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The Interactive Effect of Sodium Chloride and Diatomaceous Earth (DE) on Bacillus aquimaris

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Abstract : The growth of Bacillus aquimaris was inhibited from 6 - 20 % of NaCl but it showed some tolerance when Diatomaceous earth (DE) added from 2 - 12% NaCl. Concerning the effect of NaCl on polyol production, we can conclude that, the test bacterium showed some tolerance to NaCl by producing glycerol up to 8 % of NaCl. Then decreased sharply. The addition of DE decrease the amount of polyol and glycerol remarkably and this due to the productive effect of DE to the bacterial cells. The SEM figures represented the presence of electron dense bodies due to the accumulation of small particles of DE as protective molecules.

Keywords : Bacillus aquimaris, Diatomaceous earth (DE), osmoticstress, sodium chloride
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