

Antibiotic Resistant Phosphate Solubilizing Bacteria

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ABSTRACT: Phosphate solubilizing bacterial strains were isolated and were tested for antibiotic resistance using six antibiotics namely kanamycin, streptomycin, ampiciline, tetracycline, rifampicin and chloramphenicol. Out of thirty five phosphate solubilizing isolates, *Klebsiella oxytoca* and *Enterobacter ludwigii* were found to be highly tolerant to varying concentrations of all the tested antibiotics except chloramphenicol. According to the results, both strains were resistant for kanamycin, streptomycin, ampiciline, tetracycline and rifampicin up to 100, 200, 500, 100 and 100 µg/ml concentrations respectively. However, both strains were sensitive to chloramphenicol by producing large inhibition zone (17-20 mm diameter) even at 100 µg/ml. These antibiotic resistant strains as bio-inoculants would have attractive beneficial impacts on sustainable agricultural practices in contaminated soils.

Keywords: Antibiotics, *Enterobacter ludwigii*, *Klebsiella oxytoca*, resistant, sensitive