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EFFECTS OF INDUSTRIAL SLUDGE WASTE ON GROWTH AND YIELD OF BRINJAL CROP (*SOLANUM MELONGENA L.*)

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ABSTRACT

The present study on "Effect of Industrial Sludge Waste on the growth and yield of Brinjal crop (*Solanum melongena L.)* indicate that the ISW of the Oil and Gas industry, Kakinada. The Industrial Sludge Waste (ISW) collected at the outlet of the release channel of the "Oil and Gas Industry" at Kakinada, was air-dried and brought to the laboratory for the analysis of its physico-chemical characteristics. The seeds of one variety of (Brinjal) *Solanum melongena L.* were tested to evaluate their sensitivity to ISW water extract. However, the germination success in Brinjal declined steeply with the increased concentrations of the WE. The percent of seeds germinated has declined from 99% in the Control to as low as 53% in WE_4. The Industrial solid waste recorded high concentrations of Copper (20.89%), Zinc (16.50%), Iron (9.842%) and Manganese (0.310%). Due to Heavy metal concentration (Brinjal) *Solanum melongena L.* seed germination, plant growth and yields were affected.

KEYWORDS: Atomic, Absorption, Spectroscopy, (AAS), Growth, Heavy, Metal, *Solanum melongena L.*, Yield