World Academy of Science, Engineering and Technology
International Journal of Environmental and Ecological Engineering
Vol:10, No:08, 2016

Regulation of Water Balance of the Plant from the Different Geo-Environmental Locations

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Abstract : Under the drought stress condition, the plants would grow slower. Temperature is one of the most important abiotic factors which suppress the germination processes. However, the processes of transpiration are regulated directly by the cell water, which followed to an increase in volume of vacuoles. During stretching under the influence of water pressure, the cell goes into the state of turgor. In our experiments, lines of the semi-dental sweet maize of Armenian population from various zones of growth under mild and severe drought stress were tested. According to results, the value of the water balance of the plant cells may reflect the ability of plants to adapt to drought stress. It can be assumed that the turgor allows evaluating the number of received dissolved substance in cell.

Keywords : turgor, drought stress, plant growth, Armenian Zea Maize Semidentata
Conference Title : ICEBESE 2016 : International Conference on Environmental, Biological, Ecological Sciences and Engineering
Conference Location : Amsterdam, Netherlands
Conference Dates : August 04-05, 2016