CALCIUM INTERACTION WITH CdCl₂ INDUCED EFFECTS ON SEEDLING GROWTH AND METABOLISM OF VIGNA MUNGO L. AND SOLANUM MELONGENA L.

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Abstract: In the present research work surface sterilized seeds of Vigna mungo. L. and Solanum. melongena L. were raised to analyzed changes in germination, seedling growth, chlorophyll contents, nitrate and nitrite reductase activity under CdCl₂, CaCO₃ stress singly and in combination 10⁻² M+200 ppm, 10⁻³ M+100 ppm 10⁻⁴ M+50 ppm, 10⁻⁵ M+25 ppm and control were investigated. Observations were recorded at 3, 5, 7, 10, 30, 45 and 60th day of sowing displayed significant decrease in all the attributes of both crop plants on CdCl₂ application however, activity of nitrate and nitrite reductase, seedling growth, and chlorophyll contents were enhanced in lower Cd stress 10⁻⁴ M. Application of CaCO₃ shows the more elevations than CdCl₂ singly while combined effect of Cd+Ca is more pronounced in comparison to their individual effects.

Keywords: CaCO₃, NR activity, Chlorophyll contents, Vigna mungo. L. and Solanum. melongena L.

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