UC STATEWIDE PROCESSING TOMATO VARIETY EVALUATION TRIALS

CALIFORNIA TOMATO RESEARCH INSTITUTE, INC. # 99-9
1999 PROGRESS REPORT

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Summary Varieties were tested over an extended season with overall high yields. Yields remained high into the late season at Colusa and Tracy-located tests which were harvested mid-October or later. Increasing number of varieties have multiple disease resistance.

Objectives Conduct processing tomato variety field tests in local sites to evaluate adaptability of newer lines over a wide range of growing conditions.

Procedures For the early-maturity trials, 12 replicated and 15 observational varieties were planted in 5 locations. For the mid-maturity trials, 18 replicated and 27 observational varieties were planted in common in 6 locations.

Fruit soluble solids and color were analyzed by the Processing Tomato Advisory Board using PTAB standardized procedures.

Yield of marketable fruit was measured with special weigh trailers using grower-cooperator supplied harvesting equipment where practical.

Results: Results are listed as statewide combined and includes each county analysis:

Table 1: A, B, C	early rep— yield, brix, color.
Table 2: A, B, C	early observational—yield, brix, color
Table 3: A, B, C	mid replicated—yield, brix, color
Table 4: A, B, C	mid observational—yield, brix, color

Early Replicated:Our statewide early maturity trials were placed in Yolo (Winters), San Joaquin (Brentwood), Fresno (WestSide Field Station), and Colusa (Maxwell). All were direct seeded. Fresno test was lost to frost damage and replanted later (but not included in this report). Brentwood replicated test was lost to city development, but observational portion was salvaged. Marketable yield averaged 37.4 tons per acre with 4.8 brix, and 25.2 fruit color (Tables 1A, B, C). Standards were H 9280 and HyPeel 45.

The top yield group included CXD 204, FMX 1090N, H 9280, CXD 187 and H 9661, all averaging above 37.8 tons per acre (Table 1A). Location influences on varietal yield were significant (as the variety x location interaction notes).

The clear, standout highest brix variety was HyPeel 45 with 5.5% (Table 1B). Trial location influenced brix performance of the varieties.

Best color was grouped with 4 varieties, CXD 204, Red Century 32, AP 410 and HyPeel 280, all with fruit color readings of 24.8 or lower (Table 1C).

Early Observational: Marketable yield averaged 37.4 tons per acre with 5.0 brix level. Standards were H 8773 and Brigade.

Varieties averaged 42.7 to 33.9 tons per acre, but without statistical yield separation (Table 2A).

Brix scores were divided into 7 groups with 4 of the 15 in the top rank (Table 2B). The top brix varieties were AB 97-453, PX 20816, H 9888, and FMX 1115NP with levels at or above 5.3.

Poor distinction could be made amongst the varieties for color with 10 of the 15 varieties in the top ranking group led by our standard, Brigade (Table 2C).

Mid Replicated: Mid-maturity trials were located in Sutter (Robins), YoløSolano (Dixon), San Joaquin (Tracy), Colusa (County Line), Merced (Los Palos) and Fresno (WestSide Research and Extension Station). All trials were direct seeded. Combined marketable yield averaged 42.5 tons per acre with 4.9 brix, and 23.9 fruit color. Standards were H 8892 and Halley 3155. All trials were planted on a single seed line per bed with the exception of double lines at the San Joaquin site.

Highest yielding varieties were dominated by Heinz varieties, led by H 9492, H 9553, H 8892, H 9665, and included AB P721, all with 44.5 tons/acre or higher (Table 3C). Location influence was significant on yield.

Highest brix group included CXD 179, AP 539, AB P721, HyPeel 65 and our standard, Halley 3155 with brix at or above 5.1 (Table 3B). Location influence was significant.

Best color group included AP 539, H 9492, and H 9553, all with 22.5 color or better (Table 3C). Location influence was significant.

Mid Observational: In the mid observational trial, 27 varieties were evaluated. Average yield was 39.9 tons per acre with 5.0 brix and 23.5 color. Standards were Brigade and La Rossa. Twenty of the 27 varieties were in the top yielding group led by CXD 188 with 44.7 tons/acre (Table 4A).

Highest brix varieties were TA 1534, NDM 551, AB 97-405, FMX 114N and Sun 6270 with levels of 5.3 or better (Table 4B). The top 3 varieties are from breeding programs at Cornell University, Nippon Del Monte, and an Israeli company, respectively. Another Cornell variety not included in all locations was TA 1533 with very high brix levels.

Color separation was good in the observational trial with 8 groupings lead by CXD 207 and CXD 188 with 21.2 and 22.3 color, respectively (table 4C).

We thank the CTRI for continued support as well as thank PTAB and statistical support from Gail Nishimoto, Mike Cahn and Enrique Herrero. Grower cooperators involved in the trials included Button and Turkovich Ranches, J.H. Meek and Sons, Emerald Farms, Poundstone Brothers, Matteoli Brothers, Bacchetti-Marca Bella Farms, Ron Nunn Farms, San Juan Ranch and Del Mar Farms.

TABLE 2.A
EARLY-MATURITY, PROCESSING TOMATO VARIETY TRIALS, 1999
OBSERVATIONAL
YIELD (TONS/ACRE)

	VARIETY	STATEWIDE (4 LOCATIONS COMBINED)	COLUSA	YOLO	SAN JOAQUIN	STANISLAUS
1	AP 723	42.7	18.5	45.5	54.7	52.0
2	PX 20816	40.8	25.7	32.8	67.3	37.5
3	CXD 206	40.6	26.1	39.7	55.0	41.6
4	FMX 1115NP	38.8	30.5	37.8	59.2	27.7
5	EarlyNemaPride 113	38.5	27.0	42.2	55.0	29.7
6	H 8773	37.7	31.4	37.7	45.9	35.8
7	H 9881	37.7	27.7	42.3	45.9	34.8
8	RPT 2332	37.7	24.0	38.1	53.4	35.2
9	ES-911	37.5	26.1	39.2	50.5	34.1
10	Brigade	37.2	27.9	37.3	48.9	34.8
11	H 9552	36.0	24.6	33.8	53.1	32.5
12	BOS 351	35.6	18.9	38.0	47.9	37.5
13	PX 1817	34.8	24.2	36.0	47.1	31.8
14	AB 97-453	34.3	15.7	39.5	—	33.7
15	H 9888	33.9	20.9	35.2	40.4	39.2
	MEAN	37.4	24.6	38.3	51.7	35.9
	LSD @ 0.05=	N.S.				
	C.V.=	14.0				

TABLE 2.B
EARLY-MATURITY, PROCESSING TOMATO VARIETY TRIALS, 1999
OBSERVATIONAL
°BRIX

	VARIETY	°BRIX	STATEWIDE (4 LOCATIONS COMBINED)	COLUSA	YOLO	SAN JOAQUIN	STANISLAUS
1	AB 97-453	5.8	A	6.0	6.3	—	5.3
2	PX 20816	5.5	A B	5.5	6.2	4.4	5.8
3	H 9888	5.4	A B	5.6	6.0	5.0	4.9
4	FMX 1115NP	5.3	A B C	5.2	5.6	5.0	5.2
5	RPT 2332	5.2	B C D	5.7	5.3	4.4	5.2
6	H 9552	5.1	B C D E	5.4	5.1	4.8	5.2
7	PX 1817	5.1	B C D E	5.3	5.8	4.6	4.8
8	Brigade	5.1	B C D E	4.7	5.6	5.0	5.0
9	CXD 206	5.0	B C D E F	5.5	5.3	5.0	4.3
10	BOS 351	5.0	B C D E F	5.5	5.2	4.2	5.2
11	EarlyNemaPride 113	4.9	C D E F G	5.1	5.2	4.4	4.7
12	H 8773	4.7	D E F G	4.8	4.6	4.6	4.7
13	ES-911	4.6	E F G	4.5	4.9	4.4	4.7
14	H 9881	4.5	F G	4.6	4.4	4.8	4.3
15	AP 723	4.5	G	4.2	4.5	4.4	4.9
	MEAN	5.0		5.2	5.3	4.6	4.9
	LSD @ 0.05=	0.5					
	C.V.=	7.0					

TABLE 2.C
EARLY-MATURITY, PROCESSING TOMATO VARIETY TRIALS, 1999
OBSERVATIONAL
COLOR

	VARIETY	COLOR	STATEWIDE (4 LOCATIONS COMBINED)	COLUSA	YOLO	SAN JOAQUIN	STANISLAUS
1	Brigade	21.8	A	24	22	21	20
2	H 8773	22.3	A B	27	23	18	21
3	ES-911	22.5	A B C	25	23	19	23
4	AP 723	22.8	A B C	27	25	18	21
5	H 9888	22.8	A B C	26	24	18	23
6	PX 20816	22.8	A B C	27	24	18	22
7	AB 97-453	23.1	A B C	28	24	—	21
8	EarlyNemaPride 113	23.3	A B C	26	27	18	22
9	CXD 206	23.5	A B C	27	22	21	24
10	H 9552	23.8	A B C	28	24	20	23
11	FMX 1115NP	24.0	B C	26	27	21	22
12	BOS 351	24.3	B C D	28	25	21	23
13	PX 1817	24.3	B C D	30	27	18	22
14	RPT 2332	24.5	C D	27	26	22	23
15	H 9881	26.3	D	33	25	23	24
	MEAN	23.5		27.3	24.5	19.7	22.3
	LSD @ 0.05=	2.1					
	C.V.=	6.4					

TABLE 1.A
EARLY-MATURITY, PROCESSING TOMATO VARIETY TRIALS, 1999
REPLICATED
YIELD (TONS/ACRE)

	VARIETY	Yield tons/A	STATEWIDE 3 LOCATIONS COMBINED	YOLO	STANISLAUS	COLUSA
1	CXD 204	41.1	A	42.1	38.9	42.5
2	FMX 1080N	40.4	A B	41.4	38.5	41.4
3	H 9280	39.7	A B C	39.4	35.4	44.2
4	CXD 187	39.3	A B C	46.3	30.6	40.8
5	H 9661	37.9	A B C D	37.1	35.0	41.7
6	Sun 6235	37.4	B C D E	44.4	27.3	40.3
7	HyPeel 45	36.8	B C D E	40.5	35.6	34.4
8	HyPeel 280	36.6	C D E	40.2	29.8	39.9
9	Red Century 32	36.6	C D E	40.7	33.1	36.0
10	APT 410	34.5	D E	39.1	24.0	40.4
11	APT 403	34.3	D E	41.8	27.2	33.9
12	Sun 6287	34.1	E	36.2	30.6	35.4
	MEAN	37.4		40.8	32.2	39.2
	LSD @ 0.05=	3.7		3.6	N.S.	5.1
	C.V.=	12.1		6.1	20.4	9.0
	Variety X Location LSD @ 0.05=	6.4				
				single	single row	double row

TABLE 1.B
EARLY-MATURITY, PROCESSING TOMATO VARIETY TRIALS, 1999
REPLICATED
°BRIX

	VARIETY	°BRIX	STATEWIDE 3 LOCATIONS COMBINED	YOLO	STANISLAUS	COLUSA
1	HyPeel 45	5.5	A	5.4	5.6	5.6
2	Red Century 32	5.1	B	5.1	5.0	5.2
3	AP 410	5.1	B	5.0	5.0	5.3
4	Sun 6235	5.0	B	5.2	4.9	4.9
5	HyPeel 280	4.9	B	4.8	4.9	5.1
6	AP 403	4.7	C	4.7	4.7	4.9
7	FMX 1080N	4.7	C	4.7	4.6	4.9
8	CXD 204	4.7	C D	4.8	4.7	4.6
9	Sun 6287	4.7	C D E	4.7	4.6	4.7
10	CXD 187	4.6	C D E	4.7	4.8	4.5
11	H 9280	4.5	D E	4.6	4.5	4.6
12	H 9661	4.5	E	4.5	4.5	4.5
	MEAN	4.8		4.8	4.8	4.9
	LSD @ 0.05=	0.2		0.4	0.3	0.3
	C.V.=	4.8		5.1	4.7	4.6
	Variety X Location LSD @ 0.05=	0.3				

TABLE 1.C
EARLY-MATURITY, PROCESSING TOMATO VARIETY TRIALS, 1999
REPLICATED
COLOR

	VARIETY	COLOR	STATEWIDE 3 LOCATIONS COMBINED	YOLO	STANISLAUS	COLUSA
1	CXD 204	23.6	A	23.0	21.5	26.3
2	Red Century 32	23.8	A B	23.3	21.3	27.0
3	AP 410	24.2	A B C	24.0	22.0	26.5
4	HyPeel 280	24.8	A B C D	23.8	22.0	28.5
5	CXD 187	24.9	B C D	23.8	21.8	29.3
6	Sun 6235	25.0	B C D E	24.5	23.0	27.5
7	Sun 6287	25.3	C D E F	24.0	23.5	28.3
8	H 9280	25.8	D E F G	23.5	22.0	31.8
9	AP 403	25.8	D E F G	25.0	22.0	30.5
10	H 9661	26.2	E F G	23.8	22.5	32.3
11	HyPeel 45	26.3	F G	26.3	23.5	29.3
12	FMX 1080N	26.6	G	25.8	24.3	29.8
	MEAN	25.2		24.2	22.4	28.9
	LSD @ 0.05=	1.2		1.4	N.S.	2.8
	C.V.=	5.8		4.0	5.8	6.6
	Variety X Location LSD @ 0.05=	2.0				

TABLE 4.A
MID-MATURITY, PROCESSING TOMATO VARIETY TRIALS, 1999
OBSERVATIONAL
YIELD (TONS/ACRE)

	VARIETY	STATEWIDE (6 LOCATIONS COMBINED)		COLUSA	SUTTER	YOLO	SAN JOAQUIN	MERCED	FRESNO
1	CXD 188	44.7	A	39.4	46.2	45.6	41.7	37.0	58.3
2	H 9775	44.3	A B	38.8	42.2	54.6	35.4	41.6	53.2
3	H 9663	44.2	A B	38.3	40.7	50.9	37.4	43.2	54.9
4	AB 97-405	43.5	A B C	41.6	42.4	47.8	41.7	30.9	56.6
5	OSX 395	42.8	A B C D	29.8	40.2	51.2	34.7	53.1	47.5
6	OSX 388	42.6	A B C D	34.4	30.1	50.5	37.2	54.2	49.2
7	CXD 207	41.7	A B C D E	40.5	47.7	40.3	32.7	36.9	52.0
8	NDM 551	41.4	A B C D E	34.8	29.7	47.2	35.2	39.2	62.2
9	PX 41816	41.2	A B C D E	31.6	51.4	46.3	36.4	31.9	49.8
10	Sun 6270	41.1	A B C D E	31.6	35.6	50.8	37.6	44.5	46.4
11	FMX 1114N	41.0	A B C D E	34.6	39.2	40.8	33.8	44.4	53.2
12	AP 391	41.0	A B C D E	41.4	34.8	47.9	37.3	28.9	55.4
13	CXD 203	40.6	A B C D E	36.8	41.5	41.9	33.3	41.8	48.7
14	Sun 6337	40.2	A B C D E	26.1	39.7	51.5	32.8	40.6	50.3
15	CXD 208	40.2	A B C D E	39.2	35.6	43.1	36.2	39.3	47.5
16	Brigade	39.4	A B C D E	40.3	29.3	45.6	41.5	30.9	48.7
17	PS 34716	39.3	A B C D E	30.1	42.3	53.5	36.7	26.8	46.4
18	ES-1086	39.3	A B C D E	25.5	34.9	50.8	37.0	37.0	50.3
19	Sun 6321	39.2	A B C D E	37.9	34.3	49.7	37.6	25.7	49.8
20	UG 709	38.4	A B C D E	28.3	29.3	49.7	31.8	38.7	52.6
21	U 9411	38.0	B C D E F	37.7	26.6	32.9	35.1	45.7	49.8
22	CXD 161	38.0	B C D E F	34.2	24.2	44.7	39.0	37.0	48.7
23	U 570	37.3	C D E F	40.7	33.5	39.5	33.6	35.3	41.3
24	Gibraltar 505	36.8	D E F	29.8	45.0	50.9	32.0	20.8	42.4
25	H 9773	35.9	E F	30.3	26.3	52.5	32.9	31.5	41.9
26	La Rossa	35.7	E F	29.8	33.3	39.5	33.2	33.3	—
27	TA 1534	31.5	F	34.0	23.6	41.4	33.3	20.8	36.2
	MEAN	39.9		34.7	36.3	46.7	35.8	36.7	49.7
	LSD @ 0.05=	6.5							
	C.V.=	14.3							
	TA 1533	not in all trials		33.1	—	41.7	36.0	—	26.6

TABLE 4.B
MID-MATURITY, PROCESSING TOMATO VARIETY TRIALS, 1999
OBSERVATIONAL
°BRIX

	VARIETY	°BRIX	STATEWIDE (6 LOCATIONS COMBINED)	COLUSA	SUTTER	YOLO	SAN JOAQ	MERCED	FRESNO
1	TA 1534	5.5	A	5.5	6.5	5.5	6.0	4.6	—
2	NDM 551	5.4	A B	5.6	6.5	5.4	5.2	4.6	5.1
3	AB 97-405	5.3	A B C	5.0	6.0	5.4	5.5	5.0	5.0
4	FMX 1114N	5.3	A B C D	5.2	6.6	5.0	5.8	4.6	4.6
5	Sun 6270	5.3	A B C D E	5.4	6.5	5.1	4.9	5.0	—
6	CXD 207	5.2	B C D E F	5.0	6.0	5.4	5.1	4.8	4.8
7	CXD 208	5.1	B C D E F G	5.0	5.7	5.5	4.9	4.8	4.9
8	ES-1086	5.1	B C D E F G	5.2	6.0	5.4	4.6	4.7	4.9
9	CXD 161	5.1	B C D E F G H	5.0	6.7	4.9	5.0	4.7	4.4
10	Sun 6337	5.1	B C D E F G H	5.2	6.5	4.8	4.9	4.7	4.6
11	H 9773	5.1	C D E F G H I	4.9	6.6	4.6	5.0	5.1	4.3
12	Gibraltar 505	5.0	D E F G H I J	5.0	6.0	4.8	4.7	4.9	—
13	PX 41816	5.0	E F G H I J K	4.8	5.8	4.9	4.7	4.6	5.1
14	PS 34716	4.9	F G H I J K L	4.6	6.3	5.0	4.5	4.7	—
15	Brigade	4.9	F G H I J K L	4.8	6.4	5.1	4.3	4.6	4.3
16	OSX 388	4.9	F G H I J K L	4.7	6.1	4.8	4.9	4.5	4.4
17	OSX 395	4.9	F G H I J K L M	5.0	5.5	4.8	4.9	4.7	4.4
18	U 570	4.8	G H I J K L M	5.0	6.0	4.8	4.7	4.2	4.3
19	CXD 188	4.8	H I J K L M	4.8	5.5	5.0	4.9	4.2	4.5
20	H 9775	4.8	I J K L M	4.7	5.7	5.0	4.5	4.5	4.4
21	La Rossa	4.8	I J K L M	4.8	5.6	4.9	4.7	4.4	—
22	UG 709	4.8	J K L M	4.3	6.5	5.0	4.4	4.0	4.4
23	CXD 203	4.8	J K L M	4.7	5.2	5.2	4.6	4.4	4.5
24	Sun 6321	4.7	J K L M	4.7	6.3	4.6	4.3	4.0	4.5
25	AP 391	4.7	K L M	4.5	—	4.4	4.4	4.5	4.5
26	H 9663	4.7	L M	4.5	5.8	4.6	4.8	4.3	4.0
27	U 9411	4.6	M	—	5.6	4.7	4.8	3.8	4.1
	MEAN	5.0		4.9	6.1	5.0	4.9	4.6	4.5
	LSD @ 0.05=	0.3							
	C.V.=	5.5							
	TA 1533	not in all trials		5.9	—	6.0	5.6	—	—

TABLE 4.C
MID-MATURITY, PROCESSING TOMATO VARIETY TRIALS, 1999
OBSERVATIONAL
COLOR

	VARIETY	COLOR	STATEWIDE (6 LOCATIONS COMBINED)	COLUSA	SUTTER	YOLO	SAN JOAQUIN	MERCED	FRESNO
1	CXD 207	21.2	A	21	20	21	24	21	20
2	CXD 188	22.3	A B	24	19	23	24	23	21
3	CXD 208	22.5	B C	23	22	22	25	22	21
4	Sun 6337	22.7	B C D	24	21	23	24	22	22
5	Sun 6321	22.7	B C D	22	19	25	25	23	22
6	Brigade	22.8	B C D E	25	20	23	24	23	22
7	U 570	23.0	B C D E F	24	22	24	25	22	21
8	AB 97-405	23.0	B C D E F	23	23	25	24	23	20
9	CXD 203	23.2	B C D E F G	23	22	23	24	22	25
10	H 9663	23.2	B C D E F G	25	19	28	25	21	21
11	H 9773	23.3	B C D E F G H	23	22	25	24	23	23
12	PX 41816	23.3	B C D E F G H	24	21	25	25	24	21
13	Sun 6270	23.4	B C D E F G H	24	22	25	25	22	—
14	PS 34716	23.4	B C D E F G H	23	20	24	25	26	—
15	TA 1534	23.4	B C D E F G H	23	22	24	25	24	—
16	NDM 551	23.7	C D E F G H	23	21	24	25	27	22
17	Gibraltar 505	23.8	C D E F G H	24	21	26	25	24	—
18	CXD 161	23.8	D E F G H	24	23	25	25	23	23
19	H 9775	24.0	E F G H	25	23	25	25	24	22
20	ES-1086	24.2	F G H	25	23	25	25	24	23
21	FMX 1114N	24.2	F G H	24	22	26	25	25	23
22	U 9411	24.3	F G H	—	23	26	25	25	22
23	OSX 388	24.3	G H	25	21	26	25	26	23
24	La Rossa	24.4	G H	25	22	25	26	25	—
25	OSX 395	24.5	H	23	22	29	25	23	25
26	UG 709	24.5	H	24	21	27	25	26	24
27	AP 391	24.6	H	25	—	27	26	24	23
	MEAN	23.5		23.8	21.4	24.9	24.8	23.6	22.2
	LSD @ 0.05=	1.3							
	C.V.=	4.9							
	TA 1533	not in all trials		25	—	28	25	—	—

TABLE 3.A
MID-MATURITY, PROCESSING TOMATO VARIETY TRIALS, 1999
REPLICATED
YIELD (TONS/ACRE)

	VARIETY	Yield tons/A	STATEWIDE (COMBINED)	COLUSA	SUTTER	YOLO	SAN JOAQUIN	MERCED	FRESNO
1	H 9492	46.6	A	46.6	48.6	49.9	37.3	44.1	53.0
2	H 9553	46.0	A	42.1	49.1	54.1	42.8	33.4	54.6
3	H 8892	45.3	A	40.3	47.4	51.9	42.1	33.0	57.2
4	H 9665	44.5	A B	38.9	50.1	53.3	39.1	33.9	51.8
5	AB P721	44.5	A B	42.7	44.2	48.4	43.7	35.4	52.5
6	HyPeel 303	42.6	B C	38.7	43.1	53.1	36.3	32.3	52.3
7	H 9491	42.6	B C	39.6	44.1	47.2	40.3	33.2	51.2
8	CXD 179	42.5	B C	39.5	43.8	45.2	37.5	34.0	55.2
9	Sun 6229	42.3	B C D	35.1	46.0	52.0	36.9	29.8	54.2
10	BOS 20/20	41.9	C D E	33.7	45.0	48.4	36.0	35.3	52.9
11	Halley 3155	41.3	C D E	35.4	42.2	47.2	36.6	37.4	49.1
12	HyPeel 65	41.2	C D E	36.1	39.4	49.0	37.7	36.6	48.5
13	H 9557	41.1	C D E	34.0	41.1	53.6	36.5	32.1	49.5
14	CXD 199	41.1	C D E	36.3	44.1	47.4	35.9	32.8	50.1
15	AP 539	40.9	C D E	37.1	40.9	44.7	38.3	34.7	49.8
16	HyPeel 513	40.4	C D E	32.3	46.3	45.8	37.7	28.4	51.6
17	U 573	40.1	D E	40.8	38.8	37.2	37.9	35.7	50.3
18	BOS S-55	39.9	E	33.9	44.6	46.9	37.2	29.5	47.2
	MEAN	42.5		38.0	44.4	48.6	38.3	34.0	51.7
	LSD @ 0.05=	2.3		4.7	4.9	5.6	3.3	N.S.	4.1
	C.V.=	9.7		8.7	7.8	8.0	6.1	21.0	5.6
	Variety X Location LSD @ .05 =	5.8							
	#Seed lines/bed			single	single	single	double	single	single

TABLE 3.B
MID-MATURITY, PROCESSING TOMATO VARIETY TRIALS, 1999
REPLICATED
°BRIX

	VARIETY	°BRIX	STATEWIDE (6 LOCATIONS COMBINED)	COLUSA	SUTTER	YOLO	SAN JOAQUIN	MERCED	FRESNO
1	CXD 179	5.2	A	5.4	5.8	5.4	5.0	4.9	4.8
2	AP 539	5.2	A	5.5	5.8	5.2	5.0	4.9	4.7
3	AB P721	5.2	A	5.1	5.8	5.4	5.2	4.9	4.8
4	HyPeel 65	5.2	A B	5.4	6.0	5.3	5.1	4.6	4.5
5	Halley 3155	5.1	A B C	5.3	5.5	5.3	4.9	5.0	4.5
6	BOS 20/20	5.0	B C D	5.2	5.7	5.2	4.8	4.6	4.6
7	H 9557	5.0	C D E	5.0	5.6	5.2	5.0	4.8	4.4
8	CXD 199	4.9	D E F	5.1	5.4	5.2	4.7	4.5	4.6
9	BOS S-55	4.9	D E F G	5.3	5.4	5.3	4.6	4.5	4.5
10	Sun 6229	4.9	D E F G H	5.0	5.6	5.1	4.9	4.4	4.5
11	H 9492	4.9	E F G H I	5.0	5.3	5.2	4.8	4.6	4.3
12	H 9665	4.8	F G H I J	4.9	5.7	4.9	4.3	4.6	4.3
13	H 9553	4.8	G H I J	4.9	5.5	4.9	4.5	4.5	4.4
14	H 9491	4.8	H I J	4.9	5.4	5.1	4.5	4.4	4.2
15	H 8892	4.7	I J	4.8	5.4	5.1	4.3	4.4	4.4
16	HyPeel 303	4.7	J K	4.6	5.4	5.0	4.5	4.4	4.2
17	U 573	4.6	K L	4.4	5.5	4.9	4.1	4.1	4.3
18	HyPeel 513	4.5	L	4.8	5.3	4.6	4.4	4.1	4.0
	MEAN	4.9		5.0	5.5	5.1	4.7	4.6	4.4
	LSD @ 0.05=	0.1		0.3	N.S.	0.3	0.4	0.2	0.4
	C.V.=	5.0		3.6	6.1	4.0	6.1	3.7	5.6
	Variety X Location LSD @ .05 =	0.3							

TABLE 3.C
MID-MATURITY, PROCESSING TOMATO VARIETY TRIALS, 1999
REPLICATED
COLOR

	VARIETY	COLOR	STATEWIDE (6 LOCATIONS COMBINED)	COLUSA	SUTTER	YOLO	SAN JOAQUIN	MERCED	FRESNO
1	AP 539	22.4	A	23.5	19.3	23.8	24.3	21.8	22.0
2	H 9492	22.5	A B	23.0	20.8	23.8	24.5	20.8	22.0
3	H 9553	22.5	A B	23.3	20.8	22.8	25.0	21.3	22.0
4	H 9557	23.2	B C	23.8	22.3	23.5	24.5	21.8	23.5
5	AB P721	23.3	C	23.0	21.3	24.3	24.5	23.3	23.3
6	H 8892	23.3	C	23.5	21.5	24.5	25.3	22.5	22.5
7	H 9491	23.4	C	23.3	22.0	24.8	24.8	22.3	23.5
8	CXD 179	23.5	C D	24.3	22.0	24.5	24.3	23.8	22.0
9	CXD 199	23.5	C D	25.3	20.3	25.0	24.8	23.0	22.5
10	H 9665	23.9	C D E	25.5	24.0	24.5	25.0	22.8	21.5
11	HyPeel 513	24.2	D E F	24.0	22.8	24.8	24.8	24.8	24.3
12	HyPeel 303	24.3	E F	24.0	23.0	25.3	24.8	22.5	26.3
13	Halley 3155	24.4	E F	24.8	22.8	26.0	25.0	24.5	23.3
14	BOS 20/20	24.5	E F	24.8	23.3	24.8	25.0	24.3	25.0
15	U 573	24.6	E F G	25.0	22.8	24.5	25.3	25.5	24.8
16	HyPeel 65	24.9	F G H	26.3	22.6	26.8	25.0	25.3	23.5
17	Sun 6229	25.3	G H	26.8	24.8	25.8	25.3	25.5	24.0
18	BOS S-55	25.6	H	27.0	23.5	27.3	25.3	25.0	25.8
	MEAN	23.9		24.5	22.2	24.8	24.8	23.3	23.4
	LSD @ 0.05=	0.8		1.3	2.1	2.1	N.S.	1.9	2.5
	C.V.=	5.6		3.8	6.7	6.1	2.1	5.8	7.6
	Variety X Location LSD @ .05 =	1.9							