

# **EFFECT OF CONCENTRATION AND SOURCE OF SUNFLOWER EXTRACT ON GERMINATION AND SEEDLING GROWTH OF SOME BREAD AND DSURUM WHEAT.**

**Labeed Sh. Mohammed**

\*Field Crop Department - College of Agriculture – University of Tikrit .

## **ABSTRACT**

Two laboratory experiments were undertaken during 2011 in College of Agriculture – University of Tikrit to assess the effect of four concentration (0, 1,2,and 3%) of sunflower extract , and the effect of the concentration 3% of roots and leaves of sunflower on germination and seedling growth of two bread wheat varieties ( Shsm – 6 and Abu- Graib – 3)and two durum wheat varieties ( Dor -29 and Naama) . The electrical conductivity (Ec) of extracts were estimated . Twenty seeds of each variety were placed in Petri dishes and laid out in balanced group in split plot design with three replications. 10 ml of extracts were added to each Petri and the characters were estimated 2 weeks after planting . The results revealed that the Ec. Increased with increasing of extract concentration. The water imbibed and seed germination were decreased with the increasing of extract concentration . Analysis of data taken 2 weeks after planting showed that shoot and root length and their dry weight were increased in 1 and 2 % concentration and then significantly decreased in 3% concentration . The 3% of sunflower roots and leaves significantly inhibited the growth of shoot and root of wheat seedlings. Sunflower leaves extract inhibited growth more than root effect . The group of durum wheat varieties surpass the group of bread wheat in most characters studied .Dor – 29 was the best variety in all estimated characters .

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**Key words :** Bread wheat , Durum wheat , Allelopath