

Drought Stress and the Importance of Osmotic Adjustment

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Abstract : The majority of green plants have 70%-90% water, this amount depend on age of plants, species, tissues of plants and also the environmental conditions that plants growth and development on it. Because of intense plant demanding to achieve the available water for growing and developing, always plants need a water sources and also mechanisms to retention the water and reduction water loss under critical situation and water deficit conditions otherwise the yield of plants would be decreased. Decreasing the yield depend on genotypes, intense of water deficit and also growth stage. Recently the mechanisms and also compound that have major role to water stress adaption of plants would be consideration. Osmotic adjustment is one of the most important mechanisms in terms of this field that many valuable researches focused on it because the majority of organic and inorganic solutes directly or even indirectly have pivotal role in this phenomenon. The contribution of OA to prevent water loss in response to water deficit and resistance to water stress taken to consideration recently and also the organic and inorganic compounds to OA tended has a high rate of significant.

Keywords : water deficit, drought stress, osmotic adjustment, organic compound, inorganic compound, solute

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