APPENDIX A.3

2002 NEW JERSEY FRESH MARKET PLUM TOMATO TRIAL RESULTS[1]

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INTRODUCTION

Fresh market plum tomatoes are grown both with and without stakes in New Jersey. Growers continue looking for new varieties that will ship as a red ripe fruit with uniform color and good internal characteristics. In the last few years' buyers have become more concerned about the internal characteristics of the fruit, which has led to some rejections. Thirty-one commercial varieties and advanced breeding lines were evaluated in a grower's field to compare the yield, internal fruit and horticultural characteristics.

MATERIALS AND METHODS

Culture

Seeds were sown on April 4 in 72-cell (1 ½ X 1 ½ inch) trays containing peat-vermiculite media formulated for tomato transplant production at Rutgers Agricultural Research and Extension Center. Seedlings were thinned to one plant per cell. Plants were maintained in the greenhouse until one week before transplanting when they were placed in an outside protected area to harden off. Beds on 6-ft centers were formed and black plastic mulch with drip irrigation tube was laid. Plants were set in the field on May 15 using a mechanical transplanter in single rows with 18 inches between plants. Pre-plant fertilizer was applied at 300 lbs/A K-Mag (22% Murate of potash, 11% Magnesium and 22% Sulfur) plus 300 lbs/A 14-7-14. A total of 130 lbs. of nitrogen and super phosphate (P_2O_5) and 260 lbs murate of potash (K_2O) were applied through the drip irrigation on May 27, June 10, 18, 24, July 1, 8, 15, 23 and 30. Micronutrients were injected along with the other nutrients.

Herbicides were applied April 18 between the beds using *metribuzin* (Sencor 75DF – 1 lb/A) and *metolachlor* (Dual Magnum 25 oz/A). *Imidacloprid* (Admire) was applied as a drench to the seedling flats before transplanting at a rate of three mil per flat (72 plants) in enough water to saturate the growing media without draining off. Insects and diseases were controlled using commercial recommendations for tomatoes. Nine applications were applied with either an air blast sprayer or through the drip system.

Experimental Design, Harvesting and Evaluation

The cultivars were arranged in a randomized block design with three replications. Tomatoes were hand harvested on July 26, August 2, 10, 20, and September 5. Fruits were graded into

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marketable and culls, counted and weighed. Culls were further divided by the type of defect (blossom end rot, insect damage, cracks, zipper, green shoulder, gold flecking, rots, undersize, cat facing, misshapen, sunburn and miscellaneous) and counted. All yields are reported in 25 lb boxes per acre.

Data was collected on vine vigor and fruit cover after the second harvest. At the second and fourth harvests, 10 fruit were randomly selected from marketable fruit for each replication to evaluate fruit size, internal, external and jelly color, firmness, amount of white internal tissue and number of fruit with hollow locules. Data were statistically analyzed using ANOVA and compared with Tukey's Studentized Range (HSD) Test at the 5% level.

RESULTS AND DISCUSSION

The yield, percent marketable fruit and average marketable fruit size for harvest 1 and 2 are shown in Table 1. Total yields were low in 2002, but total, marketable and cull yields varied among cultivars. The cultivar with the highest early marketable yield was H 132 that was significantly higher than all other entries except H 9497. Most other varieties were not statistically different from each other.

Cull boxes/A were significantly high for a few cultivars. 'H 111' (182 boxes/A) and 'H 9497' (124 boxes/A), but they were only statistically different from 'BHN 411', 'H 103', 'Health Kick', 'Plum Crimson' and 'Plum Dandy'. When the reason for the cull fruit was analyzed (data not shown) it is clear blossom end rot (BER) was the main cause for the first two harvests. 'H 111' had significantly more BER fruit than any other cultivar. This was followed by 'H 9497', which had statistically more BER than all other cultivars except 'Red Agate', 'BHN 411' and 'H 107'. 'H 130' had the most green-shouldered fruit, but was not statistically different from 22 of the cultivars. The following had no green shouldered fruit: 'BHN 411', 'HMX 0830', 'H 132', 'H 113', 'BHN 404', 'Tuscany' or 'Plum Crimson'.

Gold flecking has become a serious problem the last few years, therefore, all cultivars are now screened for the disorder. 'Tuscany' had the highest gold flecking and was significantly higher than all other cultivars except 'PSR 150 885', and 'H 103'. No gold flecking was observed in the first harvest thus all the early damage occurred between July 26 and August 2. 'Sunoma' had significantly more fruit rots than all cultivars except 'Halley 3155' and 'HMX 0830'. 'H 113' had statistically more sunburn than the following cultivars: 'H 107', 'H 130', 'Hybrid 882', 'PSR 150 885', 'PSR 150 721', 'H 106', 'Red Agate', 'Sunoma', 'Puebla', and 'H 9497'. All the other cultivars were not significantly difference from each other or other the cultivars except 'H 113'. There were no significant differences among cultivars for number of insect damaged fruit, cracks, under size fruit, zippers, or misshapen fruit.

All cultivars had over 50% marketable fruit except 'BHN 404', 'H 111', 'H 131', and 'PX 151 476'. Average fruit size is important for fresh market production. A 3.0-ounce fruit is considered the minimum for acceptance and 3.5 ounces is preferred for fresh market. All varieties except 'BHN 404', 'BHN 411', 'Capri', 'H 103', 'H 131', 'Hybrid 882', 'Plum Dandy' and 'H 9497' had at least minimum accepted fruit size. Those with 3.5 oz fruit or larger were 'Plum Crimson', 'PSR 150 377', 'PSR 150 721', 'PX 151 476', 'Sunoma' and 'Tuscany'.

Table 1. Plum tomato yield and fruit size for first and second harvest (early) – Tolotti Farms, Vineland, New Jersey – 2002

Variety	Source	Total Boxes/A	Marketable Boxes/A	Cull Boxes/A	% Marketable	Fruit Wt. Oz.
BHN 404	BHN	146	71	75	48	2.8
BHN 411	BHN	97	68	29	71	2.7
BHNR20	BHN	291	254	37	87	3.0
Capri	Stokes	313	259	55	82	2.9
Daiquiri	Stokes	274	244	30	89	3.0
H 103	Heinz	97	72	25	71	2.8
H 106	Heinz	365	255	110	70	3.4
H 107	Heinz	322	238	84	74	3.2
H 111	Heinz	358	176	182	49	3.3
H 113	Heinz	163	103	60	63	3.2
H 126	Heinz	87	51	35	58	3.3
H 130	Heinz	213	150	63	67	3.3
H 131	Heinz	76	32	44	45	2.7
H 132	Heinz	469	412	57	88	3.4
H 134	Heinz	108	69	39	64	3.0
Halley 3155	Seedway	245	191	54	78	3.1
Health Kick	Seminis	269	245	24	88	3.0
HMX 0830	Harris Moran	161	128	34	79	3.2
Hybrid 46	Seminis	94	64	31	69	3.2
Hybrid 882	Seminis	122	91	31	75	2.7
Plum Crimson	Harris Moran	103	87	16	84	3.5
Plum Dandy	Seedway	53	44	9	79	2.9
PSR 150 377	Seminis	127	81	45	62	3.7
PSR 150 721	Seminis	71	39	32	56	3.6
PSR 150 885	Seminis	151	93	57	61	3.4
Puebla	Seminis	97	61	35	59	3.2
PX 151 476	Seminis	95	28	67	27	3.8
Red Agate	Johnny's	262	152	110	60	3.2
Sunoma	Seminis	241	147	94	59	3.5
Tuscany	Johnny's	334	253	80	74	3.8
H 9497	Heinz	418	294	124	69	2.7
HSD 0.05	**----------**	**180**	**150**	**81**	**33**	**0.1**

Table 2 summarizes the combined yield and fruit size data for the five harvests. Total yield ranged from 1622 to 2947 boxes/A for the five harvests. 'H 132', 'Capri' and 'H 9497' had the highest yields among all cultivars, but were only statistically different from 'H 131'. Results for marketable yields are similar to total yield. 'H 132', 'Capri', 'Health Kick', 'H 9497' and 'H 107' had the highest yields ranging from 1257 to 1918 boxes/A, but they were only statistically different from 'PX 151 476', 'PSR 150 885' and 'H 131'. 'H 131' also had the lowest total yield.

The amount of cull fruit was high for all cultivars. 'HMX 0830' and 'Health Kick' produced the fewest boxes of cull fruit, but were only significantly different from 'BHN 411' and 'PSR 150 377' which had the most culls. When cull numbers were analyzed, 'H 111' and 'H 9497' had significantly more BER than the other cultivars and all other culls were not statistically different

from one another. 'H 126' had significantly more fruit with insect damage than 'Sunoma', which had the least. None of the other cultivars were statistically different from one another or from the other two. 'H 131', 'Daiquiri', 'Sunoma' and 'Halley 3155 had more cracked fruit than 'Plum Dandy' which had the least. All other cultivars were not statistically different from one another. Zippers on fruit can be a cosmetic defect that may or may not cause rejection of the product. Any zippering on the fruit caused it to be considered a cull in this trial. 'BHN 404', Daiquiri', 'H 106', 'BHN R20', 'Capri' and 'Sunoma' had statistically more zippered fruit than 'H 131', Plum Crimson or 'H 9497' which had the least. Only two cultivars were statistically different from all others, 'BHN 404' and 'H 9497'.

'Red Agate' had significantly more green-shouldered fruit than all other cultivars. The amount of green shoulder became more apparent in the later harvests with this cultivar. Other cultivars with a significant amount of green shoulder were 'H 130', 'H 131', 'H 126', 'H 111', 'Capri', 'PX 151 476', 'PSR 150 377', 'H 134', 'H 106' and 'H 107'. Those with the least green shoulder were 'Daiquiri', 'Plum Crimson', 'Tuscany' and 'H 103'.

The amount of gold flecking increased with each harvest (data not shown). 'Tuscany', 'PSR 150 885', and 'BHN 411' had significantly more gold flecking damage and 'H 126', 'H 131', and 'Red Agate' had the least. The other cultivars were not statistically different from one another. 'H 111' had the most sunburn damage, but was not statistically different from 'H 113', 'BHN 411', 'H 134', 'H 107', 'Capri', or 'Daiquiri'. The remaining cultivars were not statically different from each other except 'H 111'. 'Capri' had the most undersized fruit of all cultivars. 'Hybrid 46' had statistically more fruit rots for all harvests and 'Tuscany' and 'H 107' the least. The other cultivars were not significantly different from one another or the other three. There was no statistical different for cat facing or misshapen fruit.

Several of the cultivars had at least minimal acceptable fruit size (3.0 oz/fruit): 'BHN 404', 'BHN 411', 'H 103', 'H 106', 'H 107', 'H 113', 'H 130', 'H 131', 'H 132', 'H 134', 'HMX 0830', 'Hybrid 46', 'Plum Crimson', 'Plum Dandy', 'PSR 150 377', 'PSR 150 855', 'Puebla', and 'Tuscany'. 'H126', 'Halley 3155', 'PSR 150 721, and 'Sunoma' averaged 3.5 oz. fruit while PX 151 476 averaged 4 oz/marketable fruit which is very large for a plum tomato.

Table 3 summaries the foliage and fruit characteristics for the second harvest. Plants with the best plant vigor were 'H 9497', 'H 132', 'Capri', 'Puebla' and 'H 103, but none of these were the best for fruit cover. 'BHN 411', 'Red Agate' and 'H 126' had the best fruit cover. Statistically most cultivars did not differ from each other.

Firmness was rated on a 1-5 scale with 1=soft and 5=very firm (table 3). Growers are looking for a firm fruit since most are picked blush or riper. 'BHN 411', 'H 106', 'H 107', 'H 111', 'H 126', and 'Tuscany' had very firm fruit. The cultivars with the softest fruit were 'Capri' and 'Puebla.' Most cultivars were medium to firm.

Table 2. Plum tomato yield and fruit size for combined harvests – Tolotti Farms, Vineland, New Jersey – 2002 *(table continues on next page)*

Variety	Source	Total Boxes/A	Marketable Boxes/A	Cull Boxes/A	% Marketable	Fruit Wt. Oz.
BHN 404	BHN	2119	842	1276	40	3.0
BHN 411	BHN	2543	742	1802	29	3.3
BHNR20	BHN	2203	1153	1050	53	2.9
Capri	Stokes	2818	1512	1305	54	2.9

Variety	Source	Total Boxes/A	Marketable Boxes/A	Cull Boxes/A	% Marketable	Fruit Wt. Oz.
Daiquiri	Stokes	2198	1230	967	56	2.8
H 103	Heinz	2037	928	1110	44	3.0
H 106	Heinz	2329	1157	1172	50	3.3
H 107	Heinz	2561	1257	1303	49	3.0
H 111	Heinz	2472	1080	1392	44	2.5
H 113	Heinz	2583	1110	1473	43	3.2
H 126	Heinz	2303	972	1331	42	3.5
H 130	Heinz	1969	688	1280	33	3.3
H 131	Heinz	1622	279	1343	17	3.2
H 132	Heinz	2948	1918	1030	65	3.2
H 134	Heinz	2102	809	1294	36	3.0
Halley 3155	Seedway	1825	929	897	51	3.5
Health Kick	Seminis	2248	1500	748	66	2.9
HMX 0830	Harris Moran	1891	1052	839	55	3.0
Hybrid 46	Seminis	2036	1016	1021	50	3.0
Hybrid 882	Seminis	1816	841	975	47	2.8
Plum Crimson	Harris Moran	2187	821	1366	38	3.3
Plum Dandy	Seedway	1626	652	975	42	3.0
PSR 150 377	Seminis	2291	652	1640	29	3.4
PSR 150 721	Seminis	1897	326	1571	17	3.5
PSR 150 885	Seminis	2105	563	1542	26	3.4
Puebla	Seminis	1825	670	1155	38	3.1
PX 151 476	Seminis	1881	453	1428	24	4.0
Red Agate	Johnny's	2338	928	1410	40	2.9
Sunoma	Seminis	2143	819	1324	38	3.5
Tuscany	Johnny's	2500	976	1524	39	3.4
H 9497	Heinz	2631	1295	1335	50	2.5
HSD 0.05	**----------**	**960**	**629**	**692**	**23**	**0.1**

(Table 2: continued from previous page)

'Capri' and 'H 132' had the best external color and 'H 131' the poorest. Most cultivars had good to very good color. There were little differences among the cultivars for internal color. 'Hybrid 882' and 'H 130' had the best, but was only statistically different from 'Hybrid 46' which had poor color. All cultivars had yellow/red to red jelly color except 'PSR 150 377'and 'Hybrid 46' which were yellow. Internal white tissue is a serious problem for fresh market growers. Three cultivars in particular had severe internal white tissue: 'Sunoma', 'Tuscany' and 'Red Agate'. The three with the least (slight) white tissue were 'Plum Crimson', 'Hybrid 882' and 'H 130'.

Hollow locules will cause the fruit to compress and bruise. Six cultivars had over 30% hollow locules: 'Red Agate', 'H 113', 'H 126', 'H 103', 'Halley 3155' and 'Puebla'. Most cultivars were not statistically different from one another. Five averaged less than one per 15 fruit. They were 'H 9497', BHN R20', 'H 111', 'Health Kick', and 'H 106'.

Fruits averaged 2.5 to 3.4 inches long and 1.6 to 2.2 inches wide. The cultivars with the highest length to width ratio were 'H 131', 'Red Agate' and 'BHN 411' which means these were the more elongated fruit. 'Tuscany', 'H 134', 'HMX 0830', 'H 130' and 'H 132' were the more square fruit. Table 4 summarizes the data for the second evaluation (fourth harvest). Fruit lengths and widths were similar to the first evaluation. 'H 131' and 'Red Agate again had the longest fruit

and ‘H 134’ and ‘Tuscany’ the shortest. The length to width ratio was similar to the first evaluation. ‘Red Agate and ‘H 131 had the highest length to width ratio and ‘Tuscany’, ‘H 134’ and ‘H 126’ were lowest.

The cultivars which had very firm fruit in the second evaluation were ‘H 111’, ‘H 113’, ‘h 126’, ‘H 130’, ‘H 106, ‘H 134’ and ‘Tuscany’. ‘Plum Crimson’, ‘Capri’, and ‘Hybrid 46 had soft fruit. As with the first evaluation most were medium to firm.

‘HMX 0830’, ‘Capri’, ‘Health Kick’, ‘BHN R20’, ‘H 132’, 'Red Agate’, ‘H 126’, and ‘Halley 3155’ had very good to excellent external color while ‘PX 151476’, ‘H 111’, and PSR 150 885’ had poor external color. There were differences between the first evaluation and the second for internal fruit color. At the second, “Plum Dandy’, ‘Capri’ and Plum Crimson’ had very good to excellent internal color. ‘PX 151 476’, ‘Sunoma’, PSR 150 885’, PSR 150 377’ and ‘H 9497’ fair to poor internal color. As with the first evaluation, most cultivars had yellow/red to red jelly color. Three cultivars ‘PSR 150 377’. PSR 150 885’ and PX 151 476’ had yellow jelly color.

More cultivars had no or slight white internal tissue at the second evaluation. This included the three from the first evaluation (‘Plum Crimson’, ‘Hybrid 882’ and ‘H 130’) plus ‘Plum Dandy’, ‘BHN 404’, ‘H 107’ and ‘Halley 3155’. ‘BHN R20’, ‘Tuscany’, ‘HMX 0830’, ‘PSR 150 377’, ‘Health Kick’, ‘PSR 150 721’, ‘H 131’, ‘Daiquiri’ and ‘H 113’ moderately heavy to severe white internal tissue.

Cultivars with a high number of hollow locules (30% or more) included ‘Sunoma’, ‘Health Kick’, ‘Tuscany’ and ‘H 9497’. ‘BHN R20’ and ‘Halley 3155’ had no hollow locules.

SUMMARY

Considering yield, fruit size, plant and fruit characteristics ‘H 132’, ‘H 107’, ‘H 130’ and ‘Plum Dandy’ were the best cultivars in this trial. Other cultivars which show promise include: ‘HMX 0830’, ‘H 113’, ‘Plum Crimson’, ‘Health Kick’, ‘H 126’, ‘H 130’, ‘H 106’, ‘Halley 3155’, ‘Sunoma’, ‘Hybrid 882’, ‘Puebla’ and ‘PSR 150 721.

Table 3. Fruit characteristics and foliage ratings at the second harvest – Tolotti Farms, Vineland, New Jersey – 2002

Variety	Length[1] (in)	Width[1] (in)	L/W[1] Ratio	Fruit Cover[2]	Plant Vigor[2]	Firmness[3]	External Color[4]	Internal Color[4]	Jelly Color[5]	White Tissue[6]	Hollow Locules[7]
BHN 404	2.9	1.6	1.9	2.0	1.3	3.3	3.3	2.7	4.0	3.7	4.3
BHN 411	3.4	1.7	2.0	1.3	2.7	5.0	3.0	3.0	4.0	3.7	3.3
BHNR20	2.9	1.8	1.6	2.3	2.3	3.7	3.0	2.0	3.3	2.3	0.0
Capri	3.0	1.8	1.7	2.0	1.0	2.0	4.7	2.7	4.0	2.7	1.3
Daiquiri	2.9	1.9	1.6	3.3	2.0	3.7	3.3	2.3	4.0	3.3	1.3
H 103	2.9	1.9	1.5	2.3	1.0	3.0	3.7	2.3	4.0	2.3	5.7
H 106	3.3	1.9	1.8	3.0	2.7	5.0	3.0	3.0	5.0	3.3	0.3
H 107	3.3	1.7	1.9	3.7	2.0	5.0	2.7	3.3	5.0	3.3	2.3
H 111	2.9	1.9	1.6	5.0	1.7	5.0	2.3	3.0	4.7	3.7	0.3
H 113	2.9	1.9	1.5	3.7	1.7	4.7	2.7	2.0	5.0	2.7	9.3
H 126	2.8	2.0	1.4	1.7	1.3	5.0	3.0	2.3	5.0	2.3	7.0
H 130	2.7	2.0	1.4	4.7	3.0	3.3	3.7	3.7	4.7	4.0	3.3
H 131	3.4	1.6	2.1	3.3	3.7	4.0	1.0	2.3	4.0	3.0	1.3
H 132	2.8	2.0	1.4	3.0	1.0	3.7	4.3	2.7	4.3	2.7	1.3
H 134	2.5	2.0	1.3	3.0	3.0	4.7	2.3	3.0	4.0	3.0	1.0
Halley 3155	2.8	2.0	1.4	2.0	3.3	4.3	3.0	3.0	4.3	3.0	5.3
Health Kick	2.7	1.9	1.4	2.7	1.7	3.3	3.0	3.0	4.3	2.3	0.3
HMX 0830	2.7	2.0	1.3	2.7	3.0	3.3	3.0	3.0	4.7	3.3	4.0
Hybrid 46	3.2	1.8	1.8	3.0	2.7	3.0	2.0	1.0	3.0	2.7	1.7
Hybrid 882	2.9	1.8	1.6	3.3	1.7	3.0	2.7	3.7	3.7	4.0	0.7
Plum Crimson	2.9	1.9	1.6	2.7	3.7	3.0	2.7	3.0	5.0	4.0	2.3
Plum Dandy	2.7	1.7	1.6	2.3	3.0	3.0	3.0	2.3	4.0	3.3	3.0
PSR 150 377	3.2	2.0	1.6	3.3	1.7	4.0	2.0	2.0	3.0	2.3	1.0
PSR 150 721	2.9	2.0	1.5	2.3	1.7	4.3	3.0	2.7	3.7	3.0	3.3
PSR 150 885	3.3	1.9	1.7	4.0	2.0	3.3	1.7	2.0	3.7	3.0	1.3
Puebla	3.2	1.7	1.8	3.3	1.0	2.7	3.0	3.0	4.0	3.3	5.0
PX 151 476	3.1	2.0	1.6	2.7	1.3	4.3	2.0	2.0	4.0	3.0	3.3
Red Agate	3.4	1.7	2.0	1.3	1.7	3.0	3.3	2.3	4.0	1.3	10.3
Sunoma	3.3	1.9	1.8	3.7	2.0	3.3	3.0	2.0	4.0	1.0	4.7
Tuscany	2.5	2.2	1.2	3.7	2.0	5.0	3.0	2.7	4.7	1.3	4.0
H 9497	3.1	1.7	1.8	4.0	1.0	4.0	3.0	2.3	4.0	2.3	0.0
HSD 0.05	**0.4**	**0.3**	**0.3**	**2.8**	**2.3**	**1.3**	**1.4**	**1.5**	**1.1**	**1.4**	**5.6**

[1] Sample of ten fruit; [2] 1=excellent, 2=very good, 3=moderate, 4=fair, 5=poor; [3] 1=soft, 2=medium soft, 3=medium, 4= firm, 5=very firm;
[4] 1=poor, 2=fair, 3=good, 4=very good, 5=excellent; [5] 1=green, 2=yellow-green, 3=yellow, 4=yellow-red, 5=red;
[6] 1=severe, 2=moderately heavy, 3=moderate, 4=slight, 5=none; [7] Number out of 15 fruit sample

NOTES

Table 4. Fruit characteristics at the fourth harvest – Tolotti Farms, Vineland, NJ –2002

Variety	Length[1] (in)	Width[1] (in)	L/W[1] Ratio	Firm-ness[3]	External Color[4]	Internal Color[4]	Jelly Color[5]	White Tissue[6]	Hollow Locules[7]
BHN 404	3.2	1.8	1.8	2.0	2.3	3.7	4.0	4.0	0.3
BHN 411	3.1	1.9	1.7	3.0	2.7	2.7	4.0	3.3	0.3
BHNR20	2.8	1.8	1.6	3.0	4.0	3.0	3.3	1.3	0.0
Capri	2.7	1.7	1.6	1.0	5.0	4.7	3.3	3.0	0.7
Daiquiri	2.8	1.8	1.5	4.0	2.3	2.7	3.3	3.3	1.0
H 103	2.8	1.9	1.4	4.3	3.3	2.7	4.7	2.3	2.0
H 106	3.2	1.9	1.6	5.0	2.3	3.0	4.7	3.0	2.3
H 107	3.1	1.8	1.7	4.0	3.0	3.0	5.0	4.0	0.3
H 111	2.7	1.9	1.4	5.0	1.0	2.7	4.7	3.3	4.0
H 113	2.7	2.0	1.4	5.0	1.7	2.7	4.0	2.3	0.7
H 126	2.6	2.1	1.2	5.0	3.7	3.3	5.0	3.3	3.3
H 130	2.7	1.9	1.4	5.0	3.3	3.7	4.0	4.0	3.0
H 131	3.4	1.8	1.9	4.0	2.0	2.7	4.3	2.3	1.0
H 132	2.7	2.0	1.4	3.0	4.0	3.0	4.7	3.3	3.3
H 134	2.4	2.0	1.2	5.0	2.3	3.3	5.0	3.0	4.7
Halley 3155	2.7	1.9	1.4	3.0	3.7	2.7	4.0	4.0	0.0
Health Kick	2.5	1.8	1.4	2.0	4.7	3.0	4.3	2.0	7.7
HMX 0830	2.6	2.0	1.3	3.3	5.0	3.3	3.3	1.3	2.0
Hybrid 46	3.1	1.7	1.8	1.3	3.0	2.7	3.3	3.0	2.0
Hybrid 882	2.7	1.7	1.5	1.7	3.0	3.3	3.3	4.3	2.7
Plum Crimson	2.7	1.8	1.5	1.0	3.0	4.3	5.0	5.0	1.0
Plum Dandy	2.7	1.8	1.5	3.0	2.7	5.0	4.0	5.0	0.3
PSR 150 377	3.0	1.8	1.7	3.3	2.0	1.7	3.0	1.7	0.3
PSR 150 721	2.9	1.9	1.5	3.0	2.3	3.0	3.7	2.3	1.0
PSR 150 885	3.0	1.7	1.8	3.0	1.3	1.3	3.0	3.3	4.0
Puebla	3.1	1.8	1.8	2.0	3.0	2.7	4.3	3.7	1.7
PX 151 476	2.9	2.1	1.3	3.7	1.0	1.3	3.0	3.0	2.0
Red Agate	3.2	1.7	1.9	2.3	4.0	3.0	4.0	2.7	0.3
Sunoma	3.1	1.8	1.7	2.7	1.7	1.3	3.3	2.7	9.7
Tuscany	2.4	2.1	1.1	4.7	2.7	3.0	4.0	1.3	5.7
H 9497	2.9	1.7	1.7	2.3	3.0	2.0	3.3	3.0	5.0
HSD %	**0.3**	**0.2**	**0.2**	**1.0**	**1.4**	**1.6**	**1.3**	**1.9**	**4.6**

[1]Sample of ten fruit;
[2] 1=excellent, 2=very good, 3=moderate, 4=fair, 5=poor;
[3] 1=soft, 2=medium soft, 3=medium, 4=firm, 5=very firm;
[4] 1=poor, 2=fair, 3=good, 4=very good, 5=excellent;
[5] 1=green, 2=yellow-green, 3=yellow, 4=yellow-red, 5=red;
[6] 1=severe, 2=moderately heavy, 3=moderate, 4=slight, 5=none;
[7] Number out of 15 fruit sample