EFFECT INTERACTION BETWEEN INOCULATION FUNGUS *Trichoderma harzianum* AND VEGETATION FERTILIZATION ALGAE *Chara* sp AND CHEMICAL IN PLANT GROWTH ONION (*Allium cepa* L.).

Faris Mohammed Suhail

***Assist. Prof. -Dept.of Soil andwater Resources -College of Agriculture- University of Diyala**
Dr.faris_63@yahoo.com

ABSTRACT

A factorial Experiment was conducted in sandy loam soil, using a complete randomization design (CRD), in College of Agriculture – University of Diyala in plastic bags to assess effect treatment of fungi *Trichoderma harzianum* and alga Chara sp, chemical fertilizers and the interaction between them in the onion plant growth.

The results showed that added dual (*Trichoderma harzianum*+ *Chara* sp) led to a significant increase in both plant height ,length roots , Number of leaves, diameter bulb and wet weight and dry (32.58 cm, 40.0 cm, 6.92 leaf -1, 1.48 cm, 32.67 g. Plant -1,11.13 g. plant -1), respectively, and irrespective of the addition of chemical fertilizers. They gave treatment double (*Trichoderma harzianum*+ *Chara* sp) and interaction with the level 50% of chemical fertilizers higher values for all studied traits and increase significantly was (21.73%, 71.66%, 65.0%, 61.90%, 30.76%, 60.0%), respectively, compared to the treatment comparison and at the level of 50%. The treatment added double (*Trichoderma harzianum*+ *Chara* sp) and at the level of 50% of chemical fertilizers is the preferred treatment and *Trichoderma harzianum* and *Chara* sp saving 50% of the amount of chemical fertilizers.

Key words : *Trichoderma harzianum* ، algae *chara* sp. ، chemical fertilizers ، Onion .