

Statewide Processing Tomato Variety Trials Fresno County Results - 2004

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Four early and 6 mid-maturity variety tests were conducted throughout the major processing tomato production regions of California during the 2004 season. The major objective is to conduct processing tomato variety field tests that evaluate fruit yield, °Brix (a measure of soluble solids %), color, and pH in various statewide locations. The data from all test locations are used to analyze variety adaptability under a wide range of growing conditions. All of the major production areas had at least one test to identify tomato cultivars appropriate for that specific region. As in the past, both replicated and observational lines were evaluated. These tests are designed and conducted with input from seed companies, processors, and other allied industry and are intended to generate information useful for making intelligent management decisions.

Procedures

Early maturity tests were planted in February or early March and mid-maturity lines were planted from March to May. New varieties are typically screened one or more years in non-replicated observational trials before being included in the replicated trials. Tests were primarily conducted in commercial production fields with grower cooperators (the Fresno trials were located at the West Side Research and Extension Center [WSREC] near Five Points).

Each variety was usually planted in one-bed wide by 100 foot long plots (Fresno used 75 foot long plots). Plot design was randomized complete block with four replications for the replicated trial. The observational trial consisted of one non-replicated plot directly adjacent to the replicated trial. Seeding or transplanting was organized by the Farm Advisor at approximately the same time that the rest of the field was planted. All cultural operations, with the exception of planting and harvest, were done by the grower cooperator using the same equipment and techniques as the rest of the field. All test locations were primarily furrow irrigated. A field day or arrangements for interested persons to view the plots occurred at all of the tests.

Results

A complete research report can be found at the VRIC website www.vric.ucdavis.edu. Click on Vegetable Information, Choose Tomato as the crop, scroll down to Other and click on 2004 Statewide Processing Tomato Variety Evaluation trials. OR call a Farm advisor and ask them to mail you a copy. Results from the Fresno trials are below.

EARLY REPLICATED PROCESSING TOMATO VARIETY TRIAL
Fresno County 2004 Seeded FEB 13 Harvested JULY 13

VARIETY	Yield T/A	Brix %	Brix Yield	Color	pH
H 5003	37.1 (01) A	5.4 (01)	2.01 (01)	22.0 (04)	4.45 (08)
H 9997	34.5 (02) A B	4.8 (06)	1.66 (02)	21.3 (01)	4.47 (09)
Calista	32.1 (03) B C	4.7 (09)	1.52 (04)	22.0 (04)	4.50 (10)
U 250	32.0 (04) B C	4.6 (10)	1.47 (07)	24.8 (11)	4.44 (06)
Hypeel 45	30.8 (05) B C	5.4 (02)	1.66 (03)	23.0 (06)	4.35 (01)
PX 740	30.0 (06) B C D	5.0 (05)	1.48 (05)	23.0 (06)	4.41 (02)
UG 8168	29.7 (07) C D	5.0 (04)	1.48 (06)	23.3 (10)	4.43 (05)
H 9280	27.9 (08) C D	4.5 (11)	1.26 (09)	23.0 (06)	4.43 (04)
Sun 6358	26.1 (09) D	4.8 (07)	1.24 (10)	23.0 (06)	4.44 (07)
APT 410	26.0 (10) D	5.1 (03)	1.33 (08)	21.8 (02)	4.42 (03)
HA 3523	25.4 (11) D	4.8 (08)	1.20 (11)	21.8 (02)	4.55 (11)
Average	30.1	4.9	1.48	22.6	4.44
LSD @ 0.05	4.6	0.3	0.21	1.4	0.04
C.V.%	10.6	4.4	9.7	4.4	0.7

MID SEASON REPLICATED PROCESSING TOMATO VARIETY TRIAL
Fresno County 2004 Seeded MAR 19 Harvested AUG 13

VARIETY	Yield T/A	Brix %	Brix Yield	Color	pH
U 941	52.9 (01) A	5.4 (06)	2.87 (01)	26.5 (18)	4.35 (11)
H 2401	50.1 (02) A B	5.6 (04)	2.80 (02)	25.8 (13)	4.23 (01)
H 5503 EFS	48.4 (03) A B C	5.3 (12)	2.54 (04)	25.0 (06)	4.32 (08)
Sun 6360	47.6 (04) A B C	5.1 (16)	2.41 (05)	25.0 (06)	4.36 (15)
H 8892	46.3 (05) B C D	5.5 (05)	2.56 (03)	25.0 (06)	4.30 (06)
H 2501	43.0 (06) C D E	5.4 (08)	2.31 (07)	24.0 (01)	4.33 (10)
H 5803 EFS	41.4 (07) D E F	5.6 (03)	2.33 (06)	24.8 (05)	4.30 (05)
Red Sky	41.2 (08) D E F	5.3 (10)	2.20 (08)	25.3 (10)	4.35 (13)
UG 151	41.0 (09) D E F	5.3 (12)	2.15 (10)	24.3 (02)	4.36 (16)
H 9665	39.6 (10) E F G	5.2 (14)	2.06 (12)	24.5 (03)	4.27 (04)
H 2601	37.8 (11) E F G	5.2 (14)	1.96 (13)	25.8 (13)	4.40 (18)
CPL 4863-N	37.5 (12) E F G	5.0 (17)	1.87 (16)	25.0 (06)	4.35 (12)
PS 296	37.1 (13) E F G	5.9 (01)	2.17 (09)	25.8 (13)	4.25 (02)
Halley 3155	36.7 (14) F G	5.8 (02)	2.12 (11)	24.5 (03)	4.26 (03)
Sun 6119	36.5 (15) F G	5.3 (11)	1.92 (15)	25.8 (13)	4.33 (09)
U 005	35.9 (16) F G	5.0 (18)	1.79 (18)	25.5 (11)	4.32 (07)
PX 607	35.4 (17) F G	5.4 (07)	1.92 (14)	25.5 (11)	4.37 (17)
La Rossa	34.2 (18) G	5.3 (09)	1.80 (17)	26.3 (17)	4.36 (14)
Average	41.2	5.4	2.21	25.2	4.32
LSD @ 0.05	6.1	0.5	0.36	N.S.	0.08
C.V. %	10.5	6.0	11.5	5.1	1.4