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Economic profitability of Nile tilapia (*Oreochromis niloticus L.*) production in Kenya

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Abstract

Economic profitability of Nile tilapia production in Kenya was analysed using a model that simulated individual fish growth and took fish population dynamics in the pond into account. The results suggest that the currently practiced mixed-sex tilapia culture is economically unsustainable. It is suggested that research and extension efforts be geared towards developing monosex Nile tilapia production systems. Nile tilapia culture with African catfish predation should be viewed as an intermediate step towards all-male Nile tilapia culture. This will allow accumulation of both physical and human capital to support all-male tilapia culture. Under all-male culture, economic returns are high enough to justify investment in Nile tilapia culture using borrowed capital. However, the success of monosex culture will depend on the availability and affordability of quality fingerlings and low-cost fish feeds. The results have a wide application in Sub-Saharan Africa where mixed-sex Nile tilapia culture is common.

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