

OHIO AGRICULTURAL EXPERIMENT STATION  
Vegetable Crops Substation, Marietta, Ohio  
Department of Horticulture Mimeograph Series No. 260  
December 13, 1961

STAKED TOMATO VARIETY TRIALS - 1961

Walter N. Brown\*

The 1961 staked tomato variety trials at Marietta included twelve varieties in six replications and thirty varieties replicated two times. Each of the first twelve varieties had been included in either the six or two replication trials in 1960. The results of these trials are presented in the accompanying Tables 1 and 2.

Cultural Information

Seed was sown in hotbeds on March 17, transplanted and subsequently set in field on May 11, 1961. A cover crop of barley was plowed down and 600 lbs/A of 12-12-12 drilled and disked in prior to setting plants. No starter fertilizer was used. Rows were spaced 50" apart with plants spaced 18" in the row with 15 plants per single row plot of 22.5' randomized and replicated either 2 or 6 times. Plants were pruned to two stems by allowing first lateral below first cluster to develop and removing all other laterals to the fifth cluster. First harvest was made on July 22 and the last on August 31. Fruits were harvested at the pre-pink stage.

Grades: Established to evaluate the amount and extent of cracking.  
Grade No. 1.- Crack-free fruits meeting all specifications of U.S. No. 1; Grade No. 2.- Cracks less than 1/2" in length, well healed and otherwise meeting specifications for U.S. No. 1; Grade No. 3.- Cracks longer than 1/2", well healed and otherwise meeting specifications for U.S. No. 2 or better; Culls - All other fruits not meeting specifications of above three grades.

<u>Code</u>	<u>Sources of Seed</u> <u>Source</u>
A4	Alpha Seeds, Box 1042, Lompoc, Calif.
B1	W. Atlee Burpee & Co., Huntington Park @ 18th St., Philadelphia 32, Pa.
F1	Ferry-Morse Seed Co., P.O. Box 254, Racine, Wisc.
F3	J.M. Walter, Gulf Coast Sta., Florida Agr. Exp. Sta., Bradenton, Fla.
H1	Joseph Harris Co., Moreton Farms, Rochester 11, N.Y.
H2	Holmes Seed Co., 1017 9th St., S.W. Canton 11, Ohio
H3	H.J. Heinz Co., Crop Research Dept., Bowling Green, Ohio.
L3	Louisiana Agr. Exp. Sta., J.C. Miller, Dept. of Hort., Baton Rouge, La.
M4	Missouri Agr. Exp. Sta., V.N. Lambeth, Dept. of Hort., Columbia, Mo.
O1	Ohio Agr. Exp. Sta., W. N. Brown, Dept. of Hort., 1827 Neil Ave., Col. 10, Ohio
O2	Ohio Agr. Exp. Sta., L.J. Alexander, Dept. Botany & Plant Pathology, Wooster, O.
P1	Peto Seed Co., P.O. Box 138, Saticoy, Calif.
P3	Purdue Agr. Exp. Sta., Ken Johnson, Dept. of Hort., W. Lafayette, Ind.
T2	Texas Agr. Exp. Sta., H.C. Mohr, Dept. of Hort., College Station, Texas.

*Catalogue*  
MAR 1 1962  
UNIVERSITY OF CALIFORNIA

General Comments

Weather conditions were such that field setting had to be delayed because of cold, wet weather in late April and early May. Generally the season was cooler with greater rainfall than normal. Fruit size was smaller early in the season and although it increased later in the season fruit size was generally smaller. Temperatures and rainfall at the Vegetable Crops Substation, Marietta, were as follows:

	<u>Mean Temp.</u>	<u>Total Rainfall</u>		<u>Mean Temp.</u>	<u>Total Rainfall</u>
April	46.7° F.	5.26"			
May	57.6	2.87	July	71.8° F.	5.07"
June	66.8	5.95	Aug.	72.4	3.54

Considerable Gray Wall was encountered with the first observed on July 26 at the 3rd harvest and last observed on August 23. Gray Wall attained a peak about August 8, and the amount varies with the variety from 0.36% to 14.63%.

Footnotes for the Tables:

- a. Varieties are ranked in order of early yield of No. 1 grade fruits.
- b. Figures in ( ) columns 3,4, and 5 are percentages of total early marketable yield harvested in each grade.
- c. Percentages of total season's marketable yield harvested to Aug. 8 (early yield).
- d. Percentages of total season's marketable yield harvested in each grade.
- e. Percentages of culls based on gross early yield.
- f. Percentages of culls based on gross season's yield.
- g. Average fruit size: Marketable weight of fruits divided by number of marketable fruits.

\*Dept. of Hort. Ohio Agr. Exp. Sta., 1827 Neil Ave., Columbus 10, Ohio.

TABLE 1  
STAKED TOMATO VARIETY TRIALS - 1961  
OAES, MARIETTA, Ohio

(6 replications)

	Variety <sup>a</sup> and Lot Number	Source	Early Yield to August 3					Season's Yield to August 31						
			Pounds of Marketable Fruit per Acre				Culls (lbs)	Average Fruit Size <sup>g</sup>	Pounds of Marketable Fruit per Acre				Culls (lbs)	Average Fruit Size <sup>g</sup>
			No. 1	No. 2	No. 3	Total			No. 1	No. 2	No. 3	Total		
10	OHIO HYB. 3 T-60	H <sub>2</sub>	19,533 (73.4) <sup>b</sup>	6,273 (25.9) <sup>b</sup>	201 (.7) <sup>b</sup>	26,007 (55.0) <sup>c</sup>	7,137 (21.3) <sup>e</sup>	.221	36,037 (76.2) <sup>d</sup>	10,750 (22.7) <sup>d</sup>	503 (1.1) <sup>d</sup>	47,290	12,369 (20.7) <sup>f</sup>	.230
4	PICNIC (Hyb. R 1157) 17167	F <sub>1</sub>	16,032 (73.0)	5,801 (26.4)	132 (.6)	21,965 (37.6)	4,662 (17.5)	.277	44,100 (75.4)	11,803 (20.2)	2,571 (4.4)	58,474	16,078 (21.6)	.273
5	ALPHA 33 F <sub>1</sub> --	A <sub>4</sub>	13,433 (58.4)	9,236 (40.4)	286 (1.2)	23,010 (39.0)	6,444 (21.9)	.230	40,537 (68.7)	16,552 (28.2)	1,789 (3.1)	58,978	16,036 (21.4)	.236
11	PA. 103 HYB. T-60	H <sub>2</sub>	9,015 (31.5)	18,596 (64.9)	1,030 (3.6)	28,641 (52.6)	9,542 (25.0)	.320	17,589 (32.3)	32,909 (60.5)	3,919 (8.2)	54,417	18,534 (25.4)	.341
8	MARIETTA No. 11 T-60	O <sub>2</sub>	8,036 (50.1)	7,977 (49.4)	77 (.5)	16,140 (29.9)	1,139 (6.6)	.260	28,904 (53.5)	21,903 (40.6)	3,175 (5.9)	53,982	4,972 (8.4)	.287
7	MARIETTA No. 31 T-60	O <sub>2</sub>	8,047 (49.7)	8,047 (49.7)	100 (.6)	16,194 (29.4)	4,616 (22.2)	.331	34,109 (61.8)	20,168 (36.6)	875 (1.6)	55,152	13,058 (19.1)	.375
3	QUEENS 1538	H <sub>1</sub>	6,513 (39.7)	9,859 (60.0)	54 (.3)	16,426 (28.2)	2,951 (15.2)	.363	27,874 (47.9)	25,574 (43.9)	4,802 (8.2)	58,250	10,781 (15.6)	.366
2	MORETON HYB. 1536	H <sub>1</sub>	6,204 (23.0)	19,649 (72.8)	1,162 (4.2)	27,015 (46.7)	6,452 (19.3)	.360	12,603 (21.8)	36,525 (63.2)	8,667 (15.0)	57,800	12,632 (17.9)	.381
1	CARDINAL HYB. 1560	H <sub>1</sub>	5,847 (32.9)	11,679 (65.7)	240 (1.4)	17,766 (31.9)	3,028 (14.6)	.389	16,008 (28.2)	38,531 (68.0)	2,161 (3.8)	55,700	10,866 (16.1)	.410
12	OHIO CR-RED C-7	O <sub>1</sub>	3,448 (34.7)	6,469 (65.0)	28 (.3)	9,945 (18.7)	1,608 (13.9)	.301	25,410 (44.3)	23,644 (47.5)	4,089 (7.2)	53,143	7,388 (12.9)	.363
9	PRITCHARD 1063	H <sub>2</sub>	2,997 (25.7)	7,993 (63.5)	674 (5.8)	11,664 (23.3)	2,966 (20.3)	.316	17,914 (35.7)	27,874 (55.6)	4,329 (8.7)	50,117	8,643 (14.7)	.322
6	MARIETTA NO. 6 IMPV. T-60	O <sub>2</sub>	1,743 (18.7)	7,226 (77.4)	364 (3.9)	9,369 (19.5)	1,952 (17.3)	.338	10,874 (22.7)	30,105 (62.8)	6,971 (14.5)	47,950	15,645 (24.6)	.381

LSD

3,437

5,299

TABLE 2  
STAKED TOMATO VARIETY TRIALS - 1961  
OAES, MARIETTA, OHIO

(2 replications)

	Variety <sup>a</sup> and Lot Number	Source	Early Yield to August 8					Season's Yield to August 31						
			Pounds of Marketable Fruit per Acre				Culls (lbs)	Average Fruit Size <sup>g</sup>	Pounds of Marketable Fruit per Acre				Culls (lbs)	Average Fruit Size <sup>g</sup>
			No. 1	No. 2	No. 3	Total			No. 1	No. 2	No. 3	Total		
28	HYB. 5857 17162	F <sub>1</sub>	11,083 (51.1) <sup>f</sup>	10,595 (48.9) <sup>b</sup>	-- (33.5) <sup>c</sup>	21,678	2,533 (10.5) <sup>e</sup>	.362	36,735 (56.8) <sup>d</sup>	25,047 (38.7) <sup>d</sup>	2,858 (4.5) <sup>d</sup>	64,640	7,296 (10.1) <sup>f</sup>	.368
37	HYB. 11 T-61	H <sub>2</sub>	9,085 (44.2)	11,037 (53.7)	441 (2.1) <sup>b</sup>	20,563 (39.6)	5,600 (21.4)	.421	18,923 (36.4)	25,466 (49.0)	7,598 (14.6)	51,977	12,826 (19.8)	.452
16	EARLICROP HYB. 1463	H <sub>1</sub>	8,992 (33.9)	16,474 (62.2)	1.022 (3.9)	26,488 (43.6)	2,835 (9.7)	.224	24,861 (40.9)	30,252 (49.8)	5,600 (9.2)	60,713	6,738 (10.0)	.229
38	HYB 13 T-61	H <sub>2</sub>	8,574 (54.8)	6,994 (44.7)	70 (.5)	15,638 (30.4)	1,487 (8.7)	.328	15,730 (39.8)	28,300 (46.4)	8,388 (13.8)	52,418	6,761 (10.0)	.363
24	HYB.420-60 T-61	P <sub>1</sub>	8,225 (39.9)	11,966 (58.0)	441 (2.1)	20,632 (38.8)	5,878 (22.2)	.346	18,680 (35.1)	28,533 (53.7)	5,971 (11.2)	53,184	19,308 (26.6)	.399
31	OSU 26-5 55-M	O <sub>1</sub>	8,039 (42.7)	10,642 (56.5)	163 (.8)	18,844 (36.2)	3,834 (16.9)	.369	20,842 (40.0)	28,858 (55.4)	2,393 (4.6)	52,093	10,200 (16.4)	.387
27	EXP. HYB F 54L 1565	H <sub>1</sub>	7,458 (53.3)	6,529 (46.7)	-- (24.6)	13,987	2,138 (13.3)	.195	36,409 (64.1)	15,823 (27.9)	4,554 (8.0)	56,786	7,853 (12.1)	.261
14	INDIAN RIVER T-59	F <sub>3</sub>	6,808 (46.5)	7,575 (51.7)	256 (1.8)	14,639 (29.5)	6,250 (39.9)	.360	22,631 (45.6)	23,514 (47.4)	3,462 (7.0)	49,607	12,198 (19.7)	.376
13	TITAN HYB. (HYB.18) 17164	F <sub>1</sub>	6,692 (35.2)	11,920 (62.7)	395 (2.1)	19,007 (37.2)	2,231 (10.5)	.405	17,961 (35.2)	25,651 (50.2)	7,421 (14.6)	51,033	13,244 (20.6)	.409
34	Hyb. 1 T-61	H <sub>2</sub>	6,576 (36.7)	11,176 (62.4)	163 (.9)	17,915 (36.3)	5,646 (24.0)	.312	17,612 (35.7)	27,022 (54.8)	4,717 (9.5)	49,351	13,267 (21.2)	.367

TABLE 2 Con't .  
STAKED TOMATO VARIETY TRIALS -- 1961  
OAES, MARIETTA, OHIO

(2 replications)

	Variety <sup>a</sup> and Lot Number	Source	Early Yield to August 8						Season's Yield to August 31					
			Pounds of Marketable Fruit per Acre				Culls (lbs.)	Average Fruit Size <sup>g</sup>	Pounds of Marketable Fruit t per Acre				Culls (lbs)	Average Fruit Size <sup>g</sup>
			No. 1	No. 2	No. 3	Total			No. 1	No. 2	No. 3	Total		
32	KC 146 1489	H <sub>1</sub>	5,693 (45.8) <sup>b</sup>	6,692 (53.8) <sup>b</sup>	47 (.4) <sup>b</sup>	12,442 (26.7) <sup>c</sup>	2,184 (14.9) <sup>e</sup>	.385	20,656 (44.3) <sup>d</sup>	23,653 (50.7) <sup>d</sup>	2,324 (5.0) <sup>d</sup>	46,633	9,921 (17.5) <sup>f</sup>	.402
22	HYB. 407-60 T-61	P <sub>1</sub>	5,623 (38.8)	8,667 (59.9)	186 (1.3)	14,476 (26.7)	4,415 (23.4)	.301	22,004 (40.6)	26,883 (49.6)	5,344 (9.8)	54,231	14,173 (20.7)	.365
40	OHIO 6 HYB. T-61	H <sub>2</sub>	5,530 (32.9)	10,990 (65.4)	279 (1.7)	16,799 (33.2)	7,644 (31.3)	.363	14,708 (29.0)	29,113 (57.5)	6,854 (13.5)	50,675	14,080 (21.7)	.399
25	Heinz 1370 T-60	H <sub>3</sub>	5,321 (70.0)	2,231 (30.0)	--	7,552 (13.7)	1,301 (9.6)	.219	46,656 (84.7)	8,318 (15.1)	139 (.2)	55,113	11,827 (17.7)	.248
35	HYB. 2 T-61	H <sub>2</sub>	5,251 (28.1)	12,524 (66.9)	929 (5.0)	18,704 (36.3)	4,113 (18.0)	.333	12,919 (25.0)	29,346 (56.9)	9,294 (18.1)	51,559	11,315 (18.0)	.377
42	TECUMSEH (W.R. Urbana) T-60	P <sub>3</sub>	5,112 (56.0)	4,020 (44.0)	--	9,132 (21.1)	3,927 (30.1)	.218	24,769 (57.2)	15,521 (35.8)	3,044 (7.0)	43,334	19,959 (31.5)	.250
23	Early Giant Hyb. T-61	P <sub>1</sub>	5,088 (24.2)	15,567 (74.0)	395 (1.8)	21,050 (39.5)	5,902 (28.0)	.329	17,891 (33.5)	31,344 (58.8)	4,113 (7.7)	53,348	11,826 (18.1)	.360
18	Mo. Cross Surprise T-60	M <sub>4</sub>	4,926 (26.4)	13,430 (71.9)	325 (1.7)	18,681 (35.9)	3,020 (13.9)	.302	13,523 (26.0)	35,433 (68.1)	3,044 (5.9)	52,000	8,876 (14.6)	.327
19	Early Wonder Hyb. 1127	H <sub>2</sub>	4,670 (23.9)	14,104 (72.2)	767 (3.9)	19,541 (35.5)	1,882 (8.8)	.322	15,660 (28.5)	31,762 (57.8)	7,575 (13.7)	54,997	12,175 (18.1)	.362
39	Ohio 5 Hyb. T-61	H <sub>2</sub>	4,577 (51.6)	3,903 (44.0)	395 (4.4)	8,875 (22.8)	11,246 (55.9)	.201	26,581 (68.3)	9,712 (25.0)	2,602 (6.7)	38,895	26,883 (40.9)	.223

TABLE 2 CONT!  
STAKED TOMATO VARIETY TRIALS - 1961  
OAES, MARIETTA, OHIO

(2 replications)

Variety <sup>a</sup> and Lot Number		Source	Early Yield to August 8						Season's Yield to August 31						
			Pounds of Marketable Fruit per Acre				Culls (lbs)	Average Fruit Size <sup>g</sup>	Pounds of Marketable Fruit per A.				Culls (lbs)	Average Fruit Size <sup>g</sup>	
			No. 1	No. 2	No. 3	Total			No. 1	No. 2	No. 3	Total			
29	Ohio W.R. Jubilee	T-60	O <sub>2</sub>	4,298 (41.1) <sup>b</sup>	5,878 (56.2) <sup>b</sup>	278 (2.7) <sup>b</sup>	10,454 (21.7) <sup>c</sup>	3,323 (24.1) <sup>e</sup>	.341	18,727 (38.9) <sup>d</sup>	24,280 (50.4) <sup>d</sup>	5,135 (10.7) <sup>d</sup>	48,142	13,500 (21.9) <sup>f</sup>	.413
33	Mosage	T-60	M <sub>4</sub>	4,182 (25.3)	10,850 (65.6)	1,510 (9.1)	16,542 (32.5)	3,555 (18.6)	.310	13,244 (26.0)	27,046 (53.2)	10,572 (20.8)	50,862	12,477 (19.7)	.317
17	Plainsman	T-60	T <sub>2</sub>	3,718 (25.0)	10,014 (67.2)	1,162 (7.8)	14,894 (38.3)	3,811 (20.4)	.324	8,272 (21.3)	23,374 (60.1)	7,249 (18.6)	38,895	11,734 (23.2)	.364
26	Mo. Cross Supreme	T-60	M <sub>4</sub>	3,090 (23.5)	9,433 (71.9)	604 (4.6)	13,127 (28.0)	4,577 (25.9)	.290	18,565 (39.7)	26,348 (56.3)	1,905 (4.0)	46,818	12,802 (21.5)	.339
21	Wonder Boy Hyb.	T-61	P <sub>1</sub>	3,020 (31.0)	6,715 (59.0)	--	9,735 (16.8)	325 (3.2)	.330	21,632 (37.4)	30,159 (52.1)	6,111 (10.5)	57,902	7,319 (11.2)	.427
30	Red Global	T-60	L <sub>3</sub>	2,951 (48.5)	2,944 (48.8)	163 (2.7)	6,058 (13.5)	1,208 (16.6)	.230	22,584 (50.5)	15,939 (35.6)	6,204 (13.9)	44,727	4,345 (8.9)	.275
36	Hybrid. 3	T-61	H <sub>2</sub>	2,951 (34.8)	4,903 (57.8)	627 (7.4)	8,481 (38.7)	15,823 (65.1)	.440	10,618 (48.5)	9,759 (44.5)	1,534 (7.0)	21,911	40,568 (64.9)	.379
15	Glamour	1534	H <sub>1</sub>	2,649 (27.3)	6,971 (71.9)	69 (0.8)	9,689 (20.8)	2,835 (22.6)	.274	21,330 (45.8)	23,955 (51.4)	1,280 (2.8)	46,565	11,525 (19.8)	.344
41	E.S. 24 (Heinz 2425)	T-60	H <sub>3</sub>	2,184 (82.5)	465 (17.5)	--	2,649 (6.1)	604 (18.6)	.271	32,180 (74.1)	10,735 (24.7)	534 (1.2)	43,449	12,082 (21.8)	.282
20	Big Boy Hyb.	6123	B <sub>1</sub>	2,114 (27.7)	5,344 (70.1)	163 (2.2)	7,621 (14.2)	604 (7.3)	.342	22,306 (41.6)	26,325 (49.0)	5,042 (9.4)	53,673	6,134 (10.3)	.454