

### Experiment Info:

|                     |
|---------------------|
| Planted:            |
| Harvest:            |
| Yield Goal:         |
| Target Fert.:       |
| Variety:            |
| Population:         |
| Row Width:          |
| Prev. Crop:         |
| Plot Size: 12 acres |
| Replications:       |

### Soil Test Values (ppm):

|           |         |
|-----------|---------|
| pH:       | 8.1     |
| CEC:      | 23.8    |
| %OM:      | 0.6     |
| Bray P1:  |         |
| Bicarb P: | 19      |
| K:        | 121     |
| S:        | 852     |
| %K:       | 1.3     |
| %Mg:      | 13.8    |
| %Ca:      | 63.7    |
| %H:       | 21.2 Na |
| Zn:       | 2.9     |
| Mn:       | 5       |
| B:        | 3.2     |

### Objective:

Compare conventional and high technology fertilizer programs for cantaloupe production in a sodic soil.

An experiment was established in a commercial cantaloupe field operation to evaluate different fertilizer programs for cantaloupes growing in a sodic (exchangeable Na >15%). In fact, this soil had 21.2% base saturation! The conventional program was not provided by the grower prior to planting, but rather a soil test and estimated nutrient needs, from which the AgroLiquid program was developed. Fertilizers were applied through drip irrigation weekly from mid-February through early April. (Note: the fertiRain was to be foliar applied, but was mistakenly included in the regular drip blend.)

A visit to the site on April 21 showed how the plants appeared a couple weeks before harvest.

(note: the very high soil test sulfur is from application of elemental sulfur in an attempt to lower the pH.)



### Conclusions:

- The vine growth with AgroLiquid was considerably greater than that with the grower standard fertilizers at the field visit in April. The carbon encapsulation of the phosphorus in PrG (Pro-Germinator in California) protects against tie-up loss. Additionally the feeding of the nutrients, including micronutrients, through the growing season enabled a steady supply of nutrients with the irrigation water, which appeared to be superior to dry broadcast which was part of the standard fertilizer program.
- It is impressive that such good growth can occur on either side with the high soil sodium. The carbon-based AgroLiquid can provide plant-usable nutrition without additional growth restriction from fertilizer salts.
- With a box weight of 30 pounds, there was almost one and a quarter more tons of cantaloupes per acre with AgroLiquid (+19.5%). The farm manager reported less mildew and higher sugar content with AgroLiquid,