technical analysis showed that the stocking density of small scale (SS) (55.1 ind/m^2) was higher than that of medium scale (MS) (51.3 ind/m^2) and large scale (LS) (51.9 ind/m^2); survival rate of SS (63.1%) was lower than MS (64.5%) and higher than LS (57.5%); yield of SS (15.6 kg/m^2) was lower than MS (16.2 kg/m^2) and LS (16.9 kg/m^2). In terms of economic efficiency: Direct cost of SS (485.2 thousand VND/m^2) was lower than that of MS (502.5 thousand VND/ m^2) and LS (525.6 thousand VND/m^2); the production cost of SS (30.9 thousand VND/kg) was lower than that of MS (31 thousand VND/kg) and LS (31.2 thousand VND/kg); profit ratio of SS (4,3%) was higher that that of MS (1,4%) and lower than that of LS (5,8%). Feed cost accounts for the largest proportion (78.4-81.8%) of total cost at all farming scales. In summary, based on technical and economic aspects and actual conditions of production scale, SS is suitable for the sustainable development of snakehead fish in household culture in the Mekong Delta.

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