

Title: The influence of salt stress on the morpho physiological and biochemical parameters of durum wheat varieties (*Triticum durum* Desf.)

To improve the performance of multiplication of durum wheat seed (*Triticum durum* Desf.),

Seven (07) varieties were grown in an experimental field (Tifech region in Souk Ahras). The study focused on planting varieties on two previous crops (sorghum and fallow pasture), in addition to the use of two background fertilizer, a potassium (the Fosfactyl) and other nitrogen phosho it This is the (DAP).

Analysis of the results showed a significant improvement in grain yield in varieties harvested from the previous crop (sorghum) and having received the Fosfactyl as fertilizer. The best grainyields were posted by varieties Carioca and Boussallem Sersou.

The evaluation of the impact of nanoparticles based on ZnO on the behavior of three varieties (Boussallem, Gtadur and Ouarsenis), with a range of development parameters, physiological and biochemical made in the laboratory. The varieties (V1, V2 E V3) were exposed to increasing concentrations of ZnO nanoparticles (0.01mg / ml, 0.05mg / ml, 0.1mg / ml, 0.5mg /ml).

The results show that the presence of ZnO-based nanoparticles can have a stimulating effect inhibitor according to the concentration and effect parameter studied, it shows that with the exception of a reduction of root elongation: strong effect concentration and reduced levels of chlorophyll (chlo has chlo b) induced by exposure to low concentrations; We can advance the development of wheat seedlings was not much affected by the presence of ZnO nanoparticles in their experimental medium sometimes it provoked a stimulating effect (increasing the Percentage of germination).

Similarly their presence caused oxidative stress resulting in the accumulation of lipoperoxide (MDA) recorded in all varieties studied following exposure to different concentrations.

On the other hand a variety effect has contributed greatly in the variation of the remaining Parameters related to (ROS) ,Carotenoids, APX and CAT.