

Effect of Calcium Chloride on viability and fecundity of *Biomphalaria pfeifferi*, snail intermediate host of *Schistosoma mansoni*

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Abstract

Biomphalaria pfeifferi, the snail intermediate host of *Schistosoma mansoni* was cultured in the laboratory to show the effect of CaCl₂ on its rate of production of eggs and hatchability of the eggs laid. 12 snails of approximately the same size and age were cultured in each of the 4 tanks set up. In 3 of the tanks were CaCl₂ dissolved in 1000cm³ of water in various concentrations. The 4th culture tank served as control experiment where no calcium was added. Highest fecundity was recorded in the control tank while highest hatchability was recorded in the tank with minimal quantity of CaCl₂. From the results of this research, it has been found that calcium in low concentrations is necessary for optimum fecundity and viability of eggs of *Biomphalaria pfeifferi*. Very high concentrations are lethal to the snails. Based on the outcome of this study, CaCl₂ can therefore be used as an additional source of calcium for laboratory culture of the snail intermediate hosts. This is necessary for better understanding of the life cycle of *Schistosoma mansoni* towards eradication of schistosomiasis.