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RESEARCH ARTICLE

Influence of variable RSC levels of irrigation water and groundnut varieties on concentration and uptake of nutrients

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SUMMARY

A pot experiment was conducted at Net House, Department of Agricultural Chemistry and Soil Science, Junagadh Agricultural University, Junagadh to assess the different RSC levels of irrigation water and different varieties of groundnut on concentration and uptake of nutrient during summer-2019. The treatment consists of four RSC level of irrigation water (A_0- 0, A_1- 2.5, A_2- 5.0 and A_3- 7.5 meq L^{-1}) and four groundnut varieties (V_1- TG-37-A, V_2- TPG-41, V_3- GJG-31 and V_4- GG-6) in Completely Randomized Design (Factorial) replicated thrice. Significantly the highest concentration of N (4.94 and 1.86 %) by kernel and haulm, respectively were found with RSC – 7.5 meq L^{-1} and the highest uptake of N (57.10 mg plant^{-1}) by kernel was noted with RSC- 0 meq L^{-1}, whereas maximum uptake of N (50.60 mg plant^{-1}) by haulm were registered with RSC- 7.5 meq L^{-1}, while the highest concentration and uptake of P, K, Fe, Mn, Zn and Cu by kernel and haulm were recorded with RSC- 0 meq L^{-1} and the lowest were found with RSC- 7.5 meq L^{-1}. The highest concentration and uptake of N, P, K, Fe, Mn, Zn and Cu by kernel and haulm were found with V_2 (TPG-41) variety of groundnut, except the concentration of N in kernel and concentration of Fe and Zn in haulm. The interaction effect between RSC levels of irrigation water and different varieties of groundnut on concentration and uptake of N by haulm and Mn uptake by kernel were found significantly the highest with $A_3 \times V_2$ (7.5 meq L^{-1} × TPG-41) and $A_O \times V_4$ (0 meq L^{-1} × GG-6), respectively.

Key Words : RSC levels, Irrigation water, Groundnut varieties, Concentration, Uptake, Nutrients

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