Pakistan J.Soil Sc. 2(1-4), 1987; pp 37 - 39

RESPONSE OF RICE TO FERTILIZER AND AZOTOBACTER SPRAY

M.I. AZAD, M. SALEEM DOGAR AND M. ASLAM*

ABSTRACT

A strain of *Azotobacter chroococcum* isolated from the leaf sheath of water hyacinth *(Eichbornia crassipes)* plant was used for phyllosphere inoculation of rice in pots and in the field to note the response of the crop to inoculation in the presence of mineral fertilizers.

The crop exhibited a positive response to azotobacter inoculation in both the experiments. In pots, the biomass yield of paddy increased by 42.8% with inoculation over control (with 0-50-0 kg ha^{-1}) When inoculation was applied in combination with mineral fertilizers 50-50-0 and 100-50-0 kg ha^{-1}| respectively, the average yield was further increased from 120.0 to 165.3 (37.8%) and from 174.0 to 181.3 g pot^{-1} (4.1%). The higher application rate of N reduced the efficiency of the inoculum.

In field trial when the inoculation was superimposed over 0,50 and 100 kg N ha^{-1} (along with 50 kg P ha^{-1}), the paddy yield was increased by 19.6, 17.4 and 16.9% respectively.