

**P-106 (228)****NACL-INDUCED CHANGES IN PHENOLICS COMPOSITION OF LEAVES AND ROOTS OF SEVERAL GRAPE CULTIVARS (VITIS VINIFERA) AND THEIR RELATIONSHIP TO ANTIOXIDANT CAPACITY**

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All higher plants are containing Phenolic compounds. Biosynthesis of phenolics is often induced by environmental stresses, like salinity. The aim of the present work was to identify the targeted phenolic profile (12 phenolic compounds) as well as total reducing capacity (TRC) and total antioxidant capacity (TAC) of ten grape (*Vitis vinifera*) cultivars under different concentrations and durations of NaCl treatment in two different parts (leaves and roots) of vine. The possible relationship between different individual phenolics and TRC and TAC were also investigated. The data indicated that depending on the type of the cultivar, NaCl salinity stimulated the biosynthesis of some phenolics (such as resveratrol, quercetin and chatechin), especially in leaves, whereas the concentrations of the rest ones (naringenin and kaempferol) were either negatively or not affected by the NaCl stress. Phenolics profiles of different cultivars showed various changes with the salinity treatment duration (30 or 60 days after treatment) in both tissues, as well. Different significant and insignificant correlation coefficients found between phenolics contents and TRC and TAC in both leaves and roots. Finally, it is concluded that there may be translocation of phenolic compounds between leaves and roots due to the exposure to NaCl stress.

**Keywords:** antioxidant capacity, grape roots, phenolic compounds, resveratrol, salinity