

Fifth Article (common- Published).

Article title	Exogenous treatment with indole-3-acetic acid and salicylic acid alleviates cadmium toxicity in wheat seedlings
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Abstract

The seedlings of wheat were grown in the presence of CdCl₂ (500 or 1000 pM Cd), were applied with 500 pM of indole-3-acetic acid (IAA) or 500 pM salicylic acid (SA) as seed soaking and were sampled at 56 days after sowing. The plants exposed to Cd exhibited a substantial decline in growth, pigment content, relative water content (RWC) activities of superoxide dismutase (SOD), catalase (CAT) and peroxidase (PDX) and leaf structure. However, pretreatment with IAA or SA mitigated the stress generated by Cd and markedly improved the aforesaid parameters. The Cd increased proline content, electrolyte leakage and plant Cd content. However, the IAA or SA treatment attenuated the adverse effects of Cd on these attributes. The results showed that pretreatment with IAA or SA enhanced the antioxidant defense activities in Cd stressed wheat, thus alleviating Cd induced oxidative damage and enhancing Cd tolerance and leaf anatomy.