

## 2010 Cantaloupe Fertilizer Source Trial

University of Maryland, Honeywell and IPNI Cooperating

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Location of Study: University of Maryland Lower Eastern Shore Research & Education Center, Salisbury  
Facility, near Salisbury, Maryland

Soil Type: Galestown Loamy Sand

Previous Crop: Single Crop Notill Soybeans

Plot Size: 1 – 7' row by 100 feet long.

Harvest Area: 7' x 50' = 350 sq ft per plot.

Replications: 4, in a randomized complete block design

Tillage: Chisel Plow/Disk, apply fertilizer treatments in a 3' band incorporating while laying black plastic mulch.

Drip irrigation line was laid under the plastic mulch.

Soil Test, Fall 2009: Composite Sample of the experimental area.

P-314(VH), K-81(M), pH-6.0, OM-0.8% VL(ENR in lbs/a = 61), CEC-3.5, Zn-5.5(H), SO<sub>4</sub>S-9(VL)

Treatments:

Plant Nutrients were 112lb/a of N, 40 lbs/a of P<sub>2</sub>O<sub>5</sub>, 68 lbs/a of K<sub>2</sub>O, Sulfate Sulfur @ 60 lbs/a and Boron @ .5 lbs/a. 5/16/2010 a transplanting liquid solution in row starter of 20-20-20 was used.

1. Ammonium Nitrate + 0-46-0, + 0-0-60 + 1 lb/a of Boron
2. Honeywell's Ammonium Sulfate Nitrate + 0-46-0 + 0-0-60 + 1 lb/a of Boron
3. YARA's 21-7-14 + 0-46-0 + 0-0-60 + 1 lb/a of Boron

Schedule of Field Activities:

Planting Date: 5/16/2010

Cantaloupes were harvested by hand a total of 8 times, 7/14/10, 7/16/10, 7/19/10, 7/21/10, 7/23/10, 7/26/10, 7/29/10, 8/02/10

## Cantaloupe Treatments and Yields for 2010

Treatments:

			Yields Tons/acre & Numbers/acre				
			Rep 1	Rep 2	Rep 3	Rep 4	Ave
1.	(Ammonium Nitrate); 700 lbs/a of 16-03-18 + Solibor @ 1 lb/a	Tons/acre	12.0	11.6	12.9	11.5	12.0
		Number of Melons/acre	5,227	5,352	6,098	5,476	5,538
2.	(Honeywell) Ammonium Sulfate Nitrate @ 430 lbs/a of 26-0-0-14 + 700 lbs/a of 0-03-18 + Solibor @ 1 lb/a	Tons/acre	11.6	10.9	11.3	11.5	11.3
		Number of Melons/acre	5,725	5,352	5,601	5,227	5,476
3.	(YARA'S) @ 800 lbs/a of 14-5-8.4-7.5 + Solibor @ 1 lb/a	Tons/acre	10.9	11.5	11.3	12.0	11.4
		Number of Melons/acre	5,476	5,352	5,601	5,725	5,539

Conclusions:

1. Study was very uniform
2. The blended Ammonium Nitrate fertilizer mix produced the better yields by only .7 of a ton/acre better than Honeywell's 26-0-0-14 fertilizer blend and .6 tons/acre better than YARA's 21-07-14-5.1(S) blended fertilizer mix.
3. Statistical analysis reveals no significant differences among treatments.