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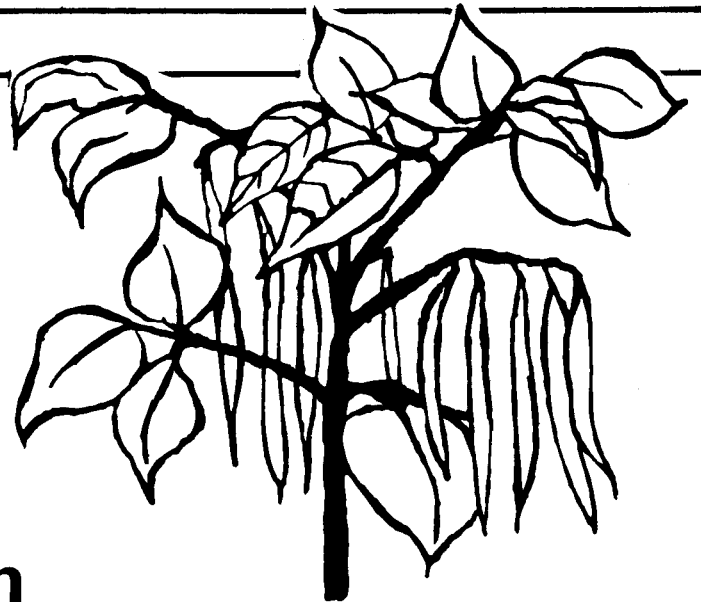
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of Snap Bean Variety
and Breeding Lines
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Cooperative Vegetable Trials**

Charles A. Mullins

**A SUMMARY REPORT
OF
SNAP BEAN VARIETY AND BREEDING LINES
TESTED IN THE SOUTHERN COOPERATIVE VEGETABLE TRIALS**

1985

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A SUMMARY REPORT OF SNAP BEAN VARIETY AND BREEDING LINES TESTED
IN THE SOUTHERN COOPERATIVE VEGETABLE TRIALS, 1985

Establishment of Trials

Individuals in the United States known to breed or select for improvement of snap beans were invited to enter selections in the trials in January 1985. Entries not previously tested were placed in the observational trial. After testing in 1985, these entries will either be dropped, repeated in the 1986 observational trial or advanced to the 1986 replicated trial. The 1985 replicated trial consisted of selections advanced from the 1984 observational trial and those retained from the replicated trial. An entry usually is not tested for more than two years in either trial.

Previous cooperators were polled in January concerning participation in the 1985 trials. Nine cooperators requested 12 seed sets for each trial at 10 locations. Nine reports from 8 locations were returned on the standard report form. All sections were not complete on all reports. The ratings section was most important, and completion of this section was urged since it determined the future of each selection. Some researchers reported ties for the top 1, 2, or 3 selections.

Comments on Replicated Trials

Nine entries were evaluated in the replicated trial. The final score was achieved by giving 2 points for each repeat vote, 5 points for each first place vote, 4 points for each second place vote, and 3 points for each third place vote. The total points were then added to give the final score.

Trophy (37 points) and Eagle (36 points) received the most points. All other lines except AVX 9342 received 14 to 25 points. AVX 9342 received only 6 points. Only Trophy, Blue Jay, and Eagle (ck.) will be retained in the 1986 trial. All other lines were tested in both 1984 and 1985 and will be dropped from the trials.

Comments on Observational Trials

Sixteen entries were evaluated in the observational trials. Podsquad (38 points) received the most points of any line evaluated. GP82-6414, Sunkist, FM 128, Eagle (ck.), Stride, and Shamrock received 21 to 16 points. All other entries received 14 or less points. Lines with 16 or more points will be advanced to the 1986 replicated trials. Only FM 142 (14 points and Eagle (ck.) will be repeated in the 1986 observational trial.

Table 1. Replicated Trials of Bush Snap Bean Variety and Breeding Lines, 1985 Southern Cooperative Vegetable Trials.

Variety	Growing Days	Pod Length (ins.)	(1)									Plants/ft. of row	Plant Height (ins.)	Yield (Bu./A.)	Ratings (2)					Final Score
			Pod Shape	Pod Curvature	Pod Color	Pod Roughness	Pod Set Concentration	Pod Elevation	Plant Lodging	Repeat 1986	Drop 1986				No. 1 in Trial	No. 2 in Trial	No. 3 in Trial			
1 Eagle (ck.)	58.4	5.3	4.3	3.7	3.6	3.3	3.6	3.7	4.1	6.7	14.0	189	6	0	2	2	2	36		
2 Javelin	56.6	5.2	3.8	3.9	3.5	4.0	3.4	3.6	3.6	5.7	13.2	163	5	2	1	1	0	19		
3 G2868	57.9	5.7	3.8	3.4	3.7	3.8	3.3	3.8	4.2	5.9	15.1	160	4	4	1	0	2	19		
4 AVX 185	57.5	5.0	4.3	3.3	4.3	3.6	3.4	3.2	4.1	5.4	14.2	158	5	2	0	1	0	14		
5 AVX 9342	57.4	5.0	4.3	3.9	3.3	3.9	3.2	3.4	3.5	5.8	14.6	139	3	3	0	0	0	6		
6 MOX 8037	58.6	5.2	4.3	3.4	3.9	3.8	3.4	3.6	3.5	6.0	13.3	170	5	1	0	1	0	14		
7 H496-4	57.8	5.3	4.3	3.3	3.6	3.5	3.3	3.1	3.5	5.5	13.2	175	4	2	1	0	1	16		
8 Trophy	59.1	5.4	4.6	3.6	4.1	4.5	3.7	4.0	3.6	6.1	14.8	168	7	0	1	3	2	37		
9 Blue Jay	58.8	5.5	4.2	2.8	3.7	3.3	3.6	3.3	3.5	5.8	12.8	210	5	3	3	0	0	25		
No. of Reports	8	9	9	9	9	8	9	8	8	9	8	8						8		

(1) Ratings: 1 = poor; 5 = excellent

(2) Drop (0 points), Repeat (2 points), No. 1 (5 points), No. 2 (4 points), No. 3 (1 point).

Table 2. Yields in 30 pound bushels per acre of snap bean variety and breeding lines in replicated trials. Southern Cooperative Vegetable Trials, 1985

Variety	R. J. Constantin (S)* Regina Bracy Hammond, LA	R. J. Constantin (F) Regina Bracy Hammond, LA	D. R. Earhart (S) D. R. Patterson Overton, TX	T. E. Morelock (S) Fayetteville, AR	T. E. Morelock (S) Kibler, AR	Jim Motes (S) Bixby, OK	C. A. Mullins (S) Crossville, TN	Jim Wyatt (F) Jackson, TN	Mean
1 Eagle (ck.)	99	104	200	209	222	145	256	274	189
2 Javelin	64	99	169	172	255	121	218	209	163
3 G2868	102	98	105	188	238	131	215	207	160
4 AVX 185	102	99	125	172	250	179	179	158	158
5 AVX 9342	57	87	119	148	218	90	90	214	139
6 MOX 8037	88	79	136	179	214	196	196	266	170
7 H496-4	92	118	128	215	230	199	199	186	175
8 Trophy	80	113	147	88	294	176	176	261	168
9 Blue Jay	99	116	115	209	287	213	213	354	210

* (S) = Spring
(F) = Fall

Table 3. Observational Trials of Bush Snap Bean Variety and Breeding Lines, 1985. Southern Cooperative Vegetable Trials.

Variety	Plant Type Rating *	Pod Type Rating *	Yield Rating *	Repeat 1986	Advance 1986	Drop 1986	Overall Performance **			Final Score
							1	2	3	
10 Atlantic	3.3	3.6	3.7	5	1	1	0	1	0	11
11 Pod squad	3.1	3.8	4.2	4	4	0	3	2	1	38
12 Eagle (ck.)	4.1	4.1	3.9	6	2	0	0	1	1	17
13 GP82-6414	3.5	3.8	3.6	3	4	1	0	1	2	21
14 Shamrock	3.5	3.5	3.3	5	1	2	1	1	0	16
15 GP82-158	3.4	3.0	3.5	4	0	4	0	0	0	4
16 Romano 81-350	2.5	2.7	2.8	2	0	6	0	0	0	2
17 H493-1-4-1	3.7	3.6	3.2	4	0	3	0	1	0	8
18 H-531-5-1	3.6	3.5	3.8	6	1	1	1	1	0	17
19 Sunkist	3.4	3.2	3.3	4	0	3	2	1	0	18
20 Stride	3.6	3.1	3.8	4	1	3	0	0	1	9
21 AVX 117	3.2	3.6	2.8	5	1	2	0	0	1	10
22 FM 128	2.8	3.6	3.9	4	2	1	2	0	0	18
23 FM142	3.5	3.5	4.1	4	2	1	0	0	2	14
24 FR-266	3.0	2.9	3.3	2	0	5	0	0	0	2
25 USDA-711	2.3	2.5	4.4	2	0	5	0	0	0	2

* Ratings, 1 - 5: 1 = Poor; 5 = Excellent

** No. 1 = Best in trial (5 points)
 No. 2 = Second best in trial (4 points)
 No. 3 = Third best in trial (3 points)
 Advance (2 points)
 Repeat (1 point)

Table 4. Snap Bean Variety and Breeding Lines, 1985 Southern Cooperative Vegetable Trials.

No.	Variety or Breeding Line	Source
Replicated Trials		
1.	Eagle (ck.)	Asgrow Seed Co.
2.	Javelin (FM 1555)	Ferry-Morse Seed Co.
3.	G2868	Jim Wyatt, USDA
4.	AVX 185	Sun Seeds
5.	AVX 9342	Sun Seeds
6.	MOX 8037	Harris-Moran
7.	H496-4	Gallatin Valley Seed Co.
8.	Sunkist (H491-B-1-1-3-1)	Gallatin Valley Seed Co.
9.	Blue Jay (H532-2-1)	Gallatin Valley Seed Co.
Observational Trials		
10.	Atlantic	Asgrow Seed Co.
11.	Podsquad	Asgrow Seed Co.
12.	Eagle (ck.)	Asgrow Seed Co.
13.	GP82-6414	Rogers Bros. Seed Co.
14.	Shamrock	Rogers Bros. Seed Co.
15.	GP82-158	Rogers Bros. Seed Co.
16.	Romano 81-350	Rogers Bros. Seed Co.
17.	H493-1-4-1	Gallatin Valley Seed Co.
18.	H531-5-1	Gallatin Valley Seed Co.
19.	Sunkist (H630-4-4)	Gallatin Valley Seed Co.
20.	Stride (H531-3-1)	Gallatin Valley Seed Co.
21.	AVX 117	Sun Seeds
22.	FM 128	Ferry-Morse Seed Co.
23.	FM 142	Ferry-Morse Seed Co.
24.	FR-266	M. J. Silbernagel, USDA
25.	USDA-711	M. J. Silbernagel, USDA