

**EFFECT of THE SALINE WATER ON ANNUAL RYEGRASS  
(*Lolium multiflorum* Lam.) YIELD AND SOIL SALINITY**

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**ABSTRACT**

This study was conducted with the intent of determining the effect of different salt types and concentrations on ryegrass yield and quality using 35x 65 cm PVC pipes in greenhouse conditions. Five different treatments of NaCl and KCl (0.25, 0.5, 1.0, 2.0 % and control) were established in a 2 x 5 factorial design with 3 replicates. Increasing salt concentration decreased plant height, main stem thickness, green and dry matter yield, crude protein yield and total ash yield. Plant growth showed slow increase when the plants were irrigated with 1.0 and 2.0 % salt concentration. KCl, comparing to NaCl, caused more damage on plants. Moreover, soil salinity also increased with the increase of salt concentration in irrigation water.

**Key words:** annual ryegrass, salinity, salinity - yield relation