

Effect of Iron Nanoparticles on Morphological Aspects of *Sesbaniacannabina*

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Abstract

Iron or magnetic nanoparticles have been attracting much interest as a labeling material in the fields of advanced biological and medical applications such as drug delivery, magnetic resonance imaging and array-based assaying. The effect of iron nanoparticles on germination, survival and different morphological parameters such as plants height, stem girth, number of leaves/plant, root length etc. have been investigated. For this purpose dry and healthy seeds of *Sesbaniacannabina* variety ND-1 were soaked in double distilled water for 14 hrs. After soaking the seeds were treated with 3 different iron nanopreperations such as 20, 40 and 60 min ablation period nanoparticle solutions for 5 hrs. Control was maintained separately. After treatment the seeds were washed in running water to remove nanos. The seeds were sown in their respective pots in triplicates. Data for germination and survival percentages were taken after 30 and 45 days after sowing, respectively. Data for different morphological parameters were taken after 60 and 90 days for various parameters.

