

2002 TOMATO CULTIVAR OBSERVATION

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Tomatoes are a key crop for northern Illinois vegetable growers. They have high value and generate strong demand. Growers take great interest in the production and market qualities of available tomato cultivars. This observation reviews commercial cultivars grown in a plasticulture production system.

Materials and Methods

This trial was conducted at the St Charles Horticulture Research Center in St Charles, IL, in a Proctor Silt Loam soil. 32 commercial tomato cultivars were selected and seeded into Pro-Tray 50sq plug flats with Jiffy Mix Plus growing media on 4/9/02. Transplants were fertilized weekly with 100 ppm N of 20-20-20 in the watering system at the Research Center greenhouse. The field was prepared by applying 0.75 lb aia trifluralin, ppi, discing in. No fertilizer was used. 4' black plastic mulch was laid with T-tape drip irrigation tubing used underneath. Transplants were set in the mulch on 5/27/02 and watered in with a starter solution of 9-18-9 @ 2 gal/100 gal water. Cultivars were set in single, unreplicated plots of 6 plants, 1.5' apart in rows 6' apart. Plants were raised in #10 concrete wire cages 18" in diameter by 30" tall. Sencor at 0.5 aia was applied postemergence between mulch strips after tomatoes were planted. Insecticides and fungicides were applied only if needed. Irrigation was applied at the rate of 1.5" to 2" weekly. Tomatoes were harvested by hand at breaker to mature stage weekly, or more often if needed. Fruit were graded to US #1, #2 and culls.

Results and Discussion

See Table 1 for harvest data. Conditions were not kind in 2002, with cool temperatures and excessive moisture in May. It quickly became very hot and dry in June, creating stressful conditions through July. Early harvests were prone to radial cracking across cultivars. No disease or insect problems emerged. Cultivars which showed promise and were worthy of note included Fabulous, Red Sun, Mountain Fresh, Florida 47, Sunchief and Plum Dandy. Many others were solid performers deserving grower trial.

***TABLE 1. Tomato Cultivar Harvest Data**

Cultivar	Source	#1 Fruit		#2 Fruit		Total Fruit		Tons/ Acre	% #1 by wt.
		No.	Wt.	No.	Wt.	Wt.	Ave. Wt.		
Fabulous	SW	129	85.5	200	79.8	165.3	0.50	66.7	52
Carolina Gold	RG	122	85.2	226	80.5	165.7	0.48	66.9	51
Red Sun	JS	119	84.7	192	75.5	160.2	0.52	64.6	53
Mountain Fresh	HM	126	73.2	199	76.3	149.5	0.46	60.3	49
BHN 543	SI	117	71.3	289	100.4	171.4	0.42	69.2	42
Fair Lady	SU	104	69.2	245	93.7	162.9	0.47	65.7	42
Sunbrite	SM	108	68.1	217	84.0	152.1	0.47	61.4	45
Florida 47	SM	109	66.4	223	81.4	147.8	0.45	59.6	45
Mountain Spring	RG	101	65.8	234	81.7	147.5	0.44	59.5	45
Sunchief	SM	105	64.3	241	90.3	154.6	0.45	62.4	42
Acclaim	SK	91	62.7	235	85.1	147.8	0.45	59.6	42
ACX 128	AC	101	62.6	268	90.5	153.1	0.41	61.8	41
Mountain Gold	RG	93	62.0	157	57.6	119.6	0.48	48.3	52
Burpee Burger	BU	90	60.2	199	71.2	131.4	0.45	53.0	46
XTM 6217	SK	98	59.8	220	80.0	139.8	0.44	56.4	43
SXT 6611	SU	71	47.1	239	89.3	136.4	0.44	55.0	35
Simone	SI	74	46.3	242	91.4	137.7	0.44	55.6	34
Sunpride	SM	72	45.5	321	115.0	160.5	0.41	64.8	28
Shady Lady	SU	74	45.4	249	86.2	131.6	0.41	53.1	34
Springfield	HM	66	45.3	285	97.9	143.2	0.41	57.8	32
Primetime	HM	69	44.8	246	88.8	133.6	0.42	53.9	34
Sun Leaper	RG	71	41.9	363	118.2	160.1	0.37	64.6	26
Balboa	HM	63	40.6	236	82.6	123.2	0.41	49.7	33
Sunbeam	SM	61	39.7	230	91.3	131.0	0.45	52.9	30
BHN 591	SI	65	39.7	242	90.4	130.1	0.42	52.4	31
Flavormore 223	HM	69	39.3	341	111.4	150.7	0.37	60.8	26
JTO 99197	JS	58	37.2	264	91.9	129.1	0.40	52.1	29
Daybreak	SM	60	37.0	221	80.1	117.1	0.42	70.9	32
JTO 99203	JS	43	26.7	278	101.9	128.6	0.40	51.9	21
Sunstart	SM	36	22.8	279	91.0	113.8	0.36	45.9	20
Plum Dandy	HM	- roma -		1171	176.4		0.15	71.8	

* Ranked in order of #1 fruit weights. All weights in pounds. Tons/acre are extrapolated data.