

PERFORMANCE OF BELL PEPPER VARIETIES OVER TWO SEASONS IN SOUTHEAST FLORIDA, 2000-2002

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Abstract. Three demonstration trails were conducted to evaluate promising bell pepper varieties on sandland in Boynton Beach and Boca Raton, Fla. Peppers were grown on sandy soil from

transplants under commercial full bed plastic mulch culture using subsurface seepage irrigation. Sixty-two different varieties were evaluated at least once. Mature green fruit were evaluated from four blocks and an additional block was reserved for the evaluation of ripening fruit as they turned red or yellow. Peppers were evaluated for yield and average fruit size. Randomly selected fruit from multiple picks were evaluated for length and width, lobe number, and bluntness at the blossom end. Ripe (colored) fruit were counted, weighed and evaluated for deformities including softness, misshapen, rot, sunburn, and stip.

Introduction

The value of fresh market green bell peppers (*Capsicum annuum* L.) grown in Florida was \$232 million for the 2000-01 season (Fla. Agric. Stat. Serv., 2002). During that season 21.7 million 28-lb bushels were harvested from 18,200 harvested acres for an average yield of 1,195 bushels per acre. The average price per bushel was \$10.71. Pepper production is concentrated in south Florida. Bacterial spot, caused by *Xanthomonas campestris* pv. *vesicatoria*, is one of the most widespread and serious diseases affecting production of pepper in Florida (Pernezny et al., 1998; Pohronezny et al., 1993). Pep-

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per varieties with resistance to races 1, 2, and 3 of the pathogen are now commercially available and seed companies continue to develop new cultivars with resistance to this disease (Shuler, 1993, 1995, 1996, 1997, 1998, 1999; Shuler et al., 2000). Three variety demonstrations were conducted over the past two seasons to compare yield potential and plant and fruit characteristics of bell pepper varieties, preferably with resistance to bacterial spot (Shuler, 2001, 2002).

Materials and Methods

All of the varieties were resistant to bacterial spot races 1, 2, and 3 except 'PR 93-2-1', which was resistant to race 2 only. Varieties were replicated in a randomized complete block design with four replications for evaluation of mature green peppers and one block for evaluation of ripe red or yellow peppers. Blocks were single raised beds that had been fumigated with methyl bromide/chloropicrin or Telone C-35 and covered with polyethylene mulch. Transplants were set two rows per bed in rows 18 inches apart and plants were staked and tied. Subsurface seepage irrigation was used. Color of plastic used, bed spacing, within-row plant spacing, plant population, and fumigation varied with the grower (Table 1). Diseases, insects, and weeds were managed by the growers.

Transplants were grown by LaBelle Plant World, LaBelle, Fla. Dead and dying or weakened transplants were counted within 15 d of transplanting and replaced with original transplants. Plots were monitored for either dead or weakened plants through out the growing season and at each harvest. Green peppers were picked and marketable fruit were counted and weighed. At first harvest or first and second harvest, 10 peppers each from two blocks were randomly selected and measured for length and width. The number of lobes were counted, and the number of fruit having a pointed or blunt blossom end were recorded. Incidence of bacterial spot was generally low and plants were not rated for the disease.

Colored peppers were evaluated from one block. Colored fruit were counted and weighed and evaluated for softness (shriveling), sunburn, flat and misshapen, wet and dry rot, stip, and for being completely colored with no green showing.

Fall 2000, transplanted 25 Nov. 1998, DuBois Farms, Packinghouse Farm, Boynton Beach, Fla. The demonstration had five blocks with beds spaced 6 ft apart and plots 8 ft long. Soil type was a Riviera sand. Beds were fumigated with methyl bromide/chloropicrin and covered with white on black polyethylene mulch. Plants were seeded 14 Aug. and were 44 d old when transplanted on 27 Sept. Within-row plant spacing was 8 inches (12 plants per row or 24 plants per plot, 21,780 plants per acre). Plants were staked and tied twice. Green peppers were picked twice: 18 and 27 Dec. 2000, a 9-d period. Red and yellow fruit were picked three times from the fifth block: 11, 22, and 31 Jan. 2001, a 20-d period.

Weather was considered favorable for crop growth. Late December and early January weather was colder than normal. The field was covered at least once with polypropylene row-cover to protect the crop from the threat of frost. The south end of the beds were shaded by a hedge row of Australian pine trees planted along the ditch bank, which was separated from the field by a field road. Plants received supplemental fertilizer several times along the top and sides of the beds via a fertilizer injector wheel. Plant height was measured from one block on 15 Dec. as the distance from the top of the bed to the average height of the top leaves.

Winter 2000, transplanted 13 Dec. 2000, Thomas Produce, Horse Farm, Boca Raton, Fla. The demonstration had five blocks with beds spaced 5 ft apart and plots 10.5 ft long. Soil type was a Myakka sand. Beds were fumigated with methyl bromide/chloropicrin 67/33 and covered with black polyethylene mulch. Plants were seeded 30 Oct. and were 44 d old when transplanted on 19 Dec. Within-row plant spacing was 10.5 inches (12 plants per row or 24 plants per plot, 19,913 plants per acre). Plants were staked and tied. Green peppers were picked three times: 22 Mar., 11 Apr., and 4 May 2000, a 43-d period. Red and yellow fruit were picked three times from the fifth block: 5 and 17 Apr. and 1 May 2000, a 26-d period.

Weather was considered favorable for crop growth. The entire East Coast production area was experiencing drought conditions during the winter and spring. Most farms were able to maintain the desired subsurface seepage irrigation levels. However, more rainfall would have been helpful to enhance surface soil moisture in the plant holes and alleys. Because of U.S. 441 highway construction, water flow in the perimeter canal on the east side of the farm next to the demonstration area was occasionally interrupted, resulting in lower water levels and temporary wilting of plants, especially plants in beds near the center of the block (replication 3 for colored pepper and the inside bed of replications 2 and 4). A heavy rain occurred on 19 Mar., 3 d before first pick (2.93 inches, based on rainfall totals for the three closest South Florida Water Management District rain gauge sites). Some plants began dying from Pythium and Phytophthora infection, which was most noticeable by third pick when plant stand for some varieties was reduced by 50% or more. Severely damaged and wilted plants were pulled out at each pick.

Fall/winter 2001, transplanted 26 Nov. 2001, Thomas Produce, Horse Farm, Boca Raton, Fla. The demonstration had five blocks with beds spaced 5 ft apart and plots 9.5 ft long. This demonstration was conducted in the same block as the 2000 demonstration. The soil type was a Myakka sand. Beds were fumigated with Telone C-35 and covered with black polyethylene mulch. Plants were seeded 28 Sept. and were 59 d old when transplanted on 26 Nov. Note: Initial intentions were to transplant on 13 Nov. when the plants would have been 46 d old. Within-row plant spacing was 9.5 inches (12 plants per

Table 1. Summary of horticultural practices for bell pepper variety demonstrations in southeast Florida, 2000-2002.

Demonstration	Bed spacing (ft)	Within-row spacing (inches)	Plants per acre	Fumigant	Transplant date	Days to first harvest	No. of harv. green/colored	Green harvest period	Harvest duration (d)
2000-2001 DuBois	6	8	21,780	MB/ch	27 Sept.	82	2/3	18 Dec.-27 Dec.	9
2000-2001 Thomas	5	10.5	19,913	MB/ch	13 Dec.	99	3/3	22 Mar.-4 May	43
2001-2002 Thomas	5	9.5	23,232	Tel C-35	26 Nov.	86	3/4	20 Feb.-29 Mar.	37

row or 24 plants per plot, 22,009 plants per acre). Plants were staked and tied. Green peppers were picked three times: 20 Feb., 6 and 29 Mar. 2002, a 37-d period. Red and yellow fruit were picked four times from the fifth block: 7, 13, 21, and 29 Mar. 2002, a 22-d period. Weather was considered favorable for crop growth.

Results and Discussion

Fall 2000, DuBois Farms, mature green fruit. Varieties in Tables 2 and 3 for green harvest are listed in order according to total yield. All of the varieties had resistance to bacterial spot races 1, 2, 3 except 'PR 93-2-1', which only had resistance to race 2. Total yield is an important consideration, but not the only one for choosing a pepper variety to grow. Since this trial was only picked twice, a variety's ability to pick over an extended period was not determined. However, a variety with a concentrated early yield such as 'Olympus' could be determined. This was in contrast to several varieties that had almost equal amounts of pepper for both picks: 'ACX 223', 'X3R Aladdin', and 'PR99Y-4'.

Over the last 15 years, as hybrid varieties have been developed, pepper fruit size has continued to increase, which is one reason for the increase in yields. Average fruit size is indicated by fruit per carton, which is the number of pepper (fruit count) that weighs 25 lb. Compared to the average fruit size of the older open pollinated varieties, most current varieties have acceptable fruit size. Varieties with the largest size fruit included 'Olympus', 'Aristotle', 'Orion', 'X3R Wizard', 'PR 99Y-3', 'PR99R-4', 'Lafayette', 'PS 713296', 'ACX 226', and 'PR 93-2-1' (46 to 52 fruit per 25-lb carton).

Blocky to slightly elongated fruit shape is generally desired. Pepper fruit should have at least three lobes and preferably four, with distinct lobe indentations at the blossom end. Fruit with two or five lobes and fruit having a blunt or pointed blossom end, with little indentation, are not desired, though they still may be saleable. These characteristics were determined for first pick from two replications. Ten fruit per replication, representing 12-25% of the total fruit were randomly selected for evaluation. It would be ideal to evaluate all fruit, but logistics did not allow this. First pick, which includes mostly crown fruit, usually produces large fruit with good shape and lobe formation. The tendency for poor lobe formation (fewer four lobed fruit and more blunt or pointed fruit) and flattened fruit (width longer than length) usually increases at later picks. Some other characteristics that are important to growers but which were not evaluated include color, wall thickness, and tendency to bruise.

Fall 2000, DuBois Farms, red and yellow ripe fruit. Results for the one replication of red or yellow fruit (Tables 4-7) are listed in order according to yield, which was both marketable and fully colored. In the process of picking ripe fruit for color, the goal was always to pick all fruit that were fully colored and of a marketable size, including obvious culls. Invariably, fruit were picked that had small blotches of green that were shielded from view. Some fruit that had no green coloration but which had mixes of red and chocolate coloration were also picked. Also, some fruit were picked that were not fully colored but which were already softening ('soft sides'), meaning that they were already unmarketable although they had not reached full color. The incidence of soft sides could be partly reduced by picking more often or by picking fruit that were not fully colored and allowing them to finish ripening off the plant.

Culls were separated and counted by type and were included in the count of fully colored fruit. Where a fruit had more than one flaw (usually misshapen, flat, or soft rot along with having soft sides), the pepper would be counted for the primary flaw and not included in the count for having soft sides.

Most of the varieties did not have an excessive amount of culls. The lower yielding varieties (fully colored and marketable pepper) had a low percentage of fully colored fruit. The five top yielding red varieties ['1070c', 'X3R Red Knight', '570774', 'Double Up' (SPP 6112), and 'HMX 9646'] and the two top yielding yellow varieties ['Golden Sun' (959) and 'Early Sunation'] all had 80% or greater fully colored fruit.

Winter 2000, Thomas Produce, mature green fruit. Varieties in Tables 8-11 for green harvest are listed in order according to total yield. All of the varieties had resistance to bacterial spot races 1, 2, 3 except 'PR 93-2-1', which only had resistance to race 2. Total yield is an important consideration, but not the only one for choosing a pepper variety. This trial was picked three times over a period of 43 d so is an indication of how a variety would pick over a moderately long season. Several varieties still had concentrated early yields; two had yields of over 2,000, 25-lb cartons per acre on the first pick: 'Olympus' and 'Orion'.

Varieties with the largest size fruit included 'Orion', 'Olympus', 'PR 99Y-3', 'Aristotle', 'Bennington', 'PS 713296', '573179', 'ACX 226', 'PR 93-2-1', 'PR 99R-2', and 'Defiance' (48 to 56 fruit per 25-lb carton). Among the top ten yielding varieties, there were two with smaller than average size fruit, 'HMX 9646' and 'ACX 223', both averaging over 65 fruit per carton.

Blocky to slightly elongated fruit shape is generally desired. Peppers should have at least three lobes and preferably four, and should have distinct lobe indentations at the blossom end. Fruit with two or five lobes and fruit having a blunt or pointed blossom end, with little indentation, are not desired, though they still may be saleable. These characteristics were determined for pick #1 and pick #2 from two replications. Ten fruit per replication were randomly selected for evaluation, representing approximately 8-12% of first pick fruit and 25 to 50% of second pick fruit. It would be ideal to evaluate all fruit, but logistics did not allow this. First pick, which includes mostly crown fruit, usually produces large fruit with good shape and lobe formation. The tendency for poor lobe formation (fewer four-lobed fruit and more blunt or pointed fruit) and flattened fruit (greater width than length) usually increases at later picks.

Among standard bell types, varieties with the longest proportional fruit length (greatest length to width ratio for first pick) were 'ACX 223' (1.32), '570774' (1.16), '8125' (1.14), 'ACX 209' (1.13), 'Commandant' (1.13), and 'Ss 830' (1.12). Varieties with the most flattened fruit (smallest length to width ratio for first pick) were 'Sentry' (0.74) and 'Lafayette' (0.82). Fruit proportions of all other standard varieties fell between these two ranges.

Seventeen of the 30 top yielding varieties averaged 90% or higher 3- and 4-lobed fruit for the first two picks. For the first two picks, five varieties had 20% or more 5-lobed fruit, which would be less than desirable: 'Orion', '744', 'PS 713296', 'X3R Red Knight', and 'X3R Aladdin'. Some other characteristics that are important to growers but which were not evaluated include color, wall thickness, and tendency to bruise.

Winter 2000, Thomas Produce, red and yellow ripe fruit. Results for the one replication of colored (red or yellow) fruit

Table 2. Summary of yield for a bell pepper variety demonstration, DuBois Farms, Packinghouse farm, Boynton Beach, Fla., fall/winter, 2000-01.^z

Plot cultivar	Seed source	Bact. spot resist. (race)	Yield (25-lb cartons per acre)			Size (fruit per 25-lb carton)			Fruit per plant	% plant stand	Plant height (inches) ^y	
			18 Dec.	27 Dec.	Total	Pick #1	Pick #2	Avg.				
45	Olympus, 31702	Enza	1,2,3	1686	276	1962	44.5	60.1	46.7	4.21	100	19
19	PR 93-2-1	Pepper Res.	2	1410	423	1833	48.3	65.8	52.3	4.4	100	20
44	Orion	Enza	1,2,3	1284	539	1824	44.7	62.8	50.1	4.19	100	21
42	573179x	Western Seed	1,2,3	1241	545	1786	54.8	83.3	63.5	5.21	100	20
32	X3R Wizard	Petoseed	1,2,3	1260	523	1783	45.4	66.4	51.6	4.23	100	19
28	Bennington, 2670168	Asgrow	1,2,3	1457	302	1758	51.3	80.4	56.3	4.54	100	22
27	12293	Asgrow	1,2,3	1311	446	1757	50.3	71.9	55.8	4.5	100	22.5
23	PR 99R-11	Pepper Res.	1,2,3	1298	444	1743	49	67.4	54	4.32	100	19
50	ACX 228	A&C	1,2,3	1188	555	1743	50.9	70.3	57.1	4.57	100	21
15	SPP 7118	Sakata	1,2,3,5	1229	514	1742	48.7	78.3	57.5	4.6	100	20
20	PR 99R-2	Pepper Res.	1,2,3	1323	408	1731	47.5	75.6	54.2	4.3	100	23.5
39	Enterprise ^w	Asgrow	1,2,3	1134	597	1731	50.4	66.9	56.1	4.55	98	21
1	ACX 209	A&C	1,2,3	1336	386	1722	53	71.3	57.1	4.51	100	20
49	ACX 223	A&C	1,2,3	865	838	1704	55.9	72.2	63.9	5	100	23
33	Aristotle, PS 7273823	Petoseed	1,2,3	1471	230	1701	44.4	64.4	47.1	3.68	100	17
18	Boynton Bell	Pepper Res.	1,2,3	1285	405	1690	52.8	76.1	58.4	4.53	100	19
12	Sentry, 4187	Rogers	1,2,3	1319	368	1687	49.3	70.7	54	4.18	100	18
26	Defiance, 12292	Asgrow	1,2,3	1305	376	1681	50.1	62	52.7	4.07	100	19
7	Brigadier, 4153	Rogers	1,2,3	1424	245	1669	52.1	84.1	56.8	4.35	100	21
21	PR 99R-4	Pepper Res.	1,2,3	1338	324	1662	47.3	70.1	51.7	3.95	100	20
11	Legionnaire, 6089	Rogers	123	1047	575	1621	49.4	72.6	57.7	4.29	100	21
9	Crusader, 6110	Rogers	1,2,3	1160	455	1615	48.3	74.4	55.6	4.13	100	23
30	X3R Red Knight, 213896	Petoseed	123	1057	545	1602	53	76.2	60.8	4.51	99	20
34	PS 713296	Petoseed	1,2,3	1167	432	1599	45.3	68.7	51.7	3.79	100	18
3	ACX 226	A&C	1,2,3	1206	392	1598	49.2	60.8	52	3.82	100	21
22	PR 99R-7	Pepper Res.	1,2,3	945	641	1587	49	69.3	57.2	4.17	100	17
41	570774	Western Seed	1,2,3	1135	403	1538	53	82.6	60.8	4.29	100	23
17	XPP 8125	Sakata	1,2,3	977	559	1536	53.2	78.4	62.4	4.4	100	22
13	Double Up, SPP 6112	Sakata	1,2,3	1158	372	1530	54.1	72.5	58.5	4.11	100	18
5	ACX 230	A&C	1,2,3	881	643	1524	50.8	71.6	59.6	4.17	100	22
6	Ssweet 830, P201	A&C	1,2,3	1214	282	1495	50.8	77.3	55.9	3.83	100	22
46	1070c	Hazera	1,2,3	967	520	1487	54.4	71	60.2	4.11	100	22.5
53	HMX 9646	Harris-Moran	1,2,3,5	734	752	1486	61.4	81.2	71.5	4.94	99	20
29	X3R Camelot	Petoseed	1,2,3	1011	474	1485	54.1	70.8	59.5	4.05	100	19
14	SPP 7117	Sakata	1,2,3	889	585	1474	48	69.8	56.6	3.83	100	19
47	744	Hazera	1,2,3	1102	371	1473	55.7	68.5	59	3.99	100	19
8	Commandant, 3085	Rogers	1,2,3	831	636	1467	48.4	68.5	57.1	3.85	100	23.5
4	ACX 229	A&C	1,2,3	905	560	1465	50.9	74.5	60	4.03	100	22
31	X3R Sir Galahad, 223796	Petoseed	1,2,3	1045	361	1406	52.1	74.6	57.9	3.74	100	19
16	XPP 8124	Sakata	1,2,3,5	826	540	1366	49.8	72.7	58.9	3.69	100	20
40	570594	Western Seed	1,2,3	858	494	1353	64.1	81.7	70.5	4.38	100	21

^zAverage of three replications. Single bed plots, 6 ft × 8 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 21,780 plants per acre (8 inch within-row spacing). Transplanted 27 Sept. 2000 (transplants grown by LaBelle Plant World); 82 d to first pick.

^yPlant height measured from the bed top to the top of an average sized plant, rep 1, 15 Dec. 2000.

^xAverage of two replications, three replications for all others.

^wAverage of one replication.

Table 2. (Continued) Summary of yield for a bell pepper variety demonstration, DuBois Farms, Packinghouse farm, Boynton Beach, Fla., fall/winter, 2000-01.^z

Plot cultivar	Seed source	Bact. spot resist. (race)	Yield (25-lb cartons per acre)			Size (fruit per 25-lb carton)			Fruit per plant	% plant stand	Plant height (inches) ^y	
			18 Dec.	27 Dec.	Total	Pick #1	Pick #2	Avg.				
Yellow varieties												
35	X3R Aladdin ^w	Petoseed	1,2,3	778	876	1654	53.6	75.6	65.3	4.96	100	19
10	Lafayette, 5044	Rogers	1,2,3	1178	471	1649	44.9	68.8	51.7	3.92	100	22
24	PR 99Y-3	Pepper Res.	1,2,3	1282	359	1642	46.2	70.7	51.6	3.94	99	21
36	X3R Chalice, 214596	Petoseed	1,2,3	1144	488	1632	51	74.9	58.2	4.36	100	17.5
25	PR 99Y-4	Pepper Res.	1,2,3	892	734	1626	54.2	76.7	64.4	4.8	100	20
48	Golden Sun, 959	Hazera	1,2,3	1204	411	1615	57.3	81.6	63.5	4.71	100	22
37	Early Sunsation	Petoseed	1,2,3	1283	327	1610	51.6	75.8	56.5	4.21	99	18
2	ACX 217 Y	A&C	1,2,3	1227	336	1563	48.1	72.1	53.2	3.82	100	18
Elongated types												
43	529800872 ^w	Western Seed	1,2,3	1240	576	1817	47.4	63	53.1	4.43	100	22
38	X3R Key West (Cubanelle)	Petoseed	1,2,3	714	653	1367	82	111.1	95.9	6.02	100	22

^zAverage of three replications. Single bed plots, 6 ft × 8 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 21,780 plants per acre (8 inch within-row spacing). Transplanted 27 Sept. 2000 (transplants grown by LaBelle Plant World); 82 d to first pick.

^yPlant height measured from the bed top to the top of an average sized plant, rep 1, 15 Dec. 2000.

^xAverage of two replications, three replications for all others.

^wAverage of one replication.

Table 3. Pepper fruit characteristics from a variety demonstration, DuBois Farms, Packinghouse Farm, Boynton Beach, Fla., fall/winter, 2000.²

Plot variety	Seed source	Length × width (inches)	Ratio l × w ³	% 3 or 4 lobes	Avg. no. lobes	Percent				% blunt ⁴	
						3-lobes	4-lobes	5-lobes	2-lobed		
45	Olympus, 31702	Enza	3.74 × 3.68	1.02	90	3.85	25	65	10	0	15
19	PR 93-2-1	Pepper Res.	3.75 × 3.81	0.98	100	3.60	40	60	0	0	5
44	Orion	Enza	3.74 × 3.77	0.99	95	3.75	30	65	5	0	0
42	573179 ^w	Western	4.31 × 3.24	1.33	95	3.65	40	55	5	0	10
32	X3R Wizard	Petoseed	3.84 × 3.47	1.11	100	3.50	50	50	0	0	0
28	Bennington, 2670168	Asgrow	3.75 × 3.76	1.00	100	3.65	35	65	0	0	5
27	12293	Asgrow	4.08 × 3.25	1.26	95	3.20	85	10	5	0	20
23	PR 99R-11	Pepper Res.	4.03 × 3.45	1.17	100	3.35	65	35	0	0	10
50	ACX 228	A&C	4.33 × 3.31	1.31	95	3.25	65	30	0	5	15
15	SPP 7118	Sakata	3.73 × 3.58	1.04	100	3.50	50	50	0	0	0
20	PR 99R-2	Pepper Res.	3.79 × 3.81	0.99	100	3.35	65	35	0	0	5
39	Enterprise ^w	Asgrow	3.27 × 3.56	0.92	100	3.20	80	20	0	0	10
1	ACX 209	A&C	4.14 × 3.42	1.21	90	3.55	55	35	10	0	10
49	ACX 223	A&C	4.66 × 3.11	1.50	95	3.45	60	35	5	0	35
33	Aristotle, PS 7273823	Petoseed	3.79 × 3.79	1.00	90	3.50	45	45	5	5	0
18	Boynton Bell	Pepper Res.	3.90 × 3.39	1.15	100	3.20	80	20	0	0	25
12	Sentry, 4187	Rogers	3.53 × 3.63	0.97	100	3.40	60	40	0	0	0
26	Defiance, 12292	Asgrow	3.83 × 3.59	1.07	95	3.20	70	25	0	5	5
7	Brigadier, 4153	Rogers	3.63 × 3.65	0.99	85	3.85	30	55	15	0	0
21	PR 99R-4	Pepper Res.	3.92 × 3.56	1.10	95	3.70	35	60	5	0	10
11	Legionnaire, 6089	Rogers	3.82 × 3.45	1.11	100	3.47	53	47	0	0	5
9	Crusader, 6110	Rogers	3.60 × 3.76	0.96	95	3.75	30	65	5	0	0
30	X3R Red Knight, 213896	Petoseed	3.91 × 3.45	1.13	90	3.90	20	70	10	0	0
34	PS 713296	Petoseed	3.79 × 3.67	1.03	90	4.00	10	80	10	0	5
3	ACX 226	A&C	4.27 × 3.67	1.16	100	3.55	45	55	0	0	0
22	PR 99R-7	Pepper Res.	3.98 × 3.59	1.11	100	3.50	50	50	0	0	0
41	570774	Western	4.46 × 3.23	1.38	100	3.35	65	35	0	0	30
17	XPP 8125	Sakata	4.17 × 3.20	1.30	95	3.50	55	40	5	0	0
13	Double Up, SPP 6112	Sakata	4.05 × 3.30	1.23	95	3.35	55	40	0	5	0
5	ACX 230	A&C	4.07 × 3.29	1.24	95	3.32	58	37	0	5	26
6	Ssweet 830, P201	A&C	3.97 × 3.39	1.17	100	3.55	45	55	0	0	0
46	1070c	Hazera	3.52 × 3.45	1.02	100	3.45	55	45	0	0	15
53	HMX 9646	Harris-M	3.32 × 3.38	0.98	100	3.30	70	30	0	0	10
29	X3R Camelot	Petoseed	4.12 × 3.29	1.25	95	3.35	55	40	0	5	5
14	SPP 7117	Sakata	4.22 × 3.33	1.27	100	3.30	70	30	0	0	0
47	744	Hazera	3.30 × 3.31	1.00	90	3.80	30	60	10	0	5
8	Commandant, 3085	Rogers	4.63 × 3.12	1.48	100	3.25	75	25	0	0	35
4	ACX 229	A&C	4.04 × 3.46	1.17	95	3.30	60	35	0	5	25
31	X3R Sir Galahad, 223796	Petoseed	3.71 × 3.48	1.07	90	3.85	25	65	10	0	5
16	XPP 8124	Sakata	3.45 × 3.70	0.93	100	3.40	60	40	0	0	0

²Average of three replications. Single bed plots, 6 ft × 8 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 21,780 plants per acre (8 inch within-row spacing). Transplanted 27 Sept. 2000 (transplants grown by LaBelle Plant World); 82 d to first pick. Average of 20 fruit, 10 each from blocks 2&3, pick #1, 18 Dec. 2000.

³Scale: 1.00 = blocky, width same as length. >1.00 = degree of elongation, length greater than width. <1.00 = degree of flatness, length less than width.

⁴Blunt or "bull-nosed" at the blossom end, often lacking distinct lobe development.

^wAverage of two replications, three replications for all others.

^vAverage of one replication.

^uObservational variety, one replication.

Table 3. (Continued) Pepper fruit characteristics from a variety demonstration, DuBois Farms, Packinghouse Farm, Boynton Beach, Fla., fall/winter, 2000.^z

Plot variety	Seed source	Length × width (inches)	Ratio l × w ^y	% 3 or 4 lobes	Avg. no. lobes	Percent				
						3-lobes	4-lobes	5-lobes	2-lobed	% blunt ^x
40 570594	Western	3.75 × 3.22	1.16	100	3.30	70	30	0	0	45
51 529801080 ^u	Western	3.61 × 3.07	1.18	93	3.47	60	33	7	0	7
Yellow varieties										
35 X3R Aladdin ^v	Petoseed	3.90 × 3.47	1.12	100	3.50	50	50	0	0	0
10 Lafayette, 5044	Rogers	3.71 × 3.87	0.96	94	3.44	44	50	0	6	0
24 PR 99Y-3	Pepper Res.	4.11 × 3.69	1.11	100	3.40	60	40	0	0	0
36 X3R Chalice, 214596	Petoseed	3.62 × 3.59	1.01	100	3.60	40	60	0	0	0
25 PR 99Y-4	Pepper Res.	3.77 × 3.26	1.16	100	3.50	50	50	0	0	0
48 Golden Sun, 959	Hazera	3.58 × 3.27	1.09	95	3.65	40	55	5	0	0
37 Early Sunsation	Petoseed	3.51 × 3.39	1.04	95	3.45	60	35	5	0	0
2 ACX 217 Y	A&C	3.85 × 3.80	1.01	100	3.50	50	50	0	0	0
Elongated types										
43 529800872 ^w	Western	5.04 × 3.13	1.61	90	3.10	70	20	0	10	10
38 X3R Key West (Cubanelle)	Petoseed	6.78 × 2.47	2.74	90	3.00	80	10	0	10	0
52 529801984 ^u	Western	5.95 × 2.80	2.13	85	2.95	75	10	0	15	35

^zAverage of three replications. Single bed plots, 6 ft × 8 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 21,780 plants per acre (8 inch within-row spacing). Transplanted 27 Sept. 2000 (transplants grown by LaBelle Plant World); 82 d to first pick. Average of 20 fruit, 10 each from blocks 2&3, pick #1, 18 Dec. 2000.

^yScale: 1.00 = blocky, width same as length. >1.00 = degree of elongation, length greater than width. <1.00 = degree of flatness, length less than width.

^xBlunt or "bull-nosed" at the blossom end, often lacking distinct lobe development.

^vAverage of two replications, three replications for all others.

^wAverage of one replication.

^uObservational variety, one replication.

Table 4. Colored fruit (red/yellow), summary of yield and fruit characteristics, pepper variety demonstration, DuBois Farms, Packinghouse Farm, Boynton Beach, Fla., fall/winter, 2000.^z

Plot	Variety	Seed source	Yield (25-lb cartons per acre)			Fully color (%) ^v	Market-able fruit per carton (%) ^u	Culls (%)						Plant stand (%)	
			Total ^y	Market-able ^x	Colored & market. ^w			Soft side	Soft rot	Flat	Miss-shapen	Sunburn	Stip		Total
Red varieties															
46	1070c	Hazera	1641	1578	1310	83.0	59.2	0.9	0	0	0.0	0.0	1.9	2.8	100
30	X3R Red Knight, 213896	Petoseed	1706	1584	1297	81.9	55.0	1.0	1	0	6.7	0.0	0.0	8.6	100
41	570774	Western	1603	1457	1240	85.1	52.3	0.0	0	0	4.3	0.0	6.4	10.7	100
13	Double Up, SPP 6112	Sakata	1526	1463	1203	82.2	53.3	2.2	0	0	2.2	0.0	0.0	4.4	100
53	HMX 9646	Harris-M	1477	1412	1163	82.4	63.6	0.0	0	0	5.6	0.0	0.0	5.6	100
39	Enterprise	Asgrow	1698	1610	1143	71.0	53.0	1.0	0	0	5.0	0.0	0.0	6.0	100
42	573179	Western	1450	1314	1122	85.4	53.2	0.0	0	0	13.0	0.0	0.0	13.5	100
26	Defiance, 12292	Asgrow	1549	1478	1091	73.8	49.1	1.2	0	0	3.6	0.0	0.0	4.8	100
15	SPP 7118	Sakata	1586	1418	1035	73.0	48.6	3.4	0	4	6.7	0.0	0.0	14.6	100
12	Sentry, 4187	Rogers	1530	1275	1023	80.2	51.2	10.0	0	3	2.3	0.0	0.0	16.3	100
40	570594	Western	1406	1331	1012	76.0	66.1	0.0	0	0	5.8	0.0	0.0	5.8	100
17	XPP 8125	Sakata	1387	1310	994	75.9	57.5	2.3	1	0	1.1	0.0	0.0	4.7	97
7	Brigadier, 4153	Rogers	1377	1312	935	71.3	51.9	0.0	0	0	6.3	0.0	0.0	6.3	100
9	Crusader, 6110	Rogers	1306	1288	920	71.4	43.7	0.0	0	0	1.6	0.0	0.0	1.6	100
11	Legionnaire, 6089	Rogers	1260	1247	904	72.5	49.5	0.0	0	0	1.4	0.0	0.0	1.5	100
28	Bennington, 2670168	Asgrow	1659	1618	901	55.7	48.2	0.0	2	0	0.0	0.0	0.0	2.3	100
45	Olympus, 31702	Enza	1916	1887	870	46.1	41.8	0.0	1	0	1.1	0.0	0.0	2.2	100
33	Aristotle, PS 7273823	Petoseed	1297	1277	830	65.0	41.9	0.0	2	0	0.0	0.0	0.0	1.7	100
27	12293	Asgrow	1775	1724	829	48.1	53.2	0.0	0	0	2.9	0.0	0.0	2.9	100
31	X3R Sir Galahad, 223796	Petoseed	1533	1533	812	53.0	49.1	0.0	0	0	0.0	0.0	0.0	0.0	100
16	XPP 8124	Sakata	1347	1170	745	63.7	52.7	2.5	0	10	1.3	1.3	0.0	15.1	100
18	Boynton Bell	Pepper Res.	1447	1349	727	53.9	54.5	0.0	1	2	4.5	0.0	0.0	7.8	100
47	744	Hazera	1229	1156	723	62.5	53.4	0.0	0	0	0.0	0.0	5.6	5.6	100
6	Ssweet 830, P201	A&C	1065	1065	699	65.6	52.0	0.0	0	0	0.0	0.0	0.0	0.0	100
19	PR 93-2-1	Pepper Res.	1591	1573	665	42.3	43.8	0.0	0	3	0.0	0.0	0.0	2.6	100
34	PS 713296	Petoseed	1425	1380	662	48.0	47.3	1.3	0	0	2.7	0.0	0.0	4.0	100
21	PR 99R-4	Pepper Res.	1231	1176	608	51.7	44.0	1.7	3	0	0.0	0.0	0.0	5.0	100
14	SPP 7117	Sakata	1223	1189	586	49.3	49.6	1.5	0	0	1.5	0.0	0.0	3.0	100
51	529801080 ^t	Western	2143	2088	570	27.3	72.0	0.0	0	0	4.5	0.0	0.0	4.6	100
49	ACX 223	A&C	1338	1288	524	40.7	58.5	0.0	3	0	0.0	0.0	0.0	3.5	100
22	PR 99R-7	Pepper Res.	1581	1449	511	35.3	48.2	2.4	0	2	4.7	0.0	0.0	9.5	100
1	ACX 209	A&C	1026	1012	473	46.7	52.9	0.0	0	0	1.7	0.0	0.0	1.7	100
32	X3R Wizard	Petoseed	1142	1108	369	33.3	42.6	1.9	0	0	1.9	0.0	0.0	3.8	100
5	ACX 230	A&C	649	649	315	48.6	48.9	0.0	0	0	0.0	0.0	0.0	0.0	100
44	Orion	Enza	1380	1369	297	21.7	39.1	0.0	0	0	1.7	0.0	0.0	1.7	100
20	PR 99R-2	Pepper Res.	1137	950	238	25.0	42.0	7.7	4	4	0.0	0.0	0.0	15.4	100

^zHarvest from one replication. Single bed plots, 6 ft × 8 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 21,780 plants per acre (8 inch within-row spacing). Transplanted 27 Sept. 2000 (transplants grown by LaBelle Plant World); 106 d to first colored pick.

^yTotal picked includes both marketable and unmarketable fruit, both partially and totally colored.

^xMarketable includes both fully colored and not fully colored.

^wRepresents all fully colored fruit that was marketable.

^vIncludes both marketable and unmarketable fruit.

^uNumber of fruit to weigh 25 lb.

^tObservational, harvest from three plants.

^sObservational, harvest from 14 plants.

Table 4. (Continued) Colored fruit (red/yellow), summary of yield and fruit characteristics, pepper variety demonstration, DuBois Farms, Packinghouse Farm, Boynton Beach, Fla., fall/winter, 2000.^z

Plot	Variety	Seed source	Yield (25-lb cartons per acre)			Fully color (%) ^v	Market-able fruit per carton (%) ^u	Culls (%)						Plant stand (%)	
			Total ^y	Market-able ^x	Colored & market. ^w			Soft side	Soft rot	Flat	Miss-shapen	Sunburn	Stip		Total
4	ACX 229	A&C	1184	1183	230	19.4	46.0	1.6	2	0	0.0	0.0	0.0	3.2	100
8	Commandant, 3085	Rogers	898	761	223	29.3	42.9	4.9	0	0	7.3	0.0	0.0	12.2	100
3	ACX 226	A&C	1132	1007	201	20.0	44.2	9.1	2	0	0.0	0.0	0.0	10.9	100
29	X3R Camelot	Petoseed	1403	533	162	30.4	54.5	1.3	0	0	0.0	0.0	58.0	59.3	96
23	PR 99R-11	Pepper Res.	786	676	139	20.5	49.7	4.5	0	0	11.0	0.0	0.0	16.0	100
50	ACX 228	A&C	1052	1031	139	13.5	44.9	0.0	0	0	1.9	0.0	0.0	1.9	100
Yellow varieties															
48	Golden Sun, 959	Hazera	1605	1578	1294	82.0	56.4	1.0	0	0	1.0	0.0	0.0	2.0	100
37	Early Sunsation	Petoseed	1254	1254	1120	89.3	54.3	0.0	0	0	0.0	0.0	0.0	0.0	100
36	X3R Chalice, 214596	Petoseed	1427	1308	942	72.0	51.3	3.7	0	0	6.1	0.0	0.0	9.8	100
25	PR 99Y-4	Pepper Res.	1564	1537	816	53.1	55.5	1.0	0	0	1.0	0.0	0.0	2.0	100
10	Lafayette, 5044	Rogers	1365	1178	812	68.9	47.0	2.7	1	8	5.4	0.0	0.0	17.6	100
2	ACX 217Y	A&C	1017	851	563	66.1	54.4	9.7	0	5	3.2	0.0	0.0	17.8	100
24	PR 99Y-3	Pepper Res.	993	942	480	51.0	47.2	2.0	2	0	0.0	0.0	0.0	3.9	100
35	X3R Aladdin	Petoseed	997	945	433	45.8	64.3	1.4	0	0	5.6	0.0	0.0	7.0	100
Elongated types															
38	X3R Key West (Cubanelle)	Petoseed	1398	1366	1037	75.9	89.0	0.0	0	0	2.2	0.0	0.0	2.2	100
52	529801984 ^s	Western	1825	1626	672	41.3	66.9	1.3	0	0	11.0	0.0	0.0	12.6	100
43	529800872	Western	1245	1122	318	28.3	48.5	1.5	0	0	9.0	0.0	0.0	10.5	83

^zHarvest from one replication. Single bed plots, 6 ft × 8 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 21,780 plants per acre (8 inch within-row spacing). Transplanted 27 Sept. 2000 (transplants grown by LaBelle Plant World); 106 d to first colored pick.

^yTotal picked includes both marketable and unmarketable fruit, both partially and totally colored.

^xMarketable includes both fully colored and not fully colored.

^wRepresents all fully colored fruit that was marketable.

^vIncludes both marketable and unmarketable fruit.

^uNumber of fruit to weigh 25 lb.

^tObservational, harvest from three plants.

^sObservational, harvest from 14 plants.

Table 5. Colored fruit yield, pepper variety demonstration, DuBois Farms, Packinghouse Farm, Boynton Beach, Fla., fall/winter, 2000.^z

Plot	Variety	Seed source	Total harvest (25-lb cartons per acre) ^y				Marketable yield (25-lb cartons per acre) ^x				Colored & marketable yield (25-lb cartons per acre) ^w			
			1	2	3	Total	1	2	3	Total	1	2	3	Total
			11 Jan.	22 Jan.	31 Jan.		11 Jan.	22 Jan.	31 Jan.		11 Jan.	22 Jan.	31 Jan.	
Red varieties														
46	1070c	Hazera	978	633	30	1641	978	570	30	1578	818	490	0	1310
30	X3R Red Knight, 213896	Petoseed	869	740	98	1706	799	688	98	1584	612	594	84	1297
41	570774	Western	123	1416	65	1603	86	1307	65	1457	43	1181	26	1240
13	Double Up, SPP 6112	Sakata	746	698	82	1526	719	662	82	1463	552	597	55	1203
53	HMX 9646	Harris-M	810	642	25	1477	765	622	25	1412	587	572	0	1163
39	Enterprise	Asgrow	681	971	46	1698	681	896	33	1610	466	668	11	1143
42	573179	Western	0	1357	93	1450	0	1243	71	1314	0	1091	41	1122
26	Defiance, 12292	Asgrow	791	686	72	1549	721	686	71.5	1478	569	515	24	1091
15	SPP 7118	Sakata	421	971	194	1586	421	839	158	1418	355	629	79	1035
12	Sentry, 4187	Rogers	971	505	55	1530	835	386	55	1275	671	324	28	1023
40	570594	Western	640	717	49	1406	640	655	36	1331	437	542	22	1012
17	XPP 8125	Sakata	445	824	119	1387	383	808	119	1310	233	690	66	994
7	Brigadier, 4153	Rogers	368	776	233	1377	368	753	191	1312	204	609	115	935
9	Crusader, 6110	Rogers	118	908	281	1306	118	889	281	1288	89	741	116	920
11	Legionnaire, 6089	Rogers	146	831	284	1260	146	817	284	1247	42	646	209	904
28	Bennington, 2670168	Asgrow	227	1271	162	1659	186	1271	162	1618	47	723	133	901
45	Olympus, 31702	Enza	780	1069	68	1916	780	1039	68	1887	275	550	34	870
33	Aristotle, PS 7273823	Petoseed	98	1096	103	1297	98	1075	103	1277	0	796	34	830
27	12293	Asgrow	665	893	218	1775	613	893	218	1724	158	558	101	829
31	X3R Sir Galahad, 223796	Petoseed	159	1336	37	1533	159	1336	37	1533	60	761	0	812
16	XPP 8124	Sakata	386	753	208	1347	345	651	174	1170	211	495	54	745
18	Boynton Bell	Pepper Res.	449	880	117	1447	427	817	106	1349	256	401	71	727
47	744	Hazera	176	823	230	1229	176	750	230	1156	59	484	169	723
6	Sweet 830, P201	A&C	289	563	213	1065	289	563	213	1065	133	418	131	699
19	PR 93-2-1	Pepper Res.	417	1057	116	1591	417	1039	116	1573	209	392	66	665
34	PS 713296	Petoseed	41	1125	259	1425	41	1080	259	1380	21	549	97	662
21	PR 99R-4	Pepper Res.	160	685	386	1231	160	631	386	1176	91	325	193	608
14	SPP 7117	Sakata	129	898	195	1223	107	887	195	1189	0	462	120	586
51	529801080 ^v	Western	1656	416	72	2143	1656	363	72	2088	0	303	72	570
49	ACX 223	A&C	18	944	376	1338	18	894	376	1288	18	333	174	524
22	PR 99R-7	Pepper Res.	260	1103	218	1581	260	985	204	1449	20	417	63	511
1	ACX 209	A&C	345	547	134	1026	331	547	134	1012	175	265	40	473
32	X3R Wizard	Petoseed	0	948	194	1142	0	934	174	1108	0	332	39	369
5	ACX 230	A&C	0	325	325	649	0	325	325	649	0	163	154	315
44	Orion	Enza	115	1157	108	1380	115	1146	108	1369	29	229	36	297
20	PR 99R-2	Pepper Res.	80	678	379	1137	55	607	288	950	0	78	144	238
4	ACX 229	A&C	259	499	427	1184	235	535	412	1183	0	144	86	230

^zHarvest from one replication. Single bed plots, 6 ft × 8 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 21,780 plants per acre (8 inch within-row spacing). Transplanted 27 Sept. 2000 (transplants grown by LaBelle Plant World); 106 d to first colored pick.

^yTotal harvest includes both marketable and unmarketable fruit, both partially and totally colored.

^xMarketable includes both fully colored and not fully colored.

^wRepresents all fully colored fruit that was marketable.

^vObservational, harvest from three plants.

^uObservational, harvest from 14 plants.

Table 5. (Continued) Colored fruit yield, pepper variety demonstration, DuBois Farms, Packinghouse Farm, Boynton Beach, Fla., fall/winter, 2000.^z

Plot	Variety	Seed source	Total harvest (25-lb cartons per acre) ^y				Marketable yield (25-lb cartons per acre) ^x				Colored & marketable yield (25-lb cartons per acre) ^w			
			1 11 Jan.	2 22 Jan.	3 31 Jan.	Total	1 11 Jan.	2 22 Jan.	3 31 Jan.	Total	1 11 Jan.	2 22 Jan.	3 31 Jan.	Total
8	Commandant, 3085	Rogers	0	492	406	898	0	426	335	761	0	101	117	223
3	ACX 226	A&C	288	550	293	1132	263	477	267	1007	0	119	71	201
29	X3R Camelot	Petoseed	229	1053	122	1403	36	433	63	533	20	123	8	162
23	PR 99R-11	Pepper Res.	0	517	269	786	0	472	204	676	0	114	27	139
50	ACX 228	A&C	0	363	689	1052	0	343	689	1031	0	20	118	139
Yellow varieties														
48	Golden Sun, 959	Hazera	363	1144	99	1605	363	1116	99	1578	182	1023	74	1294
37	Early Sunsation	Petoseed	755	433	65	1254	755	433	65	1254	665	418	33	1120
36	X3R Chalice, 214596	Petoseed	719	674	34	1427	650	630	27	1308	513	415	18	942
25	PR 99Y-4	Pepper Res.	325	1139	100	1564	298	1139	99.8	1537	149	626	43	816
10	Lafayette, 5044	Rogers	400	708	256	1365	400	585	193	1178	289	468	72	812
2	ACX 217Y	A&C	681	270	66	1017	608	177	66	851	394	124	40	563
24	PR 99Y-3	Pepper Res.	74	837	82	993	74	786	81.7	942	49	412	27	480
35	X3R Aladdin	Petoseed	101	785	111	997	94	751	100	945	54	376	11	433
Elongated types														
38	X3R Key West (Cubanelle)	Petoseed	434	758	205	1398	434	749	183	1366	317	603	119	1037
52	529801984 ^u	Western	758	845	222	1825	655	809	163	1626	153	394	30	672
43	529800872	Western	0	1091	154	1245	0	1003	119	1122	0	299	24	318
	Average	343	805	175	771	321	764	164	735	193	466	70	435	

^zHarvest from one replication. Single bed plots, 6 ft × 8 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 21,780 plants per acre (8 inch within-row spacing). Transplanted 27 Sept. 2000 (transplants grown by LaBelle Plant World); 106 d to first colored pick.

^yTotal harvest includes both marketable and unmarketable fruit, both partially and totally colored.

^xMarketable includes both fully colored and not fully colored.

^wRepresents all fully colored fruit that was marketable.

^vObservational, harvest from three plants.

^uObservational, harvest from 14 plants.

Table 6. Description of cull fruit for colored harvest from a pepper variety demonstration, DuBois Farms, Packinghouse Farm, Boynton Beach, Fla., fall/winter, 2000.^z

Plot	Variety	Soft side, sunburn, decay (%) ^y				Misshapen and flat (%) ^y				Stip (%) ^y				Total culls (%) ^y			
		1 11 Jan.	2 22 Jan.	3 31 Jan.	Total	1 11 Jan.	2 22 Jan.	3 31 Jan.	Total	1 11 Jan.	2 22 Jan.	3 31 Jan.	Total	1 11 Jan.	2 22 Jan.	3 31 Jan.	Total
Red varieties																	
46	1070c	0	0.9	0	0.9	0	0	0	0	0	1.9	0	1.9	0	2.8	0	2.8
30	X3R Red Knight, 213896	1	1	0	1.9	2.9	3.8	0	6.7	0	0	0	0	3.9	4.8	0	8.6
41	570774	0	0	0	0	1.1	3.2	0	4.3	1.1	5.3	0	6.4	2.2	8.5	0	11
13	Double Up, SPP 6112	0	2.2	0	2.2	2.2	0	0	2.2	0	0	0	0	2.2	2.2	0	4.4
53	HMX 9646	0	0	0	0	3.7	1.9	0	5.6	0	0	0	0	3.7	1.9	0	5.6
39	Enterprise	0	1	0	1	0	4	1	5	0	0	0	0	0	5	1	6
42	573179	0	0	0	0	0	11	2.2	13	0	0	0	0	0	11	2.2	13
26	Defiance, 12292	1.2	0	0	1.2	3.6	0	0	3.6	0	0	0	0	4.8	0	0	4.8
15	SPP 7118	0	2.2	1.1	3.4	0	9	2.2	11	0	0	0	0	0	11	3.3	14
12	Sentry, 4187	7	3.5	0	10	0	5.8	0	5.8	0	0	0	0	7	9.3	0	16
40	570594	0	0	0	0	0	4.8	1	5.8	0	0	0	0	0	4.8	1	5.8
17	XPP 8125	3.4	0	0	3.4	0	1.1	0	1.1	0	0	0	0	3.4	1.1	0	4.5
7	Brigadier, 4153	0	0	0	0	0	2.5	3.8	6.3	0	0	0	0	0	2.5	3.8	6.3
9	Crusader, 6110	0	0	0	0	0	1.6	0	1.6	0	0	0	0	0	1.6	0	1.6
11	Legionnaire, 6089	0	0	0	0	0	1.4	0	1.4	0	0	0	0	0	1.4	0	1.4
28	Bennington, 2670168	2.3	0	0	2.3	0	0	0	0	0	0	0	0	2.3	0	0	2.3
45	Olympus, 31702	0	1.1	0	1.1	0	1.1	0	1.1	0	0	0	0	0	2.2	0	2.2
33	Aristotle, PS 7273823	0	1.7	0	1.7	0	0	0	0	0	0	0	0	0	1.7	0	1.7
27	12293	0	0	0	0	2.9	0	0	2.9	0	0	0	0	2.9	0	0	2.9
31	X3R Sir Galahad, 223796	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	XPP 8124	1.3	1.3	1.3	3.8	1.3	8.8	1.3	11	0	0	0	0	2.6	10	2.6	15
18	Boynton Bell	1.1	0	0	1.1	0	5.6	1.1	6.7	0	0	0	0	1.1	5.6	1.1	7.8
47	744	0	0	0	0	0	0	0	0	0	5.6	0	5.6	0	5.6	0	5.6
6	Ssweet 830, P201	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	PR 93-2-1	0	0	0	0	0	2.6	0	2.6	0	0	0	0	0	2.6	0	2.6
34	PS 713296	0	1.3	0	1.3	0	2.7	0	2.7	0	0	0	0	0	4	0	4
21	PR 99R-4	0	5	0	5	0	0	0	0	0	0	0	0	0	5	0	5
14	SPP 7117	1.5	0	0	1.5	0	1.5	0	1.5	0	0	0	0	1.5	1.5	0	3
51	529801080 ^x	0	0	0	0	0	4.5	0	4.5	0	0	0	0	0	4.5	0	4.5
49	ACX 223	0	3.5	0	3.5	0	0	0	0	0	0	0	0	0	3.5	0	3.5
22	PR 99R-7	0	2.4	0	2.4	0	5.9	1.2	7.1	0	0	0	0	0	8.3	1.2	9.5
1	ACX 209	0	0	0	0	1.7	0	0	1.7	0	0	0	0	1.7	0	0	1.7
32	X3R Wizard	0	0	1.9	1.9	0	1.9	0	1.9	0	0	0	0	0	1.9	1.9	3.8
5	ACX 230	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	Orion	0	0	0	0	0	1.7	0	1.7	0	0	0	0	0	1.7	0	1.7
20	PR 99R-2	1.9	5.8	3.8	12	0	0	3.8	3.8	0	0	0	0	1.9	5.8	7.6	16
4	ACX 229	1.6	0	1.6	3.2	0	0	0	0	0	0	0	0	1.6	0	1.6	3.2
8	Commandant, 3085	0	2.4	2.4	4.9	0	4.9	2.4	7.3	0	0	0	0	0	7.3	4.8	12
3	ACX 226	1.8	7.3	1.8	11	0	0	0	0	0	0	0	0	1.8	7.3	1.8	11
29	X3R Camelot	0	1.3	0	1.3	0	0	0	0	11	42	5.1	58	11	43	5.1	59

^zHarvest from one replication. Single bed plots, 6 ft × 8 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 21,780 plants per acre (8 inch within-row spacing). Transplanted 27 Sept. 2000 (transplants grown by LaBelle Plant World); 106 d to first colored pick.

^yPercent of all fruit harvested, marketable and unmarketable (culls).

^xObservational, harvest from three plants.

^vObservational, harvest from 14 plants.

Table 6. (Continued) Description of cull fruit for colored harvest from a pepper variety demonstration, DuBois Farms, Packinghouse Farm, Boynton Beach, Fla., fall/winter, 2000.^z

Plot	Variety	Soft side, sunburn, decay (%) ^y				Misshapen and flat (%) ^y				Stip (%) ^y				Total culls (%) ^y			
		1 11 Jan.	2 22 Jan.	3 31 Jan.	Total	1 11 Jan.	2 22 Jan.	3 31 Jan.	Total	1 11 Jan.	2 22 Jan.	3 31 Jan.	Total	1 11 Jan.	2 22 Jan.	3 31 Jan.	Total
23	PR 99R-11	0	0	4.5	4.5	0	6.8	4.5	11	0	0	0	0	0	6.8	9	16
50	ACX 228	0	0	0	0	0	1.9	0	1.9	0	0	0	0	0	1.9	0	1.9
Yellow varieties																	
48	Golden Sun, 959	0	1	0	1	0	1	0	1	0	0	0	0	0	2	0	2
37	Early Sunstation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	X3R Chalice, 214596	2.4	1.2	0	3.7	2.4	2.4	1.2	6.1	0	0	0	0	4.8	3.6	1.2	9.8
25	PR 99Y-4	1	0	0	1	1	0	0	1	0	0	0	0	2	0	0	2
10	Lafayette, 5044	0	1.4	2.7	4.1	0	11	2.7	14	0	0	0	0	0	12	5.4	18
2	ACX 217Y	4.8	4.8	0	9.7	1.6	6.5	0	8.1	0	0	0	0	6.4	11	0	18
24	PR 99Y-3	0	3.9	0	3.9	0	0	0	0	0	0	0	0	0	3.9	0	3.9
35	X3R Aladdin	1.4	0	0	1.4	0	4.2	1.4	5.6	0	0	0	0	1.4	4.2	1.4	7
Elongated types																	
38	X3R Key West (Cubanelle)	0	0	0	0	0	0.7	1.5	2.2	0	0	0	0	0	0.7	1.5	2.2
52	529801984 ^w	0	0	1.3	1.3	6.3	2.5	2.5	11	0	0	0	0	6.3	2.5	3.8	12
43	529800872	0	0	1.5	1.5	0	7.5	1.5	9	0	0	0	0	0	7.5	3	11
	Average	0.6	1.1	0.5	2	0.6	2.6	0.7	3.9	0.2	1	0.1	1.4	1.4	4.6	1.2	7.3

^zHarvest from one replication. Single bed plots, 6 ft × 8 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 21,780 plants per acre (8 inch within-row spacing). Transplanted 27 Sept. 2000 (transplants grown by LaBelle Plant World); 106 d to first colored pick.

^yPercent of all fruit harvested, marketable and unmarketable (culls).

^xObservational, harvest from three plants.

^wObservational, harvest from 14 plants.

Table 7. Number and percent fully colored pepper from a pepper variety demonstration, DuBois Farms, Packinghouse Farm, Boynton Beach, Fla., fall/winter, 2000.^z

Plot	Variety	Seed source	No. of colored fruit [†]				Total	No. colored fruit per plant [†]	Percent colored [‡]		
			11 Jan.	22 Jan.	31 Jan.	11 Jan.			22 Jan.	31 Jan.	
Red varieties											
46	1070c	Hazera	51	37	0	88	3.67	58	42	0	
30	X3R Red Knight, 213896	Petoseed	36	44	6	86	3.58	42	51	7	
41	570774	Western	3	75	2	80	3.33	4	94	3	
13	Double Up, SPP 6112	Sakata	33	37	4	74	3.08	45	50	5	
53	HMX 9646	Harris-M	43	46	0	89	3.71	48	52	0	
39	Enterprise	Asgrow	26	44	1	71	2.96	37	62	1	
42	573179	Western		72	4	76	3.17	0	95	5	
26	Defiance, 12292	Asgrow	30	30	2	62	2.58	48	48	3	
15	SPP 7118	Sakata	16	42	7	65	2.71	25	65	11	
12	Sentry, 4187	Rogers	41	26	2	69	2.88	59	38	3	
40	570594	Western	28	48	3	79	3.29	35	61	4	
17	XPP 8125	Sakata	14	47	5	66	2.87	21	71	8	
7	Brigadier, 4153	Rogers	10	38	9	57	2.38	18	67	16	
9	Crusader, 6110	Rogers	3	35	7	45	1.88	7	78	16	
11	Legionnaire, 6089	Rogers	2	34	14	50	2.08	4	68	28	
28	Bennington, 2670168	Asgrow	3	37	9	49	2.04	6	76	18	
45	Olympus, 31702	Enza	12	27	2	41	1.71	29	66	5	
33	Aristotle, PS 7273823	Petoseed	0	37	2	39	1.63	0	95	5	
27	12293	Asgrow	9	35	6	50	2.08	18	70	12	
31	X3R Sir Galahad, 223796	Petoseed	3	41	0	44	1.83	7	93	0	
16	XPP 8124	Sakata	11	35	5	51	2.13	22	69	10	
18	Boynton Bell	Pepper Res.	15	27	6	48	2	31	56	13	
47	744	Hazera	3	31	11	45	1.88	7	69	24	
6	Ssweet 830, P201	A&C	6	26	8	40	1.67	15	65	20	
19	PR 93-2-1	Pepper Res.	9	20	4	33	1.38	27	61	12	
34	PS 713296	Petoseed	1	29	6	36	1.5	3	81	17	
21	PR 99R-4	Pepper Res.	4	17	10	31	1.29	13	55	32	
14	SPP 7117	Sakata	0	25	8	33	1.38	0	76	24	
51	529801080 [*]	Western	5	1	6	2	0	83	17		
49	ACX 223	A&C	1	22	12	35	1.46	3	63	34	
22	PR 99R-7	Pepper Res.	1	25	4	30	1.25	3	83	13	
1	ACX 209	A&C	9	16	3	28	1.17	32	57	11	
32	X3R Wizard	Petoseed	16	2	18	0.75	0	89	11		
5	ACX 230	A&C	0	8	9	17	0.71	0	47	53	
44	Orion	Enza	1	10	2	13	0.54	8	77	15	
20	PR 99R-2	Pepper Res.	0	4	9	13	0.54	0	31	69	
4	ACX 229	A&C	7	5	12	0.5	0	58	42		
8	Commandant, 3085	Rogers	5	7	12	0.5	0	42	58		
3	ACX 226	A&C	0	7	4	11	0.46	0	64	36	
29	X3R Camelot	Petoseed	6	17	1	24	1.04	25	71	4	
23	PR 99R-11	Pepper Res.	7	2	9	0.38	0	78	22		
50	ACX 228	A&C	1	6	7	0.29	0	14	86		
Yellow varieties											
48	Golden Sun, 959	Hazera	10	66	6	82	3.42	12	80	7	
37	Early Sunation	Petoseed	37	28	2	67	2.79	55	42	3	
36	X3R Chalice, 214596	Petoseed	30	27	2	59	2.46	51	46	3	
25	PR 99Y-4	Pepper Res.	9	39	3	51	2.13	18	76	6	
10	Lafayette, 5044	Rogers	13	32	6	51	2.13	25	63	12	
2	ACX 217 Y	A&C	24	14	3	41	1.71	59	34	7	
24	PR 99Y-3	Pepper Res.	2	22	2	26	1.08	8	85	8	
35	X3R Aladdin	Petoseed	4	28	1	33	1.38	12	85	3	
Elongated types											
38	X3R Key West (Cubanelle)	Petoseed	27	62	15	104	4.33	26	60	14	
52	529801984 ^w	Western	12	19	2	33	2.36	36	58	6	
43	529800872	Western	17	2	19	0.95	0	89	11		
	Average		11	29	4.8	45.2	1.94	24	64	11	

[†]Harvest from one replication. Single bed plots, 6 ft × 8 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 21,780 plants per acre (8 inch within-row spacing). Transplanted 27 Sept. 2000 (transplants grown by LaBelle Plant World); 106 d to first colored pick.

[‡]Percent of all fruit harvested, including unmarketable (culls).

^{*}Observational, harvest from three plants.

^wObservational, harvest from 14 plants.

Table 8. Summary of yield and fruit characteristics for a bell pepper variety demonstration, Thomas Produce, Horse Farm, Boca Raton, Fla., 2000-2001.^z

Plot	Variety	Seed source	B. spot race resistance	Yield (25-lb cartons per acre)		Size (fruit per 25-lb carton)		Fruit per plant	Length × width (inches) ^y	Ratio l × w ^{z,x}	3, 4 lobes (%) ^y	Avg. no. lobes ^y	Blunt pointed (%) ^{y,w}
				Pick 1	Total	Pick 1	Avg.						
Red varieties													
45	Olympus, 31702	Enza	1,2,3	2190	2765	46.9	49.7	6.91	3.76 × 3.73	1.01	80.0	3.84	11
9	Crusader	Rogers	1,2,3	1724	2720	60.7	62.8	8.57	3.40 × 3.88	0.87	86.9	3.79	15
18	Boynton Bell	Pepper Res	1,2,3	1656	2652	58.9	62.7	8.85	3.32 × 3.55	0.93	93.5	3.80	20
53	HMX 9646	Harris-M	1,2,3,5	1374	2595	66.9	68.2	8.89	3.09 × 3.61	0.86	88.1	3.60	18
32	X3R Wizard	Petoseed	1,2,3	1677	2588	56.3	58.2	9.11	3.13 × 3.52	0.89	84.1	4.00	14
1	ACX 209	A&C	1,2,3	1571	2588	54.7	62.5	8.60	3.82 × 3.48	1.10	92.6	3.34	21
49	ACX 223	A&C	1,2,3	1533	2583	62.4	65.9	8.69	4.08 × 3.29	1.24	88.9	3.58	35
39	Enterprise v	Asgrow	1,2,3	1823	2569	61.0	62.0	8.00	3.33 × 3.50	0.88	86.9	3.14	13
44	Orion	Enza	1,2,3	2035	2532	45.1	48.3	7.87	3.36 × 3.76	0.89	76.0	3.96	17
8	Commandant	Rogers	1,2,3	1524	2527	60.9	63.9	8.87	3.79 × 3.43	1.10	86.5	3.68	20
13	Double Up, SPP 6112	Sakata	1,2,3	1693	2521	57.9	59.1	7.48	3.50 × 3.59	0.98	87.6	3.59	14
41	570774 ^t	Western	1,2,3	1437	2463	73.0	70.2	8.93	3.71 × 3.31	1.12	88.4	3.85	33
27	12293	Asgrow	1,2,3	1644	2453	58.0	59.0	7.27	3.45 × 3.49	0.99	93.0	3.35	18
7	Brigadier	Rogers	1,2,3	1534	2446	61.1	62.3	7.76	3.25 × 3.61	0.90	88.6	3.86	14
11	Legionnaire	Rogers	1,2,3	1430	2426	62.5	64.8	7.90	3.22 × 3.42	0.94	87.0	3.82	5
20	PR 99R-2	Pepper Res	1,2,3	1656	2422	52.2	56.2	7.97	3.45 × 3.75	0.92	92.0	3.59	18
33	Aristotle, PS 7273823	Petoseed	1,2,3	1677	2418	50.5	52.2	6.39	3.55 × 3.75	0.94	94.0	3.66	9
26	Defiance	Asgrow	1,2,3	1771	2412	51.6	56.2	6.80	3.42 × 3.67	0.93	96.6	3.30	12
3	ACX 226	A&C	1,2,3	1581	2406	48.7	55.0	6.67	3.74 × 3.64	1.02	97.4	3.50	27
50	ACX 228	A&C	1,2,3	1348	2379	60.6	65.4	9.11	3.42 × 3.45	0.99	92.8	3.83	20
42	573179 ^u	Western	1,2,3	1752	2365	59.6	54.4	8.94	3.73 × 3.43	1.09	95.0	3.64	7
17	XPP 8125	Sakata	1,2,3	1411	2351	66.0	65.6	7.74	3.61 × 3.30	1.09	85.1	3.87	2
23	PR 99R-11	Pepper Res	1,2,3	1685	2348	53.5	56.7	7.64	3.49 × 3.64	0.96	90.0	3.71	16
6	Ss 830	A&C	1,2,3	1731	2332	55.1	61.7	8.68	3.76 × 3.45	1.09	90.9	3.20	41
19	PR 93-2-1	Pepper Res	2	1573	2304	52.3	55.0	8.73	3.29 × 3.78	0.87	91.6	3.68	10
22	PR 99R-7	Pepper Res	1,2,3	1685	2278	61.5	62.6	8.19	3.41 × 3.59	0.95	93.8	3.60	14
28	Bennington	Asgrow	1,2,3	1737	2228	49.6	52.8	5.91	3.53 × 3.69	0.96	91.1	3.62	11
29	X3R Camelot	Petoseed	1,2,3	1452	2218	57.6	59.9	6.68	3.86 × 3.59	1.08	93.1	3.47	20
21	PR 99R-4	Pepper Res	1,2,3	1489	2167	58.4	60.0	6.69	3.44 × 3.66	0.94	91.4	3.66	24
14	SPP 7117	Sakata	1,2,3	1496	2136	61.4	62.4	6.70	3.66 × 3.52	1.04	97.3	3.53	5
47	744	Hazera	1,2,3	1254	2113	57.9	59.2	6.35	3.11 × 3.57	0.87	79.0	4.02	12
34	PS 713296	Petoseed	1,2,3	1666	2103	53.2	54.3	6.95	3.24 × 3.61	0.90	76.1	4.04	8
4	ACX 229	A&C	1,2,3	1247	2101	61.4	67.1	8.50	3.29 × 3.37	0.97	85.6	3.90	25
46	1070c	Hazera	1,2,3	1697	2096	58.8	60.0	6.31	3.24 × 3.52	0.92	90.0	3.43	40
5	ACX 230	A&C	1,2,3	1076	2064	66.7	69.4	7.20	3.49 × 3.58	0.97	88.1	3.86	23
16	XPP 8124	Sakata	1,2,3,5	1314	2020	68.7	67.5	7.85	2.97 × 3.40	0.87	90.0	3.65	0

^zAverage of four replications. Single bed plots, 5 ft × 10.5 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 19,913 plants per acre (10.5 inch within-row spacing). Transplanted 13 Dec. 2000 (transplants grown by LaBelle Plant World); 99 d to first pick.

^yAverage of 40 fruit, 10 each from blocks 1&2, pick #1 and #2, 22 & 23 Mar. and 11 & 13 Apr. 2001.

^xScale: 1.00 = blocky, width same as length. >1.00 = degree of elongation, length greater than width. <1.00 = degree of flatness, length less than width.

^wFlat or pointed at blossom end with very little indentation of lobes.

^tHarvest from only one replication.

^uHarvest from two replications.

^vHarvest from three replications.

^wObservational, harvest from only one replication.

Table 8. (Continued) Summary of yield and fruit characteristics for a bell pepper variety demonstration, Thomas Produce, Horse Farm, Boca Raton, Fla., 2000-2001.^z

Plot	Variety	Seed source	B. spot race resistance	Yield (25-lb cartons per acre)		Size (fruit per 25-lb carton)		Fruit per plant	Length × width (inches) ^y	Ratio l × w ^{y,x}	3, 4 lobes (%) ^y	Avg. no. lobes ^y	Blunt pointed (%) ^{y,w}
				Pick 1	Total	Pick 1	Avg.						
12	Sentry	Rogers	1,2,3	1450	1948	68.9	67.3	6.65	2.82 × 3.73	0.76	85.0	3.74	12
31	X3R Sir Galahad ^t	Petoseed	1,2,3	1308	1832	61.2	61.0	6.12	3.41 × 3.81	0.89	83.9	3.65	8
15	SPP 7118	Sakata	1,2,3,5	1254	1828	63.3	63.9	5.86	3.15 × 3.55	0.89	82.6	3.72	6
30	X3R Red Knight	Petoseed	1,2,3	1214	1781	72.6	73.0	7.23	3.06 × 3.40	0.90	76.4	3.93	11
40	570564 ^t	Western	1,2,3	938	1593	92.8	89.8	7.64	3.10 × 3.08	1.01	96.1	3.65	53
51	529801080 ^s	Western	1,2,3						3.70 × 3.25	1.14	100	3.50	25
Yellow varieties													
48	Golden Sun, 959	Hazera	1,2,3	1639	2779	54.3	59.1	8.25	3.36 × 3.47	0.97	93.5	3.77	7
37	Early Sunsation	Petoseed	1,2,3	1569	2610	58.0	60.1	7.90	3.37 × 3.64	0.92	85.2	3.82	1
24	PR 99Y-3	Pepper Res	1,2,3	1843	2567	47.6	51.7	6.76	3.88 × 3.68	1.05	88.9	3.67	7
10	Lafayette	Rogers	1,2,3	1739	2398	62.2	64.4	8.72	3.11 × 3.75	0.83	86.1	3.91	17
2	ACX 217 Y	A&C	1,2,3	1494	2367	59.7	63.9	7.59	3.38 × 3.72	0.91	96.6	3.37	12
25	PR 99Y-3	Pepper Res	1,2,3	1578	2336	58.8	61.3	7.19	3.40 × 3.45	1.00	92.7	3.73	8
35	X3R Aladdin ^v	Petoseed	1,2,3	1302	2296	58.6	58.5	7.36	3.52 × 3.49	1.01	79.3	3.91	0
36	*X3R Chalice	Petoseed	1,2,3	1478	2090	56.3	60.1	7.05	3.07 × 3.49	0.88	92.6	3.44	12
Elongated types													
52	529801984 ^s	Western	1,2,3						4.71 × 3.05	1.55	91.6	3.30	17
43	529800872 ^v	Western	1,2,3	1602	3336	66.3	65.2	10.9	5.23 × 3.21	1.63	85.2	3.46	49
38	X3R Key West (Cubanelle)	Petoseed	1,2,3	1233	2840	95.1	96.8	13.8	5.86 × 2.35	2.49	81.7	3.01	80

^zAverage of four replications. Single bed plots, 5 ft × 10.5 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 19,913 plants per acre (10.5 inch within-row spacing). Transplanted 13 Dec. 2000 (transplants grown by LaBelle Plant World); 99 d to first pick.

^yAverage of 40 fruit, 10 each from blocks 1&2, pick #1 and #2, 22 & 23 Mar. and 11 & 13 Apr. 2001.

^xScale: 1.00 = blocky, width same as length. >1.00 = degree of elongation, length greater than width. <1.00 = degree of flatness, length less than width.

^vFlat or pointed at blossom end with very little indentation of lobes.

^tHarvest from only one replication.

^sHarvest from two replications.

^rHarvest from three replications.

^wObservational, harvest from only one replication.

Table 9. Pepper yield for a variety demonstration, Thomas Produce, Horse Farm, Boca Raton, Fla., 2000-01.^z

Plot	Variety	Yield (25-lb cartons per acre)				Size (fruit per 25-lb carton)				Fruit per plant				Plant stand (%)		
		Pick 1 22 Mar.	Pick 2 11 Apr.	Pick 3 ^y 4 May	Total	Pick 1 22 Mar.	Pick 2 11 Apr.	Pick 3 ^y 4 May	Avg.	Pick 1 22 Mar.	Pick 2 11 Apr.	Pick 3 ^y 4 May	Total	Pick 1 22 Mar.	Pick 2 11 Apr.	Pick 3 ^y 4 May
Red varieties																
45	Olympus, 31702	2190	286	289	2765	46.9	62.9	63.2	49.7	5.09	0.90	0.92	6.91	100	100	100
9	Crusader	1724	415	581	2720	60.7	67.4	67.1	62.8	5.23	1.39	1.96	8.57	100	100	100
18	Boynton Bell	1656	634	362	2652	58.9	68.6	71.0	62.7	4.91	2.16	1.55	8.85	100	100	83.3
53	HMX 9646	1374	597	624	2595	66.9	69.6	70.5	68.2	4.64	2.04	2.21	8.89	100	100	100
32	X3R Wizard	1677	636	276	2588	56.3	63.0	60.2	58.2	4.75	2.00	1.67	9.11	100	99.0	50
1	ACX 209	1571	413	604	2588	54.7	74.2	76.9	62.5	4.27	1.52	2.80	8.60	100	100	83.3
49	ACX 223	1533	600	449	2583	62.4	71.3	75.7	65.9	4.83	2.17	1.71	8.69	97.9	96.9	100
39	Enterprise ^x	1823	304	442	2569	61.0	62.8	65.6	62.0	5.58	0.96	1.46	8.00	100	100	100
44	Orion	2035	363	134	2532	45.1	61.1	62.0	48.3	4.66	1.14	1.11	7.87	99	97.9	37.5
8	Commandant	1524	607	396	2527	60.9	67.6	69.2	63.9	4.73	2.24	1.65	8.87	99	91.7	83.3
13	Double Up, SPP 6112	1693	499	329	2521	57.9	63.2	63.0	59.1	4.86	1.57	1.04	7.48	100	100	100
41	570774 ^v	1437	669	358	2463	73.0	72.1	74.2	70.2	5.23	2.43	1.33	8.93	100	100	100
27	12293	1644	373	435	2453	58.0	66.6	61.0	59.0	4.76	1.18	1.33	7.27	100	100	100
7	Brigadier	1534	562	350	2446	61.1	64.6	64.1	62.3	4.70	1.83	1.17	7.76	100	100	95.8
11	Legionnaire	1430	592	404	2426	62.5	69.7	67.7	64.8	4.55	1.97	1.38	7.90	100	100	100
20	PR 99R-2	1656	572	194	2422	52.2	65.7	59.8	56.2	4.36	1.91	1.00	7.97	100	99	58.3
33	Aristotle, PS 7273823	1677	374	367	2418	50.5	62.0	58.8	52.2	4.22	1.09	1.08	6.39	100	100	100
26	Defiance	1771	386	255	2412	51.6	67.0	68.3	56.2	4.59	1.33	0.88	6.80	100	100	100
3	ACX 226	1581	393	432	2406	48.7	71.7	67.3	55.0	3.82	1.38	1.46	6.67	100	99	100
50	ACX 228	1348	685	347	2379	60.6	67.7	79.0	65.4	4.14	2.33	2.36	9.11	100	99	58.3
42	573179 ^w	1752	459	154	2365	59.6	73.8	64.8	54.4	5.45	1.79	0.92	8.94	100	95	54.2
17	XPP 8125	1411	680	260	2351	66.0	67.2	70.2	65.6	4.57	2.25	0.92	7.74	100	100	100
23	PR 99R-11	1685	408	256	2348	53.5	70.4	58.4	56.7	4.52	1.42	1.20	7.64	100	100	62.5
6	Ss 830	1731	277	324	2332	55.1	79.8	81.9	61.7	4.79	1.10	2.67	8.68	100	100	50
19	PR 93-2-1	1573	656	75	2304	52.3	64.5	55.5	55.0	4.08	2.21	0.83	8.73	100	93.8	25
22	PR 99R-7	1685	487	106	2278	61.5	66.6	62.9	62.6	5.19	1.65	0.53	8.19	100	100	62.5
28	Bennington	1737	392	100	2228	49.6	64.1	66.6	52.8	4.32	1.25	0.33	5.91	100	100	100
29	X3R Camelot	1452	578	189	2218	57.6	66.1	65.9	59.9	4.16	1.90	0.63	6.68	100	100	100
21	PR 99R-4	1489	499	179	2167	58.4	68.1	65.0	60.0	4.39	1.74	0.58	6.69	97.9	94.8	100
14	SPP 7117	1496	501	140	2136	61.4	67.0	59.4	62.4	4.60	1.68	0.42	6.70	100	100	100
47	744	1254	490	368	2113	57.9	64.4	60.8	59.2	3.61	1.59	1.13	6.35	100	96.9	100
34	PS 713296	1666	371	66	2103	53.2	58.1	50.0	54.3	4.49	1.16	0.31	6.95	100	93.8	54.2
4	ACX 229	1247	634	220	2101	61.4	73.6	79.3	67.1	3.86	2.45	1.62	8.50	100	95.8	54.2
46	1070c	1697	271	128	2096	58.8	64.7	64.9	60.0	5.01	0.89	0.42	6.31	100	100	100
5	ACX 230	1076	580	408	2064	66.7	75.3	75.3	69.4	3.54	2.11	1.54	7.20	100	100	100
16	XPP 8124	1314	548	158	2020	68.7	64.7	57.9	67.5	4.59	1.81	0.73	7.85	100	99	62.5
12	Sentry	1450	349	149	1948	68.9	63.1	66.7	67.3	4.99	1.13	0.50	6.65	100	96.9	100
31	X3R Sir Galahad ^v	1308	385	139	1832	61.2	64.1	59.8	61.0	4.25	1.27	0.48	6.12	94.4	93.1	87.5
15	SPP 7118	1254	410	164	1828	63.3	70.7	60.7	63.9	3.95	1.42	0.50	5.86	100	100	100

^zAverage of four replications. Single bed plots, 5 ft × 10.5 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 19,913 plants per acre (10.5 inch within-row spacing). Transplanted 13 Dec. 2000 (transplants grown by LaBelle Plant World); 99 d to first pick.

^yPick #3 was made from only one replication, replication #1. Pick #1 and #2 were made from all four replications.

^xHarvest from only one replication.

^vHarvest from two replications.

^wHarvest from three replications.

Table 9. (Continued) Pepper yield for a variety demonstration, Thomas Produce, Horse Farm, Boca Raton, Fla., 2000-01.^z

Plot	Variety	Yield (25-lb cartons per acre)				Size (fruit per 25-lb carton)				Fruit per plant				Plant stand (%)		
		Pick 1 22 Mar.	Pick 2 11 Apr.	Pick 3 ^y 4 May	Total	Pick 1 22 Mar.	Pick 2 11 Apr.	Pick 3 ^y 4 May	Avg.	Pick 1 22 Mar.	Pick 2 11 Apr.	Pick 3 ^y 4 May	Total	Pick 1 22 Mar.	Pick 2 11 Apr.	Pick 3 ^y 4 May
30	X3R Red Knight	1214	480	87	1781	72.6	73.9	66.8	73.0	4.47	1.77	0.41	7.23	100	100	70.8
40	570564 ^v	938.4	369	285	1593	92.8	84.7	84.3	89.8	4.40	1.59	1.45	7.64	100	98.6	83.3
	Avg.	1551	496	302	2349	59.4	67.7	66.2	61.5	4.58	1.69	1.21	7.70	99.8	98.8	85
Yellow varieties																
48	Golden Sun, 959	1639	607	533	2779	54.3	65.5	67.0	59.1	4.48	1.98	1.79	8.25	100	100	100
37	Early Sunsation	1569	436	606	2610	58.0	65.5	64.4	60.1	4.49	1.44	1.96	7.90	100	99	100
24	PR 99Y-3	1843	400	324	2567	47.6	65.0	59.0	51.7	4.42	1.29	1.00	6.76	100	100	95.8
10	Lafayette	1739	416	243	2398	62.2	69.2	68.4	64.4	5.45	1.47	1.25	8.72	100	100	66.7
2	ACX 217 Y	1494	643	230	2367	59.7	72.8	68.5	63.9	4.49	2.31	0.79	7.59	100	100	100
25	PR 99Y-3	1578	440	317	2336	58.8	65.4	70.6	61.3	4.65	1.42	1.13	7.19	100	100	100
35	X3R Aladdin ^x	1302	797	197	2296	58.6	58.3	58.9	58.5	3.83	2.33	0.78	7.36	100	100	75
36	X3R Chalice	1478	442	170	2090	56.3	70.8	68.5	60.1	4.83	1.80	0.61	7.05	100	100	95.8
Elongated types																
43	529800872 ^x	1602	844	890	3336	66.3	66.8	61.5	65.2	5.33	2.83	2.75	10.9	100	100	100
38	X3R Key West (Cubanelle)	1233	1074	533	2840	95.1	98.4	98.1	96.8	5.88	5.31	2.63	13.8	100	100	100

^zAverage of four replications. Single bed plots, 5 ft × 10.5 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 19,913 plants per acre (10.5 inch within-row spacing). Transplanted 13 Dec. 2000 (transplants grown by LaBelle Plant World); 99 d to first pick.

^yPick #3 was made from only one replication, replication #1. Pick #1 and #2 were made from all four replications.

^xHarvest from only one replication.

^vHarvest from two replications.

^wHarvest from three replications.

Table 10. Fruit length, width, and length-to-width ratio for bell pepper from a variety demonstration, Thomas Produce, Horse Farm, Boca Raton, Fla., 2000-2001.^z

Plot	Variety	Seed source	Length (inches)			Width (inches)			Length-to-width ratio ^y			Comments
			Pick 1	Pick 2	Avg.	Pick 1	Pick 2	Avg.	Pick 1	Pick 2	Avg.	
Red varieties												
45	Olympus, 31702	Enza	3.83	3.37	3.76	3.78	3.46	3.73	1.01	0.97	1.01	good
9	Crusader	Rogers	3.53	2.91	3.40	3.97	3.58	3.88	0.89	0.81	0.87	
18	Boynton Bell	Pepper Res	3.51	2.90	3.32	3.61	3.42	3.55	0.97	0.85	0.93	
53	HMX 9646	Harris-M	3.17	2.92	3.09	3.68	3.47	3.61	0.86	0.84	0.86	
32	X3R Wizard	Petoseed	3.18	3.03	3.13	3.61	3.32	3.52	0.88	0.92	0.89	
1	ACX 209	A&C	4.06	3.17	3.82	3.58	3.20	3.48	1.13	0.99	1.10	
49	ACX 223	A&C	4.41	3.35	4.08	3.34	3.20	3.29	1.32	1.05	1.24	
39	Enterprise ^x	Asgrow	3.67	2.70	3.33	3.78	3.70	3.50	0.97	0.73	0.88	
44	Orion	Enza	3.45	3.03	3.36	3.81	3.53	3.76	0.90	0.86	0.89	
8	Commandant	Rogers	3.99	3.33	3.79	3.53	3.20	3.43	1.13	1.04	1.10	
13	Double Up, SPP 6112	Sakata	3.62	3.15	3.50	3.59	3.58	3.59	1.01	0.88	0.98	good + shape
41	570774 ^d	Western	3.90	3.31	3.71	3.35	3.22	3.31	1.16	1.03	1.12	
27	12293	Asgrow	3.56	3.03	3.45	3.51	3.43	3.49	1.02	0.88	0.99	
7	Brigadier	Rogers	3.22	3.32	3.25	3.68	3.45	3.61	0.88	0.96	0.90	
11	Legionnaire	Rogers	3.35	2.91	3.22	3.47	3.33	3.42	0.97	0.87	0.94	
20	PR 99R-2	Pepper Res	3.63	3.04	3.45	3.90	3.42	3.75	0.93	0.89	0.92	
33	Aristotle, PS 7273823	Petoseed	3.66	3.14	3.55	3.83	3.45	3.75	0.95	0.91	0.94	
26	Defiance	Asgrow	3.46	3.30	3.42	3.74	3.43	3.67	0.92	0.96	0.93	
3	ACX 226	A&C	4.01	2.99	3.74	3.80	3.20	3.64	1.06	0.93	1.02	good, very large
50	ACX 228	A&C	3.69	2.94	3.42	3.54	3.28	3.45	1.04	0.89	0.99	good
42	573179 ^w	Western	3.88	3.25	3.73	3.53	3.12	3.43	1.10	1.04	1.09	
17	XPP 8125	Sakata	3.83	3.17	3.61	3.36	3.19	3.30	1.14	0.99	1.09	good +, dark green
23	PR 99R-11	Pepper Res	3.60	3.17	3.49	3.74	3.34	3.64	0.96	0.95	0.96	
6	Ss 830	A&C	3.94	3.02	3.76	3.53	3.12	3.45	1.12	0.97	1.09	
19	PR 93-2-1	Pepper Res	3.48	2.91	3.29	3.97	3.42	3.78	0.88	0.85	0.87	good
22	PR 99R-7	Pepper Res	3.48	3.19	3.41	3.64	3.43	3.59	0.96	0.93	0.95	good
28	Bennington	Asgrow	3.60	3.30	3.53	3.80	3.33	3.69	0.95	0.99	0.96	
29	X3R Camelot	Petoseed	3.99	3.58	3.86	3.73	3.28	3.59	1.07	1.09	1.08	good +
21	PR 99R-4	Pepper Res	3.60	3.05	3.44	3.79	3.32	3.66	0.95	0.92	0.94	
14	SPP 7117	Sakata	3.79	3.32	3.66	3.63	3.21	3.52	1.04	1.04	1.04	
47	744	Hazera	3.23	2.86	3.11	3.69	3.30	3.57	0.87	0.87	0.87	
34	PS 713296	Petoseed	3.27	3.13	3.24	3.63	3.56	3.61	0.90	0.88	0.90	
4	ACX 229	A&C	3.59	2.81	3.29	3.46	3.23	3.37	1.04	0.87	0.97	
46	1070c	Hazera	3.31	2.89	3.24	3.53	3.46	3.52	0.94	0.84	0.92	
5	ACX 230	A&C	3.80	2.97	3.49	3.71	3.37	3.58	1.02	0.88	0.97	good+, large
16	XPP 8124	Sakata	2.97	2.99	2.97	3.38	3.47	3.40	0.88	0.86	0.87	
12	Sentry	Rogers	2.78	2.99	2.82	3.73	3.68	3.73	0.74	0.81	0.76	
31	X3R Sir Galahad ^v	Petoseed	3.48	3.16	3.41	3.88	3.59	3.81	0.90	0.88	0.89	

^zAverage of four replications. Single bed plots, 5 ft × 10.5 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 19,913 plants per acre (10.5 inch within-row spacing). Transplanted 13 Dec. 2000 (transplants grown by LaBelle Plant World); 99 d to first pick. Average of 40 fruit, 10 each from blocks 1&2, pick #1 and #2, 22 & 23 Mar. and 11 & 13 Apr. 2001.

^yScale: 1.00 = blocky, width same as length. >1.00 = degree of elongation, length greater than width. <1.00 = degree of flatness, length less than width.

^xRipens green to yellow.

^wHarvest from only one replication.

^vHarvest from two replications.

^vHarvest from three replications.

^vObservational, harvest from only one replication.

Table 10. (Continued) Fruit length, width, and length-to-width ratio for bell pepper from a variety demonstration, Thomas Produce, Horse Farm, Boca Raton, Fla., 2000-2001.^z

Plot	Variety	Seed source	Length (inches)			Width (inches)			Length-to-width ratio ^y			Comments	
			Pick 1	Pick 2	Avg.	Pick 1	Pick 2	Avg.	Pick 1	Pick 2	Avg.		
15	SPP 7118	Sakata	3.15	3.16	3.15	3.65	3.27	3.55	0.87	0.97	0.89	flat	
30	X3R Red Knight	Petoseed	3.14	2.88	3.06	3.42	3.35	3.40	0.92	0.86	0.90		
40	570564 ^v	Western	3.15	2.96	3.10	3.04	3.18	3.08	1.04	0.93	1.01		
51	529801080 ^u	Western		3.70	3.70		3.25	3.25		1.14	1.14		
Yellow varieties													
48	Golden Sun, 959	Hazera	3.44	3.21	3.36	3.57	3.27	3.47	0.97	0.98	0.97	good	
37	Early Sunsation	Petoseed	3.47	3.04	3.37	3.67	3.54	3.64	0.95	0.86	0.92		
24	PR 99Y-3	Pepper Res	4.05	3.31	3.88	3.77	3.37	3.68	1.08	0.98	1.05	good	
10	Lafayette	Rogers	3.14	3.02	3.11	3.83	3.48	3.75	0.82	0.87	0.83		
2	ACX 217 Y	A&C	3.52	3.12	3.38	3.88	3.42	3.72	0.91	0.92	0.91		
25	PR 99Y-3	Pepper Res	3.51	3.05	3.40	3.50	3.28	3.45	1.00	0.97	1.00		
35	X3R Aladdin ^s	Petoseed	3.69	3.25	3.52	3.47	3.53	3.49	1.07	0.92	1.01		
36	X3R Chalice	Petoseed	3.07	3.09	3.07	3.52	3.40	3.49	0.87	0.91	0.88		
Elongated types													
52	529801984 ^u	Western	4.94	4.67	4.71	3.04	3.05	3.05	1.63	1.53	1.55		good
43	529800872 ^s	Western	5.75	4.27	5.23	3.25	3.13	3.21	1.77	1.36	1.63		
38	X3R Key West (Cubanelle)	Petoseed	6.13	5.56	5.86	2.38	2.33	2.35	2.58	2.39	2.49		
	Avg.		3.57	3.12	3.51	3.53	3.28	3.52	1.01	0.94	1.01		

^zAverage of four replications. Single bed plots, 5 ft × 10.5 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 19,913 plants per acre (10.5 inch within-row spacing). Transplanted 13 Dec. 2000 (transplants grown by LaBelle Plant World); 99 d to first pick. Average of 40 fruit, 10 each from blocks 1&2, pick #1 and #2, 22 & 23 Mar. and 11 & 13 Apr. 2001.

^yScale: 1.00 = blocky, width same as length. >1.00 = degree of elongation, length greater than width. <1.00 = degree of flatness, length less than width.

^xRipens green to yellow.

^sHarvest from only one replication.

^vHarvest from two replications.

^wHarvest from three replications.

^uObservational, harvest from only one replication.

Table 11. Lobe characteristics for bell pepper from a variety demonstration, Thomas Produce, Horse Farm, Boca Raton, Fla., 2000-2001.^z

Plot	Variety	Seed source	3-lobed %			4-lobed %			5-lobed %			2-lobed %			Blunt/pointed (%)			3 & 4 lobed %		
			Pick			Pick			Pick			Pick			Pick			Pick		
			1	2	Avg	1	2	Avg	1	2	Avg	1	2	Avg	1	2	Avg	1	2	Avg
Red varieties																				
45	Olympus, 31702	Enza	25	15	24	55	65	57	15	20	16	5	0	4	10	20	11	80	80	80
9	Crusader	Rogers	40	10	34	50	65	53	10	25	13	0	0	0	15	15	15	90	75	87
18	Boynton Bell	Pepper Res	40	20	34	55	70	60	5	15	8	0	0	0	15	30	20	95	90	94
53	HMX 9646	Harris-M	45	35	42	40	60	46	10	5	9	5	0	4	15	25	18	85	95	88
32	X3R Wizard	Petoseed	20	5	16	70	65	69	10	30	16	0	0	0	15	10	14	90	70	84
1	ACX 209	A&C	55	40	51	35	60	42	0	0	0	10	0	7	25	10	21	90	100	93
49	ACX 223	A&C	50	25	42	45	50	47	0	25	8	5	0	4	40	25	35	95	75	89
39	Enterprise ^y	Asgrow	55	15	49	40	25	38	0	10	2	5	0	4	15	0	13	95	40	87
44	Orion	Enza	30	20	28	45	60	48	25	20	24	0	0	0	15	25	17	75	80	76
8	Commandant	Rogers	20	35	25	65	55	62	5	10	7	10	0	7	25	10	20	85	90	87
13	Double Up, SPP 6112	Sakata	45	35	43	45	45	45	5	20	9	5	0	4	15	10	14	90	80	88
41	570774 ^w	Western	30	20	27	60	65	62	10	15	12	0	0	0	30	40	33	90	85	88
27	12293	Asgrow	65	40	60	30	45	33	0	15	3	5	0	4	20	10	18	95	85	93
7	Brigadier	Rogers	25	25	25	65	60	64	10	15	11	0	0	0	10	25	14	90	85	89
11	Legionnaire	Rogers	40	10	31	50	70	56	10	20	13	0	0	0	5	5	5	90	80	87
20	PR 99R-2	Pepper Res	60	25	50	35	60	43	5	15	8	0	0	0	10	35	18	95	85	92
33	Aristotle, PS 7273823	Petoseed	45	20	40	50	70	54	5	10	6	0	0	0	10	5	9	95	90	94
26	Defiance	Asgrow	85	35	74	15	50	23	0	15	3	0	0	0	10	20	12	100	85	97
3	ACX 226	A&C	55	45	52	45	45	45	0	10	3	0	0	0	20	45	27	100	90	97
50	ACX 228	A&C	30	15	25	70	65	68	0	20	7	0	0	0	20	20	20	100	80	93
42	573179 ^x	Western	45	30	41	50	65	54	5	5	5	0	0	0	0	30	7	95	95	95
17	XPP 8125	Sakata	35	15	28	55	60	57	10	25	15	0	0	0	0	5	2	90	75	85
23	PR 99R-11	Pepper Res	45	20	39	45	70	51	10	10	10	0	0	0	10	35	16	90	90	90
6	Ss 830	A&C	80	65	77	10	30	14	5	5	5	5	0	4	40	45	41	90	95	91
19	PR 93-2-1	Pepper Res	50	20	40	45	65	52	5	15	8	0	0	0	10	10	10	95	85	92
22	PR 99R-7	Pepper Res	50	35	46	45	55	47	5	10	6	0	0	0	10	25	14	95	90	94
28	Bennington	Asgrow	50	35	47	40	60	45	10	5	9	0	0	0	5	30	11	90	95	91
29	X3R Camelot	Petoseed	50	50	50	40	50	43	5	0	3	5	0	3	15	30	20	90	100	93
21	PR 99R-4	Pepper Res	50	25	43	40	70	48	10	5	9	0	0	0	25	20	24	90	95	91
14	SPP 7117	Sakata	60	20	49	40	70	48	0	10	3	0	0	0	5	5	5	100	90	97
47	744	Hazera	20	15	19	65	50	61	15	35	21	0	0	0	5	30	12	85	65	79
34	PS 713296	Petoseed	20	20	20	60	40	56	20	40	24	0	0	0	5	20	8	80	60	76
4	ACX 229	A&C	30	15	24	65	55	61	5	30	14	0	0	0	25	25	25	95	70	86
46	1070c	Hazera	60	20	54	30	70	36	5	10	6	5	0	4	40	40	40	90	90	90
5	ACX 230	A&C	30	20	26	60	65	62	10	15	12	0	0	0	25	20	23	90	85	88
16	XPP 8124	Sakata	40	20	34	50	70	56	5	10	6	5	0	4	0	0	0	90	90	90
12	Sentry	Rogers	30	35	31	55	50	54	10	15	11	5	5	5	10	20	12	85	85	85
31	X3R Sir Galahad ^w	Petoseed	35	5	28	50	75	56	5	20	8	10	0	8	5	20	8	85	80	84

^zAverage of four replications. Single bed plots, 5 ft × 10.5 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 19,913 plants per acre (10.5 inch within-row spacing). Transplanted 13 Dec. 2000 (transplants grown by LaBelle Plant World); 99 d to first pick. Average of 40 fruit, 10 each from blocks 1&2, pick #1 and #2, 22 & 23 Mar. and 11 & 13 Apr. 2001.

^yHarvest from only one replication.

^xHarvest from two replications.

^wHarvest from three replications.

^vObservational, harvest from only one replication.

Table 11. (Continued) Lobe characteristics for bell pepper from a variety demonstration, Thomas Produce, Horse Farm, Boca Raton, Fla., 2000-2001.^z

Plot	Variety	Seed source	3-lobed %			4-lobed %			5-lobed %			2-lobed %			Blunt/pointed (%)			3 & 4 lobed %		
			Pick			Pick			Pick			Pick			Pick			Pick		
			1	2	Avg	1	2	Avg	1	2	Avg	1	2	Avg	1	2	Avg	1	2	Avg
15	SPP 7118	Sakata	30	30	30	50	60	53	15	5	12	5	5	5	5	10	6	80	90	83
30	X3R Red Knight	Petoseed	35	20	31	40	60	46	25	20	24	0	0	0	15	0	11	75	80	76
40	570564 ^v	Western	40	35	39	60	50	57	0	15	4	0	0	0	60	35	53	100	85	96
51	529801080 ^v	Western	0	50	50	0	50	50	0	0	0	0	0	0	0	25	25	0	100	100
Yellow varieties																				
48	Golden Sun, 959	Hazera	25	40	30	70	50	64	5	10	7	0	0	0	5	10	7	95	90	94
37	Early Sunation	Petoseed	35	25	33	55	45	53	10	30	15	0	0	0	0	5	1	90	70	85
24	PR 99Y-3	Pepper Res	35	25	33	55	60	56	5	15	7	5	0	4	5	15	7	90	85	89
10	Lafayette	Rogers	20	35	23	65	55	63	15	10	14	0	0	0	20	5	17	85	90	86
2	ACX 217	A&C	65	55	62	35	35	35	0	5	2	0	5	2	15	5	12	100	90	97
25	PR 99Y-3	Pepper Res	30	50	35	65	35	58	5	15	7	0	0	0	10	0	8	95	85	93
35	X3R Aladdin ^y	Petoseed	30	30	30	55	40	49	15	30	21	0	0	0	0	0	0	85	70	79
36	X3R Chalice	Petoseed	60	30	52	30	70	40	5	0	4	5	0	4	15	5	12	90	100	93
Elongated types																				
52	529801984 ^v	Western	20	60	54	80	30	38	0	0	0	0	10	8	0	20	17	100	90	92
43	529800872 ^y	Western	60	30	50	20	65	36	10	5	8	10	0	7	70	10	49	80	95	85
38	X3R Key West (Cubanelle)	Petoseed	60	65	62	5	35	19	0	0	0	35	0	18	75	85	80	65	100	82
	Avg.	42	28	38	49	57	51	7	15	9	2	0.3	2	15	18	16	91	84	89	

^zAverage of four replications. Single bed plots, 5 ft × 10.5 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 19,913 plants per acre (10.5 inch within-row spacing). Transplanted 13 Dec. 2000 (transplants grown by LaBelle Plant World); 99 d to first pick. Average of 40 fruit, 10 each from blocks 1&2, pick #1 and #2, 22 & 23 Mar. and 11 & 13 Apr. 2001.

^yHarvest from only one replication.

^xHarvest from two replications.

^wHarvest from three replications.

^vObservational, harvest from only one replication.

Table 12. Colored fruit (red/yellow), summary of yield and fruit characteristics, pepper variety demonstration, Thomas Produce, Horse Farm, Boca Raton, Fla., 2000-01.^z

Plot	Variety	Seed source	Yield (25-lb cartons/acre) ^y					Culls (%)						Avg. plant stand (%)		
			Total	Market-able ^x	Fully colored market. yield ^w	% fully color ^v	Marketable yield (fruit/25-lb carton) ^u	Soft side	Sun-burn	Miss-shapen	Flat	Dry, soft rot	Age & surface crack		Stip	Total culls
Red varieties																
13	Double Up, SPP 6112	Sakata	2147	1581	982	63	52.0	13	6	7	0	1	0	0	27	100
46	1070c	Hazera	1753	1073	981	91	55.7	30	5	2	0	0	28	0	42	99
11	Legionnaire	Rogers	2182	1519	869	63	54.6	17	9	7	0	2	0	0	35	100
53	HMX 9646	Harris-M	1333	1006	758	80	56.9	14	6	4	4	1	0	0	30	100
9	Crusader	Rogers	2538	1452	732	56	46.9	21	9	13	5	0	0	0	48	100
8	Commandant	Rogers	2084	1336	642	54	54.7	22	5	6	1	4	0	0	39	100
1	ACX 209	A&C	1896	1078	642	62	50.8	35	5	5	0	1	0	0	46	100
17	XPP 8125	Sakata	1794	1026	610	64	59.0	24	14	2	2	0	0	0	43	99
7	Brigadier	Rogers	1894	736	534	74	54.1	32	4	14	13	2	0	0	65	100
16	XPP 8124	Sakata	1815	776	472	60	57.7	26	12	8	14	0	0	0	59	100
26	Defiance	Asgrow	1809	836	471	61	49.6	37	4	7	9	1	0	0	57	100
6	Ss 830	A&C	1764	1041	469	56	50.2	33	4	6	0	0	0	0	43	100
14	SPP 7117	Sakata	2302	1086	461	50	52.0	29	9	14	5	0	0	0	57	100
23	PR 99R-11	Pepper Res	2071	877	448	58	46.4	34	3	10	7	6	0	0	60	86
45	Olympus, 31702	Enza	1795	933	422	52	43.6	29	8	12	0	1	0	0	51	93
42	573179	Western	1830	882	418	54	56.4	30	9	13	0	2	0	0	54	100
51	529801080 ^a	Western	1219	550	413	57	54.3	43	14	0	0	0	0	0	57	100
20	PR 99R-2	Pepper Res	1723	671	390	62	45.8	30	7	10	12	5	4	0	65	89
22	PR 99R-7	Pepper Res	1862	954	373	45	53.1	28	3	10	11	0	0	0	52	90
39	Enterprise	Asgrow	1858	564	342	74	53.0	46	1	7	15	1	0	0	73	100
12	Sentry	Rogers	2111	457	316	68	59.9	20	4	4	53	0	0	0	80	100
4	ACX 229	A&C	1410	747	310	41	55.5	17	7	3	16	5	0	0	48	100
21	PR 99R-4	Pepper Res	1556	687	305	49	47.1	39	7	7	4	2	0	0	60	78
5	ACX 230	A&C	1481	781	304	38	59.5	31	9	2	4	1	0	0	47	100
33	Aristotle, PS 7273823	Petoseed	1531	637	300	52	54.7	45	4	7	2	1	2	0	58	100
41	570774	Western	1712	951	293	37	58.5	31	10	4	0	2	0	0	47	100
19	PR 93-2-1	Pepper Res	1719	634	287	65	47.1	16	6	7	9	28	0	0	67	85
18	Boynton Bell	Pepper Res	1154	614	261	51	56.8	29	4	7	5	0	0	0	45	67
30	X3R Red Knight	Petoseed	1428	370	252	69	60.5	60	4	10	3	0	0	0	78	100
40	570564	Western	1070	748	244	35	74.3	22	6	4	0	0	0	0	32	100
27	12293	Asgrow	1450	520	236	61	60.6	51	13	0	1	0	0	0	65	92
28	Bennington	Asgrow	1505	572	231	45	49.3	51	4	4	6	0	0	0	65	93
44	Orion	Enza	2042	806	229	37	38.1	31	22	6	7	0	0	0	65	100
47	744	Hazera	1425	620	216	38	56.2	41	10	4	2	1	0	0	58	100

^zHarvest from one replication. Single bed plots, 5 ft × 10.5 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 19,913 plants per acre (10.5 inch within-row spacing). Transplanted 13 Dec. 2000 (transplants grown by LaBelle Plant World); 113 d to first colored pick.

^yTotal picked includes both marketable and unmarketable fruit, both partially and totally colored.

^xMarketable includes both fully colored and not fully colored.

^wRepresents all fully colored fruit that was marketable.

^vIncludes both marketable and unmarketable fruit.

^uNumber of fruit to weigh 25 lb.

^aObservational, harvest from two plants.

^bObservational, harvest from 11 plants.

Table 12. (Continued) Colored fruit (red/yellow), summary of yield and fruit characteristics, pepper variety demonstration, Thomas Produce, Horse Farm, Boca Raton, Fla., 2000-01.^z

Plot	Variety	Seed source	Yield (25-lb cartons/acre) ^y				Culls (%)							Avg. plant stand (%)		
			Total	Market-able ^x	Fully colored market. yield ^w	% fully color ^v	Marketable yield (fruit/25-lb carton) ^u	Soft side	Sun-burn	Miss-shapen	Flat	Dry, soft rot	Age & surface crack		Stip	Total culls
15	SPP 7118	Sakata	1429	402	214	54	64.0	21	10	13	24	2	5	0	72	100
29	X3R Camelot	Petoseed	1507	643	202	40	47.7	45	12	4	0	0	0	0	62	96
34	PS 713296	Petoseed	1383	870	194	31	46.7	22	11	6	2	0	0	0	41	100
32	X3R Wizard	Petoseed	1477	713	175	26	52.4	35	10	3	6	0	0	0	55	100
3	ACX 226	A&C	1718	358	174	61	51.0	68	6	2	1	1	0	0	78	100
49	ACX 223	A&C	1502	630	166	29	59.3	29	26	2	0	2	0	0	59	100
31	X3R Sir Galahad	Petoseed	375	347	139	40	43.0	5	5	0	0	0	0	0	10	100
50	ACX 228	A&C	1416	141	21	14	58.8	61	21	1	1	5	0	0	89	100
Yellow varieties																
10	Lafayette	Rogers	2010	771	549	72	50.6	18	6	17	27	1	0	0	68	100
2	ACX 217 Y	A&C	1790	608	398	65	56.0	37	1	16	13	2	0	0	69	100
48	Golden Sun, 959	Hazera	1839	1242	367	31	52.8	21	1	10	0	0	16	0	35	100
25	PR 99Y-3	Pepper Res	1997	942	367	53	52.0	43	0	4	11	0	0	0	58	100
24	PR 99Y-3	Pepper Res	1877	808	350	45	43.1	41	2	10	2	4	0	0	58	88
36	X3R Chalice	Petoseed	1642	743	275	38	59.2	48	3	5	3	1	0	0	59	86
37	Early Sunsation	Petoseed	1443	775	242	34	54.6	38	3	4	3	1	0	0	49	90
35	X3R Aladdin	Petoseed	1468	476	94	22	61.0	55	2	5	5	2	0	0	69	100
Elongated types																
52	529801984 ^t	Western	1470	613	333	58	65.0	47	5	2	0	4	10	0	61	100
43	529800872	Western	1237	466	138	37	55.2	53	2	5	0	2	0	0	63	100
38	X3R Key West (Cubanelle)	Petoseed	1651	1153	844	73	91.4	23	1	5	0	2	0	0	30	94
Avg.			1670	789	386	52	53.5	33	7	7	6	2	1	0	55	97

^zHarvest from one replication. Single bed plots, 5 ft × 10.5 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 19,913 plants per acre (10.5 inch within-row spacing). Transplanted 13 Dec. 2000 (transplants grown by LaBelle Plant World); 113 d to first colored pick.

^yTotal picked includes both marketable and unmarketable fruit, both partially and totally colored.

^xMarketable includes both fully colored and not fully colored.

^wRepresents all fully colored fruit that was marketable.

^vIncludes both marketable and unmarketable fruit.

^uNumber of fruit to weigh 25 lb.

^tObservational, harvest from two plants.

^sObservational, harvest from 11 plants.

Table 13. Colored fruit yield, pepper variety demonstration, Thomas Produce, Horse Farm, Boca Raton, Fla., 2000-01.^z

Plot	Variety	Seed source	Total harvest (25-lb cartons per acre) ^y				Marketable yield (25-lb cartons per acre) ^x				Colored marketable yield (25-lb cartons per acre) ^w			
			1 5 Apr.	2 17 Apr.	3 1 May	Total	1 5 Apr.	2 17 Apr.	3 1 May	Total	1 5 Apr.	2 17 Apr.	3 1 May	Total
Red varieties														
13	Double Up, SPP 6112	Sakata	1085	759	303	2147	898	514	169	1581	505	376	101	982
46	1070c	Hazera	1257	363	133	1753	913	115	45	1073	837	111	33	981
11	Legionnaire	Rogers	409	1174	599	2182	394	879	246	1519	161	508	200	869
53	HMX 9646	Harris-M	1025	196	112	1333	933	64	8	1006	693	57	8	758
9	Crusader	Rogers	523	1753	262	2538	444	929	78	1452	132	530	70	732
8	Commandant	Rogers	444	1193	447	2084	324	859	154	1336	141	364	137	642
1	ACX 209	A&C	602	1130	164	1896	504	566	8	1078	260	377	5	642
17	XPP 8125	Sakata	468	1153	172	1794	347	631	48	1026	161	401	48	610
7	Brigadier	Rogers	900	772	222	1894	396	306	34	735	258	250	26	534
16	XPP 8124	Sakata	694	604	516	1815	333	230	213	776	215	122	135	472
26	Defiance	Asgrow	948	753	108	1809	529	239	68	836	242	186	43	471
6	Ss 830	A&C	728	896	140	1764	656	344	41	1041	187	260	22	469
14	SPP 7117	Sakata	481	1093	728	2302	368	523	195	1086	105	212	144	461
23	PR 99R-11	Pepper Res	403	1418	250	2071	331	504	42	877	101	317	30	448
45	Olympus, 31702	Enza	420	1232	143	1795	305	629	0	933	25	397	0	422
42	573179	Western	694	778	357	1830	490	324	68	881	156	216	46	418
51	529801080 ^o	Western	0	797	422	1219	0	550	0	550	0	413	0	413
20	PR 99R-2	Pepper Res	241	1079	404	1723	139	417	115	671	35	278	77	390
22	PR 99R-7	Pepper Res	461	1269	132	1862	347	560	47	954	72	271	30	373
39	Enterprise	Asgrow	772	929	157	1858	419	145	0	564	218	124	0	342
12	Sentry	Rogers	1049	700	361	2111	270	153	33	457	189	107	20	316
4	ACX 229	A&C	145	898	367	1410	87	510	149	747	11	251	48	310
21	PR 99R-4	Pepper Res	224	1149	183	1556	175	488	24	687	44	247	14	305
5	ACX 230	A&C	80	882	520	1481	32	461	288	781	6	206	92	304
33	Aristotle, PS 7273823	Petoseed	1124	266	141	1531	550	44	43	637	248	38	14	300
41	570774	Western	512	911	288	1712	396	431	123	951	50	150	94	293
19	PR 93-2-1	Pepper Res	618	888	213	1719	435	166	33	634	124	138	25	287
18	Boynton Bell	Pepper Res	600	463	91	1154	456	120	38	614	156	89	16	261
30	X3R Red Knight	Petoseed	869	447	112	1428	266	92	12	370	175	69	9	252
40	570564	Western	373	575	123	1070	308	382	58	748	63	140	40	244
27	12293	Asgrow	433	975	41	1450	321	199	0	520	90	146	0	236
28	Bennington	Asgrow	888	591	27	1505	485	88	0	572	53	178	0	231
44	Orion	Enza	324	1199	520	2042	237	438	132	806	0	159	70	229
47	744	Hazera	529	676	220	1425	384	204	32	620	116	87	12	216
15	SPP 7118	Sakata	509	432	488	1429	143	125	133	402	56	81	78	214
29	X3R Camelot	Petoseed	589	729	190	1507	343	262	39	643	20	164	18	202
34	PS 713296	Petoseed	563	672	147	1383	484	348	38	870	16	157	21	194

^zHarvest from one replication. Single bed plots, 5 ft × 10.5 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 19,913 plants per acre (10.5 inch within-row spacing). Transplanted 13 Dec. 2000 (transplants grown by LaBelle Plant World); 113 d to first colored pick.

^yTotal harvest includes both marketable and unmarketable fruit, both partially and totally colored.

^xMarketable includes both fully colored and not fully colored.

^wRepresents all fully colored fruit which was marketable.

^vObservational, harvest from two plants.

^uObservational, harvest from 11 plants.

Table 13. (Continued) Colored fruit yield, pepper variety demonstration, Thomas Produce, Horse Farm, Boca Raton, Fla., 2000-01.^z

Plot	Variety	Seed source	Total harvest (25-lb cartons per acre) ^y				Marketable yield (25-lb cartons per acre) ^x				Colored marketable yield (25-lb cartons per acre) ^w			
			1 5 Apr.	2 17 Apr.	3 1 May	Total	1 5 Apr.	2 17 Apr.	3 1 May	Total	1 5 Apr.	2 17 Apr.	3 1 May	Total
32	X3R Wizard	Petoseed	407	882	189	1477	271	350	91	713	45	99	30	175
3	ACX 226	A&C	270	1402	46	1718	145	199	14	358	27	138	9	174
49	ACX 223	A&C	104	911	488	1502	40	437	153	630	6	93	67	166
31	X3R Sir Galahad	Petoseed	375	0	0	375	347	0	0	347	139	0	0	139
50	ACX 228	A&C	106	950	360	1416	0	106	35	141	0	14	7	21
Yellow varieties														
10	Lafayette	Rogers	925	923	161	2010	493	256	22	771	339	196	14	549
2	ACX 217 Y	A&C	1054	370	366	1790	435	148	25	608	298	84	16	398
48	Golden Sun, 959	Hazera	1012	697	129	1839	846	342	53	1242	232	103	32	367
25	PR 99Y-3	Pepper Res	722	1029	246	1997	619	266	57	942	158	163	46	367
24	PR 99Y-3	Pepper Res	440	1263	174	1877	300	433	75	808	117	189	44	350
36	*X3R Chalice	Petoseed	888	638	116	1642	494	205	44	743	178	81	16	275
Elongated types														
52	529801984 ^u	Western	232	1050	188	1470	174	439	0	613	44	289	0	333
43	529800872	Western	145	781	311	1237	109	266	91	466	0	87	51	138
38	X3R Key West (Cubanelle)	Petoseed	334	1043	274	1651	317	668	168	1153	248	459	137	844
	Total avg.		566	854	250	1670	371	348	70	789	149	195	42	386

^zHarvest from one replication. Single bed plots, 5 ft × 10.5 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 19,913 plants per acre (10.5 inch within-row spacing). Transplanted 13 Dec. 2000 (transplants grown by LaBelle Plant World); 113 d to first colored pick.

^yTotal harvest includes both marketable and unmarketable fruit, both partially and totally colored.

^xMarketable includes both fully colored and not fully colored.

^wRepresents all fully colored fruit which was marketable.

^vObservational, harvest from two plants.

^uObservational, harvest from 11 plants.

Table 14. Description of cull fruit for colored harvest from a pepper variety demonstration, Thomas Produce, Horse Farm, Boca Raton, Fla., 2000-01.^z

Plot	Variety	Soft side, dry rot, and sunburn (%) ^y				Misshapen, flat, and surface cracks (%) ^y				Total culls (%) ^y			
		Pick 1	Pick 2	Pick 3 ^y	Total	Pick 1	Pick 2	Pick 3 ^y	Total	Pick 1	Pick 2	Pick 3 ^y	Total
Red varieties													
13	Double Up, SPP 6112	4	10	6	20	4	1	1	7	8	13	7	27
46	1070c	19	24	5	47	1	0	2	2	20	24	7	50
11	Legionnaire	1	12	15	28	0	4	3	7	1	16	18	35
53	HMX 9646	2	10	9	21	5	2	1	8	7	12	10	30
9	Crusader	1	25	4	30	3	12	4	18	4	37	8	48
8	Commandant	4	13	14	31	0	5	3	8	4	17	17	38
1	ACX 209	4	27	10	41	1	3	1	5	5	30	11	46
17	XPP 8125	4	27	7	38	2	2	1	5	6	30	8	43
7	Brigadier	7	22	9	38	21	4	2	27	28	26	11	65
16	XPP 8124	11	15	12	38	10	7	5	22	20	22	17	59
26	Defiance	14	26	3	42	10	2	1	15	24	30	3	57
6	Ss 830	4	26	7	36	0	6	0	6	4	32	7	43
14	SPP 7117	2	15	22	38	3	10	6	19	7	25	28	57
23	PR 99R-11	2	34	8	43	3	10	4	16	4	43	12	60
45	Olympus, 31702	6	25	7	38	1	8	3	12	7	33	10	51
42	573179	6	18	18	41	5	7	1	13	12	24	18	54
51	529801080 ^x	0	14	43	57	0	0	0	0	0	14	43	57
20	PR 99R-2	4	26	13	43	2	12	8	22	6	38	21	65
22	PR 99R-7	3	24	4	31	2	18	2	21	5	42	6	52
39	Enterprise ^x	14	31	2	47	5	14	4	22	18	45	6	69
12	Sentry	6	6	11	23	31	21	4	57	37	27	15	80
4	ACX 229	0	14	16	29	4	12	3	19	4	25	19	48
21	PR 99R-4	2	38	8	49	1	6	4	11	3	44	12	60
5	ACX 230	3	21	17	41	0	5	1	6	3	26	18	47
33	Aristotle, PS 7273823	30	16	5	51	7	1	1	9	37	17	6	60
41	570774	5	27	11	43	1	2	1	4	6	29	12	47
19	PR 93-2-1	5	36	11	51	6	9	2	16	10	45	13	67
18	Boynton Bell	7	22	4	33	4	7	1	12	11	29	5	45
30	X3R Red Knight	33	26	6	64	10	1	3	13	43	27	8	78
40	570564	5	16	7	28	2	2	0	4	7	18	7	32
27	12293	8	52	4	64	0	1	0	1	8	53	4	65
28	Bennington	21	32	2	55	7	3	0	10	28	35	2	65
44	Orion	4	34	14	52	0	2	11	12	4	36	25	65
47	744	9	29	14	52	0	5	1	6	9	34	15	58
15	SPP 7118	9	10	16	35	2	14	8	37	24	24	24	72
29	X3R Camelot	14	33	10	58	1	1	2	4	16	34	12	62
34	PS 713296	6	22	5	33	0	4	5	8	6	25	10	41
32	X3R Wizard	7	32	6	46	2	5	2	9	9	37	8	55
3	ACX 226	8	65	2	75	0	3	0	3	8	68	2	78
49	ACX 223	5	28	25	57	0	1	1	2	5	28	26	59
31	X3R Sir Galahad	10	0	0	10	0	0	0	0	10	0	0	10
50	ACX 228	5	57	25	87	0	1	1	2	5	58	26	89
Yellow varieties													
10	Lafayette	5	16	3	24	19	21	4	44	23	37	8	68
2	ACX 217	13	10	16	40	21	4	5	30	34	13	22	69
48	Golden Sun, 959	7	18	3	29	3	6	2	10	10	24	5	39
25	PR 99Y-3	4	30	9	43	1	10	3	14	5	40	12	58
24	PR 99Y-3	5	37	5	47	0	10	2	12	5	47	7	58
36	X3R Chalice	19	27	6	52	5	2	1	8	23	30	7	60
37	Early Sunsation	19	17	6	42	1	4	2	7	20	21	8	49
35	X3R Aladdin	6	44	8	59	0	7	3	10	6	51	11	69
Elongated types													
52	529801984 ^v	5	42	12	60	0	0	2	2	5	42	14	61
43	529800872	2	35	21	58	0	2	2	5	2	37	23	63
38	X3R Key West (Cubanelle)	1	20	4	25	1	3	2	5	2	23	6	30
	Avg.	8	25	10	42	4	6	2	13	12	31	12	55

^zHarvest from one replication. Single bed plots, 5 ft × 10.5 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 19,913 plants per acre (10.5 inch within-row spacing). Transplanted 13 Dec. 2000 (transplants grown by LaBelle Plant World); 113 d to first colored pick.

^yPercent of all fruit harvested, including marketable.

^xObservational, harvest from two plants.

^vObservational, harvest from 11 plants.

Table 15. Percent fully colored and comments for colored harvest from a pepper variety demonstration, Thomas Produce, Horse Farm, Boca Raton, Fla., 2000-01.^z

Plot	Variety	Percent fully colored ^y			Comments
		Pick 1	Pick 2	Pick 3 ^y	
Red varieties					
13	Double Up, SPP 6112	42	44	14	
46	1070c	69	23	8	
11	Legionnaire	9	50	41	
53	HMX 9646	67	19	14	
9	Crusader	9	73	18	
8	Commandant	13	46	41	
1	ACX 209	22	66	12	
17	XPP 8125	16	66	18	
7	Brigadier	41	45	14	
16	XPP 8124	39	31	30	
26	Defiance	38	55	7	
6	Ss 830	20	70	10	
14	SPP 7117	10	38	53	
23	PR 99R-11	10	72	18	
45	Olympus, 31702	4	80	16	
42	573179	21	51	28	37.5% plants had yellow fruit (9 plants).
51	529801080 ^x	0	75	25	
20	PR 99R-2	5	65	31	Pick #3: 3% anthracnose (1 fruit).
22	PR 99R-7	9	79	12	
39	Enterprise ^x	27	60	13	4% plants had yellow fruit (1 plant).
12	Sentry	50	35	15	
4	ACX 229	3	72	26	Chocolate/suntan.
21	PR 99R-4	6	77	17	
5	ACX 230	3	63	35	
33	Aristotle, PS 7273823	62	33	6	
41	570774	9	51	40	
19	PR 93-2-1	14	69	17	Pick #2: 36% anthracnose (21 fruit). Pick #3: 44% anthracnose (7 fruit).
18	Boynton Bell	33	59	8	
30	X3R Red Knight	55	35	10	
40	570564	20	54	26	Majority of fruit have virus symptoms.
27	12293	14	80	6	
28	Bennington	14	82	5	
44	Orion	0	54	46	
47	744	26	55	18	
15	SPP 7118	24	41	36	
29	X3R Camelot	5	77	18	
34	PS 713296	4	73	23	
32	X3R Wizard	15	65	19	
3	ACX 226	5	92	3	
49	ACX 223	3	41	56	
31	X3R Sir Galahad	100	0	0	
50	ACX 228	0	62	38	
Yellow varieties					
10	Lafayette	40	52	8	
2	ACX 217	57	20	23	4% plants had red fruit (1 plant).
48	Golden Sun, 959	45	39	16	
25	PR 99Y-3	15	62	23	
24	PR 99Y-3	16	69	16	
36	X3R Chalice	48	44	8	
37	Early Sunstation	41	41	18	
35	X3R Aladdin	0	71	29	Slight green at stem end.
Elongated types					
52	529801984 ^a	6	82	12	
43	529800872	0	52	48	
38	X3R Key West (Cubanelle)	19	61	20	
	Avg.	24	56	21	

^zHarvest from one replication. Single bed plots, 5 ft × 10.5 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 19,913 plants per acre (10.5 inch within-row spacing). Transplanted 13 Dec. 2000 (transplants grown by LaBelle Plant World); 113 d to first colored pick.

^yPercent of all fruit harvested, including unmarketable (culls).

^xObservational, harvest from two plants.

^aObservational, harvest from 11 plants.

Table 16. Summary of yield and fruit characteristics for a bell pepper variety demonstration, Thomas Produce, Horse Farm, Boca Raton, Fla., 2001-02.^z

Plot	Variety	Seed source	Yield (25-lb cartons per acre)				Size (fruit per 25-lb carton)				Length × width (inches) ^y	Ratio l × w ^{b,c}	% 3 & 4 lobes ^y	Avg. no. lobes ^y	% blunt point ^w
			Pick 1 02/20	Pick 2 03/06	Pick 3 03/29	Total	Pick 1 02/20	Pick 2 03/06	Pick 3 03/29	Avg.					
Red varieties															
28	769 F1	Hazera	1713	123	389	2225	51.1	72.6	62.1	54.2	3.59 × 3.74	0.96	86	3.52	30.3
5	Crusader, 6110	Syngenta	1657	259	284	2200	55.9	75.3	61.3	58.9	3.56 × 3.69	0.96	98	3.47	5.9
25	Orion	Enza	1882	130	157	2170	49.0	70.5	60.3	51.1	3.51 × 3.76	0.93	90	3.68	5.9
26	Olympus, 31702	Enza	1795	160	174	2128	47.7	67.4	72.2	51.1	3.96 × 3.63	1.09	100	3.83	7.8
6	Legionnaire, 6089	Syngenta	1683	201	168	2053	52.3	78.6	59.9	55.5	3.67 × 3.52	1.04	96	3.44	15.0
7	RPP 9608	Syngenta	1769	139	140	2048	48.6	77.4	56.9	51.1	4.05 × 3.36	1.21	90	3.75	15.3
16	PR 99R-20	Pepper Res	1591	293	165	2048	54.1	73.6	61.3	57.4	7.12 × 3.28	1.26	100	3.37	18.0
8	Double Up, 6112	Sakata	1639	175	216	2030	57.1	74.6	63.6	59.3	3.67 × 3.40	1.08	91	3.21	18.2
4	Commandant	Syngenta	1692	102	217	2011	53.9	76.7	67.6	56.6	4.28 × 3.25	1.32	99	3.37	21.4
17	PR 99R-21	Pepper Res	1732	132	130	1993	51.9	73.2	66.0	54.2	3.97 × 3.65	1.09	100	3.51	5.0
21	SVR 2670101	Asgrow	1748	130	94	1972	50.4	72.5	68.0	52.7	3.91 × 3.50	1.12	100	3.50	4.5
2	ACX 230	A&C	1541	237	186	1964	57.6	81.1	75.8	62.2	3.77 × 3.30	1.14	100	3.49	47.7
24	Aristotle, X3R, 7273823	Petoseed	1730	88	70	1889	51.7	80.7	69.6	53.7	3.87 × 3.60	1.07	91	3.25	15.4
9	XPP 1135	Sakata	1685	151	53	1888	57.7	80.5	81.4	60.2	3.85 × 3.44	1.12	86	2.97	35.4
23	X3R Wizard	Petoseed	1630	175	78	1883	51.1	64.1	59.0	52.6	3.84 × 3.57	1.08	99	3.31	15.0
20	Defiance, 12292	Asgrow	1617	116	117	1850	54.5	82.8	75.6	57.6	3.78 × 3.61	1.05	99	3.38	6.7
15	PR 99R-7	Pepper Res	1595	139	112	1845	57.5	77.4	60.3	59.2	3.72 × 3.48	1.07	87	3.49	10.1
10	XPP 1136	Sakata	1637	134	62	1832	59.1	80.4	79.4	61.4	3.77 × 3.53	1.07	86	2.89	15.5
12	Boynton Bell	Pepper Res	1551	155	119	1825	59.9	82.7	72.1	62.6	3.72 × 3.46	1.07	91	3.19	52.4
13	PR 93-2-1	Pepper Res	1608	141	70	1818	49.3	70.0	70.3	51.8	3.90 × 3.80	1.03	99	3.43	6.1
18	PR 99R-3A	Pepper Res	1549	153	107	1808	55.7	80.9	71.6	58.7	3.60 × 3.36	1.07	91	3.63	43.1
1	ACX 229	A&C	1459	181	154	1794	62.5	80.0	75.2	65.4	3.65 × 3.35	1.09	96	3.60	45.7
27	Saturnus	Enza	1578	132	67	1777	58.7	78.5	86.7	61.2	3.38 × 3.46	0.98	100	3.46	6.5
22	SVR 8275289	Asgrow	1512	167	87	1766	61.0	86.3	63.1	63.5	3.84 × 3.34	1.15	100	3.50	12.0
29	744	Hazera	1416	190	82	1688	62.2	74.6	71.2	64.0	3.29 × 3.30	1.00	89	3.72	20.7
Yellow/orange varieties															
18	PR 99Y-3	Pepper Res	1585	297	134	2016	56.6	77.9	61.7	60.1	3.48 × 3.42	1.02	91	3.87	8.1
19	PR 99Y-6	Pepper Res	1627	154	188	1970	54.0	80.2	64.9	57.1	3.89 × 3.38	1.15	86	3.44	16.8
30	Golden Sun, 959 ^v	Hazera	1570	124	151	1845	62.9	81.2	60.9	64.0	3.61 × 3.22	1.12	100	3.53	6.0
3	ACX 231	A&C	1598	127	105	1830	57.5	81.4	75.6	60.2	3.52 × 3.42	1.03	100	3.34	9.0
11	XPP 0132	Sakata	1245	189	62	1596	64.5	87.4	83.3	67.9	3.48 × 3.06	1.14	82	3.20	49.6

^zAverage of four replications. Single bed plots, 5 ft × 9.5 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 22,009 plants per acre (9.5 inch within-row spacing). Transplanted 26 Nov. 2001 (transplants grown by LaBelle Plant World); 86 d to first pick.

^yAverage of 40 fruit, 10 each from blocks 1 & 2, pick #1 and #2, 20 Feb. and 6 Mar. 2002.

^xScale: 1.00 = blocky, width same as length. >1.00 = degree of elongation, length greater than width. <1.00 = degree of flatness, length less than width.

^wFlat or pointed at blossom end with very little indentation of lobes.

^vHarvest from three replications.

Table 17. Colored fruit yield, pepper variety demonstration, Thomas Produce, Horse Farm, Boca Raton, Fla., 2001-02.^z

Plot	Variety	Seed source	Fully color (%)	Marketable by wt. (%)	Color & marketable (%)	Total marketable yield (25-lb cartons per acre) ^y					Colored marketable yield (25-lb cartons per acre) ^x					Marketable fruit per carton (25-lb per carton)				
						1 7 Mar.	2 13 Mar.	3 21 Mar.	4 29 Mar.	Total	1 7 Mar.	2 13 Mar.	3 21 Mar.	4 29 Mar.	Total	1 7 Mar.	2 13 Mar.	3 21 Mar.	4 29 Mar.	Avg.
Red varieties																				
21	SVR 2670101	Asgrow	81	77	63	1043	235	78	0	1356	872	148	79	0	1104	51.9	54.7	79.4		53
8	Double Up, SPP 6112	Sakata	66	86	56	1035	320	311	15	1680	785	160	179	9	1101	50.5	54.5	62.0	62.5	53
10	XPP 1136	Sakata	68	83	56	828	342	305	0	1475	545	263	189	0	998	47.7	53.6	60.2		51
20	Defiance, 12292	Asgrow	67	86	58	83	338	308	48	1477	668	135	176	34	985	46.9	51.5	59.5	57.3	50
9	XPP 1135	Sakata	61	83	51	995	209	204	72	1480	742	116	71	43	908	49.8	57.0	62.9	63.8	53
5	Crusadert	Syngenta	62	76	47	463	425	502	57	1447	358	199	275	53	895	43.6	53.9	54.8	64.1	51
28	769 F1	Hazera	55	84	47	488	508	534	59	1589	361	176	303	39	881	39.5	43.3	48.1	62.5	44
27	Saturnus	Enza	61	84	50	1114	193	73	0	1380	789	69	32	0	837	52.7	57.1	50.0		53
17	PR 99R-21	Pepper Res.	59	74	43	576	365	398	62	1401	211	116	332	53	824	43.0	50.3	50.6	59.2	47
6	Legionnaire, 6089	Syngenta	57	79	45	540	462	371	54	1428	454	188	173	39	816	40.7	51.6	54.3	50.7	48
13	PR 93-2-1	Pepper Res.	52	83	43	669	493	342	46	1551	335	159	228	36	809	38.4	44.6	50.9	60.0	43
24	Aristotle, X3R, 72738	Petoseed	60	78	47	761	377	189	0	1327	533	90	128	0	793	48.2	43.8	53.4		47
12	Boynton Bell	Pepper Res.	53	77	41	697	431	284	68	1480	385	167	150	56	778	47.2	55.3	64.6	67.6	53
16	PR 99R-20	Pepper Res.	52	70	36	559	310	437	117	1423	352	141	194	70	736	42.7	50.4	54.5	62.7	49
7	RPP 9608	Syngenta	48	80	38	512	472	449	21	1454	195	236	186	16	693	37.6	42.7	44.9	44.6	41
22	SVR 8275289	Asgrow	47	83	39	427	538	283	185	1433	253	285	85	82	670	55.8	58.0	55.1	64.6	57
26	Olympus	Enza	52	68	35	454	412	344	18	1229	195	52	289	12	636	42.4	40.0	45.3	50.0	42
14	PR 99R-3A	Pepper Res.	56	57	32	377	389	270	18	1054	171	202	155	14	591	51.1	49.5	64.5	50.0	53
15	PR 99R-7	Pepper Res.	47	67	31	327	340	550	33	1251	173	59	258	30	582	44.8	43.1	51.7	55.6	47
4	Commandant	Syngenta	44	69	30	270	285	573	92	1220	113	111	259	46	535	40.8	45.1	46.4	30.0	43
29	744	Hazera	43	74	32	566	293	241	125	1226	283	164	72	39	527	51.8	62.5	68.6	58.5	58
23	X3R Wizard	Petoseed	35	78	27	383	424	381	191	1379	230	42	114	90	476	35.9	41.1	43.3	52.9	41
1	ACX 229	A&Cobb	40	67	27	304	281	305	170	1061	43	18	148	104	427	42.2	48.9	54.2	64.8	5
25	Orion	Enza	30	73	22	275	465	465	138	1343	23	121	151	58	397	40.0	43.4	43.3	53.3	43
2	ACX 230	A&Cobb	28	71	20	227	293	479	266	1266	38	17	120	118	348	44.4	50.0	57.4	62.1	54
Yellow varieties																				
11	XPP 0132	Sakata	84	88	74	1182	120	71	9	1383	1048	80	49	9	1161	58.2	68.6	77.3	100.0	60
30	Golden Sun, 959 ^w	Hazera	68	93	63	894	314	339	16	1564	748	157	176	12	1066	55.4	64.2	67.6	56.8	59
3	ACX 231	A&Cobb	68	88	60	1259	165	44	18	1486	909	83	28	11	1006	49.5	55.7	83.3	50.0	52
19	PR 99Y-6	Pepper Res.	57	86	49	952	241	257	24	1474	648	75	124	19	838	47.2	61.0	67.9	75.8	53
18	PR 99Y-3	Pepper Res.	28	68	19	464	304	481	40	1289	89	72	154	13	358	49.4	45.2	49.5	68.8	49

^zHarvest from one replication. Single bed plots, 6 ft × 8 ft. Two rows per bed, 12 plants per row, 24 plants per bed, 21,780 plants per acre (8 inch within-row spacing). Transplanted 27 Sept. 2000 (transplants grown by LaBelle Plant World); 106 d to first colored pick.

^yTotal harvest includes both marketable and unmarketable fruit, both partially and totally colored.

^xMarketable includes both fully colored and not fully colored.

^wRepresents all fully colored fruit that was marketable.

^vObservational, harvest from three plants.

^uObservational, harvest from 14 plants.

(Tables 12-15) are listed in order according to yield that was both marketable and fully colored with no green showing. The incidence of soft sides was very high in this demonstration and could have been partially reduced by picking more often or by picking fruit that were not fully colored and allowing them to finish ripening off the plant. The high incidence of soft sides was probably related to the dry soil conditions. The beds left for color evaluation were in the middle of the block and the plants were shorter, had less foliage cover, and were more dehydrated (wilted) in early afternoon than plants on the other beds nearer the field ditches. Culls were separated and counted by type and were included in the count of fully colored fruit. Where fruit had more than one flaw (usually misshapen, flat, or soft rot along with having soft sides), the peppers would be counted for the primary flaw and not included in the count for having soft sides.

The lower yielding varieties (fully colored and marketable pepper) generally had either a low percentage of fully colored fruit or a high percentage of fruit with soft sides. The five top yielding red varieties ['Double Up' (SPP 6112), '1070c', 'Legionnaire', 'HMX 9646', and 'Crusader'] and the top yielding yellow variety ('Lafayette') all had over 50% fully colored fruit and 30% or less fruit with soft sides. The top four yielding red varieties also had less than 10% culls that were misshapen, flat, or had surface cracks. However, nine varieties had over 20% culls that were misshapen, flat, or had surface cracks: 'Sentry' (57%), 'Lafayette' (44%), 'SPP 7118' (37%), 'ACX 217' (30%), 'Brigadier' (27%), 'XPP 8124' (22%), 'PR 99R-2' (22%), 'Enterprise' (22%), and 'PR 99 R-7' (21%). Two of the Hazera varieties had fruit with several small surface cracks on the stem-end shoulders: '1070c' (28%) and '959' (16%).

Fall/winter 2001-02, Thomas Produce, mature green fruit. Varieties in Table 16 are listed in order according to total yield. All of the varieties had resistance to bacterial spot races 1, 2, 3 except 'PR 93-2-1', which only had resistance to race 2. This trial was picked three times over a period of 37 d so is an indication of how a variety would pick over a moderately long season. Several varieties still had concentrated early yields; seven had yields of over 1,700, 25-lb cartons per acre on first pick: 'Orion', 'Olympus', 'RPP 9608', 'SVR 2670101', 'PR99R-21', 'Aristotle', and '769 F1'. Varieties with the largest size fruit averaged over the three harvests included 'Orion', 'Olympus', 'RPP 9608', 'PR 93-2-1', 'X3R Wizard', 'SVR 2670101', 'Aristotle', 'PR99R-21', and '769 F1' (51 to 54 fruit per 25-lb carton).

Blocky to slightly elongated fruit shape is generally desired. Peppers should have at least three lobes and preferably four with distinct lobe indentations at the blossom end. Fruit with two or five lobes and fruit having a blunt or pointed blossom end, with little indentation, are not desired, though they still may be saleable.

Varieties with the longest proportional fruit length (greatest length to width ratio averaged over the first two harvests) were 'Commandant' (1.32), 'PR 99R-20' (1.26), 'RPP 9608' (1.21), 'SVR 8275289' (1.15), and 'ACX 230' (1.14), as well as two yellow varieties 'PR 99Y-6' (1.15) and 'XPP 0132' (1.14).

Fifteen of the 17 top yielding varieties averaged 90% or higher 3- and 4-lobed fruit for the first two picks. Of these 17, six also averaged less than 10% fruit with a blunt blossom end: 'Crusader', 'Orion', 'Olympus', 'PR 99R-21', 'SVR 2670101',

and 'PR 99Y-3'. Some other characteristics that are important to growers but which were not evaluated include color, wall thickness, and tendency to bruise.

Fall/winter 2001-02, Thomas Produce, red and yellow ripe fruit. Results for the one replication of red, yellow, or orange fruit in Table 17 are listed in order according to yield that was both marketable and fully colored with no green showing. The lower yielding varieties (fully colored and marketable pepper) generally had a low percentage of fully colored fruit or a moderate percentage of fruit with soft sides. The top five yielding varieties included two red varieties: 'SVR 2670101' and 'Double Up'; two yellow varieties: 'XPP 0132' and 'ACX 231'; and the orange variety 'Golden Sun'. All had over 65% fully colored fruit.

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