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# Production Parameters and Economics of Small-Scale Tilapia Cage Aquaculture in the Volta Lake, Ghana

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month production cycle. Gross yield ranged from 232 to 1176 kg/cage, averaging 460

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kg/cage (9.6 kg/m<sup>3</sup>). Final average weight of mixed sex populations (253.05 ± 47.43g) was significantly less than of all-males (376.7 ± 72.30g). Likewise, percentage of fish over 300 g at harvest was significantly lower in mixed-sex (38.3%) compared to all-male (75.7%) populations. Mortality resulting primarily from poor handling during transport and stocking averaged 70% and was a major determinate of production and profitability. To break even, harvested biomass of fish needed to exceed 15 kg/m<sup>3</sup>. At 25 kg/m<sup>3</sup>, small-scale cage aquaculture generated a net income of US\$717 per cage per six months (ROI = 30.2%) on revenues of US\$3,500. Water quality in the area surrounding the cages was not negatively affected by aquaculture at the scale tested (5 tons of feed per six months).

Keywords:

- freshwater
- small and medium scale enterprise
- locally sourced inputs

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