

Amelioration of salinity effect in *Zea mays* (single cross 124) by cyanobacterial extracellular products

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Abstract

Salt stress is one of the most serious factors limiting the productivity of *Zea mays*. The aim of this work was to evaluate the effect of the cyanobacterium *Nostoc muscorum* extracellular products on the growth of salt sensitive *Zea mays* (Sc. 124) seedlings inhibited by sodium chloride. Growth parameters (length and weight of the seedlings) and pigments content were evaluated. Salt exposure negatively affected all growth parameters and pigment contents. Extracellular products nullified the salt effect on shoot dry weight (from 37% to 5% decrease); partially counteracted the effect on shoot length (from 55% to 39% decrease), root dry weight (from 56.7% to 40% decrease) and had no effect on root length. Salinity decreased chlorophyll contents of the seedlings, reduction was 60%, but application of cyanobacterial extracellular products had a distinct effect on salinity alleviation as evident from recovery in the pigment contents. This improvement in chlorophyll contents was 40%.

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