Effect of Biofertilizers in Combination with Inorganic Phosphorus on Yield and Yield Attributes of Sorghum

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ABSTRACT

Yield and yield attributes of sorghum were evaluated with the application of different levels of phosphorus fertilizer along with biofertilizers during *rabi* 2022-23. The experiment was conducted at Agricultural College Farm, Bapatla and was laid out in randomized block design and replicated thrice. The treatments comprised of T_1-0% RDP, T_2- 50% RDP, T_3- 75% RDP,T_4- 100% RDP, T_5- 0% RDP + PSB, T_6- 0% RDP + PSB + VAM, T_7- 50% RDP +PSB,T_8-50% RDP + PSB + VAM,T_9-75% RDP + PSB, T_{10}- 75% RDP + PSB + VAM. Combined application of inorganic fertilizer and bio fertilizer proved significantly superior in growth and yield of sorghum over control and treatment with application of only biofertilizers.There was a 33.8 per cent increase in yield was observed with application of 75% RDP+PSB+VAM and it was on par with 100% RDP. The highest harvest index and test weight (1000 grain weight) was recorded with theapplicationof100%RDP on par with 75% RDP+PSB+VAM

Keywords: *Sorghum, Biofertilizers, yield, Harvest index and Test weight*