

MICROBIAL DNA EXTRACTION FROM SOIL BY DIFFERENT METHODS AND ITS PCR AMPLIFICATION

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ABSTRACT – To understand the occurrence of particular microbes *in situ*, using nucleic acid technology, the direct isolation of DNA from soil comes as an emerging technology in comparison to cell cultivation. The development of techniques in molecular biology has led to their application to microbial ecology. The extraction of DNA from soil, followed by the application of Polymerase Chain Reaction (PCR) to amplify a gene common to all organisms can provide information about microbial community structure, microbial diversity, evolution and taxonomy. Thus different methods were developed and compared for DNA extraction from the soil and evaluated on the basis of PCR-based 16S ribosomal DNA analysis.

Key words : Mannitol-CTAB, Mannitol-PCI, Mannitol PEG-NaCl, Microbial DNA extraction, PCR, 16S ribosomal DNA analysis.