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Growth and Variations in Proline, Sodium, Chloride, Phosphorus and Potassium Concentrations of Chickpea (Cicer arietinumL. cvs.) Varieties Under Salinity Stress

Hesna ÖZCAN Ankara Üniversitesi, Ziraat Fakültesi, Toprak Bölümü, 06110 Ankara - TÜRKİYE Murat Ali TURAN Uludağ Üniversitesi, Ziraat Fakültesi Toprak Bölümü, 16059 Görükle, Bursa - TÜRKİYE Özlem KOÇ, Yakup ÇIKİLİ, Süleyman TABAN Ankara Üniversitesi, Ziraat Fakültesi, Toprak Bölümü, 06110 Ankara - TÜRKİYE Abstract : Under salinity stress, growth and variations in proline, Na, Cl, P and K concentrations of three chickpea varieties (Canitez- 87, ILC-195/2 and Damla), which are cultivated widely in Turkey, were investigated. For this purpose, experimental soil was salinized with 68 mmol kg ⁻¹NaCl. The salinity responses of chickpea varieties were compared by means of various plant parameters. According to the results, Damla was affected by salinity stress much more than Canitez-87 and ILC-195/2 cultivars. However, under salinity stress, the dry weight of the Damla variety was influenced much less than the others. Sodium and Cl contents were generally found to be lower than those of the others. Proline, Na, Cl and P concentrations of all varieties were increased, and the K concentration was decreased.

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