

Effects of Irrigation Intervals on Antioxidant Enzyme Activity in Black Carrot Leaves (*Daucus carota* L.)

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Abstract : Drought is one of the major abiotic stresses affecting the agricultural production worldwide. In this study, Leaf samples were taken from the carrot plants grown under drought stress conditions during the harvesting period. The plants were irrigated in three irrigation interval (4, 6 and 8 days) and Irrigation water regime was set up in pots. The changes in activities of antioxidant enzymes such as glutathione reductase (GR), glutathione s-transferase (GST), superoxide dismutase (SOD)) in leaves of black carrot were investigated. The activities of antioxidant enzymes (GR, GST, SOD) were varied significantly with irrigation intervals. The highest value of GR, GST and SOD were determined in the irrigation interval of 6 days. All antioxidant activity values were decreased in 8 days of irrigation interval. As a result of the study, it has been suggested that optimum irrigation intervals for plants can be used in antioxidant enzymes.

Keywords : antioxidant enzyme, carrot, drought, irrigation interval

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