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**A Summary Report
of Snap Bean Variety
and Breeding Lines
Tested in the Southern
Cooperative Vegetable Trials**



Charles A. Mullins and David L. Coffey

Department of Plant
and Soil Science

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

1986

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A SUMMARY REPORT OF SNAP BEAN VARIETY AND BREEDING LINES TESTED
IN THE SOUTHERN COOPERATIVE VEGETABLE TRIALS, 1986

Establishment of Trials

Individuals in the United States known to breed or to select for improvement of bush snap beans were invited to enter selections in the trials in January 1986. Entries not previously tested were placed in the observational trial. After testing in 1986, these lines will either be dropped, repeated in the 1987 observational trial, or advanced to the 1987 replicated trial, depending on points scored. Selections have been entered and carried through this process over the past several years. An entry usually is not tested for more than two years in either trial. Poor performers are usually dropped after one year.

Previous cooperators were polled in January 1986 concerning participation in the 1986 trials. Nine cooperators requested seed samples prepared by the trial chairman for testing at nine locations. Along with each set of seed, report forms like Table 1 for the replicated trial and like Table 3 for the observational trial were sent to each cooperator. Seven completed reports from six cooperators at six locations were returned on the report forms. Most, but not all forms were complete in all columns. Some cooperators reported ties for the top 1, 2, or 3 selections.

Comments on Replicated Trials

Eight entries were repeated in the replicated trials. 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. Total points were added to give the final score. Pod squad received the highest final score (31 points). Line H531-5-1, Blazer, and Shamrock had final scores of 22 to 18 points, respectively. All other lines received 16 points or less. Pod squad, H531-5-1, Blazer, Shamrock, and Eagle (check) will be repeated in the 1987 replicated trial. All other lines will be dropped from the replicated trial.

Comments on Observational Trials

Eighteen entries were evaluated in the observational trials. Lines, AVX 9399, XPB-189, Sentry, and FM 208 received final scores of 19 to 15 points and will be advanced to the 1987 replicated trials. Lines, XPB-190, XPB-169, Bronco, FM 142, and Earliserve received 12 to 10 points and will be repeated in the 1987 observational trials along with Eagle (check). All other lines will be dropped from the trials.

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 1987				Drop 1987	No. 1 in Trial	No. 2 in Trial	No. 3 in Trial		
1. Podsquad	63.1	4.6	4.8	4.3	3.8	4.1	3.8	3.6	2.8	7.0	15.2	369	3	0	3	1	2	31	
2. Eagle (ck)	63.0	4.6	5.4	4.4	4.3	3.9	4.1	3.7	3.5	7.2	17.1	304	2	0	3	1	1	16	
3. Blazer	63.4	4.6	5.0	4.7	3.8	4.2	3.8	4.0	3.7	7.6	17.5	301	3	0	1	2	0	19	
4. Shamrock	63.0	4.8	5.3	3.8	4.7	3.5	3.3	3.0	3.0	6.1	16.1	278	3	0	1	1	1	18	
5. Trophy	62.3	4.7	5.2	4.3	4.5	4.1	3.7	3.3	3.2	6.0	17.0	287	3	2	1	0	1	9	
6. Blue Jay	62.9	4.4	5.1	3.4	4.2	3.3	3.5	3.3	3.8	7.2	17.7	352	4	1	0	0	1	11	
7. Goldkist	62.5	4.5	5.2	4.5	3.6	4.1	3.7	3.3	3.1	5.6	16.9	293	4	1	0	1	1	15	
8. H531-5-1	63.0	4.6	5.2	4.2	4.2	4.1	3.5	4.0	3.1	6.9	18.4	320	3	0	0	2	1	22	
No. of reports	7	7	7	7	7	7	7	7	7	7	7	6	6	6	7			7	

(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. Souther Cooperative Vegetable Trials, 1986.

Variety	R. J. Constantin (S)* Regina Bracy Hammond, LA	D. R. Earhart (S) 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	Mean
1. Podsquad	275	406	312	445	390	386	369
2. Eagle (ck)	206	275	278	384	328	351	304
3. Blazer	214	356	321	317	323	275	301
4. Shamrock	243	182	270	320	399	254	278
5. Trophy	219	305	223	406	269	301	287
6. Blue Jay	295	341	332	441	329	372	352
7. Goldkist	241	334	226	306	344	310	294
8. H531-5-1	254	254	325	339	357	392	320

* (S) = Spring; (F) = Fall

Table 3. Observational Trials of Bush Snap Bean Variety and Breeding Lines, 1986. Southern Cooperative Vegetable Trials.

Variety	Plant Type Rating *	Pod Type Rating *	Yield Rating *	Repeat 1987	Advance 1987	Drop 1987	Overall Performance **			Final Score
							No. 1	No. 2	No. 3	
9. BX156-2-3-6	2.6	4.0	3.7	4	0	2				4
10. Eagle (ck)	3.8	4.0	3.5	4	1	0		1	1	13
11. AVX 9398	3.3	3.5	3.3	5	0	1				5
12. AVX 9399	3.5	3.7	3.8	3	2	1	1	1	1	19
13. Bronco	3.3	3.9	3.3	3	2	1		1		11
14. Sentry	3.9	3.9	3.0	3	2	1	1	1		16
15. XPB-169	3.7	3.8	3.4	4	1	1	1		1	11
16. XPB-189	4.0	3.8	3.4	3	2	1	1		2	18
17. XPB-190	3.8	3.1	3.5	3	3	0			1	12
18. EZ Pick	3.3	3.2	3.1	3	0	3				3
19. FM 142	4.3	3.5	6.7	5	1	0		1		11
20. FM 208	3.6	3.4	3.5	4	1	1	1	1		15
21. Earliserve	3.1	2.5	3.4	3	1	2	1			10
22. Bluechip	3.4	2.7	2.7	4	0	2				4
23. Slenderwhite	3.4	3.9	3.7	3	2	1				7
24. Landmark	3.5	3.3	2.8	4	0	2				4
25. H491A-3-1	3.7	3.3	3.6	3	1	1			1	8
26. H532-3-6-1	3.4	3.4	3.3	2	0	2				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 included in the 1986 Southern Cooperative Vegetable Trials.

No.	Variety or Breeding Line	Source
Replicated Trials		
1.	Podsquad	Asgrow Seed Co.
2.	Eagle (ck)	Asgrow Seed Co.
3.	Blazer	Rogers Bros. Seed Co.
4.	Shamrock	Rogers Bros. Seed Co.
5.	Trophy	Gallatin Valley Seed Co.
6.	Blue Jay	Gallatin Valley Seed Co.
7.	Goldkist (Sunkist)	Gallatin Valley Seed Co.
8.	H 531-5-1	Gallatin Valley Seed Co.
Observational Trials		
9.	BX156-2-3-6	Rogers Bros. Seed Co.
10.	Eagle (ck)	Asgrow Seed Co.
11.	AVX 9398	Sunseeds
12.	AVX 9399	Sunseeds
13.	Bronco	Asgrow Seed Co.
14.	Sentry	Asgrow Seed Co.
15.	XPB-169	Asgrow Seed Co.
16.	XPB-189	Asgrow Seed Co.
17.	XPB-190	Asgrow Seed Co.
18.	EZ Pick	NPI AgService Corp.
19.	FM 142	Ferry-Morse Seed Co.
20.	FM 208	Ferry-Morse Seed Co.
21.	Earliserve	Musser Seed Co.
22.	Bluechip	Musser Seed Co.
23.	Slenderwax	Musser Seed Co.
24.	Landmark	Musser Seed Co.
25.	H491A-3-1	Gallatin Valley Seed Co.
26.	H532-3-6-1	Gallatin Valley Seed Co.