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Silver Nanoparticle Modulates Gene Expressions, Glyoxalase System and Oxidative Stress Markers in Fluoride Stressed *Cajanus cajan* L.

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Highlights

- Fluoride caused marked reduction in growth and membrane stability index
- Enhanced production of ROS revealed higher rates of oxidative stress markers
- Fluoride promoted proline and glutathione syntheses
- Exposure of fluoride altered expressions of NOX and P5CS genes
- Silver nanoparticles effectively reduced fluoride-imposed injury symptoms

ABSTRACT

Application of engineered nanomaterials has increased these days due to their beneficial impacts on several sectors of the economy, including agriculture. Silver nanoparticles (AgNP) are commonly used to improve rate of seed germination, and growth and development of plants. The present study was aimed to monitor the role of engineered AgNP (non-dialysed) in the amelioration of fluoride (F)-induced oxidative