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RESEARCH ARTICLE

Effect of engineered iron-oxide and copper oxide nanoparticle on the germination and growth on soybean (*Glycine max* L.)

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SUMMARY

The field of nanotechnology is one of the most active areas of research in modern materials science. Nanoparticles are known as a stimulating agent for plant growth and the activation of metabolic processes in plant and animal organisms.This research was planned to evaluate the potential effect of iron-oxide (Fe_2O_3) and copper-oxide (CuO) nanoparticles on soybean. The seeds to exposed soybean to different concentration of Fe and Cu NPs were surface sterilised and inoculated in Murashige annd Skoog media. Soybean seeds responded differently toward the pre- inoculated treatment at various concentrations of the nanocrystallineiron-oxide and copper oxide. Soybean seeds showed significant change in germination and seedling vigour index (SVI) as the concentration of nanoparticle increased.

Key Words : Iron-oxide,Copper-oxise, Nanopartcle, Seedling vigour index

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