

## عنوان مقاله:

Effects of Exogenous Nitric Oxide on Germination and Physiological Properties of Basil under Salinity Stress

## محل انتشار:

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## خلاصه مقاله:

Nitric oxide (NO) is a bioactive molecule, which was found to have several physiological roles, including antioxidant. To have a better understanding of the effects of NO concentrations (0, 0.1 and 0.2 mM) on germination, growth, photosynthetic pigments, lipid peroxidation and antioxidant activity of basil (*Ocimum basilicum* L.) under different salinity concentrations (0, 100 and 200 mM of NaCl), a factorial experiment based on completely randomized design was carried out. Results revealed that salinity caused a significant decrease in germination characteristics and growth of basil. Increasing salinity concentration led to significant increase in the activity of superoxide dismutase (SOD), catalase (CAT), Ascorbate peroxidase (APX), proline content, malondialdehyde (MDA) and electrolyte leakage while content of photosynthetic pigments and relative water content were reduced. Application of NO (0.1 and 0.2 mM) under salinity stress improved germination traits, increased dry weight, chlorophyll content, antioxidant activity and proline content, while MDA content and electrolyte leakage were decreased. These results suggest that NO might induce salt tolerance in basil by preventing oxidative damage.

## کلمات کلیدی:

Antioxidant activity, Basil, nitric oxide, MDA, Salinity stress

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