

EVALUATION OF FRESH MARKET TOMATO CULTIVARS FOR SOUTHERN OHIO, 2003

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

METHODS:

Seeds were planted on 16 May into 288-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 June 12, 2003. 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 26 and final harvest was October 6, 2003.

RESULTS:

Plant health and quality remained good through the season with average fruit set and yield across cultivars. Early season harvest August 26 and September 3 ranged from 828 - 2513 25-lb cartons/acre (Table 1). SVR 1760036, SVR 0170334 and Solar Set R were the top performers showing potential for early season yields. Total marketable yield ranged from 2933 - 4060 25-lb cartons/acre. BHN 543, Florida 91 and Solar Set R had the highest total marketable yield. Average fruit weight ranged from .046 lbs. to 0.57 lbs. Solar Set R produced consistently throughout the harvest season.

DISCUSSION

This was one of the coolest and wettest seasons in recent history. Many of these cultivars show promise and it will be interesting to see how they perform under more typical weather conditions.

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Table 1 Early and Total Season Harvest.

<u>Source & Cultivar</u>	<u>Early Season Harvest</u>					<u>Total Season Harvest</u>				
	<u>Sma</u>	<u>Mediu</u>	<u>Larg</u>	<u>Tot</u>	<u>Averag</u>	<u>Sma</u>	<u>Mediu</u>	<u>Larg</u>	<u>Tot</u>	<u>Averag</u>
	<u>ll</u>	<u>m</u>	<u>e</u>	<u>al</u>	<u>e</u>	<u>ll</u>	<u>m</u>	<u>e</u>	<u>al</u>	<u>e</u>
	<u>(25 lb. Cartons per acre)</u>				<u>Fruit Wt.</u>	<u>(25 lb. Cartons per acre)</u>				<u>Fruit Wt.</u>
AC				165					340	
ACX 12 B	691	773	189	4	0.55	1365	1462	576	4	0.51
ASG				120					389	
Florida 91	343	554	303	0	0.63	990	1762	1145	7	0.56
BHN									360	
BHN 22	307	445	195	948	0.63	1377	1404	822	3	0.50
BHN 189	267	458	102	828	0.49	1248	1526	569	3	0.48
BHN 399	512	769	200	1	0.57	1479	1610	724	4	0.50
BHN 543	366	410	163	941	0.52	1432	1420	1206	0	0.52
BHN 586	553	616	135	6	0.50	1621	1386	535	3	0.47
BHN 640	541	757	127	5	0.53	1200	1670	386	7	0.49
BHN 641	524	438	131	4	0.48	1745	1483	604	2	0.45
PS				129					371	
Celebrity	614	560	118	3	0.47	1748	1584	379	1	0.45
RG										
Mnt.				126					376	
Fresh	380	575	309	5	0.53	1117	1629	1020	7	0.51
Mnt.	387	567	312	126	0.63	1158	1350	856	336	0.54

Spring				8					5	
SM										
SVR				196					293	
0170334	884	880	199	3	0.47	1383	1200	349	3	0.46
SVR				126					305	
1412971	294	631	340	6	0.64	865	1265	921	2	0.56
SVR				170					313	
1432427	682	760	285	0	0.51	1313	1324	500	8	0.47
SVR				251					293	
1760036	650	1270	592	3	0.56	865	1387	684	7	0.53
Solar Set				186					388	
R	803	792	268	4	0.51	1715	1531	638	4	0.46
SW										
				130					369	
Floralina	520	600	181	2	0.54	1601	1524	570	5	0.48
LSD	331	397	222	711	0.07	473	515	386	811	0.05

