

Would biofilm biofertilizer is more useful for okra in sandy regosols

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Biofilms are aggregates of multiple microbial communities, attached to each other or to a surface. *In vitro* development and application of biofilms as biofertilizers known as biofilm biofertilizer (BFBF). BFBF is a product which contains beneficial fungal-bacterial colonization in a biofilm mode. BFBF is not only a biofertilizer, but also one of the very effective novel treatment applications which can be used to reduce chemical fertilizer application, improve the crop growth, while recovering soil livability that damaged by conventional agriculture practices. Therefore, This study was conducted to evaluate the effect of BFBF on leaf and pod growth of okra in eastern region, in comparison with fertilizer recommendation of the Department of Agriculture (N, P₂O₅ and K₂O concentration of 150,200 and 75 kg/ha in basal and N and P₂O₅ at 150 and 75 kg/ha in topdressing respectively) and farmer practice at eastern region (basal at 250 kg/ha at 8 days after planting and kalpitty mixture at 50 kg/ha up to 2 months in 10 days interval). The recommendation of Biofilm-veg is 1 L for an acre. 100 ml of Biofilm-veg was dissolved in 16 L of water and this amount was sprayed to 400 m². Biofilm-veg was applied with the first and the last application of chemical fertilizers. Eight different treatments consisted of 100% and 50% of DOA recommendation, 100% and 50% of farmer practice, combination of biofilm with 50% DOA recommendation and 50% farmer practice and biofilm alone were replicated four times in Complete Randomize Design. Leaf number and pod number per plant were recorded in 2 weeks interval and data were statistically analyzed using SAS and difference between treatments was compared using Duncan's Multiple Range Test (DMRT). Combination of 50% DOA recommended chemical fertilizer with BFBF significantly increased the no of pods and among the treatments highest value was obtained at 50% DOA+BFBF application. The combination of 50% recommended chemical fertilizers with BFBF can be recommended for okra cultivation in eastern region.

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