

EVALUATION OF FRESH MARKET TOMATO CULTIVARS FOR SOUTHERN OHIO, 2003

Brad R. Bergefurd, Thomas Harker, Dr Shawn Wright and Elaine Grassbaugh
The Ohio State University South Centers
1864 Shyville Road, Piketon, Ohio 45661-9749
Phone: (740) 289-3727

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.

Source & Cultivar	Early Season Harvest						Total Season Harvest					
	Sma ll			Larg e al			Sma ll			Larg e al		
	(25 lb. Cartons per acre)	Tot	Averag e	(25 lb. Cartons per acre)	Tot	Averag e	(25 lb. Cartons per acre)	Tot	Averag e	(25 lb. Cartons per acre)	Tot	Averag e
AC												
ACX 12 B	691	773	189	4	0.55	165	1365	1462	576	4	0.51	
ASG												
Florida 91	343	554	303	0	0.63	120	990	1762	1145	7	0.56	
BHN												
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	148	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	130	1621	1386	535	3	0.47	
BHN 640	541	757	127	5	0.53	142	1200	1670	386	7	0.49	
BHN 641	524	438	131	4	0.48	109	1745	1483	604	2	0.45	
PS												
Celebrity	614	560	118	3	0.47	129	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	0.46
SVR		126		305	
1412971	294	631	340	6	0.56
SVR		170		313	
1432427	682	760	285	0	0.47
SVR		251		293	
1760036	650	1270	592	3	0.53
Solar Set		186		388	
R	803	792	268	4	0.46
SW					
Floralina		130		369	
	520	600	181	2	0.48
LSD	331	397	222	711	0.07
				515	0.05
				386	
				811	

