

RESPONSE OF MAIZE PLANT TO INCULCATION BY AZOTOBACTER CHROOCOCCUM
BACTERIA ,TRICHODERMA HARZIANUM FUNGI AND NITROGEN FERTILIZER .

F.M.Suhal * A .A. Mehdi A.H.Fahmi

* Horticulture Dept. College of Agri. Diyala University.

ABSTRACT

A factorial pot experiment was conducted by using (CRD) design on sandy loam soil , out as well as isolation classification purification of A.chroococcum Bacteria to study the effect of interaction between A.chroococcum bacteria and T.harzianum fungi and two levels of nitrogen fertilizer (50% and 100%) on growth of maize plant . The results of classification showed that all the three isolate belong to A.chroococcum species ,the isolate (I3) was selected as local isolated and used as a biofertilizer in pot experiment . The results showed that application of biofertilizer caused significantly increment in plant height , leaf area and dry weight compared with out addition of biofertilizer irrespective with application of nitrogen fertilizer . the highest number with the addition of duplicate biofertilizer caused significantly increment (57.37% ,119.38 % and 120.83%) for plant height , dry weight and leaf area respectively compared with out addition of biofertilizer . The highest number with the addition of duplicate biofertilizer and with (50%) of nitrogen fertilizer caused significantly increased (85.18% , 146.26% and 222.22%) for plant height ,leaf area and dry weight respectively The interaction between A.chroococcum bacteria and T.harzianum fungi were positively ,while addition (100%)of nitrogen fertilizer caused no significant increased in plant height and dry weight compared with adding biofertilizer.