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Title: The Effects of Water Exchange Rate and Density on Yield of the Walking Catfish, *Clarias fuscus*

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Abstract: High stocking densities (600 fish/m^3) of walking catfish resulted in slightly higher mortality rate, no difference in growth rate, and a much higher yield than low density stocking (300 fish/m^3). Water flow rate (10, 5, or 2.5 turnovers/day--turnover is defined as one diluted replacement volume) had no effect on survival, growth, or yield. Fish were cultured from an initial weight of 5.4 g for 90 days, and most mortality occurred early in the cycle when the fish weighed <26 g. Growth also was high initially and declined with time. Dissolved oxygen did not differ between tanks of different density, but was altered by flow rate. Water supply parameters, such as short-term BOD, strongly affected dissolved oxygen content at all flow rates. Ammonia concentrations increased with density and decreased with increased flow rate. Mortality rate of all fish was strongly dependent on size, and mortality of small fish was correlated with short-term BOD.

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