

Enhancing Pear Tolerance to Salinity Using Salicylic Acid, Acetylsalicylic Acid and White Willow Extract

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Abstract : Production of pear (*Pyrus* spp.) as one of the most cultivated and nutritionally vital fruit trees in the world is limited by salinity. The present study aims to alleviate the adverse effects of salinity on growth of 'Le-Conte' pear seedlings by using foliar application of salicylic acid (SA), acetylsalicylic acid (ASA) and natural white willow (*Salix alba*) extract. Spraying treatments enhanced photosynthetic pigment contents under salt stress conditions, increased proline contents under severe salinity and stimulated antioxidant system. The expression patterns of PbHB1-22 gene revealed that, it is widely involved in responding to salt-induced stress in pear. Effective *in vitro* inhibition of *Salix alba* leaves extract against *Erwinia amylovora*; the causal bacterial pathogen of fire blight, was found to increase in concentration dependent manner.

Keywords : Pear, Salinity, Salicylic acid, Acetylsalicylic acid, White willow, *Erwinia amylovora*.

Rania Ahmed Mahmoud/International Journal of ChemTech Research, 2019,12(3): 188-201

DOI= <http://dx.doi.org/10.20902/IJCTR.2019.120326>
