

EVALUATION OF FRESH MARKET TOMATO CULTIVARS FOR SOUTHERN OHIO, 2004

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This cultivar trial evaluated 18 cultivars for their suitability in southern Ohio.

METHODS:

Seeds were planted on 30th March into 98-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) 18" apart in the row on Mar 18, 2004. Plots were ten feet long. Rows were 5 foot apart. Experimental design was randomized complete block with 4 replications. The field is located in southwestern Ohio, Butler County 84° 39' west by 39° 18' north and the soil is a Miami Silt Loam. Four hundred lbs of K₂O was incorporated pre-plant. 157 units of N was applied through drip irrigation over the growing season. Weed control was accomplished using Treflan® (trifluralin) @ 2 pt/acre and Sencor® (metribuzin) @ 1 pt/acre. The standard commercial fungicide and insecticide program was followed, on a 7-10 day schedule. Harvest began on August 3 and final harvest was September 2, 2004

RESULTS:

There was significant yield difference in total fruit number and total fruit weight, and fruit number and weight within fruit size class (small/medium and large), dependent on variety. Average weight of smalls ranged from 0.20 lbs for (2170) – 0.43 lbs for (Boy oh Boy) however the average weight of the majority of the smalls ranged from 0.29 lbs to 0.34 lbs. While all other varieties had more small fruit than medium or large, (Boy oh Boy) had as many medium fruit as small and twice as many large fruit as small fruit. There were no large for (2170). Total weight of tomatoes per plot ranged from a high of 54.9 pounds to a low of 19.3 pounds. This is equivalent to a high of 79,715 pounds per acre to a low of 28,023 pounds per acre. 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.

WEATHER CONDITION:

With cooler temperatures and periods of heavy rainfall throughout the growing season, fruit was slow to mature. This may have explained the high number of small to medium fruit on many of the cultivars we looked at this growing season.

Yields From Fresh Market Tomato Evaluation:

<u>Cultivar</u>	<u>Seed Source</u>	<u>Total Fruit</u>	<u>Total Lbs.</u>	<u>Average Fruit Wt</u>	<u>Lbs./acre</u>	<u>25 lb. Boxes/acre</u>
2170	SW	263.30	54.90	0.20	79715.41	3188.62
BHN 665	BHN	121.30	46.70	0.40	67808.92	2712.36
STM 0227	Meyer	99.30	44.10	0.50	64033.69	2561.35
STM 5206	Meyer	98.00	40.70	0.40	59096.85	2363.87
Mnt. Fresh	SW	88.00	40.50	0.50	58806.45	2352.26
Boy oh Boy	Meyer	44.70	37.80	0.80	54886.02	2195.44
Amelia	SW	84.70	36.40	0.40	52853.20	2114.13
Florida 47	SW	91.30	36.00	0.40	52272.40	2090.90
Robusta	Meyer	96.70	35.40	0.40	51401.19	2056.05
BHN 589	BHN	71.70	33.80	0.50	49077.97	1963.12
BHN 601	BHN	87.00	31.40	0.40	45593.15	1823.73
Beef Maestro	Meyer	90.70	29.40	0.30	42689.12	1707.56
Mnt. Crest	SW	78.30	28.90	0.40	41963.12	1678.52
Taste Master	Meyer	71.30	26.70	0.40	38768.69	1550.75
Jubilation	Meyer	70.30	26.10	0.40	37897.49	1515.90
R454	Meyer	60.30	26.00	0.40	37752.29	1510.09
Sunchief	SW	54.70	23.50	0.40	34122.26	1364.89
Fabulous	SW	44.00	19.30	0.40	28023.81	1120.95

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