Isolation of Gram +ve bacilli bacteria, producing useful product from Jazan soil

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Abstract
Gram +ve bacilli, protease producing was isolated. Sample was collected from sandy soil at Jazan city KSA. Skim milk nutrient agar media was used for qualitative screening for protease using streaking method. Because of partial hydrolysis of milk casein, colonies forming transparent zones were selected. Purified colonies of selected isolate was streaked on Nutrient agar slant and stored at 4°C. After being incubated for 24 hrs, a plate containing milk and agar showed the growth of several colonies. The zone formations around the bacterial colony indicated the protease positive strain which may be due to hydrolysis of casein. It was chosen one strain from the plate showed the highest number of enzyme producers followed by the clear zone. It was observed that, the production of protease was tolerant up to at 45°C. The potent protease producer was found in G+ve bacilli Bacterium isolate. This bacterial isolate was partial sensitive to antibiotic cefidime and cefaclor and resistant to trimethoprim/sulphamethoxazole. The resulted protease can be purified and promote several new industries, as amino acids, Meat tenderization, Dairy, Detergents, Pharmaceutical, Tanning of leather industries, and Degradation of proteinous waste into useful compounds.