



Role of Cyanobacteria, glutathione and salicylic acid on the oxidative defense systems of wheat plant grown under Saline condition

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Abstract: Cyanobacteria are prominent inhabitants of many agricultural soils, where they potentially contribute to improve soil fertility and crop productivity. Therefore, it becomes important to consider how glutathione and salicylic acid mitigate the oxidative salt stress in the presence or absence of cyanobacteria and recommended or half recommended doses of NPK experienced by wheat cultivar sakha 93. It was observed herein that, salt stress elicit an effect on total soluble sugars, free amino acids. The levels of antioxidant compounds (ascorbic acid and proline) were changed in response to salt stress. Soaking wheat plant with glutathione and salicylic acid improve vegetative plant resistance in the presence of cyanobacteria probably by increasing antioxidant substances levels and enhancing the activities of antioxidant enzymes (superoxide dismutase, catalase; peroxidase, glutathione reductase as well as ascorbate peroxidase).

Keywords : Antioxidants. Cyanobacteria. Glutathione. Salicylic acid. Salinity. Wheat.

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