

WATERMELON FOLIAR FERTILIZATION 2005

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This study evaluated four treatments for their production of watermelon utilizing foliar fertilizer, compared to preplant fertilizer alone.

METHODS:

Seeds were planted May 16th in the greenhouse. Transplants were transplanted to the field on June 21st using a waterwheel transplanter. Raised beds covered with black plastic mulch with trickle irrigation. Plots rows were 5 foot apart. Experimental design was randomized complete block with 4 replications. 100 and 120 units of N, P and K was applied before forming beds and laying plastic mulch. A standard commercial fungicide and insecticide program was followed, following OSU Bulletin #672.

RESULTS:

Although severe drought and heavy fungal disease pressure was experienced throughout the season, plant health and fruit remained good through the season with average fruit set and yield across cultivars. Total marketable yield ranged from 69,445 to 87,587 pounds per acre. Total marketable fruit ranged from a high of 6,030 to a low of 4,412 fruit per acre. Average fruit weight ranged from 17.0 – 14.2 pounds. Yields were very good but as mentioned in the methods these are small plots. On a commercial scale yields are expected to be lower due to the management difficulty in thoroughly picking a large field compared to a small plot.

<u>Treatment</u>	<u>Marketable</u>		<u>Average</u>
	<u>lbs./acre</u>	<u>Fruit/acre</u>	<u>Fruit Weight</u>
120 units N + foliar	87587	6030	15.80
120 units N	76672	5735	14.20
100 units N + foliar	71802	4705	16.20
100 units N	69445	4412	17.00
LSD	NS	1052	NS

Summary:

There is no advantage to applying foliar fertilization relative to the controls for increased number per acre, pounds per acre or average weight. There was a difference in total number per acre when comparing 120 units of Nitrogen vs. 100 units of Nitrogen.