

The quality of irrigation waters differs in various regions. 4 basic criteria for evaluating water quality for irrigation purposes are

1. Water salinity (EC), 2. Sodium adsorption ratio (SAR),

3. residual sodium carbonates (**RSC**) & 4. Total Dissolved Solutes (**TDS**) Test your water to know the quality of your irrigation water.



## **EXCESS SALT (EC)**

Excess salt results in a physiological drought condition in the plant. The soil in the field appears wet, but the plants wilt. Higher Ec means more salts in the water, which can lead to plant injury. Ec should be less than 1ds/m on a lab test!

## S.A.R



If SAR is >9, then water is unsuitable for irrigation use without amendments. If SAR is between 6-9, then moderate Sodium Hazard. Amendments needed especially if growing salt-sensitive crops like beans, vegetables, fruits and nuts. SAR <6, is "Ideal for irrigating almost all crops.







If RSC >=2.5, "High hazard water". Most calcium and magnesium will be removed leaving sodium to accumulate. Not suitable for irrigation. IF RSC between 1.5-2.5, "Moderate hazard". Water is not ok to be used for foliar spray but maybe ok to use for irrigation. RSC between 0-1.5, is ideal for agricultural use.

## T.D.S

If TDS >=1000ppm, then "High Salinity Hazard". Water not suitable for irrigation. If TDS <=500ppm, then "Low or No Salinity Hazard. Ideal for agricultural use"

The quality of water used for irrigation plays an important role in crop-yield & maintenance of soil productivity. Irrigation water can affect plant growth directly through toxicity or deficiency, or indirectly by altering plant-available of nutrients. At RAL Labs we also test for other parameters like pH, carbonates, bi-carbonates, sulphates, sodium, chlorides and iron.

Test your irrigation water to know if your irrigation water is suitable for irrigation or foliar sprays.



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