

## **Effect Of Chromium On Germination In Some Crops Of India.**

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### **ABSTRACT**

Industrial development and scientific advancement has contaminated the environment, as a result one of the major pollutants in the environment are heavy metals and their introduction in air, water and agricultural soil. In recent years, chromium has become a major environmental pollutant as it widely used in making alloys, electroplating of stainless steel, production of pigments. Many studies have been carried out on heavy metals to understand their detrimental effects in the ecosystem. In the present study, Chromium was selected to find out its harmful effects on seed germination and seedling growth of *Vigna radiata* L, *Trigonella foenum-graceum* L, *Oryza sativa* L, *Sorghum vulgare* L and *Pennisetum glaucum* L. Seeds of the selected plants were grown in petri dishes and treated with varying concentrations of Chromium solution. Each treatment was replicated in a randomised design and observed for 7 days. The developing seedlings were studied for their total rate of germination, seed vigour index, length of radicle, length of plumule and fresh weight compared to a set of seeds germinated using distilled water as control. It was observed that the harmful effects of chromium on all the parameters were directly proportional to the concentration of solution employed, with the inhibition of growth being pronounced from 50 ppm onwards. Based on the response of the plants the toxic effect of chromium was seen in the following order, *Trigonella foenum-graceum* L>*Oryza sativa* L>*Pennisetum glaucum* L>*Sorghum vulgare* L>*Vigna radiata* L.

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