



**Healthy Chile Plants**

- Sample at Midseason
- Sample recently mature leaf
- Number to sample: 25 – 50 leaves

**Chile Plant Tissue Analysis:**

- N = **5.22%**: Sufficiency Range: 3.0 – 5.0%
  - P = **0.32%**: Sufficiency Range: 0.3 – 0.5%
  - K = **5.43%**: Sufficiency Range: 2.5 – 5.0%
  - S = **0.42%**: Sufficiency Range: none given
  - Ca = **1.74%**: Sufficiency Range: 0.9 – 2.5%
  - Mg = **0.49%**: Sufficiency Range: none given
  - Zn = **25.0 ppm**: Sufficiency Range:
  - Fe = **97.0 ppm**: Sufficiency Range:
  - Mn = **49.0 ppm**: Sufficiency Range:
  - Cu = **8.0 ppm**: Sufficiency Range:
  - B = **35.2 ppm**: Sufficiency Range:
  - Na = **0.01%**: Sufficiency Range: none given (low; no sodium problem)
- Both water & soil pH are satisfactory.

Soil Probe  
↓

Irrigation Water Applied = 24 ac-in

**Water Quality Analysis**  
**Pounds per Acre/yr.:**

- Nitrate-N = **0.27**
- Potassium = **9.3**
- Sulfate-S = **50.1**
- Calcium = **244.62**
- Magnesium = **19.9**
- Sodium = **13.78**
- Chloride = **13.08**
- Bicarbonate = **545.34**
- Carbonate = **0**
- Iron = **10.08**
- Mn = **0.98**
- B = not analyzed
- Total Salts = 593.83**

ECiw = 0.172 mmhos/cm  
SAR = 0.10  
pH = 7.62

Conventional Irrigation (soil salinity typically concentrates about 1.5 times the water EC)

**Loamy Sand**

0 – 6" depth

**Soil Analysis:**

- Organic Matter = **1.1%**
- Nitrogen Mineralized ≈ **25.0 lbs/ac**
- Nitrate-N = **109.0 lbs/ac**
- Phosphorus = **26.5 ppm (High)**
- Potassium = **91.0 ppm (Very High)**
- Sulfate-S = **not analyzed**
- Calcium = **16.3 meq/l (Very Low)**
- Magnesium = **3.5 meq/l (Very Low)**
- Zn = not analyzed
- Iron = not analyzed
- Mn = not analyzed
- Cu = not analyzed
- B = not analyzed
- Sodium = **2.9 meq/l (low SAR; no problem with sodium)**

Soil pH is satisfactory

ECe = 2.49 mmhos/cm (salinity is slightly elevated for chile)  
 SAR = 0.9 (Satisfactory; no problem with sodium)  
 pH = 7.5 (Satisfactory; no problem with nutrient availability)

Leaching Fraction (LF) = 0.3086/Fc<sup>1.702</sup> (LF = 0.77%)  
 Fc = ECe(ct)/ECiw (i.e., ECe(ct) = 1.5 & ECiw = 0.172); Fc = 8.72