

## Growth and Yield Response of *Solanum retroflexum* to Different Level of Salinity

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**Abstract :** Salinity is a major constraint limiting crop productivity. It has been predicted that by the year 2050, more than 50% of the arable land will be affected by salinity. Two similar salinity experiments were conducted in two seasons under greenhouse condition. Six levels of salinity plus control (viz; control, 2, 4, 8, 16, 32 and 64 % NaCl and CaCl<sub>2</sub> at 3:1 ratio) were applied in a form of irrigation water in a single factor experiment arranged in a complete block design with 20 replications. Plant growth and yield were negatively affected by salinity treatments especially at the high levels of salinity. For example, our results suggest that the 32 and 64% of NaCl and CaCl<sub>2</sub> treatment were too much for the plant to withstand as determined by reduced dry shoot mass, stem diameter and plant height in both seasons. On the other hand, stomatal conductance and chlorophyll content increased with an increased level of salinity.

**Keywords :** growth, salinity, season, yield

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