**Supplementary Material**

**S. Table 1. List of various PGRs and their mechanism for mitigating salt stress**

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| **Sl. No.** | **Growth regulator** | **IUPAC name** | **Chemical structure** | | **Mechanism of salt stress mitigation** | | **References** | |
| **Natural growth regulators** | | | | | | | | |
| 1 | IAA | Indole-3-acetic acid | C:\Users\ROUT\Desktop\Rajeswari\Chmical formula\Indole-3-acetic_acid_3D_ball.png | | Cell elongation, cell division, root growth, leaf and fruit senescence | | Lin *et al*. (2018); Small and Degenhardt (2018); Farman *et al*. (2019) | |
| 2 | IPrA | Indole-3-propionic acid | C:\Users\ROUT\Desktop\Rajeswari\Chmical formula\Indole-3-propionic_acid.png | | Vascular regulatory functions | | Venu *et al.* 2018); Farman *et al*. (2019); (Pistilli, 2018) | |
| 3 | IBA | Indole-3-butyric acid | C:\Users\ROUT\Desktop\Rajeswari\Chmical formula\Indole-3-butyric_acid3D.png | | Adventitious root growth | | Qamar . Muneer. (2005); Farman *et al*. (2019); (Pistilli, 2017) | |
| 4 | PAA | Phenyl acetic acid | C:\Users\ROUT\Desktop\Rajeswari\Chmical formula\Phenylacetic-acid-3D-balls.png | | Antimicrobial activity | | Cook (2019); Farman *et al*. (2019) | |
| 5 | GA1, GA7 | Active Gibberellic acid | C:\Users\ROUT\Desktop\Rajeswari\Chmical formula\Gibberellic acid.png | | Reduce stomatal resistance, RNA and protein synthesis, membrane permeability, ion accumulation and partitioning in plant tissue | | Tuna *et al*. (2008); Farman *et al*. (2019) | |
| 6 | Zeatin | (E)-2-methyl-4-(7H-purin-6-ylamino)but-2-en-1-ol | C:\Users\ROUT\Desktop\Rajeswari\Chmical formula\zeatin-teaser-3d.png | | Increased chlorophyll content and enhanced activity of antioxidants | | Shi *et al.* (2006); Schafer *et al*. (2008); Farman *et al*. (2019); (ACS, 2014) | |
| 7 | Kinetin | 6-furfuryl adenine | C:\Users\ROUT\Desktop\Rajeswari\Chmical formula\kinetin.png | | Protects cholorophyll and carotenoids, reduces protease activity | | Khokhar *et al*. (2008); Farman *et al*. (2019); (123RF, 2020) | |
| 8 | Ethephon | 2-chloroethylphosphonic acid | C:\Users\ROUT\Desktop\Rajeswari\Chmical formula\Ethephon-3D-balls.png | | Mobilization of internal tissue nitrate, osmotic adjustment, dormancy breaking | | Tuteja (2007); Farman *et al*. (2019) | |
| 9 | Abscisic acid | (2Z,4E)-5-[(1S)-1-hydroxy-2,6,6-trimethyl-4-oxocyclohex-2-en-1-yl]-3-methylpenta-2,4-dienoic acid | C:\Users\ROUT\Desktop\Rajeswari\Chmical formula\Abscisicacid_01.png6b5d5e00-8b1a-4ada-8a06-0815a533383fDefaultHQ-removebg-preview.png | | Activates signal pathway, regulates gene expression and cell membrane permeability | | O'Brien and Benková. (2013); Farman *et al*. (2019); (TurboSquid, 2020) | |
| 10 | Brassinolide | (22R,23R)-2α,3α,22,23-tetrahydroxy-6,7-seco-5α-campestano-6,7-lactone | C:\Users\ROUT\Desktop\Rajeswari\Chmical formula\brassinolide-3d.png | | Proton pump activation, reorganization of microtubules and increase ethylene production | | Kvasnica *et al*. (2019); Farman *et al*. (2019); (ACS, 2011) | |
| 11 | Castasterone | (22R,23R)-2α,3α,22,23-tetrahydroxy-5α-campestan-6-one | C:\Users\ROUT\Desktop\Rajeswari\Chmical formula\Castasterone.png | | Increase anti-oxidative activity | | Poonam *et al*. (2015); Farman *et al*. (2019) | |
| 12 | Typhasterol | (3R,5S,8S,9S,10R,13S,14S,17R)-17-[(2S,3R,4R,5S)-3,4-dihydroxy-5,6-dimethylheptan-2-yl]-3-hydroxy-10,13-dimethyl-1,2,3,4,5,7,8,9,11,12,14,15,16,17-tetradecahydrocyclopenta[a]phenanthren-6-one | C:\Users\ROUT\Desktop\Rajeswari\Chmical formula\Typhasterol.png | | Increase anti-oxidative activity | | Fariduddin *et al*. (2014); Farman *et al*. (2019) | |
| 13 | Jasmonic acid | 2-[(1R,2R)-3-oxo-2-[(Z)-pent-2-enyl] cyclopentyl] acetic acid | C:\Users\ROUT\Desktop\Rajeswari\Chmical formula\Jasmonic_acid_molecule_ball.png | | Root elongation, production specific polypeptides | | Vreugdenhil *et al*. (2011); Farman *et al*. (2019) | |
| 14 | Methyl jasmonate | Methyl (1R,2R)-3-Oxo-2-(2Z)-2-pentenyl-cyclopentaneacetate | C:\Users\ROUT\Desktop\Rajeswari\Chmical formula\Methyl Josmonate.png | | Produce antioxidants | | Chen *et al*. (2014); Farman *et al*. (2019); (Alamy, 2018) | |
| **Synthetic/Artificial growth regulators** | | | | | | | | |
| 15 | 2,4-D  hedonal  trinoxol | 2,4- Dichlorophenoxyacetic acid | | C:\Users\ROUT\Desktop\Rajeswari\Chmical formula\2,4-Dichlorophenoxyacetic-acid-3D-balls-2.png | |  | |  |
| 16 | α-NAA | α-Naphthalene acetic acid | | C:\Users\ROUT\Desktop\Rajeswari\Chmical formula\1-Naphthaleneacetic-acid-3D-balls.png | | Root growth and fruit thinning | | Yan *et al*. (2014); Farman *et al*. (2019) |
| 18 | Humic acid | 2-nitrobicyclo[2.2.1] hept-5-ene-2,3-dicarboxylic acid | | C:\Users\ROUT\Desktop\Rajeswari\Chmical formula\Humic-acid-3D-structure-CT1100402435 (1).png | | Increase relative water content, photosynthetic pigments and non-enzymatic antioxidants | | Akladious and Mohamed (2018); (Mol-Instincts, 2020) |
| 19 | Salicylic acid | 2-hydroxybenzoic acid | | C:\Users\ROUT\Desktop\Rajeswari\Chmical formula\Salicylic-acid-3D-balls-B.png | | Membrane permeability, regulate polyamine levels, osmotic adjustment, anti-oxidative role | | Zhu *et al*. (2019) |
| 20 | Chlormequat chloride | (2-chloroethyltrimethyl-ammonium chloride) | | C:\Users\ROUT\Desktop\Rajeswari\Chmical formula\Chlormequat_chloride_ions_ball.png | | Reduced concentrations of Na+ and Cl- ions, suppressed Na+/K+ ratio, increased concentrations of K+ and Ca2+ ions, concentrations, anti-lodging properties in wheat | | Gurmani  *et al*. (2011) |
| 21 | Glyphosine | N,N-bis(phosphonomethyl)glycine | | C:\Users\ROUT\Desktop\Rajeswari\Chmical formula\Glyphosine-removebg.png | | Increases sugarcane yield | | Gianfagna 1995 |
| 22 | Tribufos | 1-bis(butylsulfanyl) phosphorylsulfanylbutane | | C:\Users\ROUT\Desktop\Rajeswari\Chmical formula\Tribufos.png | | Cotton defoliation | | (Ma et al., 2019) |