

Plastic's durability, due to its synthetic nature, leads to environmental accumulation. Microorganisms, especially bacteria and fungi, play a crucial role in waste management. This study focuses on three types of plastic (PET, HDPE, and LDPE) and isolates bacterial and fungal species from various sources. Bacteria are incubated on nutrient agar, while fungi are incubated on Sabouraud dextrose agar. Plastic degradation is assessed using Minimal Salt Medium for bacteria and Dox medium for fungi, with plastic serving as the sole carbon source. The remaining plastic dry weight indicates degradation levels, and protein concentration is measured using the BCA assay.