Snap Bean Variety Trial

Bixby, OK Spring 2004
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Materials and Methods: Field preparation at the Vegetable Research Station, Bixby began on April 2, 2004 when 13N-13P-13K fertilizer was applied at a rate of 200 lbs./acre. A preplant incorporated application of trifluralin at a rate of ½ lb./acre was made on April 27. Seeds of 12 snap bean cultivars were sown with a research cone planter on April 29. Between row spacing was 36 inches. The design was a randomized complete block with three replications. The seedlings were thinned on May 19 to a stand of 60 plants in 20 feet. Plants were topdressed with nitrogen at 30 lbs./acre on May 20 and again on June 11. Plants were sprayed with methomyl at a rate of 1 qt./acre on June 12. Each cultivar was harvested by hand one time at prime maturity (June 17, 26, 28, 30. and July 4) by pulling up and depodding all plants in 10 feet of each plot. Data were recorded on yield, plant height, lodging, pod quality and length. Random samples of approximately ½ lb. from each plot were used for sieve sizing. Weights were recorded for each sieve size.

Results and Discussion: Several of these cultivars also were evaluated in 2001. 'Brio' has been a consistent performer in our trials, with relatively attractive pods. 'Charon' also has attractive, dark green pods, and yield performance was better in 2004 than in 2001. 'Blue Lake 274' and 'Capricorn' were harvested two days later than desired due to heavy rain. However, 'Blue Lake 274' had a tendency for large, not especially attractive pods in both years. 'Seville' has been discontinued by its breeder. 'Jade' had relatively long, dark green pods in both years, but pod appearance was not as smooth as for 'Charon'. 'Benchmark' is a proven second early cultivar, and 'Dusky' could be tried as an alternative to it. 'Savannah' had stand establishment problems in both years, with poor early seedling vigor and a relatively late pod yield. We could not determine whether this was a cultivar trait or a problem with the seed lot. 'Venture' was very early and may have suffered some in yield and pod quality as a result. 'Grenoble' and 'Mirada' performed better in 2001 than in 2004, but were below average in pod quality in both years.

Table 1. Snap Bean Variety Trial, Bixby, 2004

Variety/line	Seed source	Yield (bu/A)[z]	No. plants/ft	Plant height[y]	Plant lodging[w]	Pod quality[w]	Pod length[y]	Sieve size (% by wt.) 1	2	3	4	5
Charon	Rogers	134	3.1	12	2.8	3.7	5.1	3	5	25	46	21
Brio	Seminis	133	3.0	13	3.5	4.2	5.0	4	12	49	32	3
Blue Lake 274	Chesmore	131	3.1	13	1.7	2.5	4.7	1	3	14	31	51
Capricorn	Rogers	123	3.0	11	2.5	3.5	5.0	1	4	19	47	29
Seville	Twilley	122	3.0	15	1.5	4.0	5.6	3	7	43	47	0
Jade	Chesmore	110	3.2	14	2.3	3.0	5.9	2	5	24	47	22
Dusky	Rogers	110	3.0	11	4.0	3.5	4.9	3	7	48	38	4
Grenoble	Johnny's	93	3.2	12	3.3	3.0	4.4	5	12	46	29	8
Benchmark	Chesmore	87	3.1	13	3.2	3.8	4.9	4	10	34	40	12
Savannah	Harris	81	3.0	12	3.8	3.7	4.4	3	8	55	26	8
Venture	Twilley	76	3.2	12	2.8	2.7	5.0	4	7	18	48	23
Mirada	Twilley	67	3.0	13	3.2	3.0	4.9	1	5	22	68	4
	Mean	106	3.1	13	2.9	3.4	5.0	3	7	33	42	15
	$LSD_{0.05}$	NS	NS	1	0.7	0.8	0.2					

[z]One bushel = 30 pounds.
[y]Plant height and pod length are in inches.
[w]Ratings: 1=poor, 5=Excellent