Abstract

In this investigation, the changes that might take place in growth and some related physiological activities of two medicinal plants, namely *Solanum nigrum* and *Solanum incanum* were studied after being subjected to salt stress, addition of sterols (cholesterol, stigmasterol) and in combination of both. The seed germination of the two test plants was generally lowered by increasing salinity levels. The growth alterations induced by NaCl were alleviated by various levels of sterols. The application of cholesterol and stigmasterol led to significant differences between responses of antioxidant defense enzymes in both test plants growing under different concentrations of NaCl. The organic solutes of both plant seedlings exhibited somewhat variable responses to various salinity levels or sterol treatments and in combination of both treatments. Stigmasterol in *Solanum nigrum* was more effective in mitigating the stress effects of salinization than cholesterol, while in *Solanum incanum* cholesterol was more effective.