

APPLICATION OF GREEN MUSSEL (*PERNA VIRIDIS*) IN  
BIOLOGICAL TREATMENT OF EFFLUENTS FROM AN  
INTENSIVE MARINE SHRIMP FARM

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ABSTRACT

Green mussel *Perna viridis* were exposed 10 days to effluents from an intensive marine shrimp farm (0.55 ha., stocking density 34 shrimp m<sup>-2</sup>, and 1 month old) for biological treatment of the water. Densities of green mussel were 1, 3, 5, and 7 kg mussel per ton effluent. One control without mussels was included. The experiment was repeated three times. Effluents were monitored for chlorophyll *a*, ammonia-nitrogen, nitrite-nitrogen, orthophosphate, and total suspended solids before and after each experiment. Average temperature, salinity, and pH were 26-29 °C, 31-33 ppt and 7.9-8.7 respectively. We conclude that 1 kg green mussel is a suitable stocking density for the treatment of 1 ton of stagnant waste water per 10 days. Survival was not significantly different among the experiments, but there was a tendency toward increased mortality at higher stocking densities.