



RESEARCH PAPER

Isolation and optimization of lipase producing bacteria from oil contamination soils

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Lipolytic bacteria were isolated from oil contaminated soil and grown on glycerol tri-butyrate media. The lipase activity is shown by reacting with various chemicals. Lipases are glycerol ester hydrolases that catalyze the hydrolysis of triglycerides to free fatty acids and glycerol. Bacterial lipase producers were isolated from oil spilled soil from vegetable oil processing factories. The effect of incubation time, medium pH, temperature, agitation, inoculum concentration, carbon source and nitrogen source for the lipase production was studied. The lipase production was maximum at pH 7, temperature by the lipase producing bacteria *Staphylococcus*. Increased enzymatic production was obtained when the organisms were cultured in medium supplemented with 1 per cent protease peptone by *Staphylococcus*. The results of the present study was to demonstrate that the micro-organism is ideal for extracellular lipase production at industrial level. Different media parameters were optimized for maximal enzyme production. Lipases activity shown on starch containing agar media at pH-7.0 and temperature at 37°C for 24-48 h.

Key words : Lipase, Glycerol tributryate, Extracellular, Oil, Dialysis

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