

Transformation of *Nicotiana Tabacum* by *Agrobacterium Tumefaciens* Carrying Salt and Drought Tolerance Gene

Ahmed Abdul-Jabbar Suleiman

College of Science- Biotechnology Dep. University of Anbar

Abstract:-A RING-H2 zinc-finger motif with small protein increased tolerance to salt and drought after used the 35S promoter. In present work, expressed in *Nicotiana tabacum* plant by *Agrobacterium tumefaciens* leaf. Tissue culture technique was used to indicate the tolerance of plant was able to tolerate NaCl up to 100mM and mannitol up to 50 mM, same technique with transformed bacteria and the antibiotic kanamycin used as selectable marker to select the transformed explants. PCR technology were used to ensure that the foreign gene presented in transgenic Tobacco plantlet concentration of NaCl and mannitol in MS medium and the transformed plants were able to grow in 150mM and 100mM of salt and mannitol respectively, these results indicate that concentrations of salt and drought. From this work we concluded that abiotic stresses can be overcomes by producing GM crops specific gene control.

KEYWORDS: salt tolerance, drought tolerance, Tobacco, *Agrobacterium*.