

1999 FRESH MARKET TOMATO CULTIVAR EVALUATION

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This Fresh Market Tomato trial compared 15 cultivars using 4 replicates of each cultivar. Objectives were to evaluate potential fresh market cultivars for total yield, average fruit size, color, percent soluble solids, grade and quality attributes and for their overall suitability in southern Ohio growing seasons.

Methods:

Planting: Seeded April 13, 1999 into 98-cell Pro Trays using a peat vermiculite soilless mix. Cells were thinned as needed to 1 plant /cell. Plants were transplanted to the field on June 7, 1999 at Hillsboro, Ohio using a Water Wheel Planter.

Spacing: Rows were 5 feet apart, with plants set into raised beds at a 18" spacing between plants. The beds were cover with black plastic mulch with trickle irrigation under the mulch prior to planting.

Soil Type: Haubstadt Silt Loam

Fertilizer: Applied 120 lbs. N., 120 lbs. P₂O₅ and 120 lbs. K₂O per acre prior to planting according to soil test recommendations. 20-20-20 (1 lb. / 100 gal. 8 oz. per plant) with transplant water.

Weed Control: 2 pt/A Treflan 4 E tank mixed with .51 lb./A Sencor 75 DF pre plant incorporated on 5/27/99. Hand hoed and cultivated as necessary.

Pest Management: Thiodan 3EC at .67 qt./A on 7/7, 7/27; Warrior 1EC at 1.92 fl oz./A on 8/19; Bravo Ultrex at 1.8 lb./A on 7/7, 7/14, 7/20, 7/27, 8/5, 8/11, 8/19, 8/27.

Irrigation: 7/1, 7/6, 7/16, 7/21, 7/27, 8/6, 8/19, 8/26 and 8/31

Harvest: August 13, August 26 and September 9

Results:

Total Marketable Fruit; yields for the replicated cultivars ranged from 11.3 tons per acre (Shady Lady) to 3.82 tons per acre (SRX 6611). Carolina Gold was the only yellow variety on trial this year, it was very firm, nice color and had a small seed cavity. Percent of soluble solids ranged from 6.06 (RFT6367) to 3.70 (Sun Shine). The long range goal is to utilize the existing agriculture infrastructure of southern Ohio to introduce these Fresh Market tomato varieties as an alternative crop for Ohio producers.

Table 1. Early harvest yields and comparisons for the replicated Tomato Cultivar Evaluation, Hillsboro, Ohio

Cultivar	Marketable Ton/A	Marketable Fruit/A	Average Fruit Wt.
Sun Shine	1.51	9079	0.35
Shady Lady	0.99	5395	0.36
Florida 47	0.66	2675	0.49
BHN 22	0.63	2763	0.47

Sun Chief	0.48	2237	0.45
Carolina Gold	0.44	1711	0.53
Emperador	0.44	1886	0.36
Floralina	0.42	2105	0.46
Sun Leaper	0.37	1711	0.43
BHN 189	0.31	1491	0.42
RFT 6397	0.29	1228	0.36
STX 6611	0.28	1623	0.17
Mountain Spring	0.22	1096	0.44
RFT 6116	0.18	789	0.23
LSD	.4925	2800	0.20

Table 2. Yields from replicated Fresh Market Tomato cultivar trials: Ohio State University Extension Enterprise Center, Hillsboro, Ohio 1999

Cultivar	Seed Source	Marketable Ton/A	Marketable Fruit/A	Average Fruit Wt.	% Soluble Solids	Fruit Color
Shady Lady	SS	11.30	68409	.34	4.03	Red
Florida 47	RP	10.23	54545	.38	4.03	Red
Carolina Gold	RNK	9.68	45682	.45	4.83	Yellow
Sun Shine	RP	8.81	51818	.35	3.70	Red
BHN 22	SI	8.79	48409	.37	4.26	Red
Emperador	RP	8.78	41139	.56	4.06	Red
Floralina	RP	8.03	51136	.33	4.83	Red
BHN 189	SI	8.01	51591	.32	4.50	Red
RFT 6116	RNK	7.85	44773	.38	5.10	Red
RFT 6367	RNK	7.72	40682	.41	6.06	Red
Sun Leaper	RNK	7.26	44545	.33	4.73	Red
Mountain Spring	RP	6.01	35227	.36	5.00	Red
Sun Chief	RP	5.46	29091	.39	5.20	Red
STX 6611	SS	3.82	24545	.32	3.83	Red
LSD	N/A	4.3978	40564	0.1344	N/A	N/A

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