

Influence of different levels of inorganic phosphorus in combination with biofertilizers on P-fractions in soil at different growth stages of sorghum

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ABSTRACT

Inorganic soil phosphorus fractions on sorghum at different growth stages were evaluated with the application of different levels of phosphorus fertilizer along with biofertilizers during *Rabi* 2022. The experiment was laid out in randomized block design and replicated thrice, conducted at Agricultural College Farm, Bapatla. The treatments comprised of T₁-0% RDP, T₂- 50% RDP, T₃- 75% RDP, T₄- 100% RDP, T₅- 0% RDP + PSB, T₆- 0% RDP + PSB + VAM, T₇- 50% RDP + PSB, T₈-50% RDP + PSB + VAM, T₉-75% RDP + PSB, T₁₀- 75% RDP + PSB + VAM. The soil samples were analysed for P- fractions by standard procedures. The results of the experiment indicated all the P- fractions *i.e.*, saloid-P, Al-P, Fe-P, Ca-P, total-P were significantly influenced by the imposed treatments. Phosphorus fractions was recorded highest in the treatment 100% RDP (T₄) and it is on par with 75% RDP (T₃) at different growth stages. The amount of inorganic P varied significantly and the distribution of added P into different fractions was in the order of Ca-P > Fe-P > Al-P > saloid-P.

Key words: *Biofertilizers, P-fractions, Inorganic fertilizer Soil samples and Sorghum*