NEW YORK STATE 2011 PROCESSING PEA CULTIVAR TRIAL REPORT

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PROCEDURE AND MATERIALS

Location: NYS Agricultural Research Farm, Geneva - soil type – silt loam. **Tillage –** Conventional. **Fertilizer**: broadcast 400 lb/A of 8-14-21 and worked in. **Planter** – Modified Hege 80 (cone type). **Planting Date** - 5/11/2011. Picking started on 6/28 and we finished on 7/12. **Herbicide** - Treflan preplt &Dual post plant. **Plot Size**: 7 rows by 30 ft. **Row Width**: 6 inches, Row length: 30 ft. **In-row Spacing**: 1500 seeds were placed in the cone for the 30 ft plot – theoretically this is 7.1 seeds per foot or 618, 552 seeds per acre. Our processor has asked us to shoot for 550,000 seeds per acre). **Insecticide** – none. **Experimental Design** – Randomized split block design, 4 replications (3 replications were harvested and another was left for demonstration). **Model TG4EI Integrating Texturegage** – measure for maturity.

The objective of this trial was to compare a number of normal leaf and afila type pea varieties for yield and other quality characteristics. This was accomplished in cooperation with the pea processor in New York in an attempt to find new, higher quality, and disease resistant varieties that are adapted to our climate and soil conditions. Evaluation of processed product was held on 11/10 for processing and seed company representatives.

Yield of seven rows by 5 feet per replication (17.5 square feet) was obtained by pulling the plants and hand picking the pods. Two harvests were made if possible to plot yield increase and also tenderometer reading increase. A target tenderometer value of 100 was used for the final harvest. A stationary sheller was used to remove berries from the harvested pods. Tenderometer readings were taken on each replication and averaged for the report. Pea berries were hand sieved with Seedburo hand testing screens. See following table for details.

Table 1. Sieve size diameters.

Sieve Size	Diameter of circular Opening in MM (inches) Will not pass through	Will pass through
1	6.35 (16/64)	7.1 (18/64)
2	7.1 (18/64)	7.9 (20/64)
3	7.9 (20/64)	8.7 (22/64)
4	8.7 (22/64)	9.5 (24/64)
5	9.5 (24/64)	10.3 (26/64)
6	10.3 (26/64)	11.1 (28/64)

Temperature and moisture Conditions

Good soil conditions and warm temperatures resulted in uniform emergence. This was the third year doing this type of trial and planting and growing conditions were very good other than dry and hot for some of latest cultivars. Yields reflected the optimum moisture and temperatures. See the weather insert at the end of the summary for a breakdown of temperatures and precipitation over the growing season. Please direct any questions to the following mailing address, phone number or email address.

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We wish to thank the NYS Vegetable Research Council and Association and cooperating seed companies for their financial support of the project. We wish to thank Mr. Michael Gardinier of Farm Fresh First for his assistance in planning the trials. Special thanks to Gilbert Scott, Russ Harris, Wilma Kean, Patty Gibbs, Katie Reiners, Anna Ballerstein, Mike Rosato, Nick Schessl and Sean Murphy for their assistance in day to day operations.

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Table 2. Plant Characteristics

Cultivar	Plant Stand Rating	Plant Vigor Rating	Canopy Height (in.)	Plant Habit (Harv.)	[1]Root Rot Rating
Salinero	4.6	3.3	13	3	6.3
ES414	4.3	4.6	11.5	2	6
EX956	4	3	11	2	7.3
GV2289	4	4.6	13.5	3	6.5
Northw.	4	4	13	2.5	4.3
Topps	4.3	4	12	3	7.3
GV2311	5	5	16	4	6.3
Cresc.	4	4	13	2.5	5
PLS534	4	4	14.5	3.6	7.5
Marias	4	4	12	2.5	4.3
EX955	3	3	14	3	6.5
BSC3048	3.6	3	14	3	8.8
Portage	4.3	4.3	18	4.8	7.5
PLS304	5	4	12	2.5	7.3
Lil'Mo	3.6	3	14	3	4.3
Romance	3.6	3.3	16.5	3.6	
Tonic	4	3.3	10.5	2.8	6.3
Sienna	4	4	10.5	2.3	4.8
CS424	4.6	4	10	2	6.3
Reliance	4	4	18	4.8	7
PLS167	4	4	13	3	5.3
PLS566	4.3	4	15	2.7	8.5
Minot.	4	3	16	5	7.8
EX935	3	3	16	4	7.8
Sw. Sa.	4	3.3	17	4.2	7.8
BSC2030	3.6	3	17	4.6	5
Bistro	3.6	3	21	4.5	3.3
Spartan	3.6	3	20	4.6	6
GV2278	3	3	18	4	6.5
Ricco	4	5	11	2.5	5.3
Hacienda	3.6	4	20	4.2	6
Legacy	4	4	12	2.5	4.8
Grundy	4.3	4	13	2.3	5.3
BSC5697	3.3	3	14	3.2	7.5
Bolero	4	3.6	11	2.2	5.3
Durango	3	3	15	3.2	8
Boogie	3.6	3	17	3.7	5.5
Ashton	4	3.3	15	3.2	7.5
PLS1051	4	3.3	12.5	2.8	6
Geisha	3	4	15	4.5	5.5
Hudson	4	3	11	2.4	7.3
PLS196	4	4	19	4	7.3
Mundial	3.6	3	16	3.2	8.5
PLS183	4	5	15	3.5	8

Stand Rating –A rating of the plant stand a few weeks after planting. 1= poor, 5=excellent

Plant Vigor – A rating of plant growth a few weeks after planting. 1=poor, 5 = excellent

Canopy Height – Measurement in inches of the canopy height from the ground shortly before harvest.

Plant Habit – Rating of how well the plants stood at harvest. 1= flat on the ground, 5 very erect

1 Root Rot Rating - Rating done by Dr. George Abawi. 1=healthy, 9=severe decay.

Table 3 - Cultivar List and Maturity From Seed Source

Cultivar	Seed Source	Maturity	Trial Type	Leaf type	Seed Trmt.	Nodes to Flower	Heat Units Harv.	Sieve Size index
Salinero	Seminis	E	rep	n	Capt., Alleg.		1155	3.4
ES 414 (std)	Seminis	E	rep	n	Capt., Alleg.		1195	3.5
BSC 3048	Brotherton	E	rep	af	C/A/CR	9_10	1205	
EX 08570956	Seminis	E	ob	n	Capt., Alleg.		1205	3.2
BSC2030	Brotherton	E	rep	n	C/A/CR	9_10	1220	
Crescendo	Seminis	E	rep	n	Capt., Alleg.		1230	2.5
GV2289	GV	E	rep	af	C/A/CR		1250	3.5
Northwind	GV	E	ob	n	C/A/CR		1270	3.4
Romance	Seminis	M	rep	af	Capt., Alleg.		1290	3.6
Marias	Crites	E	rep	n	Captan		1290	
DLSC7V0955	Seminis	E	ob	n	Capt., Alleg.		1290	3.2
GV 2311	GV	M	ob	af	C/A/CR		1300	3.6
Topps	PLS	E	rep	n	C/A/CR		1300	3.5
PLS 534	PLS	E	rep	af	C/A/CR		1300	3.8
Tonic ()std)	Brotherton	M	rep	n	C/A/CR	10_11	1300	
Sienna (BSC3735)	Brotherton	M	rep	n	C/A/CR	10_11	1300	
Lil'Mo	Seminis	M	rep	n	Capt., Alleg.		1320	2.6
Portage	Crites	M	rep	af	Captan		1325	
EX 08570935	Seminis	M	rep	Det af	Capt., Alleg.		1340	3.1
PLS304	Pure Line	M	ob	af	C/A/CR		1350	3.5
Minotaur (EX0773)	Seminis	M	ob	af	Capt., Alleg.		1360	3.2
CS424	Crites	M	rep	n	Captan		1370	4
PLS 167	Pure Line	M	ob	af	C/A/CR		1400	3.1
Reliance	Seminis	M	rep	Det af	Capt., Alleg.		1420	3.2
GV2278	GV	M	ob	af	C/A/CR		1460	3.5
Spartan (BSC 359)	Brotherton	M	rep	af	C/A/CR	13_14	1460	
Bistro	Brotherton	M	rep	af	C/A/CR	13_14	1470	
Sw Savor 1470	Seminis	L	rep	Det af	Capt., Alleg.		1470	
PLS566	PLS	M	rep	af	C/A/CR		1470	3.5
Ashton	Seminis	L	rep	n	Capt., Alleg.		1480	3.3
Boogie	Brotherton	L	rep	af	C/A/CR	14_15	1480	
Durango (std)	Seminis	L	rep	n	Capt., Alleg.		1480	3.5
BSC 5697	Brotherton	L	rep	af	C/A/CR	14_15	1480	
Ricco	GV	L	rep	af	C/A/CR		1490	3.7
Bolero (std)	PLS	L	rep	n	C/A/CR		1510	
Hacienda	Seminis	L	rep	af	Capt., Alleg.		1520	3.2
Legacy	PLS	L	rep	n	C/A/CR		1520	3.7
Grundy	GV	L	rep	n	C/A/CR		1560	3.8
PLS 1051	PLS	L	rep	n	C/A/CR		1560	3.5
Hudson	Crites	L	rep	n	Captan		1540	
Mundial	Seminis	L	rep	n	Capt., Alleg.		1600	3.2
PLS183	Pure Line	L	ob	af	C/A/CR		1630	3.7
PLS196	Pure Line	L	ob	af	C/A/CR		1630	3.7
Geisha	ADM/SeedWest	L	ob	af	wakill		1590	4

Explanation for headings in Table 3.

Days to Harvest - Number of days from planting until day of harvest.

Heat Units to Harvest - Accumulation of heat units (base 40 degree F.) from planting until harvest.

Adjusted heat units base 40 - Adjusted to 100 tenderometer reading. Two heat units were added for each unit below 100 and two units were subtracted for each unit above 100.

Average sieve percentage - berries were hand sieved with Seedburo screens. The table on the title page describes the size of the various sieves.

Sieve Size index - Sieve size index reflects the mean sieve size of the variety at harvest.

Tenderometer measurement - A model TG4EI Integrating Texturegage was used to determine the tenderometer units of each harvested plot. The average of the three harvested plots per cultivar was listed.

Yield - Tons per acre - The weight of the harvested berries was extrapolated to tons per acre.

Yield lbs/A - Pounds per acre was determined by extrapolating the total weight of the berries per plot to obtain lbs per acre. Harvest plot was 7 rows by 5 ft in length or 35 row feet. (43560 sq ft/A/.5 ft (six inches between row spacing) = 87,120 row ft. 87120 row ft /A divided by 35 harvested row ft gives factor of 2489. This factor was multiplied by total berry weight harvested per plot to obtain lbs per acre.

Adjusted Yield lbs/acre - 28 pounds was added for each tenderometer unit reading below 100. 28 pounds was subtracted for each tenderometer unit reading above 100.

Plants/foot - Total number of plants harvested was divided by the 35 row feet harvested to arrive at plants per foot.

Plant population per acre - An extrapolation of the number of harvested plants to plants per acre.

Table 4. Maturity Sieve Distribution and Yield - Early Season Cultivars

Cultivar	Seed source	Plants per A (1000)	Plts. per foot	Days to harv.	Heat units to harv.	Adjusted HU based on 100 TU	Ten. Units	Lbs/A	Adjusted yield based on 100 TU	Sieve 1 %	Sieve 2 %	Sieve 3 %	Sieve 4 %	Sieve 5%	Sieve 6 %	Sieve Size Index
Salinero	Sem.	619	7.1	48	1218	**1226**	96	4352	4464	2	6	13	26	40	12	4.3
		573	6.6	49	1250	**1234**	108	5605	5381	2	4	9	20	45	19	4.6
ES414	Sem.	695	8.0	48	1218	**1238**	90	6178	6458	1	4	13	30	43	10	4.4
		579	6.6	49	1250	**1235**	108	7202	6987	1	3	9	23	53	11	4.6
EX08570956	Sem.	585	6.7	49	1250	**1228**	111	5009	4701	3	7	18	36	34	2	4.0
		498	5.7	50	1282	**1254**	114	5401	5009	3	9	20	37	28	2	3.8
GV2289	GV	654	7.5	49	1250	**1246**	102	5358	5302	0	1	2	8	28	61	5.5
		577	6.6	50	1282	**1272**	105	6984	6844	1	2	3	10	37	47	5.2
Northwind	GV	682	7.8	49	1250	**1252**	99	4966	4994	0	1	2	12	47	37	5.2
		625	7.2	50	1282	**1276**	103	6643	6559	1	2	6	21	57	13	4.7
Topps	PLS	605	6.9	50	1282	**1288**	97	6683	6767	1	5	14	31	41	9	4.3
		611	7.0	51	1306	**1299**	103	7227	7134	0	2	9	28	44	17	4.6
GV2311	GV	565	6.5	50	1282	**1298**	92	5674	5898	1	2	6	23	54	14	4.7
		503	5.8	51	1306	**1298**	104	6229	6117	1	2	5	17	60	16	4.8
Crescendo	Sem.	598	6.9	51	1306	**1308**	99	6418	6446	8	19	39	29	5	0	3.0
		505	5.8	52	1332	**1299**	117	7049	6583	5	14	33	41	7	0	3.3
PLS534	PLS	608	7.0	50	1282	**1298**	92	6153	6377	4	9	17	43	25	2	3.8
		554	6.4	51	1306	**1315**	96	6356	6477	3	6	16	31	37	6	4.1
Marias	Crites	589	6.8	51	1306	**1315**	96	5536	5657	3	6	19	32	27	12	4.1
		534	6.1	52	1332	**1327**	102	6146	6080	3	6	17	34	34	6	4.1
DLSC7V0955	Sem.	508	5.8	51	1306	**1334**	86	3953	4345	5	11	13	26	28	17	4.1
		426	4.9	52	1332	**1344**	94	4008	4176	6	12	18	26	26	12	3.9
BSC3048	Br.	533	6.1	52	1332	**1359**	87	6182	6555	7	20	39	28	6	0	3.1
		570	6.5	54	1394	**1350**	122	7569	6953	2	11	37	38	12	0	3.5

Table 4. Maturity Sieve Distribution and Yield - Midseason Cultivars

Cultivar		Plants per A (1000)	Plts. per foot	Days to harv.	Heat units to harv.	Adjusted HU based on 100 TU	Ten. Units	#/A	Adjusted yield based on 100 TU	Sieve 1 %	Sieve 2 %	Sieve 3 %	Sieve 4 %	Sieve 5%	Sieve 6 %	Sieve Size Index
Portage	Crites	595	6.8	52	1332	**1369**	82	6454	6967	3	9	26	40	19	2	3.7
		480	5.5	54	1394	**1363**	116	7834	7395	1	4	17	40	35	4	4.1
PLS304	PLS	612	7.0	55	1430	**1368**	131	7438	6570	2	7	31	49	11	1	3.6
Lil'Mo	Sem.	566	6.5	54	1394	**1375**	109	6770	6509	9	25	40	21	4	0	2.9
		510	5.9	55	1430	**1369**	131	6345	5487	9	27	40	19	4	0	2.8
Romance	Sem.	490	5.6	54	1394	**1385**	105	4861	4730	4	10	26	35	20	4	3.7
		557	6.4	55	1430	**1381**	124	5499	4818	2	8	23	36	25	5	3.9
Tonic	Br.	621	7.1	54	1394	**1401**	96	8197	8299	2	5	17	36	35	6	4.2
		553	6.3	55	1430	**1391**	120	8719	8169	1	3	16	38	36	6	4.3
Sienna	Br.	469	5.4	54	1394	**1411**	91	8970	9212	2	6	20	36	29	8	4.1
		594	6.8	55	1430	**1413**	109	9482	9239	1	3	13	40	35	8	4.3
CS424	Crites	539	6.2	55	1430	**1424**	103	7877	7793	4	13	28	32	18	4	3.6
		534	6.1	56	1462	**1404**	129	8309	7497	1	1	11	37	41	9	4.4
Reliance	Sem.	546	6.3	55	1430	**1415**	107	5695	5490	5	22	34	24	11	4	3.3
		654	7.5	56	1462	**1433**	114	7547	7145	3	16	44	25	10	2	3.3
PLS167	PLS	625	7.2	56	1462	**1432**	115	6915	6495	5	18	51	19	6	1	3.0
PLS566	PLS	545	6.3	55	1430	**1436**	97	5325	5409	4	12	36	35	13	1	3.4
Minotaur	Sem.	490	5.6	55	1430	**1436**	97	3812	3896	8	28	35	23	5	0	2.9
		510	5.9	56	1462	**1438**	112	4955	4619	2	12	34	34	14	3	3.5
EX08570935	Sem.	519	6.0	55	1430	**1439**	95	4741	4871	5	22	40	25	9	1	3.1
Sw Savor 147	Sem.	564	6.5	55	1430	**1450**	90	4694	4974	6	27	43	20	3	0	2.9
		502	5.8	56	1462	**1465**	98	5020	5067	1	8	37	38	15	2	3.6
		534	6.1	57	1497	**1474**	111	6160	5843	1	3	26	44	22	3	3.9
BSC2030	Br.	528	6.1	56	1462	**1465**	99	6026	6063	2	10	34	40	13	1	3.6
		522	6.0	57	1497	**1462**	118	6512	6018	1	2	16	42	34	5	4.2
Bistro	Br.	573	6.6	56	1474	**1468**	103	6302	6218	2	6	24	42	24	2	3.9
		525	6.0	57	1497	**1471**	113	7224	6860	1	3	14	42	36	5	4.2

Table 4. Maturity Sieve Distribution and Yield - Main Season Cultivars

Cultivar		Plants per A (1000)	Plts. per foot	Days to harv.	Heat units to harv.	Adjusted HU based on 100 TU	Ten. Units	#/A	Adjusted yield based on 100 TU	Sieve 1 %	Sieve 2 %	Sieve 3 %	Sieve 4 %	Sieve 5%	Sieve 6 %	Sieve Size Index
Spartan	Br.	544	6.2	55	1430	**1462**	84	5162	5610	8	22	38	25	6	1	3.0
		491	5.6	56	1462	**1487**	88	5579	5925	6	16	40	32	7	1	3.2
		534	6.1	57	1497	**1512**	92	7456	7671	2	7	23	43	23	2	3.9
GV2278	GV	523	6.0	57	1497	**1493**	102	5881	5825	2	8	32	44	12	2	3.6
		543	6.2	58	1532	**1496**	118	7079	6575	10	5	27	42	15	1	3.5
Ricco	GV	528	6.1	57	1497	**1504**	97	7144	7237	1	5	23	48	20	2	3.9
		526	6.0	58	1532	**1516**	108	7783	7559	1	3	13	47	33	4	4.2
Hacienda	Sem.	591	6.8	57	1497	**1499**	99	5271	5299	6	18	47	23	3	2	3.1
		535	6.1	58	1532	**1523**	104	6233	6111	3	11	41	40	5	0	3.3
Legacy	PLS	658	7.6	56	1462	**1498**	82	4574	5078	6	17	35	22	16	5	3.4
		560	6.4	58	1532	**1537**	98	6146	6211	2	5	18	43	29	3	4.0
Grundy	GV	563	6.5	57	1497	**1510**	94	6922	7100	1	4	21	51	20	2	3.9
		581	6.7	58	1532	**1529**	102	7304	7257	1	3	13	47	34	3	4.2
BSC5697	Br.	566	6.5	57	1497	**1514**	91	6832	7074	5	26	51	16	2	0	2.8
		513	5.9	58	1532	**1531**	100	6951	6942	2	14	49	31	4	0	3.2
Bolero	PLS	597	6.8	58	1532	**1526**	103	6476	6392	1	4	18	48	26	3	4.0

Table 4. Maturity Sieve Distribution and Yield - Main Season Cultivars

Cultivar		Plants per A (1000)	Plts. per foot	Days to harv.	Heat units to harv.	Adjusted HU based on 100 TU	Ten. Units	#/A	Adjusted yield based on 100 TU	Sieve 1 %	Sieve 2 %	Sieve 3 %	Sieve 4 %	Sieve 5%	Sieve 6 %	Sieve Size Index
Durango	Sem.	519	6.0	57	1497	**1528**	84	5441	5880	3	10	32	41	12	1	3.5
		552	6.3	58	1532	**1535**	99	6574	6611	1	4	18	44	29	3	4.0
Boogie	Br.	616	7.1	57	1497	**1532**	82	6254	6749	2	10	27	38	20	2	3.7
		519	6.0	59	1561	**1544**	108	6962	6729	1	3	9	30	46	11	4.5
Ashton	Sem.	476	5.5	58	1532	**1541**	96	5394	5516	2	7	25	45	19	2	3.8
		456	5.2	59	1561	**1541**	110	6411	6131	2	5	18	42	29	3	4.0
PLS1051	PLS	517	5.9	56	1462	**1515**	73	2617	3364	23	34	37	6	1	0	2.3
		497	5.7	58	1532	**1565**	84	4204	4661	5	15	33	38	8	1	3.3
		582	6.7	59	1561	**1587**	87	5430	5794	4	13	28	40	14	1	3.5
		506	5.8	61	1620	**1601**	110	7761	7490	2	6	20	41	28	4	4.0
Geisha	ADM	456	5.2	59	1561	**1573**	94	4280	4448	2	5	19	36	32	5	4.1
		456	5.2	61	1620	**1568**	126	6784	6056	1	2	7	22	46	22	4.7
Hudson	Crites	554	6.4	59	1561	**1572**	95	6683	6832	2	6	22	43	24	3	3.9
		579	6.6	61	1620	**1578**	121	8930	8342	1	3	9	39	37	11	4.4
PLS196	PLS	612	7	61	1620	**1598**	111	8581	8273	1	3	12	40	39	4	4.3
Mundial	Sem.	520	6.0	61	1620	**1623**	99	7750	7787	3	10	28	37	19	2	3.7
		544	6.2	62	1656	**1635**	111	9511	9212	2	6	23	37	26	6	4.0
PLS183	PLS	637	7.3	61	1620	**1640**	90	6414	6694	3	7	16	27	34	14	4.2
		597	6.9	62	1656	**1638**	109	7754	7502	2	6	15	29	36	13	4.3

Column Descriptions on page 8

Explanation for Headings in Table 4.

Days to Harvest - Number of days from planting until day of harvest.
Heat Units to Harvest - Accumulation of heat units (base 40 degree F.) from planting until harvest.
Adjusted heat units base 40 - Adjusted to 100 tenderometer reading. Two heat units were added for each unit below 100 and two units were subtracted for each unit above 100.
Average sieve percentage - Berries were hand sieved with Seedburo screens. The table on the title page describes the size of the various sieves.
Sieve Size index - Sieve size index reflects the mean sieve size of the variety at harvest.
Tenderometer measurement - A model TG4EI Integrating Texturegage was used to determine the tenderometer units of each harvested plot. The average of the three harvested plots per cultivar was listed.
Yield - Tons per acre - The weight of the harvested berries was extrapolated to tons per acre.
Yield lbs/A - Pounds per acre was determined by extrapolating the total weight of the berries per plot to obtain lbs per acre. Harvest plot was 7 rows by 5 ft in length or 35 row feet. (43560 sq ft/A/.5 ft = 87,120 row ft per acre. 87120 row ft /A divided by 35 harvested row ft gives a factor of 2489. This factor was multiplied by total berry weight harvested per plot to obtain lbs per acre.
Adjusted Yield lbs/acre - 28 pounds was added for each tenderometer unit reading below 100. 28 pounds was subtracted for each tenderometer unit reading above 100.
Plants/foot - Total number of plants harvested was divided by the 35 row feet harvested to arrive at plants per foot.
Plant population per acre - An extrapolation of the number of harvested plants to plants per acre.

Explanation for Headings in Table 5.

This data was from 30 plants harvested the same day as our yield harvest that was closest to our objective of 100 tenderometer unit reading. Example - Cabree was harvested twice at tenderometer readings of 99 and 116. The afternoon of the first harvest (99 units), 30 plants were harvested from the back of the plot, weighed and pods were hand stripped and berries were hand shelled.

Node to first flower - The average number of nodes on the stem until the first flower (included that one or two at the soil line or below).
Average Number of nodes with pods per plant - The number of nodes that had pods were counted and recorded.
Weight of the 30 plant sample - The weight of the sample (plants and pods) was recorded in pounds.
Weight of the plants - After the pods were taken off and weighed, the calculation was made of the plant weight.
Weight of the pods - After the pods were hand picked from the plant, total weight of the pods was recorded in pounds.
Weight of the berries - The berries were hand shelled from pods, counted and weighed in pounds.
Pods per plant - The total number of pods was divided by 30 (number of plants) to determine average pods per plant.
Percentage of single pods, double pods or triple pods per node - The number of pods per node were hand counted and the number of single pods, double pods and triple pods were recorded. This was changed to a percentage.
Pod length - An average of 10 pods were lined up and measured in inches. If they were very uniform, a single number was listed, if not a range was listed.
Berries per pod - The total number of berries was divided by the total number of pods in the sample.

Table 5. Plant and Pod Characteristics (In order of maturity)

Cultivar	Node to first flower	ave. nodes with pods/plt	Wt. Of plants and pods (lb)	Wt. of plants (lb)	Wt. of pods (lb)	Wt of berries (lb)	Pods per plant	% Single pods/node	% Double pods/ node	% Triple pods/node	Pod length (in)	Berries per pod
Early Season												
Salinero	9	2-4	1.48	0.67	0.81	0.34	3.1	81	19	0	2.75	5-7
ES414	8-10	2-4	1.58	0.51	1.07	0.57	3.9	51	49	0	2.25	6-8
EX08570956	8-9	2-4	1.52	0.61	0.91	0.45	3.3	44	56	0	2.25	7-9
GV2289	9-11	1-2	1.09	0.45	0.64	0.34	2.1	25	75	0	2.25	5-7
Northwind	8-10	1-3	1.36	0.63	0.73	0.35	3	39	58	3	2.25	4-5
Topps	9-10	1-3	1.59	0.76	0.83	0.43	3.2	36	60	4	2.5	6-7
GV2311	10-11	1-3	1.32	0.58	0.74	0.36	2.4	37	63	0	2.75	5-7
Crescendo	8-10	2-4	1.58	0.66	0.92	0.44	4.6	26	67	7	2.25	6-8
PLS534	9-10	2-4	1.74	0.84	0.9	0.4	3.4	55	45	0	2.75	5-7
Marias	9-11	2-4	1.78	0.83	0.95	0.42	3.8	56	44	0	2.75	5-7
DLSC7V0955	9-11	2-5	1.45	0.51	0.94	0.37	4.1	76	24	0	2.5	6-8
BSC3048	8-10	2-5	2.11	0.96	1.15	0.53	5.2	49	51	0	2.5	6-8
Mid Season												
Portage	9-10	2-4	1.78	0.82	0.96	0.5	4.4	20	39	41	2.25	5-7
PLS304	11-13	2-6	1.82	0.8	1.02	0.49	3.8	24	71	5	2.75	6-9
Lil'Mo	10-12	2-4	1.69	0.73	0.96	0.48	5.1	28	68	4	2.25	6-8
Romance	10-11	2-3	2.03	1.02	1.01	0.48	4.3	21	42	37	2.75	6-8
Tonic	9	2-3	1.82	0.75	1.07	0.59	5.3	26	67	7	2.5	6-8
Sienna	10-12	2-3	1.66	0.7	0.96	0.52	4	23	62	15	2.5	6-8
CS424	10-11	2-4	2.35	1.09	1.26	0.66	4.8	26	47	27	2.5	6-8
Reliance	10-13	1-3	1.92	0.97	0.95	0.47	3.9	32	50	18	2.5	6-8
PLS167	11-13	2-4	1.46	0.67	0.79	0.41	4.8	19	57	24	2.75	6-8

Table 5 continued: (Mid Season)

Cultivar	Node to first flower	ave. nodes with pods/plt	Wt. Of plants and pods (lb)	Wt. of plants (lb)	Wt. of pods (lb)	Wt of berries (lb)	Pods per plant	% Single pods/node	% Double pods/ node	% Triple pods/node	Pod length (in)	Berries per pod
PLS566	10-12	1-4	1.87	0.81	1.06	0.43	3.9	40	60	0	2.75	6-9
Minotaur	10-12	2-4	1.9	0.89	1.01	0.46	3.7	43	32	25	2.5	6-9
EX08570935	10	1-3	1.7	0.92	0.78	0.36	3.2	36	54	10	2.75	6-8
Sw Savor 147(	9-12	2-4	2.19	1.26	0.93	0.41	4.3	33	39	28	2.5	6-8
BSC2030	10-12	1-4	1.48	0.67	0.81	0.42	3.6	32	54	14	2.5	5-7
Bistro	11-12	2-4	1.82	0.81	1.01	0.5	4.8	34	62	4	2.25	5-7
Main Season												
Spartan	11-13	2-5	2.27	1.27	1	0.45	4.3	34	66	0	2.5	3-7
GV2278	11-12	2-4	2.22	1.06	1.16	0.57	4.7	26	64	10	2.25	5-8
Ricco	13-15	1-4	2.23	1.05	1.18	0.54	4.5	21	66	13	3	6-8
Hacienda	15-16	2-5	2.24	1.23	1.01	0.45	5.1	30	70	0	2.25	6-8
Legacy	12-14	2-5	3.16	1.99	1.17	0.38	5.8	32	51	17	2.5	5-7
Grundy	10-13	3-7	2.2	0.97	1.23	0.55	4.5	22	78	0	3.25	3-7
BSC5697	10-11	2-6	1.83	0.91	0.92	0.47	5.8	19	60	21	2.25	6-7
Bolero	12-14	2-4	3.1	1.55	1.55	0.74	5.7	16	29	55	2.75	5-7
Durango	11-13	2-4	2.95	1.41	1.54	0.75	5.6	29	49	22	2.75	5-7
Boogie	15	1-4	3.16	1.69	1.47	0.69	4.5	29	37	34	2.75	5-7
Ashton	12-13	2-4	2.49	1.27	1.22	0.61	5.9	24	37	39	2.5	5-8
PLS1051	12-14	1-3	2.39	1.53	0.86	0.31	3.6	30	56	14	2.75	6-8
Geisha	12-15	2-5	3.39	2.17	1.22	0.49	5	28	56	16	2.5	6-7
Hudson	12-14	2-5	4.17	2.02	2.15	1.18	6.3	32	68	0	3	7-8
PLS196	12-13	1-4	2.52	1.29	1.23	0.67	3.9	33	67	0	2.75	6-8
Mundial	12-14	missed										
PLS183	12-14	missed										

Additional Comments: These comments are a combination from both myself and Gilbert Scott. Gib has forgotten more about peas than I have learned yet. I am extremely grateful for his assistance the past three years.

Early Season

Salinero – Good plant stand, short, recumbent plants, a bit weak looking, mostly single pods per node, only slightly ahead of ES414 in maturity, decent yield.

ES414 – Very vigorous early plant growth and good plant stand, short, healthy looking recumbent plants; roughly 50% single pods per node and 50% two pods per node, very good yield.

EX08570956 – Good plant stand but only average plant vigor, short recumbent plants; somewhat indeterminate, roughly 50% one pod per node and 50% two pods per node, decent yield.

GV 2289 – Very good plant stand and plant vigor, very determinate plant type, sprawly, 25% single pods per node and 75% double pods per node, large average sieve size but good quality, good yield.

Northwind – Very good plant stand and plant vigor, very determinate, recumbent plants, several off types, large sieve, 40% single pods per node and 60% double pods per node, decent yield.

Topps – Very good plant stand and plant vigor, nice plants and pods, 40% single pods per node and 60% double pods per node (a few triples), very good yield.

GV2311 – Excellent plant stand and early vigor, one of the best all around cultivars in the trial, determinate type, 40% single pods per node and 60% double pods per node (a few triples), good yield.

Crescendo – Very good plant stand and early vigor, nice plant, somewhat indeterminate, a bit recumbent, small sieve, 26% single pods per node, 67% double pods per node and some triples, good yield.

PLS534 – Very good plant stand and early vigor, 55% single pods per node, 45% double pods per node, nice plant/pod package, good yield.

Marias – Very good plant stand and early vigor, sprawly and indeterminate, a bit recumbent, 56% single pods per node and 44% double pods per node, decent yield.

DLSC7V0955 – Plant stand and early vigor only fair, nice plants and pods, a bit ragged, 76% single pods per node and 24% double pods per node, did not yield very well in comparison to others.

BSC 3048 – Decent plant stand but only average plant vigor, somewhat indeterminate, healthy looking plants, smaller sieve size, roughly 50% single pods per node and 50% two pods per node, highest pods per plant for this season, very good yield.

Mid Season

Portage – Very good plant stand and early vigor, good plant type, very upright plants, 20% singles, 40% doubles and 40% triple pods per node, very good yield

PLS304 – Excellent plant stand and very good vigor, upright very nice looking plants, long pods, one of the best in trial, harvested over mature, looks like it would have been a small sieve pea, 25% singles and 70% doubles (a few triples), very good yield.

Lil' Mo – Average plant stand and vigor ratings, nice plant, indeterminate (had two sets), very small sieve that doesn't seem to change when over mature, higher pods per plant than most others in that category, 28% singles, 68% doubles and a few triples, good yield.

Additional Comments continued:

Romance – Average plant stand and vigor ratings, indeterminate, lacked uniformity, 20% singles, 40% doubles and 40% triples, did not yield.

Tonic – Very good plant stand and average plant vigor ratings, indeterminate type, impressive plant and pods, 26% singles, 67 % doubles and 7% triples, excellent yield.

Sienna – Very good plant stand and early vigor, indeterminate recumbent plants, 23% singles, 62% doubles and 15% triples, outstanding yield.

CS424 – Very good plant stand and early vigor, very recumbent, indeterminate plants, long pods, 26% singles, 47 doubles and 27 % triples, very good to excellent yield.

Reliance – Very good plant stand and early vigor, nice upright plant, pods at the top of the plant, 32% singles, 50% doubles and 18% triples, good yield.

PLS167 – Very good plant stand and early vigor, small sieve, lots of pods, small sieve pods, harvested over mature, 20% singles, 60% doubles and 20% triples, decent yield.

PLS566 – Very good plant stand and early vigor, plant type quite determinate, recumbent plants, did not stand out, 40% singles and 60% doubles, did not yield in comparison to others.

Minitaur (EX0773) – Very good plant stand and average plant vigor ratings, indeterminate, very upright plants, some variation in plants, 43% singles, 32% doubles and 25% triples, did not yield in comparison to others.

EX08570935 – Average plant stand and plant vigor ratings, upright plants, root rot was drying up pods prior to harvest, pods at very top of plant, small sieve, did not yield.

Sweet Savor DA1470 – Very good plant stand and average plant vigor ratings, nice plant, upright plants, 33% singles, 39% doubles and 28% triples, average yield.

BSC2030 – Average plant stand and plant vigor ratings, upright, nice looking plants, indeterminate, later maturity than company thought, 32% singles, 54% doubles and 14% triples, good yield.

Bistro – Average plant stand and plant vigor ratings, healthy upright, indeterminate plants, 34% singles, 62% doubles and a few triples, very good yield.

Spartan – Average plant stand and vigor ratings, upright, healthy plants with large pods, sized up on the slow side, 34% singles and 66% doubles, very good yield.

GV2278 – Average plant stand and vigor ratings, nice, upright plant, good set, tendrils twist around others holding plants together, 26% singles, 64% doubles and 10% triples, good yield.

Ricco – Very good plant stand and excellent early vigor ratings, recumbent plants (this variety was very upright both 2009 and 2010), long pods, 21 % singles, 66% doubles and 13% triples, very good yield, this cultivar has done well the past three years (comes up quick and very uniform).

Hacienda – Very good plant stand and early vigor, tall, upright plants; small sieve, 30% singles and 70% doubles, good yield.

Legacy – Very good plant stand and early vigor, recumbent plant with pods on top, 32% singles, 51% doubles and 17% triples, good yield.

Additional Comments continued:

Grundy – Very good plant stand and early vigor, recumbent plant, pods pick easily, long pods, sized up on the slow side, 22% singles and 78% doubles, very good yield.

BSC 5697 – Average plant stand and vigor ratings, healthy, fairly upright plants, indeterminate, smaller sieve, high pods per plant, 19% singles, 60% doubles and 21% triples, very good yield.

Bolero – Old standard, very good plant stand and early vigor, recumbent plants, 16% singles, 29% doubles and 55% triples, good yield.

Durango – Average plant stand and early vigor ratings, fairly upright plants, 29% singles, 49% doubles and 22% triples, good yield.

Boogie – Average plant stand and early vigor ratings, nice, upright plant, fairly determinate, 29% singles, 37% doubles and 34% triples, good yield.

Ashton – Very good plant stand and average early plant vigor ratings, fairly erect plant type, some plants dying at harvest, 24% singles, 37% doubles and 39% triples, decent yield

PLS 1051 – Very good plant stand and average plant vigor ratings, healthy recumbent plants, some blonde pods, tenderometer units did not move very fast, 30% singles, 56% doubles and 14% triples, very good yield.

Geisha – Average plant stand and very good plant vigor ratings, healthy, upright, indeterminate plants; 28% singles, 56% doubles and 16% triples, decent yield.

Hudson (CMG 378F) – Very good plant stand and average plant vigor ratings, healthy, recumbent plants; 32% singles and 68% doubles, excellent yield.

PLS196 – Very good plant stand and early vigor, healthy, upright, indeterminate plants, long pods, harvested overmature, 33% singles and 67% doubles, excellent yield.

Mundial (XP08530727) – Average plant stand and early vigor ratings, one of the best all around varieties in the trial, healthy, fairly erect plants, outstanding yield (looked very good in 2010 too).

PLS183 – Very good plant stand and excellent early vigor, healthy, fairly erect, indeterminate plants; long pods, very good yield.

Descriptions Provided by the Seed Source

Salinero – Seminis, normal leaf type, 1155 heat units to harvest, 3.4 average sieve, 9-10 nodes to first flower, 1-2 pods per node, 7-8 berries per pod, plant height 14 inches, HR for Bean Yellow Mosaic virus and Fusarium wilt race 1, IR for Downy Mildew. (Breeder comments – very early, good processed product, similar sieve style and quality to Cabree but 15 heat units earlier.)

ES414 – Seminis, normal leaf type, medium sieve size (3.55), high yield potential and an attractive finished product, early maturity (1195 heat units), 10 nodes to first flower, 1-2 pods per node, 7-8 berries per pod, 16 inch plant height, resistant to fusarium wilt race 1 and has excellent stress tolerance that helps promote uniform maturity at harvest. (Breeder comments – high yield potential and an attractive finished product.)

EX08570956 – Seminis, Sweet Savor gene, 1205 heat units, normal leaf, 3.2 average sieve, 10 nodes to first flower, 1-2 pods per node, 7-8 berries per pod, 16 inch plant height. (Breeder comments – experimental, second early, enhances sweetness with intermediate resistance to common races of downy mildew.)

Descriptions Provided by the Seed Source

GV 2289 *– Gallatin Valley, afila leaf type, early maturity (1250 heat units), 3.5 average sieve size.*

Northwind – *Gallatin Valley, normal leaf type, early maturity (57 days to maturity or 1188 heat units), 9 nodes to first flower, 24 inch plant height, 2 pods per node, 3.65 average sieve size, 6-8 berries per pod, blunt pod shape, HR for Fusarium wilt race 1, IR for Fusarium wilt race 2, Pea Enation Mosaic virus and Powdery Mildew race 1.*

Topps – *Pure Line, normal leaf type, 2nd early maturity, 60 days to maturity or approximately 1260 heat units; 23-24 inches high, dark green, determinate growth, pods are double, 3 inches long and blunt; wrinkled seed with first bloom on the 10th or 11th node, 3.5average sieve size, resistance to Fusarium wilt race 1 and tolerance to Fusarium root rot.*

GV2311 – *Gallatin Valley, afila leaf type, midseason maturity (1300 heat units), 3.6 ave. sieve size.*

Crescendo – *Seminis, normal leaf type, mid early maturity or 1230 heat units, 2.5 sieve, 10-11 nodes to first flower, 2-3 pods per node, 7-9 berries per pod, 18 inch plant height, resistant to bean yellow mosaic virus, downy mildew and Fusarium wilt race 1.*

PLS534 *– Pure Line, afila leaf type, early season – 58 days to maturity (1180 heat units).*

Marias – *Crites, early season, 59 days to maturity or approximately 1290 heat units, normal leaf, plant height 14-16 inches, 10 nodes to first flower, two pods per node, 8 peas per pod, 3.6 sieve size index, resistant to Fusarium wilt race 1.*

DLSC7V0955 *– Seminis, sweet savor gene, normal leaf type, 1290 heat units to harvest, 3.2 sieve, 11 nodes to first flower, 2 pods per node, 7-8 berries per pod, 20 inch plant height, HR for bean yellow mosaic virus and Fusarium wilt races 1 and 2, IR for downy mildew. (Breeder comments – experimental variety, mid early maturity,enhanced sweetness, a perfect fit to fill the gap between early and mainseason varieties.)*

BSC 3048 *– Brotherton, afila leaf type, early season (62 days to maturity or 1290 heat units).*

Portage – *Crites, Midseason maturity, 60 days to maturity or approximately 1325 heat units, afila leaf type, 18 inch plant height, 10 nodes to first bloom, 2-3 pods per node, 7-8 peas per pod, 3.78 sieve size index, resistant to fusarium wilt race 1.*

PLS304 *– Pure Line, afila leaf type, midseason maturity (1350 heat units), 3.5 average sieve size.*

Lil' Mo *– Seminis, 1320 heat units to harvest, normal leaf type, 2.6 ave. sieve, 10-11 nodes to first flower, 1-2 pods per node, 8-9 berries per pod, 18 inch plant height, HR for fusarium wilt races 1&2.*

Romance – *Seminis, afila leaf type, second early maturity with intermediate downy mildew resistance and resistance to fusarium wilt race 1, 11-12 nodes to first flower, 2 pods per node, 7-9 berries per pod, good yield potential and excellent berry quality for this maturity class, 1290 heat units to maturity, 3.6 average sieve size, has shown hardiness to adverse cold conditions.*

Tonic – *Brotherton, normal leaf type, 63 days to maturity (1300 heat units), 10-11 nodes to first flower, 7-9 berries per pod, 3.6 average sieve size, 2-3 pods per node.*

Sienna – *Brotherton, normal leaf type, 63 days to maturity (1350 heat units), 10-11 nodes to first flower, 6-8 berries per pod, 3.8 average sieve size, 2-3 pods per node, 28.0 inch plant height.*

CS424 – *Crites, normal leaf type, midseason maturity (1370 heat units), 4.0 average sieve size.*

Descriptions Provided by the Seed Source

Reliance – *Seminis, determinate afila type, 1430 or midseason maturity, 14 nodes to first flower, 2-3 pods per node, 8 berries per pod, 3.2 average sieve size, 18 inch plant height, HR for bean yellow mosaic virus, Downy Mildew, Fusarium wilt races 1&2, Pea enation mosaic virus and Powdery Mildew. Breeder Comments – Afila determinate type (The 2nd reproductive node is a terminal node with 2 racemes). This variety does not carry the Sweet Savor gene but it appears to relatively slow in the conversion of sugar to starch. It carries resistance to many common diseases and gives a very homogenous fresh product in color and quality on an easy to harvest plant type.*

PLS167 – *Pure Line, midseason (1400 heat units), afila leaf type, 3.1 average sieve size.*

PLS566 – *Pure Line, midseason (11470 heat units), afila leaf type, 3.5 average sieve size.*

Minitaur (EX0773) – *Seminis, afila leaf type, 1360 heat units to harvest, 3.2 average sieve size, 13 nodes to first flower, 2-3 pods per node, 8-9 berries per pod, 18 inch plant height, HR for Bean Yellow Mosaic Virus, Pea Enation Mosaic Virus, Powdery Mildew and Fusarium wilt race 1; IR for Fusarium wilt race 2 and Downy Mildew. Breeder comment- Experimental variety – midseason. A very good plant type with afila foliage and an extended disease package.*

EX08570935 – *Seminis, Sweet Savor gene, Determinate afila leaf type, 1340 heat units to harvest, 3.1 average sieve size, 12 nodes to first flower, 2-3 pods per node, 7-8 berries per pod, 16 inch plant height. Breeder Comments – Experimental, second early and an expanded disease resistance package. This variety combines higher sweetness, slower conversion to sugar to starch, uniform color and sieve size on an easy to harvest plant type.*

Sweet Savor DA1470 *– Seminis, mainseason maturity, approximately 1470 heat units, determinate afila leaf type, 3.2 average sieve size, 12-13 nodes to first flower, plants bear pods at two nodes with two racemes of pods on the second terminal node, 7-9 berries per pod, 17.7 inch plant height, resistance to Fusarium wilt race one and BYMV.*

BSC2030 – *Brotherton, Early maturity (1220 heat units), normal leaf type, 9-10 nodes to flower.*

Bistro – *Brotherton, midseason maturity, 66 days to maturity or approximately 1410 heat units, afila leaf type.*

Spartan – *Brotherton, midseason maturity (1460 heat units), afila leaf type, 13-14 nodes to first flower.*

GV2278 - *Gallatin Valley, midseason maturity (66 days to maturity or 1452 heat units), afila leaf type, 15 nodes to first flower, 26 inch plant height, 2 pods per node, 3.6 average sieve size, 7-9 berries per pod, blunt pod shape, HR to Fusarium wilt races 1&2 and Powdery Mildew race 1.*

Ricco – *Galetin Valley, mainseason variety (68 days to maturity or 1530 heat units), afila leaf type, 16 nodes to first flower, 26 inch plant height, 2 pods per node, 3.7 average sieve size, 8-9 berries per pod, pointed pod shape, HR for Fusarium wilt race 1 and IR for race 2, HR for Bean Leaf Roll Virus and Powdery Mildew race 1, dark green foliage, excellent disease package including root rot tolerance, superior yield, medium size berry, uniform berry color, widely adapted.*

Hacienda – *Seminis, 1520 heat units to harvest, afila leaf type, 3.15 average sieve size, 16-18 nodes to first flower, 2 pods per node, 8-9 berries per pod, 24 inch plant height, HR for Fusarium wilt races 1&2 and also for Powdery Mildew. Breeder comments – a blue green foliage full season afila similar to Estancia in plant type and sieve size. Excellent disease package to go along with its superior berry color and product uniformity.*

Descriptions Provided by the Seed Source continued:

Legacy – *Pureline, normal leaf type, midseason maturity (1440 heat units), dark green, determinate growth, double and triple pods per node, 3.5 inch pod length, wrinkled seed, 14 nodes to first flower, resistance to fusarium race 1 and powdery mildew, similar to Bolero but one day earlier.*

Grundy – *Galetin Valley, normal leaf type, midseason maturity (1595 heat units), 16 nodes to first flower, 2 pods per node, 3.8 average sieve size, 8-9 berries per pod, 28 inch plant height, pointed pod shape, high resistance to fusarium wilt races 1 and 2, high resistance to powdery mildew, IR for Pea Enation Mosaic Virus.*

BSC 5697 – *Brotherton, normal leaf type, 68 days to maturity (1560 heat units), 12-14 nodes to first flower, 5-9 berries per pod, 3.4 average sieve size, 2-3 pods per node, 19 inch plant height.*

Bolero – Pure Line, *Mainseason maturity, 68 days to maturity or 1460 heat units, normal leaf type, 24 inch plant height, double and triple pods per node, blunt pods 3 inches long, average sieve size 4.0, 14 nodes to first bloom, resistant to Fusarium wilt race one, susceptible to powdery mildew.*

Durango – *Seminis, normal leaf type, large sieve full season cultivar, yield enhancements and powdery mildew resistance compared to other large sieve varieties, high quality finished product with a uniform and intense color, maturity range at approximately 1480 heat units and an average sieve size of 3.55, 14 nodes to first flower, 2-3 pods per node, 8 berries per pod, resistance to fusarium wilt race 1.*

Boogie – Brotherton, *mainseason maturity, 1470 heat units, afila leaf type, 3.8 average sieve size, identical maturity as Bolero.*

Ashton – Seminis, *mainseason maturity, 1480 heat units, normal leaf type, 3.3 average sieve size, 14-15 nodes to first flower, 2-3 pods per node, 8-9 berries per pod, 24 inch plant height, resistance to BYMV and Fusarium wilt race one, resistance to PM, IR to DM.*

PLS 1051 – Pure Line, *mainseason maturity, 1480 heat units, normal leaf type, 3.6-3.7 average sieve size.*

Geisha –*ADM/SeedWest, afila leaf type, mainseason maturity (1590 heat units), 4.0 average sieve size, good disease package.*

Hudson – (CMG 378F) *– Crites, Mainseason maturity, 67 days to maturity, 1540 heat units, normal leaf type, 15 nodes to first flower, 25 inch plant height, 2 pods per node, 9-10 berries per pod, 3.82 sieve size index, resistance to fusarium wilt races one and two, resistant to PM, resistant to En.*

PLS196 *– Pure Line, late season (1630 heat units), 3.7 average sieve size, afila type.*

Mundial (XP08530727) – *Seminis, a new, late maturing, normal leaf type with a nice short plant that appears to stand better compared to many other normal foliage varieties, maturity is approximately 1600 heat units with a 3.25 sieve size, resistance to powdery mildew and races 1 and 2 of the fusarium wilt fungus, intermediate resistance against common races of downy mildew, 15-16 nodes to first flower, 2-3 pods per node, 7-9 berries per pod, yield potential has been excellent.*

PLS183 *– Pure Line, main season maturity (1570 heat units), afila leaf type, indeterminate plant type, 27-29 inch plant height, 3.5 inch pods with doubles and triples per node, wrinkled seed with 15 nodes to first flower, tolerance to Fusarium root rot. Intense color and superbly uniformity make it excellent for frozen, canned or fresh.*

Table 6. Weather Summary

Day	Days from planting	Max. Temp.	Min. Temp.	Mean Temp.	Precip.	Acc Precip.	Degree days base 40	acc dd units base 40
5/11/11	1	63	41	52	0	0	12	12
5/12/11	2	72	46	59	0	0	19	31
5/13/11	3	78	62	70	0	0	30	61
5/14/11	4	78	59	68.5	0.02	0.02	28.5	89.5
5/15/11	5	68	51	59.5	0.14	0.16	19.5	109
5/16/11	6	52	44	48	0.93	1.09	8	117
5/17/11	7	49	43	46	0.04	1.13	6	123
5/18/11	8	58	43	50.5	0.32	1.45	10.5	133.5
5/19/11	9	73	55	64	0.12	1.57	24	157.5
5/20/11	10	72	55	63.5	0.13	1.7	23.5	181
5/21/11	11	70	55	62.5	0	1.7	22.5	203.5
5/22/11	12	76	55	65.5	0.02	1.72	25.5	229
5/23/11	13	70	59	64.5	0	1.72	24.5	253.5
5/24/11	14	75	62	68.5	0.22	1.94	28.5	282
5/25/11	15	76	51	63.5	0.01	1.95	23.5	305.5
5/26/11	16	71	52	61.5	0.18	2.13	21.5	327
5/27/11	17	85	60	72.5	0.08	2.21	32.5	359.5
5/28/11	18	72	53	62.5	0.72	2.93	22.5	382
5/29/11	19	78	59	68.5	0	2.93	28.5	410.5
5/30/11	20	86	65	75.5	0.23	3.16	35.5	446
5/31/11	21	82	63	72.5	0	3.16	32.5	478.5
6/1/11	22	91	69	80	0	3.16	40	518.5
6/2/11	23	86	53	69.5	0	3.16	29.5	548
6/3/11	24	65	48	56.5	0	3.16	16.5	564.5
6/4/11	25	69	52	60.5	0	3.16	20.5	585
6/5/11	26	66	55	60.5	0.11	3.27	20.5	605.5
6/6/11	27	76	53	64.5	0	3.27	24.5	630
6/7/11	28	81	58	69.5	0	3.27	29.5	659.5
6/8/11	29	84	63	73.5	0	3.27	33.5	693
6/9/11	30	92	69	80.5	0.05	3.32	40.5	733.5
6/10/11	31	88	58	73	0	3.32	33	766.5
6/11/11	32	70	58	64	0.47	3.79	24	790.5

Day	Days from planting	Max. Temp.	Min. Temp.	Mean Temp.	Precip.	Acc Precip.	Degree days base 40	acc dd units base 40
6/12/11	33	76	61	68.5	0.2	3.99	28.5	819
6/13/11	34	68	55	61.5	0.19	4.18	21.5	840.5
6/14/11	35	69	53	61	0.03	4.21	21	861.5
6/15/11	36	62	48	55	0.04	4.25	15	876.5
6/16/11	37	81	53	67	0	4.25	27	903.5
6/17/11	38	82	60	71	0.05	4.3	31	934.5
6/18/11	39	76	60	68	0.02	4.32	28	962.5
6/19/11	40	80	57	68.5	0	4.32	28.5	991
6/20/11	41	72	50	61	0	4.32	21	1012
6/21/11	42	79	58	68.5	0	4.32	28.5	1040.5
6/22/11	43	84	59	71.5	0.38	4.7	31.5	1072
6/23/11	44	80	65	72.5	0.26	4.96	32.5	1104.5
6/24/11	45	83	66	74.5	0.06	5.02	34.5	1139
6/25/11	46	79	62	70.5	0.1	5.12	30.5	1169.5
6/26/11	47	71	58	64.5	0.01	5.13	24.5	1194
6/27/11	48	70	58	64	0.03	5.16	24	1218
6/28/11	49	79	64	71.5	0	5.16	31.5	1249.5
6/29/11	50	83	62	72.5	0.34	5.5	32.5	1282
6/30/11	51	69	58	63.5	0	5.5	23.5	1305.5
7/1/11	52	76	57	66.5	0	5.5	26.5	1332
7/2/11	53	79	55	67	0	5.5	27	1359
7/3/11	54	**86**	64	75	0	5.5	35	1394
7/4/11	55	**86**	65	75.5	0	5.5	35.5	1429.5
7/5/11	56	**83**	62	72.5	0	5.5	32.5	1462
7/6/11	57	**84**	65	74.5	0	5.5	34.5	1496.5
7/7/11	58	**87**	63	75	0	5.5	35	1531.5
7/8/11	59	79	60	69.5	0	5.5	29.5	1561
7/9/11	60	81	61	71	0	5.5	31	1592
7/10/11	61	78	58	68	0	5.5	28	1620
7/11/11	62	**87**	65	76	0	5.5	36	1656
7/12/11	63	**91**	72	81.5	0	5.5	41.5	1697.5