

## **Microbial profiling of Liquid Biofertilizers; Mass production of certain Microbial strains used for Sustainable Agriculture - A Study**

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### **ABSTRACT**

The present study was framed out to evaluate and enumerate the microorganisms from the liquid biofertilizers that are commercial and produced locally. A total of five common liquid biofertilizers samples have been collected from the various farmers of Warangal Urban and Rural Districts. 1 mL of each collected sample was serially diluted and labelled as  $10^{-1}$  to  $10^{-6}$  and each dilution was separately inoculated in Nutrient Agar Medium and incubated at  $37^{\circ}\text{C}$  for the visible growth of microorganisms. A notable and cleared growth was observed in  $10^{-4}$ ,  $10^{-5}$  and  $10^{-6}$  dilutions. Based on colony characteristics and morphology, we have identified that Azatobacter and Rhizobium was common microorganism in all the samples collected. Currently the research is focused on optimization studies using various parameters such as, pH, temp, carbon source, etc., for the mass production of selected microorganism.

**Keywords:** Biofertilizers, Azatobacter, Rhizobium, Optimization

