

'Elite' Southernpea¹J. L. Bowers and W. A. Sistrunk²

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Additional index words. *Vigna unguiculata*, vegetable breeding

'Elite' (*Vigna unguiculata* (L.) Walp.), has been released by the Arkansas Agricultural Experiment Station, to meet the needs of gardeners and commercial processors for a well adapted cream type.

Origin

'Elite' originated from a cross of VB63-143,144 × Va 59-119 (Fig. 1). 'Elite' was tested under the breeding line designation, AR76-256.

Description

'Elite' contains no pigment in the plant or in the shelled peas. The plant is a high bush and frequently erect with concentrated pod set. The pods develop slightly above or at the foliage level, are slightly curved, about 18 cm (7 inches) long and easily shelled (Fig. 2). The seeds are small to medium, cream colored and are not crowded in the pod. The significant attribute of 'Elite' is its yield of high quality shelled peas. (Table 1). Evaluation of various quality factors indicated that 'Elite' peas are suitable for both canning and freezing (Table 2).

Availability

Trial samples of seed are available to interested experiment stations and commercial seedsmen upon request to J. L. Bowers.

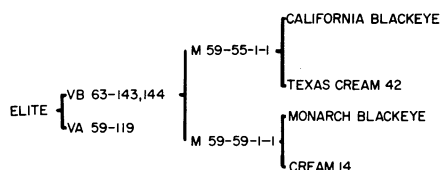


Fig. 1. Pedigree of 'Elite' southernpea.

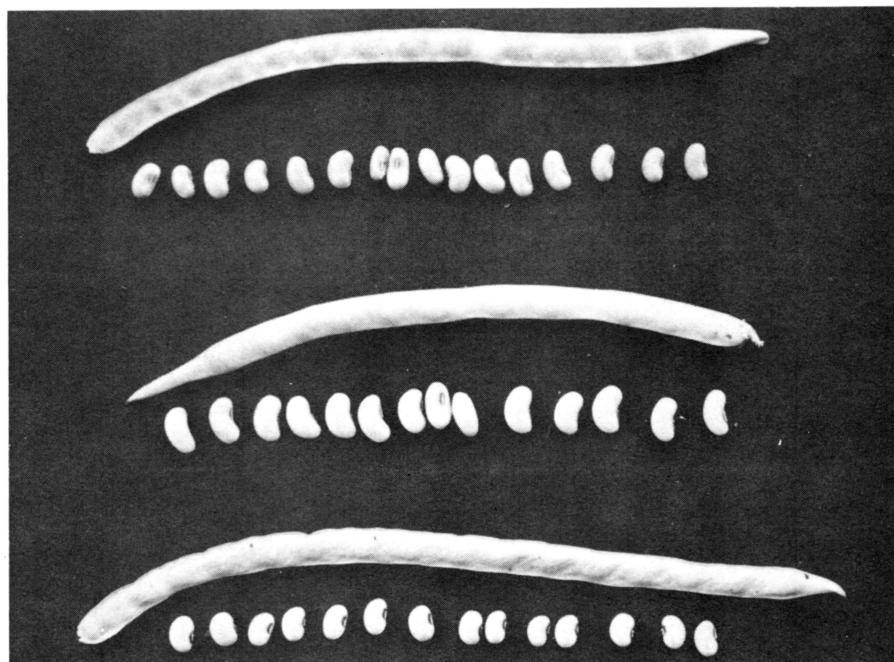


Fig. 2. Three pod stages of 'Elite' southernpea: (top) green pod, (middle) roasting pea stage, (bottom) dry pod.

Table 1. Yield of 'Elite' and standard cultivars grown at 4 locations in Arkansas, 1976 and 1977.

Cultivar	Yield of shelled peas (kg/ha)						
	Fayetteville		Bald Knob		Alma		Hope
	1976	1977	1976	1977	1976	1977	1977
Mississippi Silver	2967	2725	4005	3642	3149	3375	3786
Pinkeye Purple Hull	1941	2278	3512	2509	1597	895	2523
Crimson	2733	1099	—	1051	1612	1569	1724
Exmore	2029	—	1880	—	424	—	—
Texas Cream 40	1523	755	1533	660	1684	1073	1374
Elite	1831	2494	2872	1914	769	2244	1970
LSD 5%	637	791	576	502	426	496	595

Table 2. Quality of frozen (F) and canned (C) samples of 'Elite' and other southernpea cultivars, by sensory panel, 1976-77 averages.

Quality factors	Scores on frozen and canned samples ^z										
	Elite		Miss. Silver		Purple Hull		Crimson		Ex-more ^y	Texas Cream 40	
	F	C	F	C	F	C	F	C	F	F	C
Color of peas	8.4	7.8	6.4	6.2	7.4	7.2	7.0	7.5	8.5	7.8	7.8
Color of liquor	9.3	9.0	5.8	5.9	7.8	7.0	6.8	8.0	9.6	9.1	8.2
Wholeness	7.8	7.6	7.5	6.7	8.4	7.3	7.9	7.8	8.2	7.0	6.2
Texture	8.1	7.8	6.7	7.2	7.5	7.5	6.8	7.0	7.9	7.4	7.1
Flavor	7.8	7.4	6.6	7.0	7.7	7.7	7.0	7.4	6.8	7.0	7.3
Appearance	8.2	8.0	6.4	6.2	7.9	7.3	6.8	7.6	8.2	7.6	7.3
Avg	8.2	8.0	6.5	6.6	7.8	7.3	7.1	7.6	8.2	7.6	7.3

²Based on scale of 1 (poorest) to 10 (best).³Grades of 1976 only frozen sample.

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