NEW YORK STATE 2015 PROCESSING SNAP BEAN CULTIVAR TRIAL REPORT
Large Sieve Bean – 3-4 Sieve Bean – Whole Bean

James Ballerstein - Research Support Specialist, Horticultural Sciences
New York State Agricultural Experiment Station - Cornell University, Geneva, New York

Stephen Reiners - Associate Professor, Horticultural Sciences
New York State Agricultural Experiment Station - Cornell University, Geneva, New York

PROCEDURE AND MATERIALS

Location: NYS Agricultural Research Farm – field 22, Geneva - soil type - Honeoye silt loam
Planting Dates: Large Sieve – 5/21, 3-4 sieve beans – 6/18, Whole type – 7/7
Row Width: 30 inches, Row length: 30 ft. **In-row Spacing**: 1 5/8 inches (6-8 plants/ft.)
Conventional Tillage **Fertilizer**: 350#/A of 15-5-10 with Zn and Mn
Herbicide: Dual post plant **Planter** - Two Row Monosem Vacuum Planter
Plot Size: 1 row - 4 replications (Replicated entries), 1 row – two replications (Observation entries).

The objective of this trial was to compare a number of green and wax snap bean varieties for yield and other quality characteristics. This was accomplished in cooperation with the snap bean processors in New York and Ontario Canada in an attempt to find new, higher quality, and disease resistant varieties that are adapted to our climate and soil conditions. We did not have a field day this past season due to the weather difficulties.

For both replicated and observation entries, yield of ten feet per replication was obtained by pulling the plants and hand picking them. Multiple harvests were made to plot yield increase and also seed size increase. An FMC snipper and grader were used to snip and grade the harvested pods. Each replicated entry was processed (canned and frozen) for later evaluation by the processors and seedsmen. Comments from this cutting are not included in the report.

Soil moisture was good for the large sieve planting but excessive after that. Most of the large trial was destroyed by root rot. We hand planted the 3-4 sieve trial due to wet conditions. Plants were small most likely due to lack of proper fertility. We dealt with crusts resulting from heavy rains which decreased stand counts. The whole bean planting was planted with the planter. It was probably the best planting of the three although cooler temperatures hurt it from its full potential. White mold was only a minor problem in the large sieve and whole bean plantings although excessive moisture was the norm for most of the season. See the weather insert at the end of the summary for a breakdown of temperatures and precipitation over the growing season.

Jim Ballerstein, NYSAES, 630 West N. Street, Hedrick Hall, Geneva, NY 14456-0462
315-787-2223 (phone) jwb2@cornell.edu(email)

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Table 1 - Processing Snap Bean Cultivar List

Large Sieve

Venture (std)	Syngenta
Huntington (std)	Syngenta
Colter (HMX 2117)	HM
SV1098GV	Seminis
Envy	HM
BA1001	Seminis
BA0999	Seminis
Chisolm	HM
HM5101	HM
Pismo	Syngenta
Silverado	Crites
CR1218	Crites
PV857	Crites
2174	Pure Line
2211	Pure Line
524	Pure Line
2219	Pure Line
X6137	Abbott&Cobb/Basin Seed Co.
X6159	Abbott&Cobb/Basin Seed Co.
3-4 Sieve	
Caprice (std)	HM
BA 1006	Seminis
BSC11B515	Br
BSC525	Br
SV1136GF	Seminis
Sybaris SV1007GG)	Seminis
SV1003GF (wax)	Seminis
Goldmine WAX std	
DW630	Brotherton
Colter (HMX 2117)	HM
Wyatt	HM
Cabot	HM
Bowie	HM

3-4 Sieve Continued

Cassidy	HM
Flavor Sweet	HM
Baltimore	Crites
Marathon (PV856)	Crites
7396	Pure Line
7343	Pure Line
X6094	Abbott&Cobb/Basin Seed Co.
X6096	Abbott&Cobb/Basin Seed Co.
X6105	Abbott&Cobb/Basin Seed Co.
X6110	Abbott&Cobb/Basin Seed Co.
Ambition	Syngenta
Tahoe	Br
Whole (2-3 sieve)	
Masai (std)	Syngenta
Flanker S2	Vilmorin
MV0981-11	Vilmorin
SV1286GF	Seminis
Oakley	HM
7675 (WAX)	Pure Line
Lamborghini	Pure Line
Bermuda	Crites
Koala	Crites
HS931	Br
Romano type	
HS757	Br
Furano std	Syngenta

Table 2. Yield Characteristics (large bean planting date 5/21)

cultivar	Days to harv.	% 2 Sieve	% 3 Sieve	% 4 Sieve	% 5 Sieve	% 6 Sieve	% 2-4 sieve	T/A Harvest	3 sieve seed length (mm)	4 sieve seed length (mm)	5 sieve seed length (mm)	Plants per foot
Venture	60	6	6	31	41	15	44	3.1		97	107	5.6
Venture	60	6	4	32	35	22	42	2.9		97	115	5.0
Venture	60	20	6	37	26	12	62	2.1		101	110	4.6
Venture	60	9	10	42	32	8	60	3.4		89	117	6.4
Colter	62	18	40	41	1	0	99	na		77	102	na
SV1098GV	62	8	19	62	11	0	89	na		93	118	na
Envy	62	10	23	61	6	0	94	na		89	107	na
BA1001	62	11	21	60	8	0	92	na		76	90	na
BA1001	62	12	21	60	6	0	94	na		92	85	na
Chisholm	62	22	31	46	2	0	98	na		78	78	na
Chisholm	62	18	33	48	1	0	99	na		74	79	na
Chisholm	62	18	29	51	2	0	98	na		55	100	na
HM5101	62	19	34	43	3	1	97	na	78	89		na
Pismo	62	27	33	39	0	0	100	na		78	0	na
Pismo	62	16	20	58	6	0	94	na		83	104	na
CR1218	62	18	25	45	11	0	89	na		98	110	na
PV857	62	20	36	43	2	0	98	na		89	95	na
2211	62	80	17	3	0	0	100	na		92	0	na
524	62	25	36	37	2	0	98	na		73	95	na
2219	62	68	31	1	0	0	100	na	62	75		na
X6137	62	32	30	38	0	0	100	na		88	0	na
X6137	62	21	30	46	2	0	98	na		76	88	na
X6137	62	18	26	55	1	0	98	na	80	85		na

The above was a single harvest. Some had multiple replications that were harvestable but most did not. I harvested as many plants as we could to have product for the cutting and also to have sieve percentage information be as accurate as possible. they were also a bit young but plants were going down and wanted to make sure I had good pods for the cutting.

Harvest area varied and was not recorded. This is why I was unable to determine T/A.

Column Descriptions for Tables 2, 4, and 6.

Cultivar *– Data is based on four replications for entries in the replicated study and two plots for observation entries. Harvest sample was from five feet of row.*

Seed Source *–Brotherton=Brotherton Seed Co.; Crites M.=Crites Moscow Growers; HM=Harris Moran; Pure Line Seeds; Rogers=Syngenta Seeds-Rogers Brand; Seminis=Seminis Vegetable Seeds-Processor Division; Vil. - Vilmorin*

Days to Harvest *– The number of days from planting until harvest. Multiple harvests were made.*

Degree Day Units Base 50 Degrees F. *– The number of heat degree day units from planting until harvest.*

% Culls – *Based on the USDA specifications for culls #2 grade (misshapen) and pod rot or blemishes.*

Percentage 2 sieve *– Pods were snipped and graded after harvest. This was the percentage of 2 sieve pods.*

Percentage 3 sieve *- Pods were snipped and graded after harvest. This was the percentage of 3 sieve pods.*

Percentage 4 sieve *- Pods were snipped and graded after harvest. This was the percentage of 4 sieve pods.*

Percentage 5 sieve *- Pods were snipped and graded after harvest. This was the percentage of 5 sieve pods.*

Percentage 6 sieve *- Pods were snipped and graded after harvest. This was the percentage of 6 sieve pods.*

Percentage 2-4 sieve *– This was the sum of the 2-4 sieve percentages.*

Seed Size of the 2 sieve pods *– One seed from ten 2 sieve pods were collectively measured in millimeters as a maturity index.*

Seed Size of the 3 sieve pods *– One seed from ten 3 sieve pods were collectively measured in millimeters as a maturity index.*

Seed Size of the 4 sieve pods *– One seed from ten 4 sieve pods were collectively measured in millimeters as a maturity index.*

Seed Size of the 5 sieve pods *– One seed from ten 5 sieve pods were collectively measured in millimeters as a maturity index.*

Plant Population listed as plants per foot *– Desired population was 6-7 plants per foot.*

Yield listed as tons per acre *– The yield from the harvest sample (prior to being snipped) extrapolated to a per acre basis.*

Table 3. Plant and Pod Characteristics (Large Sieve Beans)

Cultivar	Pod Color (raw) rating	Unsnipped Pod Length (in.)	Pod Shape Rating	Pod Straight. Rating
Venture (std)	3	4.25-5	R-CR	3
Huntington (std)	3.5	na	na	na
Colter (HMX 2117)	3.5	4-4.5	R	4
SV1098GV	3.5-4	4-5.0	R	3.5
Envy	3.5	3.75-4.75	R	3.5-4
BA1001	3.5	3.75-4.5	R	3.5
BA0999	3.5-4	na	na	na
Chisolm	4.5	3.5-4.5	R	3.5-4
HM5101	3.5-4	4-5.0	R-CR	3.5
Pismo	3.5-4	3.5-4.25	R	3.5-4
Silverado	na	na	na	na
CR1218	3.5-4	3.75-5	R	4
PV857	3.5-4	4-4.75	R	4.5
2174	na	na	na	na
2211	4	4.0-5.	R	4
524	3.5	3.75-4.5	R	3.5-4
2219	4	3.75-4.25	R	4.5
X6137	4	4-4.5	R	4
X6159	na	na	na	na

Column Descriptions

Average plant height - The average plant height at harvest in inches.

Average plant canopy width - The average plant width at harvest in inches.

Plant Habit Rating - 5=very erect plant, 3= acceptable, 1=totally recumbent plant

Pod Color Rating - DG=dark green, MG=medium green, LG=light green. (uncooked)

Unsnipped pod length - The average length of the largest pods in inches.

Pod Shape Rating - R=round, CR=creased, O=oval

Pod Location Rating - H= pods high on the plant, M=pods located in the center of the plant canopy, L=pods touching the ground

Pod Straightness Rating - 5=very straight, 3= acceptable, 1=very curved or twisted

Additional Comments - Large Sieve Beans

I have no comments for the large sieve beans as the trial was mostly destroyed by root rot.

Snap Bean Desc. Provided by the Seed Source (Large Beans)

Venture *– Syngenta, early large sieve.*

Huntington *– Syngenta, 56 day 5 sieve Blue Lake type, smooth straight pods, very erect plant with beans off the ground, good yielder which has demonstrated tolerance to the Midwest virus complex, IR to Bacterial Brown Spot, HR to Bean Common Mosaic, picks very clean with a good percentage of the beans without stems, leaves tend to show some bronzing at maturity with no affect to yield.*

Colter (HMX 2117) *– Harris Moran,* Harris Moran; 55 days to maturity; 20% 3 sieve size, 60% 4 sieve size, 20% 5 sieve size; status – 2; HR for BCMV, BCTV and Ua, IR for Pss.

SV1098GV *– Seminis, 56 days to maturity, 50% 3-4 sieve and 50% 5-6 sieve, 5.5 inch pod length, deep green pod color, IR for BCMV/Pss. Breeder comments – Broad adaptation with moderate to slow seed development. Plant habit moderate to compact plant type.*

Envy *– Harris Moran, 56 days to maturity, green bush type, moderate plant habit, 5.5' medium dark green pods, pod position – mid, 5% 3 sieve, 50% 4 sieve, 45% 5 sieve, BCMV1 (US1) - HR*

BA1001 *– Seminis, 58 days to maturity, 60% 1-4 sieve, 40% 5-6 sieve, 5.6 inch pod length, medium green pod color; Breeder Comments: One of two new Aphanomyces resistant root rot lines that are built on a Tendercrop Hercules/Titan platform. Yields have been equal to or exceed Hercules and Titan under non-root rot conditions. in De Forest, WI trials. Performance in research plots at Geneva, NY under virus conditions has been excellent. Geographic fit observed across the Midwest, Northeast, and Southeast.*

BA0999 *– Seminis, 52 days to maturity, 65% 1-4 sieve, 35% 5-6 sieve, 5.5 inch pod length, deep green pod color; Breeder Comments: One of two new first earlies. Quality, color, and holding ability superior to any other early. Yield potential and performance make this line suitable for first early, back fill, or double crop use. geographic fit observed across the MW, NE, and Southeast. Excellent performance in Texas heat set trials. The sieve size split makes 0999 potentially suitable for a high recovery of cut beans.*

Chisholm *– Harris Moran, 55 days, straight, smooth pods; medium dark green; slow seed development; upright plant, mid high pod position; 5.9 inch pod length; 20% three sieve, 45% four sieve and 35 % five sieve; HR for Bean Common Mosaic and Curly Top; IR for Halo Blight and Bacterial Brown Spot.*

HM 5101 *– Harris Moran, 55 days to maturity, green bush type, moderate plant habit, 5.5" medium dark green pods, pod position – middle, 10% 3 sieve, 50% 4 sieve, 40% 5 sieve, BCMV1 (US1) – HR, BCTV – IR, Pss – IR.*

PISMO-SBR4556 *– Syngenta, Huntington type with potentially a higher distribution of 4 sieves. Excellent yield potential and pod placement (1-2 " higher than Huntington in most environments.*

Silverado (PV-832) *– Crites, mid-early; 57 days to maturity; 4-5 sieve with ~30% 5 sieve; pods are 5.5 – 6" and are medium dark green and are sitting on an erect plant.*

Snap Bean Desc. (Seed Source) Continued: (Large Beans)

CR 1218 *– Crites,*

PV 857 *– Crites*

2174 *– Pure Line,*

2211 *– Pure Line,*

524 *– Pure Line,*

2219 *– Pure Line, approximately 58 days to maturity.*

6137 *– Abbott & Cobb; mid season; bush blue lake type; BBL/GP; 56-58 days to maturity; pod length 5.5 - 6"; pod color M-D; average sieve size 4-5; sieve size distribution ~40% 5 sieve.*

6159 *– Abbott & Cobb; GP; approximate days to maturity E-M; pod length 5.5 – 6"; pod color D; average sieve size 4-5; sieve size distribution ~50% 5 sieve.*

Table 4. Yield Characteristics (3-4 sieve trial planted 6/18)

In order of largest to smallest sieve size

Cultivar	Days to harv.	% 2 sieve	% 3 sieve	% 4 sieve	% 5 sieve	% 2-4 sieve	2 sieve seed length	3 sieve seed length (mm)	4 sieve seed length (mm)	Plants per foot	T/A
X6096	55	47	24	25	4	96		70	80	4.6	2.1
	57	34	21	26	19	81		71	94	4.8	2.1
SV1136GF	56	9	21	68	1	99		60	73	4.9	2.4
	60	5	17	67	11	89		68	86	4.9	2.7
Caprice (std)	57	9	21	70	0	100		68	75	5.6	3.5
	61	10	14	73	3	97		78	90	4.7	3.5
BA 1006	56	9	32	60	0	100		64	75	4.8	2.3
	60	6	20	73	1	99		69	81	4.4	2.6
Sybaris	56	51	49	0	0	100	59	64		4.7	2.4
	60	10	22	69	0	100		68	79	5.0	2.9
Colter	55	14	42	44	0	100		66	75	5.3	2.6
	57	7	26	67	0	100		73	84	4.2	2.4
Bowie	57	17	20	62	1	99		64	68	4.5	2.6
	61	14	16	67	2	98		64	75	4.6	2.7
Wyatt	57	17	36	46	0	100		61	75	4.0	2.2
	61	21	25	54	0	100		74	95	4.6	2.8
Cabot	56	14	34	52	0	100		66	81	4.9	2.7
	60	16	33	50	0	100		83	89	5.0	2.9
X6094	56	27	73	0	0	100	67	73		4.2	1.8
	60	20	37	43	0	100		68	76	4.8	2.0
Tahoe	61	26	33	41	0	100		66	90	4.6	2.4
	63	16	30	52	1	99		80	99	4.7	3.0
Ambition	57	23	50	27	0	100		71	76	4.9	2.1
	61	16	42	41	1	99		82	89	4.9	2.2
BSC11B515	57	34	47	19	0	100		64	73	4.8	2.2
	61	17	47	36	0	100		74	81	4.8	2.7
Baltimore	60	33	45	21	0	100		72	82	4.9	2.3
	62	19	44	36	0	100		83	90	5.1	2.6

Table 4 continued:

Cultivar	Days to harv.	% 2 sieve	% 3 sieve	% 4 sieve	% 5 sieve	% 2-4 sieve	2 sieve seed length	3 sieve seed length (mm)	4 sieve seed length (mm)	Plants per foot	T/A
Marathon	60	26	48	26	0	100		87	93	4.4	1.9
	62	23	43	34	0	100		93	105	4.7	1.9
7343	56	29	52	19	0	100		59	64	4.2	1.8
	60	23	50	27	0	100		74	83	4.6	2.4
Flavor Sweet	60	16	55	29	0	100		80	91	4.0	2.5
	62	31	52	17	0	100		78	86	4.7	2.1
Cassidy	57	43	47	10	0	100		61	70	4.5	1.7
	61	33	50	17	0	100		74	79	4.6	1.9
BSC525	57	53	43	4	0	100		66	69	4.5	1.7
	61	48	44	8	0	100		67	85	4.7	2.2
X6105	61	62	35	4	0	100		73	81	4.2	2.3
	62	58	37	4	0	100		84	87	4.8	2.4
X6110	61	76	24	0	0	100		81		5.9	2.4
	63	74	26	0	0	100	72	86		5.6	2.4
7396	56	90	10	0	0	100		71		4.8	2.0
	60	77	23	0	0	100	76	91		5.0	2.6

Wax

SV1003GF	55	11	48	41	0	100		69	74	4.9	3.3
	57	12	35	53	0	100		75	79	5.2	3.5
Goldmine std	56	60	40	0	0	100	60	69		4.0	1.8
	60	25	39	37	0	100		75	89	4.5	2.2
DW630	56	96	4	0	0	100		73		4.6	1.6
	60	94	6	0	0	100	76	86		4.3	2.1

See page 6 for column descriptions.

Table 5. Plant and Pod Characteristics - 3-4 sieve type

Cultivar	Plant Ht. (in.)	Plant Width (in.)	Pod Color (raw)	Unsnipped Pod Lgth (in.)	Pod Shape Rating	Pod Straight. Rating	Pod Location Rating	Plant Habit Rating
X6096	11 to 13	11 to 13	M-DG	4-5.5	R	3.5	na	na
SV1136GF	10	10 to 12	DG	4-5.0	R	3.75	na	na
Caprice (std)	11	11 to 13	DG	4-5.0	R	3.5	na	na
BA 1006	11	11 to 13	DG	4.0-5	R-O	4	na	na
Sybaris	12 to 14	12 to 15	DG	4.5-5.25	R	3.75	na	na
Colter	13-15	13 to 15	M-DG	4-5.5	R	4	na	na
Bowie	9 to 11	12 to 14	DG	4-4.5	R-O	3.75	na	na
Wyatt	11 to 13	13 to 15	DG-VDG	4.5-5.5	R	4.25	na	na
Cabot	12 to 14	13 to 15	DG	4-5.0	R	3.75	na	na
X6094	10	10	M-DG	4.5	R	4	na	na
Tahoe	12 to 14	13	DG	4.0-5	R	3.75	na	na
Ambition	11 to 12	12	M-DG	4-4.5	R	3.75	na	na
BSC11B515	10	10 to 12	DG	4.0-5	R	4	na	na
Baltimore	8 to 11	11	M-DG	4.5-5.5	R	4	na	na
Marathon	10 to 12	11 to 13	M-DG	4.5-5.5	R	4	na	na
7343	11 to 12	11 to 13	M-DG	4-4.75	R	3.75	na	na
Flavor Sweet	8 to 10	9 to 11	M-DG	3.5-4	R	3.75	na	na
Cassidy	10 to 12	10 to 12	M-DG	4-4.75	R	3.75	na	na
BSC525	11	13 to 15	M-DG	3.5-4.5	R	3.5	na	na
X6105	11 to 13	12	MG	5.5-6.5	R	3.5	na	na
X6110	11 to 13	11 to 13	MG	5.0-6	R	4	na	na
7396	10 to 12	13	M-DG	4-4.5	R-O	4	na	na
Wax								
SV1003GF (wax)	11 to 13	12 to 14	WAX	4-5.5	R-O	3.5	na	na
Goldmine std	13-15	14 - 16	WAX	4.5-5.5	R-O	4	na	na
DW630	8 to 10	9 to 11	WAX	4.0-5	R	4	na	na

Column Descriptions

Average plant height - The average plant height at harvest in inches.
Average plant canopy width - The average plant width at harvest in inches.
Plant Habit Rating - 5=very erect plant, 3= acceptable, 1=totally recumbent plant

Pod Color Rating - D=dark green, M=medium green, L=light green. (uncooked)
Unsnipped pod length - The average length of the largest pods in inches.
Pod Shape Rating - R=round, CR=creased, O=oval

Pod Location Rating - H= pods high on the plant, M=pods located in the center of the plant canopy, L=pods touching the ground
Pod Straightness Rating - 5=very straight, 3= acceptable, 1=very curved or twisted

Plants were quite short. Plant habit and pod location were mostly the same for all.

Additional Comments (3-4 sieve)

This is the planting that was hand planted. We were unable to work the ground and it was too wet underneath to run a tractor on it. We marked rows with a line, dug a furrow and seeds were planted at roughly two inches between seeds. Hand covered. I had three applications of a 10-20-20 soluble fertilizer applied after emergence and I also sidedressed roughly 200 lb/A of (22-0-0). Plants were small although they were uniform in emergence and growth. I planted on 6/18 but heat units were lower than average and I don't think they had enough fertilizer. I did get them harvested prior to most of my crew leaving which is why I did not wait until better soil conditions would have allowed us to machine plant. Normally I harvest at two day interval (harvest was at a four day interval) but seed size was not moving very quickly. Many of the cultivars were still not at optimum maturity when last harvested. Labor issues kept me from harvesting another time. (Many of my students left that week.)

In order of largest sieve to smallest sieve

X6096 – Some flowers at harvest, medium to dark green, slightly curved pods, a uniform distribution of 2-5 sieve pods, probably could have gone a few more days for optimum harvest.

SV1136GF – A high percentage of four sieve pods with a few five sieve, dark green, round pods, another harvest would have been beneficial to reach optimum maturity.

Caprice – Our 3-4 sieve standard, large percentage of four sieve pods, round, slightly curved pods, one of the best yields in this trial, another harvest would have been beneficial to reach optimum maturity.

BA1006 – A high percentage of round to oval, dark green, straight, 4 sieve pods, another harvest would have been beneficial to reach optimum maturity.

Sybaris – A high percentage of dark green, round, four sieve pods, another harvest would have been beneficial to reach optimum maturity.

Colter – A high percentage of round, medium to dark green, straight, four sieve pods, another harvest would have been beneficial to reach optimum maturity.

Bowie – A high percentage of four sieve pods, sieve percentage changed little over four days, shorter, dark green, round to oval pods, another harvest would have been beneficial to reach optimum maturity.

Wyatt – Nice plant and pod package, dark green to very dark green, round, very straight pods, an even distribution of two and three sieve pods with roughly 50% four sieve pods, close to optimum maturity based on seed size.

Cabot – Little change in sieve size over four days, yield varied little too, dark green, round pods.

X6094 – Some flowers at harvest, medium to dark green, round, straight pods, very uniform length, needed a few more days for optimum maturity, probably would have been a high percentage of four sieve pods at maturity.

Tahoe – A three – four sieve pod type with maturity being good at last harvest, dark green, round pods.

Ambition – a three - four sieve pod type probably needing another day or two.

Additional comments continued:

BSC11B515 – A three sieve pod type with small percentage of four sieve pods, needed another day or two for optimum maturity.

Baltimore – A nice 3-4 sieve bean with what looked like a higher percentage of three sieve.

Marathon – Higher percentage of three sieve pods with about 20-30 percent of four sieve, good maturity.

7343 – Sieve percentage most likely would have been a three four sieve split if harvested a few days later at a more optimum harvest.

Flavor Sweet – Some flowers at harvest indicating a possible split set, sieve size distribution also alluded to a split set.

Cassidy – More of a two three sieve size with a few four sieve, nice, uniform pods, good plant, could have gone a few more days.

BSC525 – A smaller sieve bean – more of a 2-3 sieve, harvested at a proper maturity.

X6105 – High percentage of two sieve pods, small leaves and long pods, looked similar to 6110 but a bit bigger sieve.

X6110 – Similar to 6105 but looked a bit better.

7396 – A two-three sieve type (mostly two sieve), harvested proper maturity.

Wax

SV1003GF – Wax, some green present on mature pods, yielded well for the conditions, probably a high percentage of four sieve pods at optimum maturity, possibly less green at optimum harvest.

Goldmine – A wax standard, usually a high percentage of four sieve pods, a few days too young.

DW630 – Wax whole bean (2 sieve), very good set, minimal green on pods.

Snap Bean Descriptions Provided by Seed Source (3-4 Sieve type)

Caprice *(HMX 0944) - Harris Moran, 56 days to maturity, straight smooth pods, high yield in virus pressure, slow seed development, 25 % 3 sieve, 60% 4 sieve pods, 15 % five sieve, upright plant habit, pod position-mid high, pod length 5.5 in., even set, straight medium dark green pods, tolerates BBS and common blight, sets well in high fertility, has shown some degree of virus tolerance. HR for Bean common mosaic, Anthracnose, Halo blight, and Common blight, IR for Bacterial brown spot.*

BA1006 – *Seminis, 55 days to maturity, 90% 3-4 sieve, 10% 5-6 sieve, 5.8 inch pod length, medium green pod color, HR for BCMV and IR for Pss. Breeder comments – A fresh market variety also suitable for processing that is similar to Caprice in sieve size distribution and color. Plant habit more compact and 1-2 days earlier than BA0958. Compact plant habit makes this line less prone to lodging under high fertility conditions.*

BSC11B515 – *Brotherton, mid to full season; 50% 3 sieve and 50% 4 sieve; 17 inch plant height; 4.5-5.5 inch, dark green pods; R for BCMV and HB; **T** for BBS and heat.*

*Snap Bean Descriptions Provided by Seed Source **3-4 Sieve continued:***

***BSC525**– Brotherton, Mid Early, 44% 2 sieve - 35% 3 sieve - 21% 4 sieve, 15" plant height, 4.5 – 4.75 inch dark green pods, R for BCMV, AN, CT and T for BBS and Heat.*

***SV1136GF –** Seminis, 54 days to maturity, 80% 1-4 sieve and 20% 5 and 6 sieve, 5.3 inch pod length, deep green pod color, HR for BCMV/CI/Ae/Psp[3]. Breeder comments – Early maturity, cut or whole large whole bean, 3rd generation root rot resistant. Excellent pod placement on an erect compact to medium sized determinate bush.*

***Sybaris (SV1007GG) –** Seminis, 56 days to maturity, 56 days to maturity, 100% 1-4 sieve, 5.6 inch pod length, deep green pod color, HR for BCMV/Ua[3]. Breeder comments – All the pods in this line are concentrated in the 3's and 4's. this line may have more quality than Valentino. Pod placement is excellent.*

***SV1003GF** (wax) – Seminis, 56 days to maturity; color-yellow; pod length is 5.2 inches; 1 to 3 sieve 30%, 4 to 6 sieve 60%; HR for BCMV; IR for Pss. Breeder comment: Bacterial Brown Spot resistant Wax bean. Sieve size distribution favoring the cut bean and a fancy pack.*

***Goldmine** std (wax) – Seminis, 56 days to maturity, 30% 1-3 sieve, 55% 4 sieve, 15% 5-6 sieve, round, 5.3 inch pods, medium seed development, highly attractive wax bean to replace Goldrush; all the advantages of Goldrush (high yield, reliability, good factory characteristics and high quality end product); intermediate resistance to Halo Blight; seed size is relatively small, reducing planting cost.*

***DW 630** (wax) – Brotherton, Maturity is Mid-Season, color is D Wax, 20% 2 sieve – 60% 3 sieve – 20% 4 sieve, 17" plant height, 4.5 to 5.5 inch dark wax pods, T for BBS and Heat, R for BCMV and AN.*

***Colter (HMX 2117)** – Harris Moran; 55 days to maturity; 20% 3 sieve size, 60% 4 sieve size, 20% 5 sieve size; **status – 2**; HR for BCMV, BCTV and Ua, IR for Pss.*

***Wyatt –** Harris Moran, 54 days to maturity, excellent plant vigor, upright plant, attractive, dark green, straight pods high on the plant; 5.75 inch pod length, 30% 3 sieve, 60% 4 sieve and 10% 5 sieve, HR for BCMV 1, Curly Top, Psp, Pss and Xap.*

***Cabot –** Harris Moran, attractive, round, straight pods; high quality end product, consistent performance, 55 days to maturity, upright plant, pod position mid high, 5.5 inch pods, 25% three sieve, 60% four sieve,15% five sieve, medium dark green color, HR for Bean common mosaic, rust and common blight; IR for Curly top, Halo Blight and Bacterial Brown Spot.*

***Bowie (HMX 7118)** – Harris Moran, 56 days to maturity; upright plant habit; mid to high pod location; 5.5 inch pod length; (30% 3 sieve, 60% 4 sieve, 10% 5 sieve); medium dark green pods; R for Bean common mosaic, Curly Top, Halo Blight and Bacterial brown spot; IR for Common Blight.*

***Cassidy (HMX6109)** – Harris Moran, 55 days to maturity, very upright, 5.3 inch pod length, 20% 2 sieve, 70% 3 sieve, 10% 4 sieve, medium dark green pods, high quality, straight pods, R for Bean common mosaic virus and Curly top diseases, IR for Halo blight, bacterial brown spot and common blight diseases.*

***Flavor Sweet** – Harris Moran, 55 days to maturity, upright plant, strong emergence vigor, pod position – mid high, 5 inch pod length, 85% 3 sieve, 15% 4 sieve, medium green pod color, good plant vigor, good quality straight pods, HR for BCMV 1, CI and Psp.*

***Baltimore** (PV819) – Crites; 57 days to maturity, mid-early 3-4 sieve bean with approximately 50% 4 sieve; pods are5 – 5.5" long and have an attractive dark color; good disease package.*

Snap Bean Descriptions Provided by Seed Source (3-4 Sieve continued:

Marathon (PV856) *– Crites*

7396 *– Pure Line*

7343 *– Pure Line; approximately 58 days to maturity; may be resistant to BCMV*

X6094 *– Abbott & Cobb/Basin Seed Co., midseason maturity, 3-4 sieve, 5.3 inch pod length, dark green pod color.*

X6096 *– Abbott & Cobb/Basin Seed Co.*

X6105 *- Abbott & Cobb/Basin Seed Co.*

X6110 *- Abbott & Cobb/Basin Seed Co.*

Ambition *– Syngenta; 54 days to maturity; well-adapted to all production areas and sets well in most heat conditions; long, straight and smooth dark green pods; displays strong seedling vigor; consistent high yields with long shelf-life; excellent quality and appearance in size and shape for reduced culls; pod length 5.5"; avg. 3.5 – 4" sieve size; HR for BCMV*

Tahoe *– Brotherton, maturity is medium, color is dark, 50% 3 sieve and 50% 4 sieve, pod length is 5-6 inches, plant height is 20 inches, T for BBS and Heat, R for BCMV and Rust.*

Table 6. Yield Characteristics (**Whole bean -** planting date 7/7)

cultivar	days to harv.	% 2 sieve	% 3 sieve	% 4 sieve	2 sieve seed length (mm)	3 sieve seed length (mm)	Plants per foot	ave T/A
Lamborghini	57	58	32	9	58		5.8	3.8
	59	37	39	24	64	80	6.5	5.5
Bermuda	57	74	26	0	64		4.8	1.8
	59	60	35	5	57	97	5.9	3.2
Koala	57	75	25	0	64		5.3	3.1
	59	71	29	0	82		6.7	4.5
HS931	57	86	14	0	66		4.1	2.8
	59	72	28	0	66	86	5.7	4.3
MV0981-11	57	78	22	0	82		5.2	2.7
	59	75	25	0	90		5.9	3.8
Flanker S2	57	84	16	0	58		3.4	3.4
	59	72	28	0	71		4.7	5.2
Masai (std)	57	91	9	0	70		4.8	2.6
	59	84	16	0	79	108	5.6	4.4
SV1286GF	57	88	12	0	66		4.7	2.5
	59	88	12	0	74		6.5	3.8
Oakley	57	97	3	0	73		4.6	2.1
	59	98	2	0	68		5.3	3.0
Wax								
7675	57	99	1	0	65		4.8	1.7
	59	100	0	0	70		5.8	2.6
Romano Type								
HS757	57						3.8	4.9
	59						4.2	6.2
Furano std	57						3.4	4.0
	59						4.0	4.9

Column explanations on page ?

Table 7. Plant and Pod Characteristics - Whole bean type

Cultivar	Plant Ht. (in.)	Plant Width (in.)	Plant Habit Rating	Pod Color (raw) rating	Unsnipped Pod Length (in.)	Pod Shape Rating	Pod Location Rating	Pod Straight. Rating
Lamborghini	17	14	3.8	M-DG	4-5.5	R	H	4
Bermuda	15	14	4	MG	4-4.5	R	M-H	4.5
Koala	15	14	4	DG	3.5-5	R	M-H	4
HS931	16	13	4	M-DG	3-4.5	R	M-H	4
MV0981-11	14	11	4	MG	4.5-5.5	R	M-H	4
Flanker S2	14	13	4.3	M-DG	4-5.25	R-O	M-H	4
Masai (std)	16	15	4.3	MG	3-4.5	R	M-H	4
SV1286GF	14	12	4	M-DG	3.5-4	R	M-H	4.5
Oakley	15	12	4.5	DG	4-4.75	R	M	4
Wax								
7675	13	12	3.5	WAX	4-4.5	R-O	M-H	4
Romano								
HS757	17	15	3.5	MG	5.5-6	See comments		
Furano	16	15	3.5	MG	5-5.5	See comments		

Column Descriptions

Average plant height - The average plant height at harvest in inches.

Average plant canopy width - The average plant width at harvest in inches.

Plant Habit Rating - 5=very erect plant, 3= acceptable, 1=totally recumbent plant
(Plant Habit was done one week after harvest.)

Pod Color Rating - DG=dark green, MG=medium green, LG=light green. (uncooked)
LY=light yellow, Y=Yellow, GY=golden yellow

Unsnipped pod length - The average length of the largest pods in inches.

Pod Shape Rating - R=round, CR=creased, O=oval

Pod Location Rating - H= pods high on the plant, M=pods located in the center of the plant canopy, L=pods touching the ground

Pod Straightness Rating - 5=very straight, 3= acceptable, 1=very curved or twisted

Additional Comments - Whole Bean

Lamborghini – Big, nice plant with lots of nice pods; good plant habit; medium to dark green, round, straight pods fairly high on the plant; roughly 40% three sieve, very good yield.

Bermuda – Large, nice plant; very good plant habit; round, medium green, very straight pods; nice pod and plant package; roughly 30% 3 sieve pods, decent yield.

Koala – Very good plant habit; dark green, round, straight pods; roughly 25-30% three sieve, very good yield.

HS931 – Very good plant habit; shorter pods; round, medium to dark green, straight pods; very small sieve; 20-30% three sieve pods, very good yield.

MV0981-11 – Very good plant habit; medium green, round, straight pods; 20-25% three sieve pods, decent yield.

Flanker S2 – Very good plant habit; medium to dark green, round to oval, straight pods; 20-30% three sieve pods, very good yield.

Masai – Nice plant, very good plant habit; short, round medium green, straight pods; made about 10% three sieve pods, very good yield.

SV1286GF – Very good plant habit; short, round, medium to dark green, very straight pods; about 10% three sieve pods; good yield.

Oakley – Short plants, very good plant habit; dark green, round, straight pods; totally a two sieve or smaller, decent yield.

7675 – wax cultivar; acceptable plant habit; round to oval, straight pods, very small sieve; decent yield for such a small sieve.

Romano type
HS757 and **Furano** - both had acceptable plant habit, both medium green color although Furano may be a bit darker than 757, flatness of both very similar, Furano may be a bit thicker pod; chewed pods of both for several days and quality (lack of fiber) remained good. Both had good flavor.

Descriptions Provided by the Seed Source - Whole Beans

Lamborghini *– Pure Line*

Bermuda (PV-733) *– Crites, 57 days to maturity, 35% 2 sieve and 65% 3 sieve, color is med. Green, 5" long pods, IR for BBS, HR for Psp, BCMV and Cl.*

Koala *– Crites, 57 days to maturity, 40% 2 sieve and 60% 3 sieve, color is med. Green, 4.7" length pods, Hr for Psp, BCMV, and Cl*

HS 931 *– Brotherton, Mid-Season, 21 inch plant, 4 – 4.2" dark pods, 50% 2 sieve and 50% 3 sieve, T for BBS and Heat, R for BCMV and AN.*

Descriptions Provided by the Seed Source - Whole Beans

MV0981-11 *– Vilmorin, Semi-early variety-booster+2 days; very fine green bean, very flexible at harvest with outstanding yield; semi upright habit-open plant; avg. height is 40-45 cm; good vigor at emergence stage; white flower; straight, rather long (11.5-12cm) med. green pod, round section, fleshy without string nor parchment; pod is medium green after cooking; well concentrated in the very fine sieve size; 5-6.5mm-10%, 6.5-8mm-65%, 8-9mm-25%. HR for BCMV, Psp, Cl, Xap.*

Flanker S2 *– Vilmorin, earliness – Booster +2 days; very fine green bean with high yield potential; vigorous plant with upright habit; avg. height is 45 to50 cm; good distribution of the pods in the plant; pod presentation: straight with round section, fleshy, stringless, dark green colour; length – 11.5 cm at the very fine sieve size; northern France sieve sizes – 65% 6.5-8mm, 35% 8-9mm. HR for BCMV, Psp, and Ci. IR for Xap.*

Masai *– Syngenta; - 55 day maturity, a very small straight podded whole pack that yields well, pod smooth at prime, slightly fast seed development; excellent bush habit that can be planted in narrow rows, 3.9 inch pods, medium green pod color. Tender, flavorful pods averaging in the two to three sieve range set in the upper half of Masai's upright, small-leaf bush.*

SV1286GF *- Seminis*

Oakley *(HMX 9126) – Harris Moran; 55 days to maturity;* ***100% 2 sieve size****; status – 3; HR for BCMV, Psp, Pss and Ua.*

Wax

7675 *– Pure Line*

Romano

HS 757 *– Brotherton, Mid to Full Season, 18 inch plant, dark 4.5-5.5 inch flat pods, width 85", T for BBS and Heat, R for BCMV and An.*

Furano std *– Syngenta, Romano/Italian type Processing bean, 5.5-6" pods, very fleshy, excellent upright architecture and yield, high pod placement.*