

Antioxidant Capacity of Maize Corn under Drought Stress from the Different Zones of Growing

Authors : Astghik R. Sukiasyan

Abstract : The semidental sweet maize of Armenian population under drought stress and pollution by some heavy metals (HMs) in sites along the river Debet was studied. Accordingly, the objective of this work was to investigate the antioxidant status of maize plant in order to identify simple and reliable criteria for assessing the degree of adaptation of plants to abiotic stress of drought and HMs. It was found that in the case of removal from the mainstream of the river, the antioxidant status of the plant varies. As parameters, the antioxidant status of the plant has been determined by the activity of malondialdehyde (MDA) and Ferric Reducing Ability of Plasma (FRAP), taking into account the characteristics of natural drought of this region. The possibility of using some indicators which characterized the antioxidant status of the plant was concluded. The criteria for assessing the extent of environmental pollution could be HMs. This fact can be used for the early diagnosis of diseases in the population who lives in these areas and uses corn as the main food.

Keywords : antioxidant status, maize corn, drought stress, heavy metal

Conference Title : ICEEE 2016 : International Conference on Ecological and Environmental Engineering

Conference Location : Barcelona, Spain

Conference Dates : August 11-12, 2016