EFFICIENCY OF *Trichoderma harzianum* FUNGI ON THE A VAILABILITY OF SOME NUTRIENTS .

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ABSTRACT

A pot experiment was conducted to evaluate the efficiency of Trichoderma harzianum fungus on the availability of some elements and its population with corn planting . The experiment included four levels of T.harzianum. inoculum 0.5 , 1 , 1.5 , 2 gm/kgm of soil and three levels of organic matter 1, 2 , 4% respectively .leave of plant Samples were taken after 20 , 40 , 80 days of planting to determine N , P , K in the leaves . also soil samples were taken in the same period to count population fungus. The results showed that the concentration of N , P and K in plant leaves at any stage of plant growth increased with increasing of inoculum levels and percent of organic matter addition.

Treatment (2 gm of inoculum) gave 2.27 mg N/gm plant with increasing 98% as compared with control. While the treatment (2 gm of inoculum after 80 days) was superior as compared to the control which gave 3.55 mg N/gm plant . Inoculum levels also gave an increasing in phospherus content as in (2 gm inoculum treatment) which gave 0.168 mg P/gm plant. The interaction treatment (2 gm of inoculum and 4% organic matter) gave 0.179 mg P/gm plant. This is good indicator for the effect of inoculum and organic matter level with time to increase the availability and uptake of nutrients . Also K-uptake gave high increasing in (2 gm inoculum) which gave 1.52 mg K/gm plant. Inoculum treatments gave an increasing in the Cfu

such as 22.7 x 10^5 (in 2 gm of inoculum) while treatment (2 gm inoculum after 80 days) gave Maximum Cfu 35 x 10^5 compared with control 0.38 x 10^5 Cfu.