

IRRIGATION WATER ANALYSIS

27-Jul-11



Lab No.: 8786 **Date:** 7/27/2011
Company: W R FARMS
Attention: FRANK
Location: #3 WELL

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Making Better Crops For Growers Around The World From The Rio Grande Valley.

PARTS PER MILLION - PPM

1.33 Tons/Acre Ft.

| Total Soluble Salts EC (mmhos/cm) | pH | SAR | Dissolved Solids | Na | Sodium | Calcium | Magnesium | CATIONS | | ANIONS | | | | | |
|--------------------------------------|------|------|------------------|-----|--------|---------|-----------|---------|---|-----------------|------------------|-----------------|------|-----------------|------|
| | | | | | | | | Mg | K | CO ₃ | HCO ₃ | SO ₄ | Cl | NO ₃ | B |
| 1.533 | 8.08 | 64.1 | 981 | 379 | 1 | 1 | 1 | 3 | 0 | 421 | 32 | 143 | 1.06 | 0.34 | 0.19 |

INTERPRETATIONS & RECOMMENDATIONS

TOTAL SOLUBLE SALTS test medium - SAR rating is best guide. Tests barely in high range. Use good water management.

HIGHEST HARMFUL SALTS

SODIUM levels test very high. Manage according to SAR (Sodium Adsorption Ratio) indicating the speed of soil sodium build-up. Test soil regularly for soluble Ca - this is always a part of the standard TPSL® soil test. SAR (Sodium Adsorption Ratio indicates very rapid soil Sodium build up) tests above 9.0 causing rapid salt damage. Need TPSL in-depth 4' soil profile in 1' increments tested separately for soil suitability determination for evaluating and treating to improve INTERNAL DRAINAGE.

CHLORIDES moderately high, some plants may be sensitive to Chloride damage to roots at this level; but is highly soluble - easy to leach. -- Above 300 may harm leaves on contact in hot conditions.

BICARBONATES test high, maybe broken down with acidification (Sulfur) or humus products to prevent possible crusting. On alkaline (highly calcareous) soils, high Ca water may cause an overload of soil available Ca thereby degrading soil tilth (structure) for water, air & root penetration. Also high Ca water causes Phosphate application problems, lower water pH to 6.7 range and use phosphoric/sulfuric acid sources of Phosphate.

BORON tests low for all plants. It is an essential nutrient for all plants as it is a transporter of Calcium and Carbohydrates in plants. Recent plant analysis programs show B deficiencies in many fields. Most published research is from ancient tests resulting in over-cautious recommendations since excess B can act as a herbicide. To be sure, ask your plants with a program of regular plant analysis **ASK THE PLANT**® crop logging. Boron can leach very rapidly in low humus soils.