

Effect of Pre-treatment with Salicylic Acid on Vegetative Growth and Yield Components of Wheat under Salinity

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Abstract : At first harvest, results showed that salinity (tap water, 100 and 200 mM NaCl) induced a significant decrease in all growth parameters in both Yecora Rojo and Paragon cultivars. The greatest effect of salinity was a decrease in leaf area. The same tendency was observed with specific leaf area, and total fresh and dry weights and their components. Green leaf and tiller numbers were reduced by the same extent in both cultivars. The corresponding final harvest, all growth parameters also reduced with increased salinity. Yield and yield components were also reduced by salinity with similar effects in both cultivars. Chlorophyll fluorescence, expressed as Fv/Fm, and gas exchange parameters were decreased significantly with increase in salinity in both cultivars. In contrast, seed protein content was increased significantly with increase in salinity. Salicylic acid (SA) application induced no significant improvements in growth parameters and yield components.

Keywords : salinity, salicylic acid, growth, chlorophyll fluorescence, gas exchange, yield

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