

Feathers contain 90% of protein in the form of keratin. Feathers are generated in large quantity as a by-product in poultry farms leading to environmental pollution. As chemical treatment process is expensive and does not completely degrade the feather wastes, an alternative process would be required. Microbial process is economical compared to chemical process, and it also helps convert feathers into value added products such as nitrogen fertilisers, feedstuffs, films and rare amino acids. The soil samples for the wastes were collected from a poultry dump area in Trichy. They were serially diluted and 50 microorganisms were obtained. The microorganisms obtained from the feather-dumped soil were inoculated on solid agar plates at 30°C for 24 h. Out of those, 10 organisms showed a clear zone of hydrolysis. The collected samples of soil were tested and screened to isolate pure keratinolytic strains. Clear zone of hydrolysis in milk agar medium confirmed the presence of proteolytic activity of organisms. The positive strain 1 which produced keratinase enzyme was identified as *Bacillus cereus* by 16S rRNA analysis.