

## **Improvement to Abiotic Stress Tolerance in Durum Wheat (*Triticum Durum* Desf) with the Vegetable Extract Application**

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**Abstract :** Salinity is one of the most environmental factors limiting crop productivity. It has a negative effect on both germination and plant growth processes (photosynthesis, respiration, and transpiration), nutrient balance, membrane properties and cellular homeostasis, enzymatic and metabolic activities. Among the strategic crops in the world and more mainly in Algeria, durum wheat is very affected by this abiotic stress. For that, this study focuses on an evaluation of salt stress effect on the germination process of durum wheat as well as its response after application of lavender hydrosol and aqueous pistachio extract. The results have shown that all the physicochemical parameters of germination have been affected by this stress. However, lavender hydrosol and aqueous pistachio extract, considered as organic compounds, significantly improved the germination of wheat seeds. Finally, this study has highlighted the importance of using organic products as an ideal alternative to reduce the effect of abiotic stress on durum wheat productivity.

**Keywords :** salinity, wheat durum, extract, lavender hydrosol, aqueous pistachio

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