



Fresh Market Tomato Cultivar Performance Trial Grown in Southern Ohio 2011



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OBJECTIVES:

To screen new fresh market tomato variety releases (2010-2011) for their production performance under Southern Ohio growing conditions and to determine the new releases showing yield and marketing potential for the southern Ohio area.

MATERIALS and METHODS:

This trial evaluated 12 fresh market tomato cultivars for their production suitability, performance and quality attributes under southern Ohio growing conditions. Cultivar selections were new releases along with industry standard varieties. Input was received from seed companies, growers, and industry personnel regarding variety selection and standard comparisons. The observation trial was located in southern Ohio, at the Ohio State University South Centers field research trials in Piketon, Ohio. Seeds were hand planted April 1st into 98 cell Pro Trays filled with soilless mix in the greenhouse. Plants were transplanted onto 10 inch tall raised beds covered with black plastic spaced 18 inches apart in row on June 2nd using a waterwheel transplanter. Trickle irrigation was installed under the plastic mulch. Bed spacing was 6 foot apart on center. 100 pounds of N, P2O5 and K2O per acre were applied before forming beds and laying plastic mulch. A standard commercial fungicide and insecticide program was implemented, following recommendations from the Ohio Vegetable Production Guide, OSU Bulletin #672. Weeds were controlled with cultivation and hand hoeing.

RESULTS and DISCUSSION:

This trial was planted later than usual due to one of the wettest springs on record. Overall plant and fruit quality was good despite the less than optimal growing conditions experienced this season. Fruit were harvested five times August 23, September 2, September 13, September 29 and October 12. Table 1 lists yield data and varieties in descending order of marketable yield.

In this observation trial total marketable pounds per plant ranged from 15.73 (HM 8849CR) to 5.65 lbs. (BHN 871). The Cultivar Tribeca had the most fruit per plant and the second highest pounds per plant. The cultivar Charger had the most large fruit per plant. Charger also had the most pounds of large fruit per plant. The average fruit size ranged from a low of .49lb. to a high of .61lb. We wish to thank the seed companies for their in kind contributions to conduct this field research.

Table 1: Fruit size number and yield responses for fresh market tomato cultivars grown in southern Ohio (Piketon), 2011.

Cultivar	Small Fruit # per Plant	Small lbs. per Plant	Medium Fruit # per Plant	Medium lbs. per Plant	Large Fruit # per Plant	Large lbs. per Plant
Tribeca	18	6.88	8	4.91	3	2.77
HM 8849CR	14	5.83	9	5.66	4	4.24
Rocky Top	12	4.78	5	4.09	2	2.28
BHN 602	12	4.68	9	5.59	3	3.03
BSS 832	10	4.03	4	3.12	2	2.97
Scarlet Red	9	3.96	7	4.52	3	3.11
Charger	8	3.59	8	5.27	5	4.42
Red Deuce	8	3.58	3	2.57	1	1.63
Red Bounty	8	3.07	9	5.76	3	2.66
BHN 871	6	2.68	3	1.86	1	1.10
BHN 961	5	2.42	4	2.67	1	1.23
Primo Red	5	2.29	5	2.81	1	.74

Table 2: Total fruit yields and average fruit weight responses for fresh market tomato cultivars grown in southern Ohio (Piketon), 2011.

Cultivar	Total Fruit per Plant	Total lbs. per Plant	Average Fruit Weight	Seed Source
HM 8849CR	27	15.73	.56	HM
Tribeca	29	14.58	.49	SW
BHN 602	24	13.31	.53	SW
Charger	21	13.30	.61	SW
Scarlet Red	19	11.60	.59	HM
Red Bounty	20	11.50	.55	HM
Rocky Top	20	11.16	.54	SW
BSS 832	17	10.13	.58	SW
Red Deuce	13	7.79	.56	HM
BHN 961	11	6.32	.55	RU
Primo Red	11	5.85	.49	HM
BHN 871	11	5.65	.49	RU