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### Isolation and Screening of Keratinase Producing Bacteria From Chicken Feather Dumping site

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**Abstract:**The aim of this study was to isolate and screen keratinase producing bacteria from chicken feather dumping sites. Six different feather dumping soil samples, were collected from Aurangabad, Maharashtra area for this study. These six different soil samples were serially diluted and plated for screening of efficient protease producing microorganism. The zone of protease activity of the isolates determined on Skim Milk Agar medium (Himedia M-763) varied. Among them, one strain was produced higher level of zone of clearance by its protease production. Based on morphology and biochemical analysis the isolate were identified as Bacillus sp. Fermentation using feather as a substrate was carried out on minimal salt media for 4 days which resulted in almost complete degradation of feather. The optimum conditions for keratinase production were temperature 37°C, pH 7.4 and initial substrate concentration 1%.

**Keywords:** Chicken feather, Keratin, Keratinase, Bacillus.

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