

Pre-Soaking Application of Salicylic Acid on Four Wheat Cultivars under Saline Concentrations

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Abstract : The effect of salinity (0-200 mMNaCl) on wheat growth (leaf and tiller numbers, and fresh and dry weights) underseed soaking (6 and 24 hs) insalicylic acid (SA) was investigated. The impact of salinity was less pronounced in salt tolerant cultivars (Sakha 93 and S24) than Paragon and S24. Chlorophyll content was increased as a response to salinity stress. It was raised in 100 mMNaCl more than 200 mMNaCl. The same trend was found in 24 hs soaking, except chlorophyll content in Paragon and S24 under 200 mMNaCl was more than 100 mMNaCl. SA application induced a positive effect on growth parameters in some cultivars, particularly Paragon under saline and non-saline condition. Soaking for 6 hs was more effective than 24 hs soaking, especially in Paragon and Sakha 93. SA supply caused a slight effect on chlorophyll content but this was not significant and there was no significant difference between both soaking hs. The effect of SA on growth parameters and chlorophyll content depends on cultivar genotype and SA concentration.

Keywords : salinity, salicylic acid, growth parameters, chlorophyll content, wheat cultivars

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