## Report to the Oregon Processed Vegetable Commission 2007–2008

1. <u>Title</u>: Green Bean Breeding and Evaluation

2. Project Leaders: James R. Myers, Horticulture

3. <u>Cooperator</u>: Brian Yorgey, Food Science and Technology

4. Project Status: Terminating 30 June, 2008

5. <u>Project Funding</u>: \$39,378 breeding

\$8,698 processing

\$48,076 total

Breeding funds were used for a major portion of the support of a vegetable breeding technician, student labor, supplies, and research farm expenses. Processing funds were used for processing samples of experimental beans, laboratory analysis, and for student labor.

### 6. Objectives:

- 1. Breed Bush Blue Lake green bean varieties with high economic yield and improved plant architecture.
- 2. Improve pod characteristics including straightness, color, smoothness, texture, flavor and quality retention, and combine with delayed seed size development.
- 3. Incorporate white mold resistance and improve root rot tolerance.
- 4. Map genes for resistance to white mold to facilitate marker aided selection.

#### 7. <u>Report of Progress</u>:

Varietal Development: The program continued with screening and selection in crosses among elite lines and commercial cultivars of green bean for varietal development. Advanced lines were grown at the Hermiston Research and Extension Center and were screened for heat tolerance and general adaptation to growing conditions east of the Cascades. Much of our current focus is on incorporating white mold resistance into a BBL background. Additional selections from OSU x OSU crosses were advanced and increased for replicated trials. Advanced lines were screened in replicated white mold field nurseries. An interspecific backcross inbred population with white mold resistance from scarlet runner bean was screened in a field nursery. Seed increase, roguing, and sub-line maintenance of the most promising lines was continued. In general, the growing season

in 2007 was more "normal" than past years, with a higher degree of cloud cover and moisture than the past two years. Growing conditions were excellent but the increased precipitation during the season and reduced solar insolation caused higher levels of white mold in our trials.

Yield Trials: We retained our current nursery structure of preliminary trials and a single advanced trial consisting mostly of commercial varieties for trial along with the most promising OSU lines. The two preliminary trials were planted May 18 and June 1, and the commercial yield trial, partially funded by seed companies, was planted June 21. Entries from one preliminary trial and those paid for by sponsoring seed companies in the commercial trial were processed at the OSU Pilot Plant for subsequent product evaluation.

Both preliminary trials had good growing conditions and showed reasonable yields (Tables 1 & 2, 6 & 7) although the May 18 trial had a high level of white mold infection. We were able to obtain data on white mold incidence and severity in this trial (Table 5). A number of full- and small-sieve lines in the May 18 trial showed high yields (Tables 1 & 2) and 11 full sieve lines out-performed OR91G. We are particularly interested in the 6400 and 6500 series lines as these show better BBL characteristics than the 6200 and 6300 series, and some may have improved white mold resistance. Nearly all 6200 and 6300 series lines have been dropped from the program although we are using some in crosses to incorporate their resistance into a better BBL background. The 6200 and 6300 series lines have resistance from NY6020 and Ascher DR whereas the 6400 series derives resistance from B7354-6-2-2. The latter line has a lower level of resistance, but does contribute a measurable effect, and is very compatible with our BBL material in general. Grading room evaluation and notes suggest that few of the 6200 and 6300 series are directly useable, but that the 6400 and 6500 series material holds good promise (Ta-

Five year average for selected OSU Minuette crosses and check lines

			Ad	justed T	/ <b>A</b>	
Line	2003	2004	2005	2006 <sup>z</sup>	2007 <sup>z</sup>	Overall AV <sup>y</sup>
OR 91G	12.5	12.6	3.8	12.1	8.7	9.9
OR 54	13.4	16.4	9.2	10.7	11.0	12.1
5630	13.8	14.7	10.8	12.9	12.0	12.8
5613	9.3	5.0	5.1	5.7		6.3
5669	16.0	12.5	8.5	10.4	10.6	11.6
6137	12.9	8.8	13.7	10.5	11.0	11.4
6174	11.0	8.1	9.5	7.3	8.1	8.8
6175	11.4	11.2	10.1	7.7		10.1
6185	9.9	8.1	6.0		9.3	8.3
6189	10.5	12.4	8.6	9.4	10.0	10.2
LSD <sub>0.05</sub>	2.8	3.9	2.9	3.0	2.3	2.5

<sup>&</sup>lt;sup>2</sup>Average of 2 trials; all other years are from 1 trial only.

bles 3 & 4, 8 & 9). Much of this material is being tested for the first year, and will need additional testing to verify performance and quality.

Several Minuette derived lines continue to perform well. Most promising in the full sieve class is OSU 6189, while OSU 6174 and OSU 6175 are 4-to 5sieve lines of interest. Five year average yield performance is shown in the text table (left). While OSU 6137 will on occasion have very high yields, its long term average is not

<sup>&</sup>lt;sup>y</sup>5613, 6175 and 6185 were not included in overall average LSD calculation.

much different from OR91G. It does have darker green pod color and pods set high on the plant. With average pod set it stands well, but lodges with heavy set. OSU 6189 is very close to a BBL type but with significantly darker pod color and better growth habit. It is also interesting in that it shows more uniform growth habit across environments compared to other lines. Both are full sieve types. OSU 6174 and OSU 6175 are both 4 to 5-sieve types with upright growth habit, and pod characteristics similar to the BBL type.

In the June 1 trial, a nearly identical set of the 50 full sieve, 25 small sieve, and 6 checks were planted (Tables 6-9). Even though there was no white mold in this trial, yields were generally lower. Sixteen full sieve lines outperformed OR 91G. Taking into account yield and quality in the two trials, lines that performed the best were OSU 6471 and OSU 6501. It will take another year or so to identify the very best lines from this crossing series.

Commercial Green Bean Trial: The commercial trial consisted of 14 entries from four seed companies, 4 checks, and 6 OSU experimental lines (Tables 10-12). Savannah, from Harris Moran, was included as a small sieve check. The trial grew under near ideal conditions, which produced very lush growth. As a result, white mold became an issue towards the end of the harvest period, and may have reduced yields on late harvested entries. Overall production and \$/A value was high (Tables 10 & 11, Figures 1 & 2). White mold incidence and severity were estimated in the commercial trial (Table 13). Disease pressure was very high and only six lines showed significantly lower levels than the most susceptible lines. Pierroton had only 30% incidence and a severity rating of 4.5, and should be investigated further as to whether its apparent resistance is physiological or architectural.

Hermiston Trial: Advanced lines were planted in a single rep observation trial at the Hermiston Research and Extension Center (Table 14). Approximately 190 lines were planted May 16, including Sahara (Harris Moran) as a heat tolerant check. Lines were evaluated at approximately harvest maturity for growth habit, pod quality (heat damage) and estimated yield. None of the seed for planting of these lines was treated with fungicide except for the Sahara commercial check. Most of the normal seed types showed good stand establishment, but the persistent chlorophyll types showed poor stands, and in many cases, failed to establish any stand at all. The single exception was OSU 6551 which showed only slight reduction in stand (Table 14). The trial proved useful in identifying lines that were particularly susceptible to heat damage. A few possible curly top virus infected plants were observed, but to date, this disease has not been a problem at this location.

Breeding for White and Gray Mold Resistance: In many ways, this was the ultimate white mold year; a good thing for screening for resistance, but not without its drawbacks. Disease pressure was extremely high in the early and late trials, and was severe enough to generally overwhelm partial resistance. The white mold data obtained from the first yield trial allowed us to examine the relationship between disease and yield parameters in a more rigorous manner than we have been able to do in the past. White mold incidence was significantly and positively correlated with days to harvest (text table below), but not with stand or yield. White mold severity was not correlated with any yield parameter. OSU 6241, an extensively tested line with moderate levels of white mold resistance de-

rived from NY6020, showed 62% incidence with low severity (Table 5). The 95% confidence interval about disease incidence for OSU 6241 was a rather large at 31 - 91%. The only line that showed significantly lower disease incidence was Savannah, mainly due to reduced levels of disease in the third and fourth reps. Savannah does show field resistance in our trials, but is susceptible when subjected to the greenhouse straw tests.

	Correlation among white mold disease and yield factors for green bean lines planted in a trial May 18.											
	WM Severity	Days to Harvest	Stand <sup>y</sup>	% 1-4 sieve	T/A <sup>x</sup>							
WM % Infect- ed <sup>z</sup>	0.39***	0.40***	0.00 ns	-0.35**	0.03 ns							
WM Severity <sup>z</sup> Days to Har-		0.17 ns	-0.15 ns	-0.14 ns	-0.18 ns							
vest			-0.06 ns	-0.51***	0.28*							

<sup>z</sup>WM incidence rated as percent of plants infected in harvested area and severity rated on a scale of 1-6, 1=light, 6=heavy. <sup>y</sup>Percent of full stand. <sup>x</sup>Yield in tons/A.

A white mold trial was grown at the Vegetable Research Farm (Table 15). As with other trials this year, plant growth was lush and disease pressure was high with even our checks with partial resistance showing high levels of disease. Ranking of checks was similar to that observed in

past years. We were particularly surprised to find a number of 6500 series lines among those showing partial resistance because these were derived from crosses between parents that were not known to have resistance (Table 15). Most, but not all of these lines had reduced stands, suggesting that their reduced canopy cover produced less than optimal conditions for disease. White mold incidence and growth habit were negatively correlated in the 2007 trial, indicating that architectural type probably influenced microenvironment and thereby severity of white mold infection (text table, below). Interestingly, higher yield and upright habit were positively correlated, and yield and white mold score were negatively correlated, suggesting that disease had an effect on yield, and this was influenced by growth habit. In a comparison of lines over eight years (Table 16), 2007 shows very different ranking from that of other years – perhaps an effect of the severity of the season. Ranking of lines tested in the past two years is shown in Table 17.

0.059 ns

0.34\*\*

-0.52\*\*\*

# Correlations among white mold and yield variables for a white mold field screening trial, Corvallis, 2007.

Standy

% 1-4 sieve

	Yield	Upright Habit
White Mold Scores	-0.20***	-0.60***
Yield		0.17***

<sup>\*\*\*</sup>statistically significant at p<0.0001.

Molecular mapping to transfer resistance from Phaseolus coccineus to P. vulgaris: The best source of resistance to white mold resides in the related bean species, *P. coccineus* or scarlet runner bean. We have been developing backcrossinbred populations as a means of transferring resistance while regaining the snap bean type as rapidly as possible. We are furthest along with the cross 91G x PI 255956. The population was tested in the field in 2006 and in three straw tests in the

greenhouse, and in an oxalate test (oxalate tolerance is related to white mold resistance). The population was again tested in 2007 (Table 18). Nine lines were not significantly

different from G122, our resistant check (six lines show similar levels to G122 in 2006). Analysis over two years shows 10 lines similar in performance to G122 (Table 19). These lines are genetically approximately 90% common bean and 10% scarlet runner bean, and as such, will require another cycle of recombination to move resistance into a completely adapted background. While they resemble BBL snap bean lines, they do show unusual traits such as an inclination to outcross. Such traits will need to be selected against. We will be testing these lines in our processing trials for the first time next year.

#### 8. Summary:

We continued to emphasize breeding for white mold resistance in 2007. As such, we focused on preliminary yield and quality trials where we could evaluate larger numbers of lines. Two preliminary trials were conducted, and an advanced trial of commercial entries was evaluated. OSU 6400 and 6500 series lines look very good for yield and processing quality, and some have partial white mold resistance. White mold pressure was severe in all but the mid season trial and we were able to obtain useful data on most of our breeding material. To date, we have identified some lines that are fairly close to a BBL type with partial resistance to white mold, but additional refinement is required.

Table 1. Performance of preliminary full sieve green bean lines, May 18 planting, Corvallis, 2007.<sup>2</sup>

					Percer	nt Sieve	e Size <sup>y</sup>					
		Est.										
	Days to	Sieve								%1-4	Av	Av Adj
Line	Harvest	Size	Stand	1	2	3	4	5	6	Sieve	Tons/Acre	Tons/Acre <sup>x</sup>
91G	73	full	140	2.1	6.4	12.8	34.0	40.4	4.3	55.3	8.9	9.3
OR 54	73	full	140	6.5	7.4	12.0	33.3	37.0	3.7	59.3	10.2	11.1
5630	70	full	123	2.6	7.8	14.8	57.4	17.4	0.0	82.6	10.6	14.1
5669	70	full	140	3.8	9.4	20.8	47.2	18.9	0.0	81.1	9.7	12.7
6137	70	full	140	3.1	15.6	31.3	41.7	7.3	1.0	91.7	8.9	12.6
6185	70	full	138	5.0	9.9	17.8	34.7	27.7	5.0	67.3	9.2	10.8
6189	73	full	136	8.0	8.8	15.0	30.1	31.0	7.1	61.9	9.8	11.0
6241	69	full	92	8.1	8.1	17.7	33.9	30.6	1.6	67.7	5.7	6.8
6279	70	full	140	9.0	12.4	18.0	33.7	24.7	2.2	73.0	8.4	10.4
6286	68	5	140	8.8	12.7	17.6	41.2	16.7	2.9	80.4	9.5	12.3
6436	70	5	140	7.9	13.9	20.8	42.6	14.9	0.0	85.1	9.7	13.2
6439	73	5	140	5.7	11.3	16.0	37.7	28.3	0.9	70.8	9.7	11.7
6440	73	5	140	3.2	14.7	22.1	35.8	23.2	1.1	75.8	8.3	10.4
6443	70	5	140	11.3	11.3	17.4	40.9	18.3	0.9	80.9	10.8	14.1
6445	70	5	124	11.2	14.0	18.7	38.3	16.8	0.9	82.2	9.8	13.0
6455	73	5	89	8.1	8.1	15.2	33.3	31.3	4.0	64.6	8.2	9.4
6463	73	5	140	4.7	9.3	14.0	35.5	35.5	0.9	63.6	10.0	11.4
6467	74	full	140	5.4	8.0	12.5	25.9	36.6	11.6	51.8	9.7	9.9
6469	74	full	140	5.0	10.1	16.0	42.0	25.2	1.7	73.1	10.6	13.1
6471	73	full	112	5.2	10.3	19.0	43.1	20.7	1.7	77.6	10.3	13.1
6474	75	full	140	6.4	9.6	16.8	36.8	27.2	3.2	69.6	11.2	13.5
6475	73	5	140	5.6	7.5	16.8	36.4	30.8	2.8	66.4	9.7	11.2
6477	74	5	140	3.7	9.3	15.0	41.1	29.9	0.9	69.2	10.2	12.1
6478	75	full	126	2.4	4.8	16.7	40.5	33.3	2.4	64.3	8.4	9.6
6479	70	5	134	8.4	12.6	23.2	44.2	11.6	0.0	88.4	8.9	12.2
6481	73	5	140	4.7	8.5	17.9	45.3	22.6	0.9	76.4	9.7	12.2
6484	75	full	140	6.1	10.1	16.2	35.4	31.3	1.0	67.7	9.0	10.7
6485	74	full	140	2.2	4.4	15.4	41.8	34.1	2.2	63.7	9.0	10.3
6489	73	5	140	5.4	8.9	17.9	40.2	27.7	0.0	72.3	10.4	12.7
6490	73	full	140	6.3	10.2	19.5	36.7	25.8	1.6	72.7	11.1	13.7
6493	73	full	140	3.8	7.6	16.2	38.1	33.3	1.0	65.7	9.9	11.5
6494	73	5	140	4.1	9.0	17.2	43.4	26.2	0.0	73.8	11.2	13.9
6497	73	5	140	4.9	7.8	16.5	39.8	29.1	1.9	68.9	9.5	11.3
6498	75	full	140	1.0	7.6	15.2	36.2	40.0	0.0	60.0	9.7	10.6
6501	73	5	126	3.2	8.1	16.9	39.5	30.6	1.6	67.7	11.4	13.4
6502	74	5	140	2.9	5.1	12.5	36.8	41.2	1.5	57.4	12.4	13.3
6504	73	full	140	3.1	7.1	13.3	41.8	32.7	2.0	65.3	8.9	10.2
6505	70	full	140	4.1	9.6	15.1	35.6	32.9	2.7	64.4	6.6	7.5
6506	73	full	117	4.0	7.0	14.0	32.0	40.0	3.0	57.0	9.0	9.7
6509	70	5	128	5.4	8.6	14.0	43.0	25.8	3.2	71.0	8.5	10.3
6510	74	5	140	6.7	6.7	11.8	42.9	30.3	1.7	68.1	10.6	12.5

Table 1. Performance of preliminary full sieve green bean lines, May 18 planting, Corvallis, 2007 (cont.)<sup>2</sup>

					Percei	nt Sieve	e Size <sup>y</sup>					
Line	Days to Harvest	Est. Sieve Size	Stand	1	2	3	4	5	6	%1-4 Sieve	Av Tons/Acre	Av Adj Tons/Acre <sup>x</sup>
6511	73	full	132	5.8	9.3	20.9	44.2	18.6	1.2	80.2	7.7	10.1
6512	70	full	129	10.5	8.6	18.1	39.0	22.9	1.0	76.2	9.6	12.1
6513	75	full	132	7.3	9.8	19.5	46.3	17.1	0.0	82.9	7.0	9.3
6515	73	full	126	3.7	6.4	11.9	39.4	37.6	0.9	61.5	9.5	10.6
6516	74	5	110	4.3	8.6	15.1	51.6	19.4	1.1	79.6	8.3	10.7
6517	69	5	136	3.8	5.8	13.5	47.1	26.9	2.9	70.2	9.6	11.5
6518	74	full	140	5.9	20.6	29.4	38.2	5.9	0.0	94.1	6.2	8.9
6522	69	5	114	10.8	10.8	17.6	40.5	18.9	1.4	79.7	6.9	8.9
6525	70	full	140	3.5	8.0	17.7	46.9	23.0	0.9	76.1	10.4	13.0
6527	73	full	119	3.4	8.5	14.4	41.5	32.2	0.0	67.8	10.8	12.7
6528	75	full	136	6.3	10.4	18.8	45.8	18.8	0.0	81.3	8.9	11.6
6529	74	5	140	5.8	6.7	13.3	36.7	35.0	2.5	62.5	11.3	12.8
6530	73	full	140	3.2	6.4	14.9	33.0	37.2	5.3	57.4	8.8	9.4
LSD 0.05				·							3.1	3.7

<sup>&</sup>lt;sup>z</sup>Mean of 2 replications; subplots of 5' were harvested from 20' plots in rows 30" apart.

<sup>&</sup>lt;sup>y</sup>Percent calculated as % of total of 1-6 sieve beans.

<sup>\*</sup>Tons/Acre adjusted to 50% 1-4 sieve.

Table 2. Performance of preliminary small sieve green bean lines, May 18 planting, Corvallis, 2007.<sup>z</sup>

					Parcai	nt Sieve	e Size <sup>y</sup>				
		Est.			1 01001	it Oleve	J UIZE				
	Days to	Sieve									Av
Line	Harvest	Size	Stand	1	2	3	4	5	6	%1-4 Sieve	Tons/Acre
6174	73	4-5	136	8.0	9.8	16.1	39.3	25.9	0.9	73.2	10.0
6312-1	70	4-5	140	7.3	15.9	25.6	40.2	11.0	0.0	89.0	7.7
6329	69	4	140	5.6	14.4	27.8	46.7	5.6	0.0	94.4	8.3
6340	69	4-5	140	8.3	11.9	20.2	50.0	9.5	0.0	90.5	8.3
6342	68	4	140	6.7	13.5	25.8	43.8	10.1	0.0	89.9	7.0
6347	69	4	140	6.5	14.3	24.7	46.8	7.8	0.0	92.2	7.0
6348	68	4	140	8.5	17.0	24.5	45.7	4.3	0.0	95.7	9.8
6441	69	4-5	140	14.6	17.7	24.0	37.5	6.3	0.0	93.8	8.8
6442	73	4-5	140	6.0	10.4	16.4	32.8	32.1	2.2	65.7	12.3
6447	70	3	140	16.7	33.3	46.3	3.7	0.0	0.0	100.0	5.1
6449	69	3	140	15.9	36.4	43.2	4.5	0.0	0.0	100.0	4.1
6451	69	4-5	140	10.5	14.0	24.6	43.9	7.0	0.0	93.0	5.4
6452	69	4-5	139	7.3	9.8	23.2	51.2	8.5	0.0	91.5	7.2
6454	73	4-5	107	6.5	12.9	17.7	43.5	19.4	0.0	80.6	5.8
6456	69	4	140	7.8	9.8	20.6	53.9	7.8	0.0	92.2	9.4
6457	73	4	89	4.7	9.3	14.0	35.5	35.5	0.9	63.6	5.9
6464	69	4	132	14.3	18.6	22.9	41.4	2.9	0.0	97.1	6.5
6468	70	4	134	11.8	21.6	29.4	35.3	2.0	0.0	98.0	5.0
6482	73	4	125	10.5	17.5	26.3	35.1	10.5	0.0	89.5	5.1
6487	69	4-5	140	8.0	14.0	20.0	40.0	18.0	0.0	82.0	9.5
6496	73	4-5	140	4.9	7.8	16.5	39.8	29.1	1.9	68.9	9.1
6507	74	4	140	3.6	7.2	20.7	58.6	9.9	0.0	90.1	10.1
6519	73	4	140	12.1	22.4	34.5	27.6	3.4	0.0	96.6	5.0
6523	70	4-5	119	5.2	11.7	28.6	35.1	18.2	1.3	80.5	7.1
6526	73	3	115	11.9	16.9	30.5	35.6	5.1	0.0	94.9	5.2
Medinah	73	2-3	104	11.3	60.4	28.3	0.0	0.0	0.0	100.0	5.0
Savannah	73	4	140	2.4	12.1	40.3	43.5	1.6	0.0	98.4	10.9
LSD 0.05											2.4

<sup>&</sup>lt;sup>z</sup>Mean of 2 replications; subplots of 5' were harvested from 20' plots in rows 30" apart.

<sup>&</sup>lt;sup>y</sup>Percent calculated as % of total of 1-6 sieve beans.

Table 3. Notes on preliminary full sieve green bean lines, May 18 planting, Corvallis, 2007.

	1				<u> </u>	
Line	Pod Length (cm)	Pod Straight- ness <sup>z</sup>	Pod Cross Section <sup>y</sup>	Pod Smooth- ness <sup>x</sup>	Pod Color <sup>w</sup>	Notes <sup>v</sup>
91G	16.0	4	round	5	5	Split set with 5 sv getting quite seedy
OR 54	15.0	4	round	5	5	Getting seedy without sizing up
5630	15.5	5	round	5	5	Probably prime in 2 days
5669	15.0	6	round	6	5	Probably prime in 2 days
6137	17.0	8	round	6	8	Very long, dark green, shiny bean; at least half ovals so does not grade properly
6185	16.5	4	round	6	9	Seed development just beginning in 5 & 6 sv
6189	16.0	5	round	6	8	Moderate seed development
6241	12.0	5	round	7	6	Very short 5 sv pods with seed development beginning; 3 & 4 sv pods look good
6279	14.0	7	oval	4	2	High fiber (shows at tip after going through grader); color too light
6286	13.0	5	round	6	5	Short, mostly curved pods; prime today
6436	16.0	6	round	6	5	Fairly smooth straight bean
6439	15.5	7	round	7	5	Long smooth pods; nice appearance
6440	15.0	8	round	8	7	Very attractive dark green, straight, smooth pods
6443	16.5	7	round	6	5	Very long straight attractive bean; probably prime in 2 days
6445	15.0	5	round	5	4	Contains ovals; split set
6455	17.0	1	heart	9	3	Long curly light pods
6463	15.5	6	round	5	6	Getting seedy without sizing up
6467	15.5	4	round	7	5	Long, slender, curved pods
6469	15.0	7	round	5	6	Getting quite seedy
6471	14.5	7	round	6	4	Seed development beginning
6474	17.5	5	round	3	5	Classic BBL type with long pods
6475	16.0	5	round	5	5	Seed development beginning
6477	14.0	5	heart	7	6	Seed development beginning
6478	15.0	7	round	7	6	Getting quite seedy
6479	14.0	6	round	5	6	Probably prime in 2 days
6481	14.4	6	round	5	6	Getting seedy without sizing up
6484	15.0	6	heart	5	5	Getting quite seedy
6485	15.0	5	round	5	6	Seed development beginning
6489	14.5	6	round	5	5	Getting seedy without sizing up
6490	15.5	4	round	7	4	Curved pods; color too light
6493	15.5	8	round	7	5	Straight smooth pods
6494	15.5	5	round	5	5	Contains oval mix
6497	13.0	3	round	4	5	Rough pods with many blanks.
6498	15.0	6	round	7	6	Smooth pods
6501	15.5	6	round	7	5	Getting seedy without sizing up
6502	14.5	6	heart	5	5	Curved pods
6504	15.5	6	round	7	6	Seed development beginning

Table 3. Notes on preliminary full sieve green bean lines, May 18 planting, Corvallis, 2007 (cont).

Line	Pod Length (cm)	Pod Straight- ness <sup>z</sup>	Pod Cross Section <sup>y</sup>	Pod Smooth- ness <sup>x</sup>	Pod Color <sup>w</sup>	Notes <sup>v</sup>
						Seems to contain both long smooth and
						short bumpy beans; contains ovals; short
						bumpy 5 sv quite seedy; long smooth 5 sv
						not at all but long smooth beans may be
6505	14.0	4	round	5	9	lighter color
6506	15.5	7	round	7	9	Nice looking; extreme green color
3333		-				Very long pods, quite straight for length;
						ends get chewed up in grader because
						beans are so long; prime today; makes
6509	16.5	6	round	7	8	very few 6 sv
6510	15.0	7	heart	8	8	Very attractive pods
		-			-	Very long, slender, elegant dark green
6511	16.6	7	round	7	8	pods
						Color variableabout half 91G color and
						about half much darker; probably prime in
6512	16.0	6	heart	5	5-8	2 days
6513	16.3	7	round	7	7	Seed development beginning
						Very nice, uniformly extreme green,
6515	16.0	8	round	8	9	straight pods
6516	15.0	7	round	7	6	Getting seedy without sizing up
						Has a shiny mix which is straighter but
6517	14.0	5	cb	7	7	lighter color
6518	13.5	4	round	7	7	Extreme green type
						Very long pods with good color; contains a
						lighter shorter mix; probably prime tomor-
6522	17.0	5	cb	5	7	row
		_		_	_	Very smooth pods; probably prime tomor-
6525	15.0	5	round	8	7	row
6527	14.0	7	round	5	8	Straight, dark green pods
0500	400					Very tall plants which seems to be stand-
6528	16.0	6	<u>cb</u>	8	6	ing well
6529	14.5	7	cb	6	8	Attractive pods
6530	16.0	6	cb	7	5	Similar to 91G in appearance

<sup>&</sup>lt;sup>z</sup>Scores based on a 1-9 scale with 9 straightest <sup>y</sup>Cross section: cb = crease-back <sup>x</sup>Scores based on a 1-9 scale with 9 smoothest <sup>w</sup>Scores based on a 1-9 scale with 9 darkest <sup>v</sup>BBL=bush blue lake; sv=sieve

Table 4. Notes on preliminary small sieve green bean lines, May 18 planting, Corvallis, 2007.

	Pod	Pod	Pod	Pod	Dad	
Line	Length (cm)	Straight- ness <sup>z</sup>	Cross Section <sup>y</sup>	Smooth- ness <sup>x</sup>	Pod Color <sup>w</sup>	Notes <sup>v</sup>
6174	15.0	5	round	7	8	Minimal seed dev
6312-1	13.0	4	heart	5	5	Split set; some 4 sv seedy, some not at all
6329	13.5	5	round	7	6	Prime today
6340	14.0	5	round	5	6	Probably prime tomorrow
						1
						Prime today; short but attractive; straight; may
6342	13.0	7	heart	5	5	have oval tendency
6347	12.5	3	heart	6	5	Seed development beginning
6348	14.0	5	round	6	4	Consistent moderate curve; prime today
						Badly split set; looks very much like a smaller sv
6441	14.0	3	round	5	5	91G
6442	16.0	5	round	7	5	Oval tendency; contains flats
6447	12.0	6	heart	7	4	Prime today
6449	12.0	7	heart	6	3	Color too light; slightly bumpy; prime today
0.454	440			4		Very curved with hooks; color too light; probably
6451	14.0	1	round	4	2	prime in 2 days
6452	12.0	6	round	5	4	Color may be too light; prime today
						Either split set or a mixsome 4 sv very long &
6454	13.0	7	heart	7	4	seedy while others short and not seedy; also contains flats
0404	10.0	,	ricart	,		Looks like a smaller sv 91G: possibly straighter;
6456	15.0	5	round	5	5	somewhat split set
6457	14.0	7	oval	5	1	Oval; color too light
6464	12.0	5	heart	6	5	Prime today
6468	14.0	5	oval	5	2	Color too light; strong oval tend; prime today
6482	13.0	7	round	7	7	Very dark green interior
						appearance similar to 91G, possibly straighter;
6487	15.0	4	round	5	5	prime today
6496	15.0	6	heart	5	5	Some very long beans; probably prime tomorrow
6507	15.0	4	round	5	6	Moderate seed development
6519	13.0	5	round	7	7	Moderate seed development
						Mix (about half and half) of a 4 sv, dark colored,
0.500				0		smooth, straight, short bean, and a 5 sv, too light,
6523	?	?	?	?	?	curved, longer bean
6526	12.0	6	round	7	7	Little seed development
Medinah	12.5	8	round	7	3	Seed development beginning in 3 sv
Savannah	15.0	9	round	8	7	Moderate seed development

<sup>&</sup>lt;sup>z</sup>Scores based on a 1-9 scale with 9 straightest <sup>y</sup>Cross section: cb = crease-back

<sup>\*</sup>Scores based on a 1-9 scale with 9 smoothest \*Scores based on a 1-9 scale with 9 darkest

vsv=sieve

Table 5. White mold incidence and severity in green bean lines, May 18 planting, Corvallis, 2007<sup>z</sup>.

		Total No.	Plants	% Infec	ted		
	Sieve		Rep	<u></u>	Rep	Average	
Line	Size	Rep 1	2	Rep 1	2	% Infected	Severity
91G	full	38	39	79	90	85	light to moderate
OR 54	full	26	45	96	93	95	moderate
5630	full	41	49	83	41	62	light
5669	full	36	37	97	73	85	moderate
6137	full	35	38	89	53	71	light
6174	4-5	38	35	82	74	78	light
6185	full	38	41	79	85	82	moderate
6189	full	39	41	95	85	90	light
6241	full	43	37	72	59	66	light
6279	full	34	32	79	91	85	moderate
6286	5	40	35	73	89	81	moderate
6312-1	4-5	35	31	74	94	84	moderate
6329	4	32	49	75	51	63	light
6340	4-5	41	31	83	81	82	light
6342	4	39	40	69	90	80	moderate
6347	4	30	48	50	83	67	light
6348	4	44	31	86	65	76	light
6436	5	37	33	89	58	74	light
6439	5	33	33	100	100	100	moderate
6440	5	31	33	94	100	97	heavy
6441	4-5	44	27	93	100	97	moderate
6442	4-5	38	40	100	83	92	light to moderate
6443	5	36	40	56	95	76	light
6445	5	30	50	80	76	78	light
6447	3	36	58	89	90	90	moderate
6449	3	34	36	76	64	70	moderate
6451	4-5	32	32	78	63	71	moderate
6452	4-5	36	42	72	62	67	moderate
6454	4-5	31	29	97	76	87	moderate
6455	5	32	28	88	56	72	light to severe
6456	4	37	35	73	94	84	moderate
6457	4	29	34	69	97	83	moderate
6463 6464	full 4	46 40	49 34	89 53	78 85	84 69	light
							light to govern
6467 6468	full 4	51 36	42 39	92 100	98 54	95 77	light to severe
6469	full	35	44	100	93	97	moderate moderate
6471	full	42	23	98	83	91	moderate to severe
6474	full	31	40	97	78	88	light
6475	5	26	32	100	97	99	moderate
6477	5	38	39	95	95	95	light to moderate
6478	full	40	32	100	66	83	moderate
6479	5	35	34	51	100	76	light to moderate
6481	5	37	40	97	88	93	moderate
0401	J	3/	40	3/	00	30	moderate

Table 5. White mold incidence and severity in green bean lines, May 18 planting, Corvallis, 2007 (cont)<sup>z</sup>.

		Total No.	Plants	% Infec	eted		
	Sieve		Rep	<u>/000</u>	Rep	Average	
Line	Size	Rep 1	2	Rep 1	2	% Infected	Severity
6482	4	24	32	92	97	95	light to moderate
6484	full	43	29	65	100	83	light to moderate
6485	full	36	28	97	96	97	light to severe
6487	4-5	43	35	79	63	71	light to moderate
6489	5	44	37	93	62	78	light to moderate
6490	full	38	31	92	90	91	light to moderate
6493	full	38	39	89	79	84	light
6494	5	39	48	90	98	94	light
6496	4-5	35	29	60	100	80	light to severe
6497	5	33	25	97	100	99	light to moderate
6498	full	39	29	100	93	97	moderate to severe
6501	5	43	47	91	96	94	moderate
6502	5	41	46	95	96	96	moderate
6504	full	42	39	98	95	97	light to moderate
6505	full	38	43	66	100	83	moderate
6506	full	37	25	97	64	81	light to moderate
6507	4	31	46	81	76	79	light
6509	5	33	41	82	93	88	light
6510	5	28	32	57	84	71	moderate
6511	full	31	41	84	80	82	light
6512	full	35	34	89	74	82	moderate
6513	full	40	35	100	97	99	moderate
6515	full	34	30	97	100	99	light to severe
6516	5	31	40	87	100	94	moderate
6517	5	35	41	89	63	76	moderate
6518	full	40	42	83	90	87	light to moderate
6519	4	34	25	100	100	100	moderate
6522	5	28	30	86	100	93	moderate
6523	4-5	27	24	52	92	72	light to moderate
6525	full	29	39	90	51	71	light
6526	3	36	30	67	100	84	light to severe
6527	full	40	32	98	100	99	light to moderate
6528	full	40	38	100	82	91	light
6529	5	33	41	76	71	74	light to moderate
6530	full	38	43	95	74	85	light
Medinah	2-3	36	31	97	100	99	moderate
Savan-							
nah	4	33	41	13	7	10	light
LSD 0.05						29	

<sup>&</sup>lt;sup>z</sup>Trial had lush, vigorous growth with high incidence of white mold, severely affecting yield in some cases. Percent infected based on actual counts at time of harvest.

Table 6. Performance of preliminary full sieve green bean lines, June 1 planting, Corvallis, 2007.<sup>z</sup>

					Perce	nt Siev	e Size	/				
		Est.										
	Days to	Sieve								%1-4	Av	Av Adj
Line	Harvest	Size	Stand	1	2	3	4	5	6	Sieve	Tons/Acre	Tons/Acre <sup>x</sup>
91G	61	full	100	3.9	4.9	5.8	23.3	47.6	14.6	37.9	9.0	8.0
OR 54	62	full	100	1.6	4.0	7.9	32.5	38.9	15.1	46.0	11.3	10.9
5630	62	full	100	5.5	4.4	11.0	39.6	38.5	1.1	60.4	8.9	9.8
5669	62	full	100	2.3	8.0	14.8	27.3	39.8	8.0	52.3	8.4	8.5
6137	65	full	100	1.8	1.8	5.4	27.7	47.3	16.1	36.6	10.8	9.4
6185	62	full	100	5.2	4.2	7.3	21.9	42.7	18.8	38.5	8.7	7.7
6189	62	full	100	2.2	9.7	11.8	28.0	34.4	14.0	51.6	8.7	8.9
6241	62	full	100	1.8	3.6	10.9	30.9	41.8	10.9	47.3	5.7	5.6
6279	62	full	100	6.9	8.0	12.6	27.6	28.7	16.1	55.2	8.2	8.6
6286	60	5	100	3.6	8.4	12.0	33.7	36.1	6.0	57.8	7.4	8.0
6436	62	5	99	3.7	9.9	19.8	35.8	28.4	2.5	69.1	8.0	9.5
6439	62	5	97	2.2	8.8	16.5	35.2	35.2	2.2	62.6	8.3	9.3
6440	62	5	100	3.9	9.8	17.6	34.3	33.3	1.0	65.7	9.7	11.3
6443	62	5	100	2.8	7.4	13.9	34.3	35.2	6.5	58.3	9.6	10.3
6445	62	5	100	2.3	9.3	20.9	33.7	29.1	4.7	66.3	8.2	9.5
6455	65	5	94	4.4	5.5	14.3	48.4	27.5	0.0	72.5	8.4	10.3
6463	65	5	88	4.5	4.5	10.7	33.0	36.6	10.7	52.7	9.6	9.9
6467	65	full	100	3.3	3.3	9.8	30.1	42.3	11.4	46.3	10.6	10.2
6469	66	full	100	2.7	4.5	7.3	41.8	39.1	4.5	56.4	9.9	10.5
6471	66	full	100	2.9	2.9	8.8	40.9	37.2	7.3	55.5	12.4	13.1
6474	65	full	100	3.9	6.8	12.6	38.8	31.1	6.8	62.1	9.4	10.5
6475	62	5	100	6.1	17.1	24.4	34.1	15.9	2.4	81.7	7.5	9.9
6477	65	5	100	2.5	5.0	16.0	47.9	26.1	2.5	71.4	10.9	13.2
6478	66	full	100	1.6	3.1	7.9	44.1	38.6	4.7	56.7	11.5	12.3
6479	65	5	100	3.4	5.1	12.7	44.1	32.2	2.5	65.3	10.4	12.0
6481	65	5	100	1.4	4.2	13.4	45.8	31.0	4.2	64.8	11.9	13.7
6484	66	full	100	3.7	3.0	11.1	39.3	37.0	5.9	57.0	12.4	13.2
6485	67	full	100	2.2	2.9	6.5	31.9	49.3	7.2	43.5	12.9	12.1
6489	65	5	100	4.2	5.0	13.3	45.8	26.7	5.0	68.3	10.4	12.2
6490	66	full	100	4.0	4.0	8.8	40.0	40.0	3.2	56.8	11.3	12.1
6493	67	full	95	3.3	3.3	6.7	31.3	50.7	4.7	44.7	13.7	13.0
6494	65	5	100	3.5	4.4	14.9	50.9	24.6	1.8	73.7	10.2	12.6
6497	65	5	100	1.8	5.3	16.7	50.9	23.7	1.8	74.6	10.4	12.9
6498	65	full	100	3.3	4.9	14.8	45.9	27.0	4.1	68.9	10.8	12.8
6501	66	5	100	1.5	3.7	9.7	38.8	40.3	6.0	53.7	11.7	12.1
6502	65	5	91	3.8	5.7	15.2	45.7	25.7	3.8	70.5	9.4	11.4
6504	65	full	100	2.8	2.8	3.8	20.8	54.7	15.1	30.2	9.5	7.6
6505	62	full	84	2.4	7.3	12.2	36.6	35.4	6.1	58.5	7.6	8.3
6512	65	full	43	1.1	4.4	6.7	28.9	45.6	13.3	41.1	9.0	8.2
6516	62	5	89	5.1	5.1	12.7	44.3	31.6	1.3	67.1	6.9	8.0
6518	67	full	95	4.1	5.5	11.0	35.6	37.0	6.8	56.2	6.5	6.9

Table 6. Performance of preliminary full sieve green bean lines, June 1 planting, Corvallis, 2007 (cont).<sup>2</sup>

				i	Perce	ent Sie	ve Size	у				
Line	Days to Harvest	Est. Sieve Size	Stand	1	2	3	4	5	6	%1-4 Sieve	Av Tons/Acre	Av Adj Tons/Acre <sup>x</sup>
6525	62	full	100	4.7	7.1	16.5	38.8	30.6	2.4	67.1	7.3	8.6
6528	67	full	100	1.7	1.7	5.2	26.1	60.9	4.3	34.8	9.8	8.4
6529	65	5	93	1.3	5.1	12.7	53.2	25.3	2.5	72.2	7.3	8.9
LSD 0.05											2.4	2.6

<sup>&</sup>lt;sup>z</sup>Mean of 2 replications; subplots of 5' were harvested from 20' plots in rows 30" apart. <sup>y</sup>Percent calculated as % of total of 1-6 sieve beans. <sup>x</sup>Tons/Acre adjusted to 50% 1-4 sieve.

Table 7. Performance of preliminary small sieve green bean lines, June 1 planting, Corvallis, 2007.<sup>z</sup>

	1		1								
					Percei	nt Sieve	e Size <sup>y</sup>				
		Est.									
	Days to	Sieve									Av
Line	Harvest	Size	Stand	1	2	3	4	5	6	%1-4 Sieve	Tons/Acre
6174	62	4-5	100	9.7	14.5	21.0	35.5	19.4	0.0	80.6	6.1
6312-1	62	4-5	100	4.0	7.0	15.0	30.0	37.0	7.0	56.0	9.5
6329	60	4	89	6.8	13.6	20.3	39.0	20.3	0.0	79.7	5.2
6340	62	4-5	100	6.2	7.4	14.8	30.9	30.9	9.9	59.3	7.3
6342	60	4	99	7.2	17.4	20.3	40.6	14.5	0.0	85.5	6.6
6347	62	4	100	4.5	6.8	15.9	37.5	31.8	3.4	64.8	7.7
6348	60	4	100	6.8	10.2	18.2	39.8	23.9	1.1	75.0	9.1
6441	62	4-5	87	7.4	11.6	18.9	32.6	25.3	4.2	70.5	8.5
6442	62	4-5	100	5.6	11.1	18.9	37.8	24.4	2.2	73.3	8.2
6447	62	3	100	6.6	16.4	52.5	24.6	0.0	0.0	100.0	5.7
6449	62	3	100	11.9	20.3	42.4	25.4	0.0	0.0	100.0	5.5
6451	62	4-5	100	4.9	8.2	19.7	45.9	19.7	1.6	78.7	5.6
6452	62	4-5	94	2.5	5.1	12.7	43.0	32.9	3.8	63.3	6.8
6454	62	4-5	88	3.3	6.6	11.5	47.5	29.5	1.6	68.9	6.2
6456	62	4	100	5.1	5.1	11.1	45.5	31.3	2.0	66.7	10.4
6457	65	4	78	3.3	6.6	19.7	55.7	14.8	0.0	85.2	5.9
6468	62	4	100	7.5	23.9	28.4	32.8	7.5	0.0	92.5	6.0
6487	62	4-5	100	3.1	19.6	13.4	29.9	25.8	8.2	66.0	7.3
6496	65	4-5	100	0.9	4.3	14.7	46.6	28.4	5.2	66.4	10.8
Savannah	65	4	100	1.4	10.0	45.7	42.9	0.0	0.0	100.0	6.6
LSD 0.05	_										2.9

<sup>&</sup>lt;sup>z</sup>Mean of 2 replications; subplots of 5' were harvested from 20' plots in rows 30" apart. <sup>y</sup>Percent calculated as % of total of 1-6 sieve beans.

Table 8. Notes on preliminary full sieve green bean lines, June 1 planting, Corvallis, 2007<sup>z</sup>.

						Flav	<u>or<sup>u</sup></u>	
	Pod	Pod	Pod	Pod				
	Length	Straight-	Cross	Smooth-	Pod	Sweet-	Astrin-	+
Line	(cm)	ness <sup>y</sup>	Section <sup>x</sup>	ness <sup>w</sup>	Color <sup>v</sup>	ness	gency	Notes <sup>t</sup>
			round to					
91G	17.5	6	cb	7	6	7	7	5 and 6 sv are seedy and getting cb
OR 54	15.0	5	round	5	5	7	7	Segregating for immature white seeds
5630	15.0	5	round	5	5	7	7	Segregating for strings
5669	14.0	7	round	5	5	7	7	Moderate seed development
6137	15.0	7	round	5	8	7	5	Holding well at 37% 1-4 sv
6185	15.5	6	round	4	7	3	7	Holding well; pods are bumpy but not particularly seedy
								Best of Minuette crosses; BBL pods but extreme green; segregat-
6189	15.5	7	round	6	7	3	7	ing strings
6241	11.5	7	round	4	6	7	5	Very short pods
6279	16.0	7	round	5	5	7	3	Segregating strings; moderate seed development
			heart-					
6286	15.0	6	round	7	5	7	3	Moderate seed development
6436	15.0	7	round	6	5	5	3	Segregating ovals; getting seedy
6439	14.0	6	round	4	5	7	7	Getting seedy
6440	15.5	7	round	5	5	7	7	Getting seedy
6443	15.0	5	heart	5	5	7	7	Getting seedy
6445	14.5	5	round	5	5	7	6	Segregating strings; moderate seed development
			oval to					
6455	14.5	5	round	6	5	7	9	Tough texture; getting seedy without sizing up
6463	15.0	7	round	5	5	7	7	Getting seedy
6467	16.0	5	round	5	5	7	7	Getting seedy
6469	16.0	7	round	8	6	7	7	Smooth pods but tough texture; large seeds
6471	14.0	6	round	7	6	5	3	Seedy and bumpy in 6 sv
6474	16.5	5	round	6	5	7	5	Getting seedy
6475	15.0	5	round	5	5	7	7	Contains oval off type; getting seedy without sizing up
6477	15.0	6	round	7	5	7	7	Mixed seed development; may be a mix
6478	15.0	7	round	7	6	7	5	Straight beans; uniform size; moderately seedy
6479	14.0	7	round	6	5	7	7	V. seedy 6 sv, Seedy 4 & 5 sv; very nice appearance.
6481	14.5	6	round	7	5	7	8	Very attractive pod; getting seedy
6484	15.0	5	round	6	5	5	7	Very seedy and bumpy in 6 sv
								Contains light colored off-type; mixed seed development; may be a
6485	15.0	6	round	5	5	5	7	mix

Table 8. Notes on preliminary full sieve green bean lines, June 1 planting, Corvallis, 2007<sup>z</sup> (cont).

						Flav	<u>/or<sup>u</sup></u>	
Line	Pod Length (cm)	Pod Straight- ness <sup>y</sup>	Pod Cross Section <sup>x</sup>	Pod Smooth- ness <sup>w</sup>	Pod Color <sup>v</sup>	Sweet- ness	Astrin- gency	Notes <sup>t</sup>
6489	15.0	7	round	7	5	7	8	Very attractive pod; getting seedy
6490	16.0	8	round	7	6	5	8	Long straight pods but 6 sv getting seedy and bumpy
6493	15.0	5	round	6	5	8	6	High yielding and generally high quality bean, but does contain some short junky pods in this trial
6494	14.0	6	round	4	5	7	7	Getting seedy and bumpy
6497	14.5	5	round	6	5	7	7	Getting seedy
6498	15.5	7	round	6	5	7	7	Tough texture; segregating for light colored off-type; getting seedy
6501	14.0	5	round	5	7	7	7	Getting seedy in 4 & 5 sv; 5 sv very bumpy
6502	13.5	6	round	5	5	7	7	Getting quite seedy
6504	12.0	4	round	5	7	3	9	Short pods; holding well; pc type
6505	15.5	7	round	7	7	7	9	Pc type pods uniformly colored; moderate seed development in 6 sv
6512	16.0	5	round	5	6	5	7	Difficult to pickpods do not detach easily; segregating for strings, particularly apparent in 6 sv
6516	15.0	5	round	8	5	5	7	Pc appearance but pods normal color; getting seedy
6518	14.0	6	round	7	7	7	8	Pc type pods uniformly colored; moderate seed development
6525	14.0	7	round	7	5	7	5	Very attractive pods; moderate seed development
6528	14.0	4	round	7	5	7	7	Holding well
6529	14.5	5	oval to round	7	8	5	7	Pc type with very nice color; pods a bit short; getting seedy

<sup>z</sup>There was no white mold in this trial. Plant vigor was generally reduced due to many years of beans in this field. There were germination problems, sometimes severe, especially in the persistent color (pc) types; some of these lines were discarded in this trial due to very poor stands. <sup>y</sup>Scores based on a 1-9 scale with 9 straightest. <sup>x</sup>Cross section: cb = crease-back. <sup>w</sup>Scores based on a 1-9 scale with 9 smoothest. <sup>y</sup>Scores based on a 1-9 scale with 9 strongest. <sup>t</sup>BBL=bush blue lake; sv=sieve; pc=persistent color.

Table 9. Notes on preliminary small sieve green bean lines, June 1 planting, Corvallis, 2007<sup>z</sup>.

						Flav	<u>vor<sup>u</sup></u>	
	Pod	Pod	Pod	Pod				
	Length	Straight-	Cross	Smooth-	Pod	Sweet-	Astrin-	
Line	(cm)	ness <sup>y</sup>	Section <sup>x</sup>	ness <sup>w</sup>	Color <sup>v</sup>	ness	gency	Notes <sup>t</sup>
								Nice smooth straight BBL bean; moderate
6174	15.0	7	round	7	5	7	5	seed development
6312-1	15.5	4	round	6	5	7	7	Getting seedy; 3 sv junky
6329	13.0	7	round	7	5	3	7	Moderate seed development
			heart to					Moderate seed development in 5 sv and be-
6340	15.0	5	round	5	5	5	5	ginning in 4 sv
6342	14.0	7	round	7	5	3	7	Getting seedy
6347	10.5	7	round	1	4	5	7	Short junky pods with many blanks
6348	14.0	7	round	7	5	5	5	Moderate seed development
			heart to					
6441	15.5	5 7	round	5	5	7	5	Getting seedy
6442	15.0	7	round	7	5	5	7	Moderate seed development
			heart to					
6447	13.5	8	round	8	6	5	5	Straight fillet type pods
			heart to					Bitter flavor; color too light; no seed develop-
6449	12.5	8	round	8	4	1	9	ment in 3 sv
			oval to					Very long slender pods but light colored; dis-
6451	15.5	5	round	7	1	7	5	card
6452	14.5	6	round	5	5	7	7	Moderate seed development
6454	15.0	5	round	6	5	5	7	Getting seedy
6456	15.0	4	round	4	5	7	7	Getting seedy
6457	12.0	8	round	8	4	7	7	Moderate seed development
			oval to					Very smooth, straight pods but probably high
6468	14.0	8	round	8	3	7	5	fiber; color too light; 4 sv getting seedy
6487	15.0	5	round	6	6	5	7	Getting seedy
6496	15.5	6	round	6	5	7	7	Getting seedy
					_			Very straight, shiny pods; getting seedy; not
Savannah	13.5	9	round	8	7	5	7	very productive in field under stress conditions

<sup>&</sup>lt;sup>z</sup>There was no white mold in this trial. Plant vigor was generally reduced due to many years of beans in this field. There were germination problems, sometimes severe, especially in the persistent color (pc) types; some of these lines were discarded in this trial due to very poor stands. <sup>y</sup>Scores based on a 1-9 scale with 9 straightest; <sup>x</sup>Cross section: cb = crease-back; <sup>w</sup>Scores based on a 1-9 scale with 9 smoothest; <sup>v</sup>Scores based on a 1-9 scale with 9 darkest; <sup>u</sup>Scores based on a 1-9 scale with 9 strongest; <sup>t</sup>BBL=bush blue lake; sv=sieve; pc=persistent color.

Table 10. Performance of commercial green bean varieties, June 21 planting, Corvallis, 2007.

					Percent Sieve Size <sup>z</sup>						Ton	s/Acre	Sieve	Size					
		ΑV	Intended							_								Graded	
Variety	Source	Stand	Use	Days	1	2	3	4	5	6	1-4	1	2	3	4	5	6	Total <sup>y</sup>	\$/Acre <sup>x</sup>
91G	OSU	150	full sieve	62	5.1	5.5	9.0	20.8	42.4	17.3	40.4	0.57	0.61	1.00	2.31	4.70	1.91	11.09	1861
				64	2.8	3.7	8.8	20.9	42.8	20.9	36.3	0.26	0.35	0.83	1.96	4.00	1.96	9.35	1510*
OR 54	OSU	150	full sieve	64	6.9	9.9	17.6	35.1	23.7	6.9	69.5	0.78	1.13	2.00	4.00	2.70	0.78	11.40	2419*
				67	3.6	5.9	11.4	31.8	40.5	6.8	52.7	0.35	0.57	1.09	3.05	3.87	0.65	9.57	1786
5630	OSU	150	full sieve	64	5.1	6.2	13.0	37.3	32.8	5.6	61.6	0.39	0.48	1.00	2.87	2.52	0.44	7.70	1542*
				67	3.3	4.9	11.4	35.0	39.0	6.5	54.5	0.17	0.26	0.61	1.87	2.09	0.35	5.35	1013
6137	OSU	150	full sieve	64	4.7	6.8	14.9	33.6	31.9	8.1	60.0	0.48	0.70	1.52	3.44	3.26	0.83	10.22	2022*
				67	3.9	4.5	7.3	24.7	45.5	14.0	40.4	0.30	0.35	0.57	1.91	3.52	1.09	7.74	1300
6185	OSU	150	full sieve	62	5.2	7.9	12.7	25.8	34.5	14.0	51.5	0.52	0.78	1.26	2.57	3.44	1.39	9.96	1841*
				64	5.3	7.1	11.2	24.1	35.9	16.5	47.6	0.39	0.52	0.83	1.78	2.65	1.22	7.40	1323
6189	OSU	150	full sieve	64	4.0	6.0	10.0	25.2	38.8	16.0	45.2	0.44	0.65	1.09	2.74	4.22	1.74	10.88	1905*
6338	OSU	150	full sieve	64	5.1	5.8	9.8	24.6	40.6	14.1	45.3	0.61	0.70	1.17	2.96	4.87	1.70	12.01	2105*
				67	2.6	4.3	9.1	28.4	43.5	12.1	44.4	0.26	0.44	0.91	2.87	4.39	1.22	10.09	1755
PLS 2196	Pureline	148	full sieve	62	8.3	10.8	16.7	35.3	23.5	5.4	71.1	0.74	0.96	1.48	3.13	2.09	0.48	8.87	1906
				64	5.7	9.9	17.5	37.3	22.2	7.5	70.3	0.52	0.91	1.61	3.44	2.04	0.70	9.22	1969
				67	3.2	7.5	16.7	39.8	29.0	3.8	67.2	0.26	0.61	1.35	3.22	2.35	0.30	8.09	1690
Hunting-	Syngenta	150	full sieve	62	7.3	13.2	20.1	32.0	26.5	0.9	72.6	0.70	1.26	1.91	3.05	2.52	0.09	9.53	2068
ton				64	6.3	10.0	14.6	28.9	36.0	4.2	59.8	0.65	1.04	1.52	3.00	3.74	0.44	10.40	2054
				67	3.9	5.0	10.8	27.0	47.1	6.2	46.7	0.44	0.57	1.22	3.05	5.31	0.70	11.27	2000
6436	OSU	150	5 sieve	64	9.4	10.2	17.6	37.1	22.9	2.9	74.3	1.00	1.09	1.87	3.96	2.44	0.30	10.66	2341*
				67	4.3	6.5	13.4	33.6	37.5	4.7	57.8	0.44	0.65	1.35	3.39	3.78	0.48	10.09	1962
6445	OSU	150	5 sieve	63	9.4	12.3	19.2	37.4	19.2	2.5	78.3	0.83	1.09	1.70	3.31	1.70	0.22	8.83	1994
				65	7.4	9.3	15.3	35.2	30.1	2.8	67.1	0.70	0.87	1.44	3.31	2.83	0.26	9.40	1961*
				67	3.7	5.8	11.9	31.3	42.4	4.9	52.7	0.39	0.61	1.26	3.31	4.48	0.52	10.57	1972
08120693	Seminis	150	5 sieve	64	6.3	10.6	24.9	43.9	14.3	0.0	85.7	0.52	0.87	2.04	3.61	1.17	0.00	8.22	1950*
				67	4.2	6.1	16.4	44.8	24.2	4.2	71.5	0.30	0.44	1.17	3.22	1.74	0.30	7.18	1546
SB 4359	Syngenta	150	4-5 sieve	57	6.9	9.7	18.3	46.3	18.3	0.6	81.1	0.52	0.74	1.39	3.52	1.39	0.04	7.61	1811
				59	4.7	7.6	11.8	44.1	30.8	0.9	68.2	0.44	0.70	1.09	4.05	2.83	0.09	9.18	2070*
DI O C : C T	<u> </u>			61	2.9	4.1	8.3	28.6	49.0	7.1	44.0	0.30	0.44	0.87	3.00	5.13	0.74	10.48	2120
PLS 2195	Pureline	118	4-5 sieve	61	4.4	15.3	21.2	36.5	20.4	2.2	77.4	0.26	0.91	1.26	2.18	1.22	0.13	5.96	1396
				63	7.7	11.2	20.1	34.9	23.1	3.0	74.0	0.57	0.83	1.48	2.57	1.70	0.22	7.35	1698*
				65	4.5	8.0	16.4	36.3	29.4	5.5	65.2	0.39	0.70	1.44	3.18	2.57	0.48	8.74	1946

Table 10. Performance of commercial green bean varieties, June 21 planting, Corvallis, 2007 (cont.).

					Percent Sieve Size Tons/Acre Sieve Size														
		AV	Intended															Graded	
Variety	Source	Stand	Use	Days	1	2	3	4	5	6	1-4	1	2	3	4	5	6	Total <sup>y</sup>	\$/Acre <sup>x</sup>
BSC 833	Brother-	150	4 sieve	61	9.7	24.1	45.6	19.5	1.0	0.0	99.0	0.83	2.04	3.87	1.65	0.09	0.00	8.48	2163
	ton			63	10.6	25.5	39.1	24.2	0.6	0.0	99.4	0.74	1.78	2.74	1.70	0.04	0.00	7.00	1789
				65	4.8	19.9	43.0	31.2	1.1	0.0	98.9	0.39	1.61	3.48	2.52	0.09	0.00	8.09	2063*
BSC 8577	Brother-	150	4 sieve	61	8.4	18.4	28.5	41.0	3.8	0.0	96.2	0.87	1.91	2.96	4.26	0.39	0.00	10.40	2624
	ton			63	4.7	14.6	29.5	44.5	6.7	0.0	93.3	0.52	1.61	3.26	4.92	0.74	0.00	11.05	2758*
				65	4.9	15.1	34.7	38.7	6.7	0.0	93.3	0.48	1.48	3.39	3.78	0.65	0.00	9.79	2443
Savannah	Harris	150	4 sieve	62	12.7	30.3	37.6	18.8	0.6	0.0	99.4	0.91	2.18	2.70	1.35	0.04	0.00	7.18	1833
	Moran			64	11.0	25.6	43.0	19.8	0.6	0.0	99.4	0.83	1.91	3.22	1.48	0.04	0.00	7.48	1911
				67	5.7	13.2	48.1	30.7	2.4	0.0	97.6	0.52	1.22	4.44	2.83	0.22	0.00	9.22	2340*
SWB 1A	Pureline	146	2-3	62	18.8	67.1	14.1	0.0	0.0	0.0	100.0	1.39	4.96	1.04	0.00	0.00	0.00	7.40	2115
			sieve	64	16.4	69.6	14.0	0.0	0.0	0.0	100.0	1.22	5.18	1.04	0.00	0.00	0.00	7.44	2127*
				67	13.3	69.4	17.3	0.0	0.0	0.0	100.0	1.13	5.92	1.48	0.00	0.00	0.00	8.53	2438
Banga	Seminis	150	2 sieve	62	22.7	74.0	3.3	0.0	0.0	0.0	100.0	1.78	5.83	0.26	0.00	0.00	0.00	7.87	2177
				64	15.6	79.2	5.2	0.0	0.0	0.0	100.0	1.31	6.61	0.44	0.00	0.00	0.00	8.35	2264*
				67	16.0	82.5	1.5	0.0	0.0	0.0	100.0	1.35	6.96	0.13	0.00	0.00	0.00	8.44	2376
Redon	Syngenta	148	2 sieve	63	35.3	64.7	0.0	0.0	0.0	0.0	100.0	2.61	4.79	0.00	0.00	0.00	0.00	7.40	2115
				65	36.6	63.4	0.0	0.0	0.0	0.0	100.0	2.91	5.05	0.00	0.00	0.00	0.00	7.96	2277*
				67	32.4	67.0	0.5	0.0	0.0	0.0	100.0	2.61	5.39	0.04	0.00	0.00	0.00	8.05	2289
Pierroton	Syngenta	150	2 sieve	60	45.4	54.6	0.0	0.0	0.0	0.0	100.0	3.61	4.35	0.00	0.00	0.00	0.00	7.96	2277
				62	38.8	61.2	0.0	0.0	0.0	0.0	100.0	3.39	5.35	0.00	0.00	0.00	0.00	8.74	2501*
				64	36.9	63.1	0.0	0.0	0.0	0.0	100.0	3.44	5.87	0.00	0.00	0.00	0.00	9.31	2662
BSC 8707	Brother-	150	2 sieve	62	41.9	58.1	0.0	0.0	0.0	0.0	100.0	2.35	3.26	0.00	0.00	0.00	0.00	5.61	1605
	Ton			64	42.1	57.9	0.0	0.0	0.0	0.0	100.0	2.57	3.52	0.00	0.00	0.00	0.00	6.09	1742*
				67	32.6	66.7	0.7	0.0	0.0	0.0	100.0	2.00	4.09	0.04	0.00	0.00	0.00	6.13	1742

<sup>&</sup>lt;sup>z</sup>Percent calculated as % of total of 1-6 sieve beans.

<sup>&</sup>lt;sup>y</sup>Total tons/acre of the graded beans, including sieve sizes 1-6. Values will be lower than those reported in Table 11 because some beans are lost in the grading process. Analysis of variance (Table 11) was calculated using the harvest marked with \*.

<sup>\*\$/</sup>acre for full sieve and 5 sieve beans based on \$259/ton for 1-4 sieve and \$106/ton for 5-6 sieve; for 4 and 4-5 sieve beans based on \$256/ton for 1-4 sieve and \$160/ton for 5-6 sieve; for 2-3 sieve beans based on \$286/ton for 1-3 sieve and \$0/ton for 4-6 sieve, and for 2 sieve beans based on \$286/ton for 1-2 sieve and \$0/ton for 3-6 sieve.

Table 11. Statistical comparison of yields and dollar return of commercial green bean lines, Corvallis, 2007<sup>z</sup>.

Line	Intended Use	T/A Unadjusted	T/A Adjusted <sup>y</sup>	\$/A
91G	full sieve	11.6	10.5	1949
OR 54	full sieve	11.5	13.8	2477
5630	full sieve	8.2	9.2	1637
6137	full sieve	10.6	11.6	2091
6185	full sieve	10.4	10.6	1930
6189	full sieve	11.5	11.0	2019
6338	full sieve	12.4	11.8	2180
PLS 2196	full sieve	9.3	11.1	1979
Huntington	full sieve	11.0	12.1	2174
6436	5 sieve	11.0	13.6	2417
6445	5 sieve	9.9	11.6	2061
08120693	5 sieve	8.7	11.8	2063
SB 4359	4-5 sieve	9.8	9.8	2207
PLS 2195	4-5 sieve	7.9	7.9	1829
BSC 833	4 sieve	8.4	8.4	2152
BSC 8577	4 sieve	11.6	11.6	2899
Savannah	4 sieve	9.7	9.7	2461
SWB 1A	2-3 sieve	7.8	7.8	2239
Banga	2 sieve	8.7	8.7	2359
Redon	2 sieve	8.4	8.4	2389
Pierroton	2 sieve	9.1	9.1	2600
BSC 8707	2 sieve	6.4	6.4	1829
BSC 8047	Italian	8.5	8.5	1780
LSD 0.05		2.0	2.1	449

<sup>&</sup>lt;sup>z</sup>Based on one selected harvest for each variety (marked with \* on Table 10), which was usually the harvest closest to optimal based on that variety's intended use (50% 1-4 sieve for full sieve), although in many cases in this trial an earlier harvest was used if yields subsequently dropped significantly due to white mold infection. Yields are field yields of 1-6 sieve beans.

<sup>&</sup>lt;sup>y</sup>Full sieve and 5 sieve beans were adjusted to 50% 1-4 sieve; all others were unadjusted.

Table 12. Notes on June 21 commercial bean trial, Corvallis, Oregon, 2007.

							Fla			
Line	Pod Length (cm)	Pod Straight- ness <sup>z</sup>	Pod Cross Section	Pod Smooth- ness <sup>y</sup>	Pod Color <sup>x</sup>	Sweet- ness	Astrin- gency	Beani- ness	Perfumi- ness	Notes <sup>v</sup>
Line	(CIII)	11000	Section	11622	COIOI	11033	gency	11033	11033	Prime today with only
91G	16.0	4	round	5	5	5	5	7	1	moderate seed development
OR 54	15.5	5	round	5	5	7	7	7	1	Getting seedy without sizing up
5630	15.5	4	round	5	5	7	7	5	1	Variable pod color; get- ting seedy without siz- ing up
6137	14.0	5	round	4	7	7	5	5	1	Large dark green BBL pods, shiny; prime to-day
6185	17.0	7	round	7	7	3	5	7	1	Prime today with only moderate seed development; very attractive pods but two-tone in color; seems particularly susceptible to white mold
6189	15.0	6	round	4	5	7	7	5	1	Very large typical BBL type; beginning to get seedy and bumpy
6338	16.0	5	round	5	5	5	7	5	1	Getting seedy
PLS 2196	16.5	7	round	7	7	5	3	7	1	Pleasant flavor, moder- ately seedy
Huntington	14.5	6	heart to round	7	4	7	7	5	1	Very nice BBL with ex- cellent flavor; lighter color than 91G; little seed development
6436	16.0	6	round	6	6	3	5	5	1	Attractive BBL type; moderate seed development
6445	15.5	5	round	5	5	5	7	7	1	Moderate seed development

Table 12. Notes on June 21 commercial bean trial, Corvallis, Oregon, 2007 (cont.).

							Fla	avor <sup>w</sup>		
Line	Pod Length (cm)	Pod Straight- ness <sup>z</sup>	Pod Cross Section	Pod Smooth- ness <sup>y</sup>	Pod Color <sup>x</sup>	Sweet- ness	Astrin- gency	Beani- ness	Perfumi- ness	Notes <sup>v</sup>
08120693	15.0	7	heart to round	8	7	1	3	5	3	Attractive dark green pc type; getting seedy; severe white mold infection
SB 4359	15.0	8	round	9	7	3	5	5	5	Very concentrated set of 4 & 5 sv beans; does not produce 6 sv; susceptible to white mold; may be high fiber
PLS 2195	15.0	7	heart to round	8	6	3	3	5	1	Crunchy; moderate seed development
BSC 833	14.0	6	round	7	4	1	5	5	1	Tough; very beany flavor but not sweet; big tall plants in field with severe white mold developing
BSC 8577	13.0	7	heart to round	7	4	4	7	6	1	Nice flavor; produces very few 5 sv pods
Savannah	14.0	9	round	8	6	3	5	5	3	Moderate seed development
SWB 1A	12.0	8	round	8	4	7	7	5	1	BBL flavor; moderate seed development
Banga	12.5	8	round	7	4	1	9	7	3	Tough pods with very strong flavor; moderate seed development in 2 & 3 sv pods
Redon	13.0	6	round	8	4	5	8	5	1	Moderate seed development in 2 sv, none in 1 sv
Pierroton	11.5	8	round	8	5	3	7	5	1	Moderate seed development

Table 12. Notes on June 21 commercial bean trial, Corvallis, Oregon, 2007 (cont.).

							Fla	<u>ıvor<sup>w</sup></u>		
Line	Pod Length (cm)	Pod Straight- ness <sup>z</sup>	Pod Cross Section	Pod Smooth- ness <sup>y</sup>	Pod Color <sup>x</sup>	Sweet- ness	Astrin- gency	Beani- ness	Perfumi- ness	Notes <sup>v</sup>
BSC 8707	13.0	7	round	7	5	3	3	5	5	Tough pods; seed develop- ment beginning in 2 sv
BSC 8047	16.5	7	romano	4	3	5	5	7	1	Tough pods with very strong flavor; moderate seed development in 2 & 3 sv pods

<sup>&</sup>lt;sup>z</sup>Scores based on a 1-9 scale with 9 straightest. <sup>y</sup>Scores based on a 1-9 scale with 9 smoothest. <sup>x</sup>Scores based on a 1-9 scale with 9 strongest. <sup>v</sup>Notes taken on prime harvest date; this trial had lush vigorous growth with heavy white mold infection, which reduced yields as trial progressed. sv = sieve; BBL = bush blue lake; pc = persistent color

Table 13. White mold incidence and severity in green bean lines, commercial trial, Corvallis, 2007<sup>z</sup>.

				(	% Infec	cted						Sever	ity		
Line	Sieve Size	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Average	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Average
91G	full	50	30	100	80	100	100	77	7	6	9	6	9	9	7.7
OR 54	full	50	60	100	100	100	30	73	7	5	8	9	8	4	6.8
5630	full	90	100	100	100	100	100	98	6	8	8	9	9	8	8.0
6137	full	100	100	100	100	100	100	100	8	7	7	9	8	8	7.8
6185	full	100	100	100	100	100	100	100	8	7	8	9	9	9	8.3
6189	full	100	100	100	50	100	100	92	8	7	7	7	7	9	7.5
6338	full	100	100	80	80	100	100	93	5	8	7	8	8	6	7.0
PLS 2196	full	60	100	100	20*	100	100	80	6	6	6	3	7	8	6.0
Huntington	full	100	20	30	100	100	100	75	8	6	5	9	7	6	6.8
6436	5	100	90	100	100	50	50	82	6	8	8	6	6	6	6.7
6445	5	50	50	100	50	100	100	75	7	7	7	5	7	8	6.8
08120693	5	100	100	100	100	100	100	100	8	5	8	5	9	9	7.3
SB 4359	4-5	100	60	100	100	100	100	93	7	7	9	9	7	8	7.8
PLS 2195	4-5	70	50	80	50	30*	100	63	3	6	6	6	3	7	5.2
BSC 833	4	30	80	80	30	50	100	62	5	5	5	4	5	8	5.3
BSC 8577	4	70	20	50	100	100	100	73	7	3	4	7	7	6	5.7
Savannah	4	100	100	20	0	100	100	70	5	6	3	1	6	3	4.0
SWB 1A	2-3	10*	100	100	50	50	30	57	3	6	9	5	5	7	5.8
Banga	2	20	50	20	100	70	100	60	4	5	5	8	7	6	5.8
Redon	2	100	20	40	100	30	100	65	8	5	5	7	3	9	6.2
Pierroton	2	50	10	10	50	50	10	30	5	5	5	5	5	2	4.5
BSC 8707	2	40	100	50	50	100	100	73	5	5	4	5	9	7	5.8
BSC 8047	Italian	100	100	100	100	100	100	100	8	8	8	7	7	9	7.8
LSD 0.05								31							1.7

<sup>&</sup>lt;sup>z</sup>This trial had lush, vigorous growth with heavy white mold infection. Percent infected measured by visual inspection, not by actual counts.

<sup>\*</sup>Poor stand made these plots hard to evaluate.

Table 14. OSU snap bean notes, Hermiston, Oregon, 2007<sup>z</sup>

Entry	Growth Habit <sup>y</sup>	Sieve Size	Pod Quality <sup>y</sup>	Yield <sup>y</sup>	Notes <sup>x</sup>
Entry	i				
Sahara	7	4	7	5	50% reduction in stand
91G	3	full	5	7	50% buckskin on 8/10
OR 54	3	full	5	7	slightly later than 91G
5163	3	full	5	7	50% buckskin on 8/10
5256	3	full	5	7	50% buckskin on 8/10
5402	3	full	5	7	slightly later than 91G
5446-1	3	4	3	3	
5613	7	3	5	5	
5620	7	full	7	8	
5630	5	full	7	6	
5635	5	full	7	7	
5651	7	full	3	5	tall plant but floppy; pods have many blanks
5669	5	full	5	5	
5835	7	4	5	3	
5977	5	4	5	3	
5989	7	full	7	7	
5996	7	full	7	7	slightly reduced stand
5998	6	full	5	5	early; slightly reduced stand
6002-6-2	6	full	5	5	slightly reduced stand
6002-6-15	6	full	5	5	slightly reduced stand; non-pc
6002-6-21	4	full	3	5	stand OK; pcextreme green
6002-0-21	5	full	5	3	Non-pc
6002-13	3	full	5	5	Non-pc
6100-1	6	full	5	3	
6100-1	1	full	5	7	
	5	full	7	7	latar aytrama araan
6137	3	Tull	/	/	late; extreme green
0454	0	4	7	_	most susceptible to wind dam-
6154	9 7	4	7	5 5	age
6172	-	full			450/
6174	8	5	7	6	15% stand reduction
6185	8	full	5	7	bumpy pods; 75% stand reduction
6186	8	4	5	5	
6189	6	full	7	5	short bush; more BBL than Minuette type
6193-31	9	5	7	5	
6193-33	9	5	7	3	
6229	5	full	5	5	tall plant; late; pale green foliage
6235	1	full	5	3	late
6241	3	5	3	3	
6257	7	5	1	5	high fiber pods

Table 14. OSU snap bean notes, Hermiston, Oregon, 2007<sup>z</sup> (cont.)

	Growth	Sieve	Pod Quali-		
Entry	Habit <sup>y</sup>	Size	ty <sup>y</sup>	Yield <sup>y</sup>	Notes <sup>x</sup>
	_			_	high fiber pods; very early; 50%
6259	3	3	1	5	stand reduction
6279	3	5	1	5	hooked pods
6284	5	5	5	7	
6286	5	full	3	5	some hooked pods
6290	5	full	3	3	slight stand reduction
6312-1	5	5	3	3	early; slightly reduced stand
6312-8	5	5	3	3	early; slightly reduced stand
6312-11	5	4	1	1	early
6312-18	5	4	3	3	
					medium early; more robust plant
6312-20	5	5	5	5	than sister lines
6329	7	5	5	7	
6338	3	4	3	5	normal stand
6340	5	5	5	5	
6342	3	5	1	5	slight stand reduction
6347	3	4	3	5	
6348	5	5	3	5	
6393	7	5	5	3	
6406	3	full	7	7	late
6409	6	5	7	3	10% stand reduction
6410	1	5	5	3	large, leggy, floppy plants
6411	3	full	3	7	90% stand reduction
6412	7	full	5	7	slight stand reduction
6413	7	full	7	7	long smooth pods with slight curve; slight stand reduction; CTV susceptible?
6416	7	3	7	7	susceptible:
6423	3	<u>5</u> 	7	7	late
6424	5	3	7	5	late
6426	4	4	7	5	
6428	3	5	1	5	slight stand reduction
6429	7	<u>5</u>	7	3	Signt stand reduction
6430	3	4	7	5	
6433	3	4	7	7	
6436	6	<del>4</del> 5	3	5	blanks in pods
6439	6	full	4	7	biariks in pous
	0	Tull	4	1	95% stand reduction
6440 6441	6	5	5	5	
6442	7	<u>5</u> 5	7	7	50% stand reduction
	7	5 5	5	1	
6443				7	humpy pode with blocks
6445	6	full	3	7	bumpy pods with blanks
6447	4	4	9	7	late
6449	5	5	7	7	

Table 14. OSU snap bean notes, Hermiston, Oregon, 2007<sup>z</sup> (cont.)

	Growth	Sieve	Pod Quali-		
Entry	Habit <sup>y</sup>	Size	ty <sup>y</sup>	Yield <sup>y</sup>	Notes <sup>x</sup>
6451	5	5	5	7	
6452	7	5	4	5	
6453	7	5	5	5	
6454	7	4	3	5	poor pod set
6455	4	5	5	7	
6456	3	5	5	7	
6457	5	full	3	5	heliotropoic leaves; blanks in pods
6463	5	5	5	7	early
6464	6	4	5	5	
6467	3	5	3	5	
6468	8	5	5	5	
6469	6	5	5	5	30% stand reduction
6471	5	full	5	7	
6474	7	full	6	5	20% stand reduction
6475	5	full	5	5	
6477	3	5	7	7	BBL habit
6478	6	full	3	5	blanks in pods
					junky; blanks; one purple pod off-
6479	5	full	1	3	type
6480	6	5	5	5	slight stand reduction
6481	6	5	5	7	
6484	5	5	3	5	
6485	5	full	4	7	
					virus (not CTV); segregating for
6487	6	5	5	7	extreme green pods
6489	3	5	5	5	
6490	7	5	5	5	
6493	6	5	5	5	
6494	5	full	7	5	
6495	6	5	5	5	
6496	3	full	7	7	
6497	5	full	3	5	
6498	5	full	3	7	
6500	3	full	5	7	80% stand reduction
6501	5	full	5	5	50% stand reduction
6502	5	5	7	7	50% stand reduction
6551	3	full	7	7	pc type; only slight stand reduction

<sup>&</sup>lt;sup>z</sup>Planted May 15. Notes taken August 10. Most of the persistant chlorophyll (pc) types (about 75 lines) had very poor or no germination and were not included in the table.

<sup>&</sup>lt;sup>y</sup>Scores based on a 1-9 scale with 9=best.

<sup>&</sup>lt;sup>x</sup>pc=persistent chlorophyll; BBL=bush blue lake; CTV=curly top virus.

Table 15. Results from a white mold screening trial, Corvallis,  $2007^{z}$ 

			White	e Mold Ch	neck					
				mparison						
Entry	Stand <sup>y</sup>	White Mold Index <sup>x</sup>	G 122	M0162	91G	White Mold Incidence <sup>w</sup>	White Mold Severity <sup>v</sup>	Maturity	Lodging	Estimated Yield Potential <sup>t</sup>
NY1-6020-4	84	6.3		**	**	6.3	1.0	medium	1.4	2.5
6570	61	6.9		**	**	6.9	1.0	medium	1.3	2.1
L192	100	7.4		**	**	7.4	1.0	medium	1.3	1.4
I9365-31	100	8.1		**	**	8.1	1.0	medium	2.3	1.9
6561	83	9.8		**	**	7.5	1.3	medium	1.4	2.3
G122	100	11.0		**	**	7.3	1.5	medium	1.1	2.0
6562	75	11.2		**	**	8.0	1.4	medium	1.6	2.0
PI207130-2-4	100	11.3		**	**	7.5	1.5	late	1.5	1.9
NY1-6020-5	100	12.2		**	**	8.1	1.5	medium	1.5	1.4
6587	91	13.7		**	**	9.1	1.5	medium	1.1	2.3
6569	76	14.0			**	7.8	1.8	medium late	1.0	2.7
M0192	100	14.6			**	8.1	1.8	medium early	1.6	2.3
M0061	100	14.8			**	7.4	2.0	medium early	1.4	2.0
M0113	99	15.6			**	7.8	2.0	medium	1.6	2.1
Medinah	93	15.8			**	6.3	2.5	medium	1.4	2.3
M0156	100	16.1			**	7.0	2.3	medium	2.6	1.5
6464	100	16.2			**	8.1	2.0	early	1.9	1.9
6576	84	17.6			**	9.8	1.8	medium	1.5	2.5
Ex Rico	100	17.8			**	8.9	2.0	medium	1.8	1.8
NY5972	98	17.9			**	7.8	2.3	medium	1.1	1.9
6235	100	18.2			**	9.1	2.0	medium early	1.6	1.9
6557	94	18.2			**	9.1	2.0	medium	1.4	2.4
6574	98	18.4			**	8.0	2.3	medium	1.3	2.5
FR266	100	18.6			**	8.1	2.3	medium	1.5	1.5
6560	75	18.8			**	7.5	2.5	medium	1.3	2.4
6554	94	19.3			**	8.4	2.3	medium	1.3	2.1
PI290990-4-1	100	19.6			**	8.5	2.3	early	1.4	1.4
6571	71	19.6			**	9.8	2.0	medium	1.5	2.1

Table 15. Results from a white mold screening trial, Corvallis, 2007 (cont.)<sup>2</sup>

				e Mold Ch mparison						
Entry	Stand <sup>y</sup>	White Mold Index <sup>x</sup>	G 122	M0162	91G	White Mold Incidence <sup>w</sup>	White Mold Severity <sup>v</sup>	Maturity	Lodging <sup>u</sup>	Estimated Yield Potential <sup>t</sup>
6589	50	20.2			**	8.8	2.3	medium	1.3	2.3
NYBS6637	100	20.3			**	8.1	2.5	medium	1.8	1.6
6581	88	20.3			**	8.1	2.5	medium	1.4	1.6
6556	88	20.7			**	9.0	2.3	medium late	1.8	2.4
6559	78	21.6			**	9.4	2.3	medium	1.9	2.0
6592	64	22.5			**	9.8	2.3	medium	1.9	2.0
NY2-5984-1	100	22.5			**	9.8	2.3	late	1.4	1.9
M0207A	100	23.0			**	10.0	2.3	medium early	2.0	1.5
6586	71	23.5			**	9.4	2.5	medium	1.6	2.8
6572	55	23.8			**	9.5	2.5	medium	1.6	2.8
6582	69	23.8			**	6.8	3.5	medium	1.6	2.1
6564	93	25.0			**	10.0	2.5	medium late	1.6	2.5
M0107A	100	25.2			**	8.4	3.0	medium	1.8	1.6
6393	100	25.5			**	9.1	2.8	medium early	1.5	2.2
6555	90	26.0			**	9.3	2.8	medium	1.7	1.9
6591	70	26.0			**	9.3	2.8	medium	1.6	1.9
M0107B	100	26.3			**	9.4	2.8	medium late	1.9	1.9
6580	58	26.6			**	9.5	2.8	medium	1.5	2.5
6595	90	27.0			**	9.0	3.0	medium	2.0	2.0
6573	89	27.7			**	9.9	2.8	medium	2.0	2.5
6577	60	27.7			**	9.9	2.8	medium	1.5	2.1
6482	100	28.1			**	8.5	3.3	medium	1.4	2.0
6449	100	28.2			**	9.4	3.0	medium	1.8	1.6
NYBS6643	100	28.5			**	9.5	3.0	medium	1.4	2.0
6452	98	29.7			**	9.9	3.0	medium	1.9	1.6
6590	64	29.7			**	9.9	3.0	medium late	1.6	2.3
Savannah	100	29.8			**	8.5	3.5	medium	1.8	2.6

Table 15. Results from a white mold screening trial, Corvallis, 2007 (cont.)<sup>2</sup>

				e Mold Ch						
		White	<u>C0</u>	пранѕоп	<u>5</u>	White	White			Estimated
		Mold	G			Mold	Mold			Yield
Entry	Stand <sup>y</sup>	Index	122	M0162	91G	Incidence	Severity <sup>v</sup>	Maturity	Lodging <sup>u</sup>	Potential <sup>t</sup>
6189	65	30.0		10102	**	9.1	3.3	medium	2.3	2.0
6584	44	30.1			**	7.0	4.3	medium	1.9	1.6
6568	54	30.8			**	8.8	3.5	late	1.9	2.6
M0196	93	31.0			**	10.0	3.1	early	1.8	2.0
6485	100	31.4			**	9.5	3.3	medium early	2.1	2.3
M0070	100	32.3			**	9.8	3.3	early	1.8	1.8
6567	95	32.9	٨		**	9.4	3.5	medium	1.5	2.1
6453	100	33.0	٨		**	10.0	3.3	medium early	2.0	2.5
6588	66	33.0	٨		**	10.0	3.3	medium	1.5	2.0
M0169	99	33.0	٨		**	10.0	3.3	early	2.0	1.8
6579	25	34.0	٨		**	10.0	3.4	medium	2.6	2.0
M0098	100	34.3	٨		**	9.8	3.5	early	1.8	2.3
6575	93	35.0	٨		**	10.0	3.5	medium	1.5	2.1
6578	68	35.0	٨		**	10.0	3.5	medium	1.2	2.2
6594	85	35.0	٨		**	10.0	3.5	medium	1.4	2.4
M0082	100	38.0	٨		**	10.0	3.8	early	1.9	1.8
6137	100	38.3	٨		**	8.9	4.3	medium	2.4	2.3
H9658-9	100	39.2	^		**	9.8	4.0	early	1.4	2.6
M0146	100	39.6	^		**	9.9	4.0	early	2.0	1.6
M0162	100	39.6	٨			9.9	4.0	early	1.5	1.8
M0048	99	41.3	٨			9.6	4.3	medium	1.8	2.0
6487	100	41.8	٨			8.9	4.7	medium	1.7	2.5
6463	100	41.9	۸			9.3	4.5	medium early	2.4	2.4
6468	98	43.0	۸			10.0	4.3	medium	2.0	1.9
6436	98	43.2	۸			9.6	4.5	medium early	1.6	2.1
6451	99	44.1	۸			9.8	4.5	early	1.8	1.8
6284	100	44.6	۸			9.9	4.5	early	1.9	2.4

Table 15. Results from a white mold screening trial, Corvallis, 2007 (cont.)<sup>2</sup>

				e Mold Ch mparisons						
		White Mold	_		_	White Mold	White Mold			Estimated Yield
Entry	Stand <sup>y</sup>	Index <sup>x</sup>	G 122	M0162	91G	Incidence <sup>w</sup>	Severity	Maturity	Lodging <sup>u</sup>	Potential <sup>t</sup>
6312-8	100	44.6	۸			9.9	4.5	medium early	2.5	2.0
6475	100	44.6	۸			9.3	4.8	early	2.3	2.3
6259	98	45.0	۸			10.0	4.5	early	2.0	2.4
6474	96	45.0	۸			10.0	4.5	medium early	2.1	2.1
6447	100	45.5	۸			9.1	5.0	early	2.1	2.3
6490	93	47.0	٨			9.8	4.8	medium	2.3	2.3
6493	98	47.0	٨			9.8	4.8	medium	2.3	2.1
6467	100	47.5	٨			9.5	5.0	medium	2.6	2.3
M0163	100	47.5	۸			9.9	4.8	early	1.8	1.8
6479	94	48.0	۸			10.0	4.8	early	2.8	1.9
6566	100	48.0	۸			10.0	4.8	medium	2.0	2.5
M0175	100	48.0	٨			8.0	6.0	early	2.4	1.9
6174	98	49.5	۸			9.9	5.0	medium	1.8	2.3
6478	98	50.0	٨			10.0	5.0	medium early	2.4	1.8
M0059	100	50.4	٨			9.5	5.3	early	2.8	1.8
6342	100	51.9	٨			9.8	5.3	medium early	2.4	1.9
6440	100	51.9	٨			9.8	5.3	medium early	2.4	1.9
6471	98	53.0	٨			10.0	5.3	medium	2.6	2.3
6241	100	54.5	٨			9.9	5.5	medium early	1.9	1.8
6445	91	54.5	۸			9.9	5.5	early	2.4	2.0
6443	100	55.0	۸			10.0	5.5	early	2.6	1.9
6456	93	55.0	۸			10.0	5.5	medium early	2.3	1.9
6469	96	55.0	۸			10.0	5.5	medium early	2.4	1.6
6484	98	55.0	^			10.0	5.5	early	2.6	1.8
6498	100	55.0	۸			10.0	5.5	medium early	2.8	1.9
M0179	100	55.0	۸			10.0	5.5	medium early	3.0	1.3
6501	95	57.4	۸			9.9	5.8	early	2.3	1.9

Table 15. Results from a white mold screening trial, Corvallis, 2007 (cont.)<sup>z</sup>

			_	e Mold Ch omparison						
			<u> </u>	mpanson	<u>S</u>					
		White					White			Estimated
	O. 1V	Mold	0.400	140400	240	White Mold	Mold			Yield
Entry	Stand <sup>y</sup>	Index <sup>x</sup>	G 122	M0162	91G	Incidence <sup>w</sup>	Severity	Maturity	Lodging <sup>u</sup>	Potential <sup>t</sup>
6290	100	58.0	۸			10.0	5.8	early	2.5	2.1
6455	100	58.0	۸			10.0	5.8	medium early	2.1	2.0
6495	99	58.0	۸			10.0	5.8	medium early	2.1	2.0
M0157	100	58.0	۸			10.0	5.8	medium early	2.5	1.4
6329	98	60.0	٨			10.0	6.0	early	2.6	2.0
6481	100	60.0	٨			10.0	6.0	early	2.6	1.9
91G	100	60.0	٨			10.0	6.0	medium early	2.8	1.8
M0161	100	62.4	۸			9.9	6.3	early	2.9	1.4
6257	99	63.0	٨			10.0	6.3	early	1.9	1.6
6454	95	63.0	٨			10.0	6.3	early	2.1	1.6
6457	96	63.0	^			10.0	6.3	early	2.0	2.0
6477	100	63.0	^			10.0	6.3	early	2.6	2.0
6489	99	63.0	۸			10.0	6.3	medium early	2.3	1.8
6502	100	63.0	٨			10.0	6.3	early	2.6	1.9
OR54	100	63.0	٨			10.0	6.3	medium early	2.4	1.9
6442	94	63.7	^	^		9.8	6.5	medium	2.1	1.9
6439	98	64.4	۸	۸		9.9	6.5	medium early	2.0	2.0
6340	100	65.0	۸	۸		10.0	6.5	medium early	2.8	1.6
M0056	100	65.0	^	^		10.0	6.5	medium early	2.6	1.9
M0160	100	65.0	۸	٨		10.0	6.5	early	3.0	1.3
5669	100	68.0	۸	٨		10.0	6.8	early	2.6	2.0
6348	99	68.0	۸	٨		10.0	6.8	early	2.8	2.0
6441	100	68.0	۸	٨		10.0	6.8	medium early	2.5	2.1
6494	95	68.0	۸	٨		10.0	6.8	early	2.6	2.0
6497	94	68.6	۸	٨		9.8	7.0	early	2.6	1.8
5630	100	69.3	^	٨		9.9	7.0	medium	2.5	1.8
5613	98	70.0	۸	۸		10.0	7.0	medium	1.9	1.9

Table 15. Results from a white mold screening trial, Corvallis, 2007 (cont.)<sup>2</sup>

			White Mold Check Comparisons <sup>x</sup>							
Entry	Stand <sup>y</sup>	White Mold Index <sup>x</sup>	G 122	M0162	91G	White Mold Incidence <sup>w</sup>	White Mold Severity <sup>v</sup>	Maturity	Lodging <sup>u</sup>	Estimated Yield Potential <sup>t</sup>
6496	100	70.0	٨	۸		10.0	7.0	medium	2.4	1.6
M0155	100	70.0	٨	۸		10.0	7.0	early	2.9	1.4
6286	98	73.0	٨	٨		10.0	7.3	early	2.3	1.8
6312-1	100	73.0	٨	٨		10.0	7.3	early	2.8	2.1
6338	90	83.0	٨	٨		10.0	8.3	early	2.5	2.0
6347	100	83.0	۸	۸		10.0	8.3	early	3.0	1.9

<sup>&</sup>lt;sup>z</sup>Planted June 29.

<sup>&</sup>lt;sup>y</sup>Visual assessment in percent with 100 = perfect stand.

<sup>\*</sup>Based on LS means; index = incidence x severity; \*\* indicates significantly better than this check (p<0.05); ^ indicates significantly worse than this check (p<0.05).

<sup>&</sup>quot;Scores based on a 1-10 scale with 1 = low incidence, no symptoms observed and 10 = high incidence, all plants in plot infected.

<sup>&</sup>lt;sup>v</sup>Scores based on a 1-9 scale with 9 = severe infection.

<sup>&</sup>quot;Scores based on a 1-3 scale with 1 = upright and 3 = prostrate.

<sup>&</sup>lt;sup>t</sup>Scores based on a 1-3 scale with 3 = good yield potential.

Table 16. Comparison of white mold field averages, eight years combined, Corvallis, 2007.

			White	Mold Field	Score Ave	erages	-	-	Overall
Entry	2000 <sup>z</sup>	2001 <sup>z</sup>	2002 <sup>z</sup>	2003 <sup>z</sup>	2004 <sup>z</sup>	2005 <sup>z</sup>	2006 <sup>z</sup>	2007 <sup>y</sup>	AV
L192	1.5	1.1	2.5	1.3	4.0	2.5	2.3	7.4	2.8
NYBS6637	1.3	1.8	3.8	1.7	2.3	2.5	3.1	8.1	3.0
PI207130-2-4	1.5	2.4	4.0	3.0	2.8	1.8	1.7	7.5	3.1
PI290990-4-1	2.5	2.3	3.0	2.0	2.0	3.0	1.8	8.5	3.1
NY5972	1.3	1.6	3.3	2.7	3.8	2.5	2.8	7.8	3.2
NY2-5984-1	2.0	1.5	3.3	2.3	3.0	1.5	2.5	9.8	3.2
NY1-6020-5	2.8	1.5	4.5	1.7	2.3	2.5	2.8	8.1	3.3
G122	2.0	1.5	4.0	2.0	5.8	2.5	2.0	7.3	3.4
M0162	1.0	1.1	3.3	3.3	2.8	3.3	2.5	9.9	3.4
NY1-6020-4	3.0	2.6	4.8	2.3	3.5	2.5	3.0	6.3	3.5
NYBS6643	1.8	1.6	4.3	1.0	6.5	1.5	3.8	9.5	3.7
H9658-9	2.0	2.1	4.5	4.3	3.0	2.5	3.0	9.8	3.9
FR 266	3.8	2.3	6.0	1.7	6.8	3.5	3.3	8.1	4.4
Ex Rico	5.0	4.1	7.0	4.3	7.3	5.3	5.0	8.9	5.9
5630	5.3	7.3	8.8	6.0	9.3	5.8	6.3	9.9	7.3
5613	6.8	6.5	9.0	6.0	10.0	6.3	5.8	10.0	7.5
OR 54	7.5	6.8	9.0	6.0	10.0	7.8	7.0	10.0	8.0
91G	7.8	8.3	8.3	7.2	9.8	6.8	6.8	10.0	8.1
Grand AV	3.3	3.1	5.2	3.3	5.3	3.5	5.5	8.7	4.7
LSD @ .05						1.0	1.3	1.9	1.0

<sup>&</sup>lt;sup>z</sup>White mold scores: 1-10, 1 = low incidence, no symptoms observed, 10 = high incidence, all plants in plot infected.

Table 17. Comparison of white mold field averages, two years combined, Corvallis, 2007.

			Overall
Entry	2006	2007	AV
PI207130-2-4	1.7	7.5	4.6
NY1-6020-4	3.0	6.3	4.7
G122	2.0	7.3	4.7
L192	2.3	7.4	4.8
PI290990-4-1	1.8	8.5	5.1
NY5972	2.8	7.8	5.3
NY1-6020-5	2.8	8.1	5.4
NYBS6637	3.1	8.1	5.6
FR 266	3.3	8.1	5.7
NY2-5984-1	2.5	9.8	6.2
M0162	2.5	9.9	6.2
6235	3.5	9.1	6.3
Savannah	4.3	8.5	6.4
H9658-9	3.0	9.8	6.4
NYBS6643	3.8	9.5	6.6
6464	5.5	8.1	6.8
6453	3.8	10.0	6.9
6447	4.8	9.1	7.0
Ex Rico	5.0	8.9	7.0
6457	4.0	10.0	7.0
6393	5.5	9.4	7.5
6475	5.8	9.3	7.6
6487	6.3	8.9	7.6
6290	5.3	10.0	7.6
6259	5.3	10.0	7.6
6474	5.5	10.0	7.8
6436	6.1	9.6	7.9
6348	5.8	10.0	7.9
5613	5.8	10.0	7.9
6467	6.3	9.5	7.9
6312-8	6.0	9.9	8.0
6439	6.0	9.9	8.0
6443	6.0	10.0	8.0
6441	6.0	10.0	8.0
6338	6.0	10.0	8.0
6329	6.0	10.0	8.0
6257	6.0	10.0	8.0
6493	6.3	9.8	8.1
6490	6.3	9.8	8.1
6440	6.3	9.8	8.1
6284	6.3	9.9	8.1

Table 17. Comparison of white mold field averages, two years combined, Corvallis, 2007 (cont).

Entry	2006	2007	Overall AV
5630	6.3	9.9	8.1
6312-1	6.3	10.0	8.2
6497	6.5	9.8	8.2
6479	6.3	10.0	8.2
6478	6.3	10.0	8.2
6454	6.3	10.0	8.2
6445	6.5	9.9	8.2
6498	6.5	10.0	8.3
6484	6.5	10.0	8.3
6286	6.5	10.0	8.3
6241	6.8	9.9	8.3
6347	6.8	10.0	8.4
6340	6.8	10.0	8.4
6477	6.8	10.0	8.4
91G	6.8	10.0	8.4
6501	7.0	9.9	8.5
Ore 54	7.0	10.0	8.5
6495	7.0	10.0	8.5
6481	7.0	10.0	8.5
Grand AV	5.5	42.8	7.4
LSD @ .05	1.3	1.9	1.6

 $<sup>^{</sup>z}$ White mold scores: 1-10, 1 = low incidence, no symptoms observed, 10 = high incidence, all plants in plot infected.

Table 18. LS means for a 91G x Pl255956 BC<sub>2</sub>F<sub>6</sub> population from a field white mold disease screening trial, Corvallis, 2007.<sup>2</sup>

Table 10. LOTH		a STO XTIZ				oni a neia wii	nte moia ais	sease screening	triai, oorva	1113, 2007.
			Comp	oarison to	<u>Checks</u>					
Line	Stand <sup>y</sup>	White Mold Index <sup>x</sup>	G122	MO162	OR 91G	White Mold Incidence <sup>w</sup>	White Mold Severity <sup>v</sup>	Maturity	Lodging <sup>u</sup>	Estimated Yield Potential <sup>t</sup>
G122	100	11.0		**	**	7.3	1.5	medium	1.5	2
WMGx25 20-3	100	20.0			**	8.0	2.5	late	1.5	1.6
WMGx25 6-9	100	21.0			**	8.4	2.5	medium	2.1	2.3
WMGx25 15-2	100	21.3			**	7.1	3.0	medium	1.9	1.8
WMGx25 13-14	100	25.0			**	9.1	2.8	early	1.6	1.5
WMGx25 48-3	100	27.2			**	9.9	2.8	early	2.0	1.9
WMGx25 48-5	99	27.5			**	10.0	2.8	medium	1.9	1.8
WMGx25 43-4	100	31.9			**	9.8	3.3	medium	2.0	1.9
WMGx25 20-2	98	33.3			**	9.5	3.5	medium	1.6	1.9
WMGx25 3-15	100	34.7	٨		**	9.9	3.5	medium	2.0	1.8
WMGx25 7-2	100	38.0	٨			9.5	4.0	medium early	1.8	1.6
WMGx25 2-6	100	38.4	٨			9.6	4.0	early	1.8	1.6
M0162	100	39.6	۸			9.9	4.0	early	1.1	1.8
WMGx25 11-1	100	41.7	۸			9.8	4.3	early	2.3	1.9
WMGx25 18-1	100	42.1	۸			9.9	4.3	medium	2.0	2.4
WMGx25 4-6	100	42.8	۸			9.5	4.5	medium	1.8	2.3
WMGx25 6-3	100	44.0	۸			8.8	5.0	medium	2.1	2.3
WMGx25 41-2	100	44.6	۸			9.9	4.5	early	2.4	2.1
WMGx25 29-9	98	45.0	۸			10.0	4.5	medium	2.1	1.6
WMGx25 50-4	100	45.0	۸			10.0	4.5	medium	1.9	1.9
WMGx25 45-1	100	45.6	۸			9.6	4.8	medium early	2.1	1.9
WMGx25 23-8	100	47.0	۸			10.0	4.7	medium late	2.0	2
WMGx25 13-11	99	47.5	۸			10.0	4.8	early	2.4	1.6
WMGx25 17-4	96	47.5	۸			10.0	4.8	medium	2.0	1.8
WMGx25 31-6	100	47.5	۸			10.0	4.8	early	2.4	1.6
WMGx25 41-7	98	49.5	۸			9.9	5.0	medium early	2.0	2.1
WMGx25 42-1	100	51.2	۸			9.3	5.5	early	2.5	1.9
WMGx25 12-2	100	52.0	۸			9.9	5.3	medium early	2.1	2.4
WMGx25 21-1	98	52.5	۸			10.0	5.3	medium	2.0	1.6

Table 18. LS means for a 91G x PI255956 BC<sub>2</sub>F<sub>6</sub> population from a field white mold disease screening trial, Corvallis, 2007 (cont).<sup>2</sup>

					2007 (0	Jone,				
			Comp	arison to	<u>Checks</u>					
Line	Stand <sup>y</sup>	White Mold Index <sup>x</sup>	G122	MO162	OR 91G	White Mold Incidence <sup>w</sup>	White Mold Severity <sup>v</sup>	Maturity	Lodging <sup>u</sup>	Estimated Yield Potential <sup>t</sup>
WMGx25 41-11	98	55.0	۸			10.0	5.5	medium early	2.8	1.9
WMGx25 8-1	100	56.4	۸			9.4	6.0	early	2.3	2
OR 91G	100	57.5	٨			10.0	5.8	medium early	2.8	1.8
WMGx25 42-3	100	57.5	٨			10.0	5.8	early	2.3	1.9
WMGx25 7-15	100	57.5	۸			10.0	5.8	medium early	2.0	1.6
WMGx25 47-4	99	58.8	۸			9.8	6.0	early	2.4	2.1
WMGx25 45-2	100	59.4	۸			9.9	6.0	medium early	2.4	1.3
WMGx25 24-1	98	60.0	۸			10.0	6.0	medium early	2.8	1.8
WMGx25 28-4	99	60.0	۸			10.0	6.0	early	2.6	2.3
WMGx25 44-3	100	60.0	۸			10.0	6.0	medium early	1.8	1.8
WMGx25 25-3	100	62.0	٨			10.0	6.2	late	2.0	1.8
WMGx25 12-3	100	62.5	۸	٨		10.0	6.3	early	2.5	1.6
WMGx25 42-5	100	62.5	۸	٨		10.0	6.3	early	2.9	2.3
WMGx25 49-5	100	62.5	۸	٨		10.0	6.3	medium early	2.8	2.1
WMGx25 1-7	100	66.7	۸	٨		9.8	6.8	early	2.5	2.3
WMGx25 10-15	95	67.5	۸	٨		10.0	6.8	early	2.6	1.6
WMGx25 28-1	100	67.5	٨	٨		10.0	6.8	early	2.5	1.6
WMGx25 17-6	93	68.2	۸	٨		10.0	6.8	early	2.8	2
WMGx25 24-7	98	72.5	۸	٨		10.0	7.3	early	2.8	1.9
WMGx25 40-6	94	72.5	۸	٨		10.0	7.3	early	2.6	1.6
WMGx25 9-10	100	73.5	۸	٨		9.8	7.5	early	2.9	2.1
WMGx25 27-3	94	75.0	۸	٨		10.0	7.5	early	2.5	1.8
WMGx25 9-16	100	75.0	۸	٨		10.0	7.5	medium early	2.4	1.8
WMGx25 50-3	100	77.5	۸	٨		10.0	7.8	early	2.5	1.9
WMGx25 3-18	95	80.0	۸	۸	٨	10.0	8.0	early	2.9	1.9

<sup>&</sup>lt;sup>z</sup>Planted June 29. 91G x PI 255956 is a *Phaseolus vulgaris x Phaseolus coccineus* interspecific cross. <sup>y</sup>Scores based on a scale of 1-10 where 1 is highly resistant. \*\* indicates significantly better than this check (p<0.05); ^ indicates significantly worse than this check (p<0.05).

Table 19. Comparison of white mold field averages, two years combined, for a 91G x Pl255956  $BC_2F_6$  population, Corvallis, 2007<sup>z</sup>.

Entry	2006	2007	Overall AV
G122	2.3	7.3	4.8
WMGx25 20-3	3.1	8.0	5.6
WMGx25 6-9	3.5	8.4	6.0
WMGx25 6-9 WMGx25 18-1	2.1	1	6.0
WMGx25 13-14	3.0	9.9 9.1	6.1
WMGx25 6-3	3.5	8.8	6.2
WMGx25 6-3 WMGx25 20-2	3.1	9.5	6.3
	2.7		6.3
M0162		9.9	
WMGx25 44-3	3.5	10.0	6.8
WMGx25 48-5	3.6	10.0	6.8
WMGx25 45-1	4.0	9.6	6.8
WMGx25 21-1	4.0	10.0	7.0
WMGx25 29-9	4.1	10.0	7.1
WMGx25 41-2	4.5	9.9	7.2
WMGx25 41-7	4.6	9.9	7.3
WMGx25 12-3	4.6	10.0	7.3
WMGx25 3-15	5.0	9.9	7.5
WMGx25 7-2	5.5	9.5	7.5
WMGx25 17-4	5.1	10.0	7.6
WMGx25 43-4	5.5	9.8	7.7
WMGx25 47-4	5.6	9.8	7.7
WMGx25 31-6	5.5	10.0	7.8
WMGx25 9-10	5.8	9.8	7.8
WMGx25 42-1	6.5	9.3	7.9
WMGx25 11-1	6.1	9.8	8.0
WMGx25 8-1	6.5	9.4	8.0
WMGx25 45-2	6.0	9.9	8.0
WMGx25 1-7	6.1	9.8	8.0
WMGx25 48-3	6.1	9.9	8.0
WMGx25 25-3	6.0	10.0	8.0
WMGx25 49-5	6.0	10.0	8.0
WMGx25 41-11	6.3	10.0	8.2
WMGx25 27-3	6.3	10.0	8.2
WMGx25 3-18	6.3	10.0	8.2
WMGx25 12-2	6.5	9.9	8.2
WMGx25 9-16	6.4	10.0	8.2
WMGx25 42-3	6.5	10.0	8.3
WMGx25 4-6	7.3	9.5	8.4
OR 91G	6.9	10.0	8.5
WMGx25 7-15		<del> </del>	
WMGx25 7-15 WMGx25 24-7	7.0	10.0 10.0	8.5 8.5
	7.0		8.5
WMGx25 50-3	7.0	10.0	8.5
WMGx25 28-1	7.1	10.0	8.6
WMGx25 24-1	7.2	10.0	8.6
WMGx25 40-6	7.3	10.0	8.7
WMGx25 17-6	7.5	10.0	8.8
WMGx25 28-4	8.0	10.0	9.0
WMGx25 42-5	8.0	10.0	9.0
WMGx25 10-15	8.1	10.0	9.1
LSD @ .05			2.0

<sup>2</sup>White mold scores: 1-10, 1 = low incidence, no symptoms observed, 10 = high incidence, all plants in plot infected.

Figure 1. Commercial Bean \$/A 2007 - Full Sieve Varieties

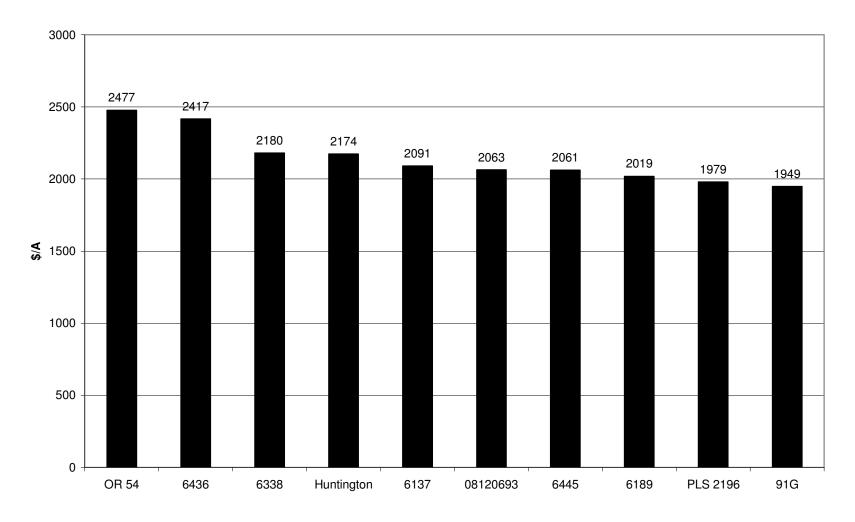


Figure 2. Commercial Bean \$/A 2007 - Small Sieve Varieties

