

2003 Watermelon Foliar Fertilization Trial

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This trial compared four fertilization programs for watermelon production.

METHODS:

Seeds were planted on May 21st into 50 cell trays containing a peat-vermiculite soilless mix. Cells were thinned as needed to 1 plant/cell. Transplants were set into raised beds (covered with black plastic mulch with trickle irrigation under the plastic) 36" apart in the row on June 19, 2003. Rows were 5 foot apart. Experimental design was randomized complete block with 4 replications. The field is located in southern Ohio, Highland County and the soil is a Haubstadt Silt loam. Different amounts of fertilizer were incorporated to each replication before planting. Weeds were controlled using Dual II (*s-metolachlor*). A standard commercial fungicide and insecticide program was followed, on a 7-10 day schedule. Melons were harvested 3 times between August 20 September 15.

RESULTS:

When analyzed at the 0.05 level of significance there were no statistically significant differences across treatments marketable fruit (weight or number), cull fruit (weight or number) or average fruit weight.

	Marketable/acre		Cull/acre	
	#	wt.(ton)	#	wt.(ton)
Standard Fertilizer	4706	31.1	1176	2.2
No Fertilizer	2647	15.5	1324	1.5
1 - Program 1	3824	25.9	294	0.3
2 - Program 2	4265	27.2	588	0.3
LSD	3784	22.6	2230	3.2

<u>Program</u>	<u>Product</u>	<u>Rate</u>	<u>Time of Application</u>
1	High NRG-N	5 gal/A	Band in row where transplants are to be placed
	9-24-3	8 gal/A	Band in row where transplants are to be placed
	Sure-K	10 gal/A	Band in row where transplants are to be placed
	Micro-500	1 qt/A	Band in row where transplants are to be placed
	Nutritional Transplant	3 gal/A	With transplant water
	High NRG-N	10 gal/A	Band at vine
	High NRG-N	10 gal/A	Band at fruit set
2	High NRG-N	5 gal/A	Band in row where transplants are to be placed

9-24-3	8 gal/A	Band in row where transplansts are to be placed
Sure-K	10 gal/A	Band in row where transplansts are to be placed
Micro-500	1 qt/A	Band in row where transplansts are to be placed
Nutritional Transplant	3 gal/A	With transplant water
High NRG-N	10 gal/A	Band at vine
High NRG-N	10 gal/A	Band at fruit set
Sure K	2 gal/A	Weekly foliar after fruit set
Nutritional Foliar	1 gal/A	Weekly foliar after fruit set

DISCUSSION

Baseline soil fertility may be high enough so that no treatment differences were observed across treatments.