

## **Effects of Salts Concentration on Emergence and Growth of Tomato (*Lycopersicon ESCULENTUM*) IN TROPICAL AREAS**

### **ABSTRACT**

Irrigation water quality could have a significant impact on the growth and yield and hence the productivity of crops. All irrigation water contains some dissolved salts, but the concentration and composition of the salts vary with the source of the irrigation water. Water saving in irrigation was identified as a major subject in northern Nigeria. Therefore, the use of treated municipal wastewater and saline water as a complementary source for water irrigation has been encouraged to increase the efficient use of water irrigation in crop production. Thus, the present study was carried out to examine the effect of two salts (NaCl and KCl) in irrigation water at varying concentrations on the emergence and growth of tomato in a semi-arid environment. Potassium chloride was found to be more detrimental on the sustainable production of tomato, NaCl concentration up to 1.5 g/l however was safely used to boost tomato production. The results show that the treated wastewater, brackish and saline waters and other unconventional sources of water can be safely used in improving agricultural programs under arid and semiarid regions.