

Experiment Info:

Exp.:	13-205
TransPI:	June 4th
Variety:	Aphrodite
Population:	3500
Plot Size	7.5 ft x 30 ft
Replications:	Four
Harvest:	Multiple

Soil Test Values (ppm):

Farm / Field	205
pH	6.1
CEC	7
OM	1.9
P1	42
K	111
S	11
% K	4.7
% Mg	14.6
% Ca	66.7
% H	13.6
% Na	0.4
Zn	1.8
Mn	13
Fe	84
Cu	0.4
B	0.4

Objective:

Determine the impact of pre-plant fertilizer combinations on the yield and maturity of cantaloupe.

Materials & Methods:

- The plots were established on June 5th by banding a stream of liquid fertilizer or broadcasting (~5 ft wide) the appropriate dry fertilizers down the middle each plot area and then covering the center 2 ft of each 7.5 ft wide plot with plastic mulch.
- Transplants were set every 34" into the plastic on June 6th. Each 30 ft. plot length contained 12 cantaloupe plants.
- During the course of the growing season, irrigation, fungicides and insecticides were applied uniformly to all plots as necessary.
- At each harvest, the vines were used to trace each ripe melon back to their home plots so they could be accurately collected, counted and weighted for determining yields. Once harvest began, additional harvests were completed every three days or less depending on temperatures in an attempt to quantify differences in maturity. This schedule was not intended to reflect commercial practices.

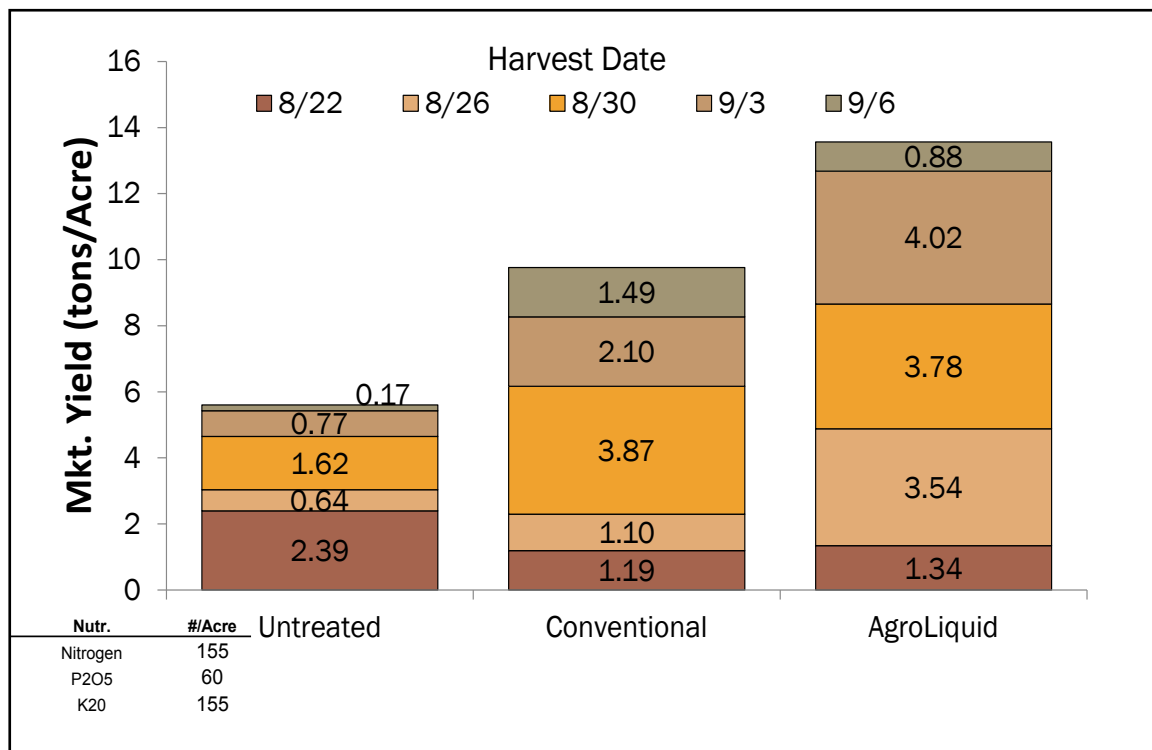


Figure C1. Cantaloupe yields by date for different fertility programs during the 2012 season.

C1. Cantaloupe nutrient application comparisons, resulting yields and nutrient use efficiency. Experiment 13-205, Variety = Aphrodite

Treatment		Rate/A (gal or lb/A)	"Method of Application"	Nutrient* lbs/A	NUE*	Yield Tons/A
1	Untreated	NA		0		5.6
2	0-0-60 + Mn 28% UAN + 10-34-0 10-34-0 Conv-Liquid	315# + 4# 46 + 13 2.5	broadcast band transplant	374.5	29.9	9.8
3	PG + Micro 500 + Mn HN + Sure-K + PG (AgroLiquid Base)	1 + 1 + .25 33 + 16 + 4.5	transplant band	134.4	145.2	13.6

* *Micronutrients not included in total fertilizer per acre calculations. **NUE = Nutrient Use Efficiency = Lbs Yield / Total Lb. N,P,K&S as Fertilizer Applied, HN=High NRG-N, PG= Pro-Germinator, SK= Sure-K, PPI = preplant incorporated

Conclusions:

- Yields for the AgroLiquid fertility program (Trt #3) were greater than that of the Conventional program (Trt #2) for total yield and also on most individual harvest dates. The end result was more than 3.8 tons per acre yield increase for the AgroLiquid programs during the 2013 growing season. Brix values were also generally higher for the AgroLiquid cantaloupe.
- The AgroLiquid fertility program (Trt 3) had three harvest dates in which the yield per acre was 3.5 tons per acre or greater (Figure C1). The August 30th harvest was only date for the conventional fertilizer treatment where yields were over 3.5 tons per acre. By the end of the third harvest, the yield for the AgroLiquid program was similar the season total for the conventional fertility program after five harvests.
- The five year average (Figure C2) for these same treatments shows a 3.4 ton/Acre advantage for the AgroLiquid program over the conventional products.
- The Nutrient Use Efficiency (NUE) was improved for the AgroLiquid program. The NUE for the AgroLiquid products was nearly five-fold greater than that observed for the conventional fertility programs (Table C1)

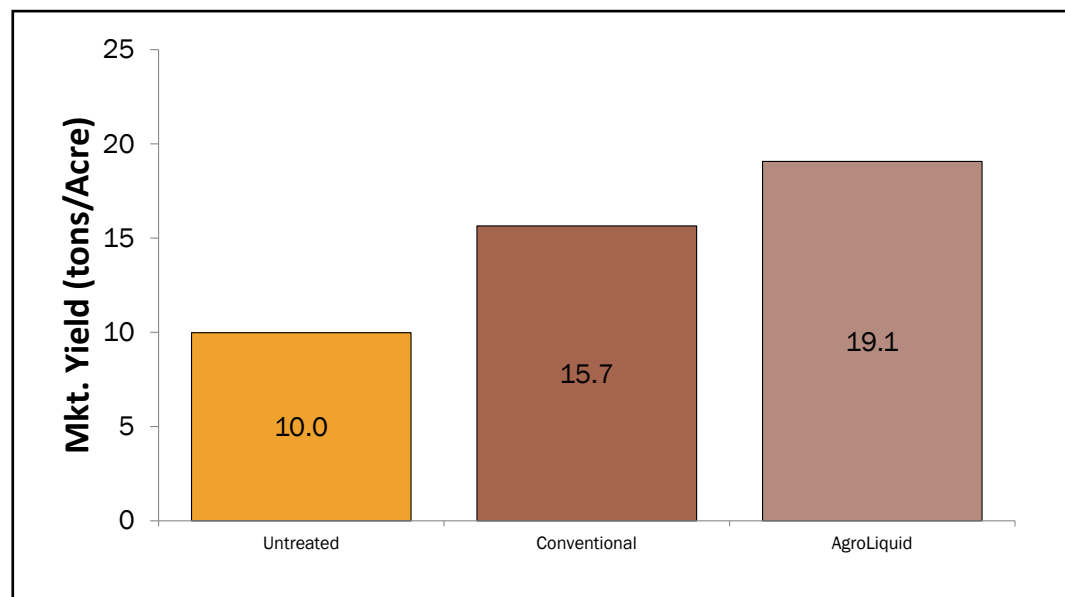


Figure C2. Five year average for total cantaloupe yield by fertility program, 2009-2013.