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# INFLUENCE OF PH ON THE GROWTH OF PHOSPHATE SOLUBILIZING FUNGI ISOLATED FROM SOILS

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**ABSTRACT**

The pH profoundly influences phosphate-solubilizing fungi (PSF) by affecting their growth and survival, as each species has an optimal pH range for activity and survival. The influence of pH on the growth and survival of phosphate-solubilizing fungi were investigated. The three representative fungal strains were cultured for seven days with the initial pH in the medium ranging from 1.5 to 8.5. We estimated the fungal growth by measuring the dry matter of mycelial biomass. The growth-based measurements revealed that all the tested fungal strains were capable of growing and surviving in a wide range of pH (2.5-8.5). Among them, SI-10URAgr (*A. niger*) enhanced the highest acidity in all tested pH values, followed by *P. oxalicum* (SI-16URAgr) and SI-14URAgr. Fungal growth primarily depends on the pH. SI-10URAgr showed the highest growth (0.28g) at pH 3.5. Besides this, SI-14URAgr and SI-16URAgr showed the maximum growth (0.43g and 0.20g) when the initial pH value was 5.5 and 7.5, respectively. These findings suggested that *A. niger* have the strongest adaptability to acidic environment followed by *P. oxalicum*. Although these fungal strains could grow and survive in higher pH also. It may give an extra advantage to utilize these strains in any pH condition in the soil.