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Performance of Soybean Varieties in 1984

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PERFORMANCE OF SOYBEAN VARIETIES IN 1984[1/]

Charles R. Graves[2/]

Soybean varieties in maturity group V were evaluated at seven locations, maturity groups VI and VII at four, and maturity groups IV or less at five locations. Growing conditions were good at most locations in 1984.

The leading varieties in maturity group V in 1984 were Coker 425, Pioneer brand 5482, Essex, FFR 561 and Bay. The five highest yielding varieties in maturity group V, using a three year average, were Pioneer brand 5482, Essex, RA 502, Deltapine 105 and Bay.

The leading varieties in maturity groups VI and VII for 1984 were Asgrow A6381, Hartz 7126, Asgrow A6520, Hartz 6383 and Yield King 593.

The leading early maturing varieties were RA 482, DeKalb CX482, RA 405, and Pioneer brand 9471. Pershing, RA 452, RA 450 and RA 481 are late maturing for this group (maturity group IV or less).

Three strains tests were conducted at Jackson in 1984 and some varieties' yields were reduced from sencor injury. In maturity groups VI and VII, Funk's Seed Company had four strains that had no injury to sencor. New varieties which were supposed to have resistance to race 3 or 4 soybean cyst nematode were evaluated for resistance to these two races by Dr. Lawrence D. Young, Research Plant Pathologist, USDA-ARS, Jackson, Tennessee.

1/ These results will be included in the 1984 Bulletin, "Performance of Field Crop Varieties," which will be available in 1985.

2/ Professor of Plant and Soil Science.

Soybeans-Varieties Recommended for 1985.

Variety	Resistant to cyst nematode races	Maturity Group
		Medium
Asgrow A5474	3,4	V
Bedford	3,4	V
Nathan 1/	3,4	V
Forrest	3	V
Pioneer brand 9561	3	V
Asgrow A6520	3,4	Late
Centennial	3	VI
Jeff	3,4	VI
RA 604	3	VI
		Very Late
Hartz 7126	3	VII
		Medium
Bay	None	V
Deltapine 105	None	V
Essex	None	V
Pioneer brand 5482	None	V
York	None	V
RA 502	None	V
		Late
Coker 156	None	VI
N.K. S69-96	None	VI
		Very Late
N.K. S72-60	None	VII
		Early
Mitchell	None	IV

1/ Present plans indicate that this variety will not be recommended after 1985.

Table 1. Soybeans: Characteristics of varieties (maturity group V) evaluated in 1984.[1/]

Variety	Flower color [2/]	Pubescence color [3/]	Hilum color	Phytophthora rot resistance [4/]	Soybean cyst nematode resistance Races
Forrest	W	T	Black	MR	3
Essex	P	G	Buff	S	None
Bedford	W	T	Black	- [6/]	3,4
Nathan	W	Brown	Black	- [6/]	3,4
Bay	P	G	Buff	- [6/]	None
Asgrow A5474	W	T	Black	R	3,4
Asgrow A5980	P	T	Black	S	3,4
Deltapine 345	P	T	Black	R	None
Deltapine 105	P	G	Imp. Black	T	None
FFR 559	W	G	Buff	- [6/]	None
FFR 560	W	Brown	Black	S	3,4
FFR 561	W	G	Buff	- [6/]	None
FFR 562	P	G	Buff	S	None
Terra-vig 505	P	T	Gray to Black	R	None
RA 502	P	T	Black	T	3
RA 580	P	G	Imp. Black	R	3,4
Pioneer brand 5482	W	T	Black	S	None
Pioneer brand 9561	W	T	Black	S	3
Pioneer brand 9571	W	T	Black	S	3,4
Hartz 5171	W	G	Buff (Dark)	S	3
Hartz 5370	W	T	Black	R	3
Hartz 5252	P	T	Black	R	3
Epps	P	G	Black	R	3,4
TN 77-111	W	G	Buff	S	3
Yield King 503 [5/]	P	T	Black	- [6/]	None
Yield King 563 [5/]	P	T	Black	- [6/]	None
Coker 355	P	T	Black	T	3,4
Coker 485	P	T	Black	- [6/]	3
Coker 425	P	T	Gray	S	None

1/ Disease resistance reported by the company.
2/ P=Purple and W=White.
3/ T=Tawny and G=Gray.
4/ S=Susceptible, R=Resistant, MR=Moderately Resistant, T=Tolerant.
5/ Evaluated in 1983 as Riverside/Terra.
6/ Data not available.

Table 2. Soybeans: Yield of varieties (maturity group V) evaluated at eight locations in 1984.

Variety	Avg.	Knox-[1] ville	Greene-[2] ville	Spring[3] Hill	Spring-[4] field	Milan[5]	Martin[6]	Ames Plantation planting date 5/14[7]	Ames Plantation planting date 6/5[8]
				Bushels per acre					
Coker 425	47	52	51	41	42	59	45	54	34
Pioneer brand 5482	46	47	45	40	45	50	44	56	37
Essex	45	50	49	41	50	43	52	33	45
FFR 561	45	53	46	43	42	50	39	53	34
Bay	45	47	46	41	43	51	42	54	34
Deltapine 105	44	42	42	36	40	56	44	59	36
Coker 485	44	43	44	27	44	56	46	54	36
RA 502	44	42	42	36	42	48	43	55	40
Pioneer brand 9561	43	39	46	37	38	51	46	53	35
Pioneer brand 9571	43	35	47	36	37	48	46	51	40
Asgrow A5474	42	39	43	34	38	51	45	50	38
Asgrow A5980	42	36	50	32	38	50	48	48	36
TN 77-111	42	44	45	35	34	48	42	48	38
Hartz 5252	42	40	46	35	40	48	43	51	33
Hartz 5171	41	45	41	33	36	51	39	50	34
FFR 559	41	43	44	36	36	48	37	55	31
Hartz 5370	41	34	46	34	35	50	40	54	37
Yield King 503	41	33	44	38	38	43	43	56	35
Forrest	40	38	42	36	38	45	43	48	32
FFR 562	40	41	44	37	32	43	40	49	33
Coker 355	40	34	42	33	36	48	42	51	33
Terra-vig 505	39	37	43	30	35	49	38	50	32
Nathan	38	31	37	35	38	47	39	44	33
Deltapine 345	38	38	35	31	35	45	40	50	34
FFR 560	38	35	39	30	32	52	44	43	31
Epps	38	36	39	30	36	46	38	46	32
RA 580	37	33	45	26	34	41	40	44	34
Yield King 563	37	31	42	28	32	40	44	50	32
Bedford	37	39	40	28	33	48	38	42	28
L.S.D. (.35)		8.5	6.7	5.0	5.5	6.7	N.S.	6.3	5.5
C.V. %		13.1	11.3	10.4	11.6	9.8	11.7	8.8	11.3
Avg.		39.8	43.6	34.1	37.5	48.7	42.2	50.7	34.3

[1] Sequatchie loam (2% to 5% slopes).
[2] Emory silt loam (2% to 5% slopes).
[3] Maury silt loam (2% to 5% slopes).
[4] Dickson silt loam (2% to 5% slopes).
[5] Collins silt loam (2% to 5% slopes).
[6] Collins silt loam (0% to 2% slopes).
[7] Loring silt loam (2% to 5% slopes).
[8] Loring silt loam (2% to 5% slopes).

Table 3. Soybeans: Yield of varieties (maturity group V) evaluated at eight locations in 1984.

Variety	Yield	Plant ht.	Lodging	Date mature
	Bu/A	In.	%	
Coker 425	47	27	2	9-30
Pioneer brand 5482	46	34	8	10-2
Essex	45	32	8	9-28
FFR 561	45	35	8	10-5
Bay	45	39	19	10-5
Deltapine 105	44	38	32	10-8
Coker 485	44	36	24	10-8
RA 502	44	39	23	10-10
Pioneer brand 9561	43	38	8	10-7
Pioneer brand 9571	43	39	17	10-8
Asgrow A5474	42	39	8	10-5
Asgrow A5980	42	41	39	10-7
TN 77-111	42	38	24	10-2
Hartz 5252	42	37	33	10-9
Hartz 5171	41	41	33	10-8
FFR 559	41	37	21	10-3
Hartz 5370	41	41	36	10-9
Yield King 503	40	45	23	10-2
Forrest	40	39	19	10-4
FFR 562	40	40	21	10-7
Coker 355	40	39	9	10-7
Terra-vig 505	39	39	38	10-8
Nathan	38	42	47	10-2
Deltapine 345	38	42	5	10-10
FFR 560	38	42	45	10-10
Epps	38	37	54	10-4
RA 580	37	41	42	10-7
Yield King 563	37	38	43	10-4
Bedford	37	42	47	10-10

Table 4. Soybeans: Yield and other characteristics of varieties (maturity group V) evaluated at Knoxville in 1984.

Variety	Yield[1/]	Date first flower	Date last flower	Date full pod	Date mature	Lodging	Soybean cyst nematode injury	Yield rep 3 only
	Bu/A					%	Rating[2/]	Bu/A
FFR 561	53	7-19	8-14	8-31	9-30	10	8	25
Coker 425	52	7-18	8-7	8-29	9-25	13	6	21
Essex	50	7-16	8-5	8-16	9-25	33	7	27
Bay	47	7-20	8-16	8-30	10-6	37	4	38
Pioneer brand 5482	47	7-19	8-17	8-29	9-27	27	0	49
Hartz 5171	45	7-20	8-19	9-1	10-6	57	0	43
TN 77-111	44	7-18	8-7	8-31	9-29	53	3	31
FFR 559	43	7-18	8-14	8-29	9-30	53	0	44
Coker 485	43	7-22	8-18	8-31	10-7	37	6	43
RA 502	42	7-20	8-20	9-1	10-8	20	2	31
Deltapine 105	42	7-21	8-18	9-1	10-6	57	6	33
FFR 562	41	7-20	8-22	9-5	10-6	77	0	41
Hartz 5252	40	7-20	8-19	9-1	10-12	70	0	42
Bedford	39	7-24	8-20	9-2	10-7	60	1	32
Asgrow A5474	39	7-20	8-16	8-29	10-6	23	0	39
Pioneer brand 9561	39	7-20	8-16	8-31	10-6	10	6	25
Forrest	38	7-20	8-15	8-29	10-5	37	1	38
Deltapine 345	38	7-20	8-18	8-31	10-7	13	4	30
Terra-vig 505	37	7-20	8-16	8-31	10-6	67	4	37
Epps	36	7-20	8-24	8-31	9-29	70	7	42
Asgrow A5980	36	7-20	8-21	8-31	10-6	57	0	37
FFR 560	35	7-24	8-22	9-3	10-9	60	5	25
Pioneer brand 9571	35	7-19	8-20	9-5	10-6	43	2	36
Coker 355	34	7-20	8-20	9-5	10-6	33	2	29
Hartz 5370	34	7-20	8-19	9-4	10-6	37	1	33
RA 580	33	7-26	8-23	9-5	10-6	60	2	26
Yield King 503	33	7-18	8-20	8-29	9-27	67	0	31
Yield King 563	31	7-20	8-19	9-4	9-30	60	7	29
Nathan	31	7-23	8-18	8-29	9-30	77	3	35
L.S.D. (.05)	8.5							
C.V. %	13.1							
Avg.	39.8							

1/ Yield averages of three reps with little or no injury from soybean cyst nematodes.
2/ Rating based on a scale of 1 through 10 with 1 being slight stunting and 10 severe stunting in plant growth.
3/ Rep 3 yields were reduced for most varieties by soybean cyst nematode (race unknown). Not Races 3 or 4.

Table 5 . Soybeans: Yield and other characteristics of varieties (maturity group V) evaluated at Milan in 1984.

Variety	Yield	Date full bloom	Date mature	Plant ht.	Lodging
	Bu/A			In.	%
Coker 425	59	8-1	10-6	24	0
Deltapine 105	56	8-4	10-10	42	0
Coker 485	56	8-4	10-10	33	0
FFR 560	52	8-7	10-12	45	30
Hartz 5171	51	8-9	10-10	42	60
Asgrow A5474	51	8-4	10-4	45	0
Pioneer brand 9561	51	8-4	10-8	40	0
Bay	51	8-1	10-4	44	10
Asgrow A5980	50	8-4	10-8	46	0
Pioneer brand 5482	50	8-4	10-6	38	0
Hartz 5370	50	8-9	10-12	42	50
FFR 561	50	8-7	10-10	38	0
Essex	50	8-1	10-2	32	0
Terra-vig 505	49	8-9	10-10	44	40
RA 502	48	8-7	10-12	44	0
Bedford	48	8-7	10-12	47	20
FFR 559	48	8-7	10-6	39	30
TN-77-111	48	8-1	10-6	40	0
Pioneer brand 9571	48	8-1	10-10	42	0
Coker 365	48	8-4	10-8	40	0
Hartz 5252	48	8-4	10-6	37	0
Nathan	47	8-4	10-4	45	10
Epps (D77-5090)	46	8-7	10-8	37	0
Deltapine 345	45	8-7	10-12	53	0
Forrest	45	8-4	10-4	40	40
Yield King 503	43	8-7	10-6	48	30
FFR 562	43	8-7	10-8	43	0
RA 580	41	8-7	10-8	43	0
Yield King 563	40	8-7	10-8	40	60
L.S.D. (.05)	6.7				
C.V. %	9.8				
Avg.	48.7				

Table 6. Soybeans: Yield and other characteristics of varieties (maturity group V) at Crossville in 1984.[1/]

Variety	Yield	Date 1st flower	Date last flower	Date mature	Plant ht.	Lodging
	Bu/A				In.	%
Essex	45	7-27	8-16	10-5	38	52
Pioneer brand 5482	44	7-26	8-18	10-5	37	62
FFR 561	44	7-25	8-21	Frost	38	30
Asgrow A5474	38	8-6	8-23	Frost	47	71
Bay	38	7-30	8-22	Frost	38	65
Nathan	36	8-6	8-23	10-5	42	94
TN-77-111	35	7-31	8-22	Frost	46	82
Forrest	34	7-30	8-20	Frost	39	70
FFR 560	34	8-8	8-27	Frost	46	88
Epps	31	8-3	8-25	Frost	47	94
L.S.D. (.05)	4.0					
C.V. %	7.4					
Avg.	37.8					

[1/] Hartsells loam (2% to 5% slopes).

Table 7. Soybeans: Yields of varieties (maturity group V) evaluated at six locations for two years 1983-84.

Variety	Avg.	Greene-ville	Knox-ville	Spring-field	Spring Hill	Martin	Milan
				Bushels per acre			
Pioneer brand 5482	41	47	47	29	45	36	40
FFR 561	40	48	51	28	44	35	37
Deltapine 105	40	47	47	28	41	35	45
Bay	40	47	49	28	40	33	40
Essex	39	47	48	28	43	33	36
Hartz 5171	39	45	46	27	38	32	46
RA 502	39	47	46	29	36	32	43
TN 77-111	38	47	44	25	38	32	43
Pioneer brand 9561	38	45	41	27	36	34	43
Hartz 5252	37	44	40	28	37	36	39
Hartz 5370	37	45	39	26	37	34	42
Asgrow A5474	37	43	41	27	37	33	41
FFR 559	37	44	44	26	37	30	38
FFR 560	36	40	39	23	36	34	45
Forrest	36	44	41	27	32	35	35
Terra-vig 505	36	41	42	26	35	29	41
Deltapine 345	35	39	39	26	35	32	38
Coker 355	35	41	40	25	35	32	36
Bedford	35	42	41	24	34	31	37
Nathan	34	38	34	25	35	35	36
Epps	34	40	39	25	34	29	37

Table 8. Soybeans: Yield and other characteristics of varieties (maturity group V) evaluated at six locations for two years (1983-84).

Variety	yield	Plant height	Lodging	Date maturity
	Bu/A	In.	%	
Pioneer brand 5482	41	37	15	10-3
FFR 561	40	37	7	10-5
Deltapine 105	40	41	29	10-10
Bay	40	40	13	10-6
Essex	39	32	18	9-29
Hartz 5171	39	43	38	10-9
RA 502	39	41	32	10-9
TN 77-111	38	40	37	10-4
Pioneer brand 9561	38	39	10	10-6
Hartz 5252	37	39	25	10-8
Hartz 5370	37	42	32	10-10
Asgrow A5474	37	39	18	10-6
FFR 559	37	37	34	10-5
FFR 560	36	44	42	10-9
Forrest	36	40	15	10-6
Terra-vig 505	36	41	39	10-10
Deltapine 345	35	42	12	10-10
Coker 355	35	40	20	10-9
Bedford	35	44	44	10-9
Nathan	34	43	36	10-2
Epps	34	37	46	10-4

Table 9. Soybeans: Yields of varieties (maturity group V) evaluated at five locations for three years (1982-84).

Variety	Avg.	Greene-ville	Knox-ville	Spring-field	Spring Hill	Martin
			Bushels per acre			
Pioneer brand 5482	42	54	47	31	40	39
Essex	41	50	49	29	38	37
RA 502	40	53	44	33	33	37
Deltapine 105	40	49	44	32	37	37
Bay	40	51	44	32	36	35
Asgrow A5474	38	47	39	29	37	40
Pioneer brand 9561	38	50	39	32	32	38
Forrest	38	45	39	32	32	40
FFR 559	37	49	43	28	32	31
FFR 560	36	40	38	27	34	40
Bedford	36	45	40	27	31	37
Deltapine 345	36	44	37	30	32	34
Terra-vig 505	35	42	39	30	32	33
Nathan	35	41	33	29	32	39

Table 10. Soybeans: Yield and other characteristics of varieties (maturity group V) evaluated at five locations for three years (1982-84).

Variety	yield	Plant ht.	Lodging	Date maturity
	Bu/A	In.	%	
Pioneer brand 5482	42	35	12	10-2
Essex	41	30	13	9-29
RA 502	40	38	32	10-8
Deltapine 105	40	39	32	10-9
Bay	40	38	14	10-6
Asgrow A5474	38	37	17	10-5
Pioneer brand 9561	38	37	11	10-6
Forrest	38	38	17	10-5
FFR 559	37	35	27	10-4
FFR 560	36	42	47	10-9
Bedford	36	42	46	10-7
Deltapine 345	36	40	10	10-9
Terra-vig 505	35	39	40	10-10
Nathan	35	42	50	10-1

Table 11. Soybeans: Characteristics of varieties (maturity groups VI & VII) evaluated in 1984. [1]

Variety	Flower color [2]	Pubescence color [3]	Hilum color	Phytophthora rot resistance [4]	Soybean cyst nematode resistance Races
Centennial	P	T	Black	R	3
Coker 156	W	G	Buff	R	None
Deltapine 506	W	T	Black	R	None
Deltapine 246	P	T	Black	R	None
Deltapine 417	W	G	Buff	S	None
Deltapine 497	W	T	Black	T	None
Deltapine 566	W	T	Black	R	None
RA 604	P	T	Black	R	3
Jeff	P	T	Brown	MR	3,4
Terra-vig 606	W	G	Buff	R	None
Bradley	W	T	Black	R	3,4
Asgrow A6520	P	T	Black	R	3,4
Asgrow A7372	W	T	Black	S	None
Asgrow A6242	P	T	Black	S	3,4
Asgrow A6381	P	G	Buff	S	None
Yield King 593 [5]	P	T	Black	- [6]	3
Yield King 613 [5]	P	T	Brown	- [6]	3
N.K. S72-60	P	T	Black	R	None
N.K. S69-96	W	G	Buff	R	None
N.K. S69-54	P	G	Imp. Black	R	3
Hartz 6383	P	G	Imp. Black	R	3
Hartz 7126	P	T	Black	T	3
H-79-7817	P	T	Black	S	3,4
FFR 668	P	G	Imp. Black	- [6]	None
FFR 669	P	G	Buff	- [6]	None
McNair 770	P	G	Imp. Black	S	3
D77-6166	P	T	- [6]	- [6]	3,4

[1] Disease resistance reported by the company.
[2] P=Purple and W=White.
[3] T=Tawny and G=Gray.
[4] S=Susceptible, R=Resistant, MR=Moderately Resistant, T=Tolerant.
[5] Evaluated in 1983 as Riverside/Terra.
[6] Data not available.

Table 12. Soybeans: Yields of varieties (maturity groups VI and VII) evaluated at four locations in 1984.

Variety	Avg.	Knox-ville[1]	Spring Hill[2]	Milan[3]	Ames Plantation[4]
		Bushels per acre			
Asgrow A6381	41	30	37	50	48
Hartz 7126	40	28	33	52	50
Asgrow A6520	40	33	36	45	46
Hartz 6383	40	37	34	44	46
Yield King 593	40	29	36	44	50
RA 604	40	30	32	47	50
Deltapine 566	40	26	36	50	47
Coker 156	39	31	32	46	49
Yield King 613	39	29	38	41	47
Asgrow A6242	39	28	32	44	50
H-79-7817	39	36	31	44	44
Bradley	39	30	34	47	43
N.K. S72-60	39	34	32	46	43
Jeff	38	34	27	45	48
N.K. S69-54	38	31	31	45	44
Deltapine 417	37	28	34	40	48
D77-6166	37	32	28	43	46
N.K. S69-96	37	32	32	43	42
FFR 668	37	29	31	46	42
McNair 770	37	26	31	44	45
Centennial	37	34	28	39	47
Terra-vig 606	36	27	33	41	43
Deltapine 506	36	29	30	40	45
Deltapine 246	36	27	29	44	44
FFR 669	36	30	29	41	43
Deltapine 497	35	25	30	41	45
Asgrow A7372	33	23	31	37	41
L.S.D. (.05)		5.6	4.8	5.3	4.2
C.V. %		13.9	10.8	8.5	6.6
Avg.		29.9	31.8	44.0	45.6

1/ Sequatchie loam (2% to 5% slopes).
2/ Maury silt loam (2% to 5% slopes).
3/ Vicksburg silt loam (2% to 5% slopes).
4/ Loring silt loam (2% to 5% slopes).

Table 13. Soybeans: Yield and other characteristics of varieties (maturity groups VI & VII) at four locations in 1984.

Variety	Yield	Date full bloom	Date mature	Plant ht.	Lodging
	Bu/A			In.	%
Asgrow A6381	41	8-13	10-16	41	15
Hartz 7126	40	8-12	10-23	43	32
Asgrow A6520	40	8-12	10-16	42	21
Hartz 6383	40	8-14	10-19	40	37
Yield King 593	40	8-15	10-19	45	21
RA 604	40	8-12	10-15	46	17
Deltapine 566	40	8-13	10-24	42	10
Coker 156	39	8-12	10-15	42	19
Yield King 613	39	8-16	10-19	46	19
Asgrow A6242	39	8-12	10-14	41	20
H-79-7817	39	8-13	10-16	43	24
Bradley	39	8-13	10-21	40	39
N.K. S72-60	39	8-12	10-22	44	28
Jeff	38	8-13	10-20	42	35
N.K. S69-54	38	8-15	10-24	38	25
Deltapine 417	37	8-18	10-25	51	18
D77-6166	37	8-15	10-20	45	32
N.K. S69-96	37	8-15	10-22	41	28
FFR 668	37	8-14	10-20	46	12
McNair 770	37	8-14	10-24	43	8
Centennial	37	8-14	10-20	44	17
Terra-vig 606	36	8-13	10-19	41	17
Deltapine 506	36	8-14	10-22	42	42
Deltapine 246	36	8-12	10-18	37	34
FFR 669	36	8-16	10-23	43	24
Deltapine 497	35	8-18	10-26	47	20
Asgrow A7372	33	8-16	10-22	43	23

Table 14. Soybeans: Yield and other characteristics of varieties (maturity groups VI & VII) evaluated at Knoxville in 1984.

Variety	Yield	Date first flower	Date last flower	Date full pod	Date mature	Leaf hopper damage	Soybean cyst nematode injury[1/]
	Bu/A					Rating (1-5)	Rating (1-10)
Hartz 6383	37	7-31	8-29	9-14	10-19	1	2.5
Hartz H-79-7817	36	7-29	8-31	9-14	10-17	1.2	2
Centennial	34	7-29	8-26	9-11	10-18	4.5	1
N.K. S72-60	34	7-31	8-31	9-14	10-22	2	3
Jeff	34	8-3	8-30	9-15	10-22	1	2
Asgrow A6520	33	7-29	8-24	9-14	10-17	1.5	3.5
D-77-6166	32	8-3	8-31	9-15	10-19	4.9	1.5
N.K. S69-96	32	8-3	9-2	9-14	10-23	3	5
Coker 156	31	7-30	8-26	9-13	10-16	0.5	3.5
N.K. S69-54	31	7-31	8-31	9-15	10-25	5	2.5
FFR 669	30	8-10	9-2	9-17	10-24	1	1
Asgrow A6381	30	7-29	8-29	9-14	10-7	1.5	3.5
Bradley	30	7-28	8-26	9-9	10-18	3.2	3
RA 604	30	7-31	8-25	9-14	10-17	0.5	3
Yield King 593	29	7-29	8-31	9-15	10-19	0.8	4
Yield King 613	29	8-7	8-29	9-15	10-17	1.5	6
Deltapine 506	29	8-1	8-30	9-15	10-18	1.8	6
FFR 668	29	8-3	8-31	9-14	10-23	0.8	5
Asgrow A6242	28	7-29	8-26	9-9	10-10	0.5	3
Deltapine 417	28	8-10	9-2	9-15	10-23	0.8	4
Hartz 7126	28	8-4	8-29	9-16	10-23	1	4.5
Deltapine 246	27	7-31	8-29	9-14	10-16	0.5	6.5
Terra-vig 505	27	8-2	8-29	9-14	10-17	0.8	6.5
Deltapine 566	26	7-31	8-30	9-14	10-23	1.2	7.5
McNair 770	26	8-4	8-31	9-14	10-26	0.2	1.5
Deltapine 497	25	8-13	9-2	9-17	10-25	0.8	6
Asgrow H-7372	23	8-7	8-31	9-14	10-19	1.2	5
L.S.D. (.05)	5.6						
C.V. %	13.9						
Avg.	29.9						

1/ Soybean cyst nematode (Race unknown) ratings are averages of two replications only. Race of cyst nematode is not 3 or 4.

Table 15. Soybeans: Yield and other characteristics of varieties (maturity groups VI & VII) evaluated at Milan in 1984.

Variety	Yield	Date full bloom	Flower color	Pubescence color	Date mature	Plant ht.	Lodging
	Bu/A					In.	%
Hartz 7126	52	8-11	P	T	10-26	44	30
Asgrow A6381	50	8-13	P	G	10-23	44	0
Deltapine 566	50	8-11	W	T	10-28	50	0
Bradley	47	8-11	W	T	10-26	41	40
RA 604	47	8-11	P	T	10-21	53	0
Coker 156	46	8-11	W	G	10-21	48	0
N.K. S72-60	46	8-11	P	T	10-23	47	40
FFR 668	46	8-11	P	G	10-23	55	0
Asgrow A6520	45	8-11	P	T	10-21	45	0
Jeff	45	8-11	P	T	10-23	45	30
N.K. S69-54	45	8-15	P	G	10-26	42	0
Yield King 593	44	8-15	P	T	10-23	54	0
Asgrow A6242	44	8-11	P	T	10-23	45	0
H-79-7817	44	8-13	P	T	10-23	50	20
McNair 770	44	8-13	P	G	10-26	46	0
Hartz 6383	44	8-13	P	G	10-23	42	30
Deltapine 246	44	8-10	P	T	10-23	37	20
N.K. S69-96	43	8-15	W	G	10-23	47	20
D77-6166	43	8-17	P	T	10-26	50	40
Yield King 613	41	8-17	P	T	10-26	58	10
FFR 669	41	8-15	P	G	10-23	48	20
Deltapine 497	41	8-17	W	T	10-28	54	10
Terra-vig 606	41	8-10	W	G	10-26	47	0
Deltapine 417	40	8-15	W	G	10-26	60	10
Deltapine 506	40	8-13	W	T	10-28	50	40
Centennial	39	8-15	P	T	10-26	48	5
Asgrow A7372	37	8-15	W	T	10-26	49	10
L.S.D. (.05)	5.3						
C.V. %	8.0						
Avg.	44.0						

Table 16. Soybeans: Yields of varieties (maturity groups VI & VII) evaluated at four locations for two years 1983-84.

Variety	Avg.	Knox-ville	Spring Hill	Milan	Ames Plantation
	Bushels per acre				
RA 604	37	36	31	43	39
Coker 156	36	38	31	38	39
N.K. S69-96	36	39	30	38	38
Hartz 7126	36	32	31	40	42
Asgrow A6520	36	36	36	37	34
Deltapine 417	35	34	31	34	42
Hartz 6383	35	37	31	36	36
N.K. S72-60	35	37	30	37	35
Jeff	34	35	28	38	38
Terra-vig 606	34	35	31	34	37
FFR 668	34	34	28	40	35
Deltapine 506	34	33	29	36	37
Centennial	34	35	30	31	38
Asgrow A7372	33	31	31	34	37
Bradley	33	32	31	35	35
Deltapine 497	33	28	28	36	39
Deltapine 246	33	33	29	34	33

Table 17. Soybeans: Yield and other characteristics of varieties (maturity groups VI & VII) evaluated at four locations for two years (1983-84).

Variety	1983-84 yield	Plant height	Date mature	Lodging
	Bu/A	In.		%
RA 604	37	44	10-14	26
Coker 156	36	40	10-18	18
N.K. S69-96	36	41	10-24	31
Hartz 7126	36	46	10-26	37
Asgrow A6520	36	38	10-19	28
Deltapine 417	35	48	10-28	31
Hartz 6383	35	42	10-24	40
N.K. S72-60	35	45	10-23	38
Jeff	34	44	10-24	39
Terra-vig 606	34	41	10-23	25
FFR 668	34	45	10-24	21
Deltapine 506	34	43	10-24	47
Centennial	34	43	10-22	18
Asgrow A7372	33	41	10-24	28
Bradley	33	40	10-18	40
Deltapine 497	33	46	10-28	18
Deltapine 246	32	38	10-18	28

Table 18. Soybeans: Yields of varieties (maturity groups VI and VII) evaluated at three locations for three years (1982-84).

Variety	Avg.	Knox-ville	Spring Hill	Ames Plantation
	Bushels per acre			
N.K. S69-96	37	41	28	43
Asgrow A6520	37	35	34	42
RA 604	37	38	28	45
N.K. S72-60	37	40	29	41
Hartz 7126	37	35	28	47
Coker 156	36	35	30	44
Deltapine 417	36	35	27	46
Terra-vig 606	36	37	28	36
Centennial	36	37	28	43
Jeff	35	36	26	44
Deltapine 506	34	35	26	42
Deltapine 246	34	34	28	34
Deltapine 497	33	30	25	43

Table 19. Soybeans: Yield and other characteristics of varieties (maturity groups VI & VII) evaluated at three locations for three years (1982-84).

Variety	yield	Plant height	Date mature	Lodging
	Bu/A	In.		%
N.K. S69-96	37	40	10-24	32
Asgrow A6520	37	37	10-18	25
RA 604	37	43	10-23	42
N.K. S72-60	37	44	10-22	42
Hartz 7126	37	44	10-25	36
Coker 156	36	39	10-18	24
Deltapine 417	36	48	10-27	32
Terra-vig 606	36	42	10-21	29
Centennial	36	41	10-21	16
Jeff	35	43	10-22	40
Deltapine 506	34	43	10-23	42
Deltapine 246	34	37	10-18	29
Deltapine 497	33	45	10-27	18

Table 20. Soybeans: Characteristics of early-maturing varieties (maturity group IV or less) evaluated in 1984.[1]

Variety	Flower color [2]	Pubescence color [3]	Hilum color	Phytophthora rot resistance [4]	Soybean cyst nematode resistance
					Races
RA 481	W	T	Brown	R	None
RA 451	P	T	Black	R	None
RA 405	P	T	Brown	R	3
RA 452	W	G	Buff	R	None
DeKalb-Pfizer CX482	P	G	Buff	S	None
DeKalb-Pfizer CX380	W	T	Black	T	None
DeKalb-Pfizer CX453	W	T	Brown	S	None
Mitchell 450	P	T	Brown	R	None
Franklin	P	S	- [5]	- [5]	- [5]
Fayette	W	T	Black	- [5]	3,4
Union	W	T	- [5]	- [5]	- [5]
Lawrence	P	T	- [5]	- [5]	- [5]
Pershing	W	G	Buff	S	None
Pioneer brand 9471	W	T	Black	S	None
N.K. S45-01	P	T	Buff	S	None

[1] Disease resistance reported by the company.
[2] P=Purple and W=White.
[3] T=Tawny and G=Gray.
[4] S=Susceptible, R=Resistant, MR=Moderately Resistant, T=Tolerant.
[5] Data not furnished.

Table 21. Soybeans: Yield of varieties (maturity group IV or less) evaluated at five locations in 1984.

Variety	Avg.	Knoxville[1]	Springfield[2]	Crossville[3]	Milan[4]	Ames Plantation[5]
			Bushels per acre			
RA 425	42	41	38	40	52	37
DeKalb-Pfizer CX482	41	42	35	45	48	34
Pershing	40	42	33	43	51	32
RA 405	40	42	40	43	40	32
Pioneer brand 9451	39	45	33	42	51	27
RA 481	38	40	38	36	45	33
N.K. S45-01	38	44	34	45	44	24
Mitchell 450	38	42	33	46	38	30
RA 451	37	38	35	41	44	29
DeKalb-Pfizer CX453	35	40	28	40	46	21
Lawrence	35	37	30	41	48	18
DeKalb-Pfizer CX380	33	35	28	36	47	17
Union	33	32	30	35	50	16
Franklin	32	36	24	33	44	23
Fayette	30	33	24	34	41	17
L.S.D. (.05)		6.0	6.1	4.8	8.9	4.8
C.V. %		10.8	13.3	8.3	13.5	13.0
Avg.		39.2	32.3	40.0	45.9	26.0

1/ Sequatchie loam (2% to 5% slopes).
2/ Dickson silt loam (2% to 5% slopes).
3/ Hartsells loam (2% to 5% slopes).
4/ Vicksburg silt loam (0% to 1% slopes).
5/ Loring silt loam (2% to 5% slopes).

Table 22. Soybeans: Yield and other characteristics of varieties (maturity group IV or less) evaluated at five locations in 1984.

Variety	Yield	Date first flower	Date last flower	Date mature	Plant height	Lodging[1]
	Bu/A				In.	%
RA 452	42	7-24	8-14	9-28	39	65
DeKalb-Pfizer CX482	41	7-10	8-10	9-18	40	96
Pershing	40	7-26	8-16	10-1	32	62
RA 405	40	7-11	8-16	9-23	42	88
Pioneer brand 9471	39	7-11	8-8	9-19	38	70
RA 481	38	7-24	8-16	10-1	40	62
N.K. S45-01	38	7-10	8-14	9-17	41	78
Mitchell 450	38	7-10	8-8	9-24	39	70
RA 451	37	7-11	8-14	9-29	40	94
DeKalb-Pfizer CX453	35	7-10	8-11	9-14	36	98
Lawrence	35	7-10	8-3	9-10	33	34
DeKalb-Pfizer CX380	33	7-10	8-2	9-9	33	91
Union	33	7-8	8-2	9-9	36	93
Franklin	32	7-9	8-2	9-11	36	84
Fayette	30	7-8	8-2	9-9	34	94

1/ Crossville lodging only.

Table 23. Soybeans: Yield and other characteristics of varieties (maturity groups IV or less) evaluated at Knoxville in 1984.

Variety	Yield	Date full bloom	Date last flower	Date 1st full pod	Date mature	Plant height
	Bu/A					In.
Pioneer brand 9471	45	7-8	8-14	8-24	9-24	44
N.K. S45-01	44	7-8	8-16	8-21	9-17	49
RA 405	42	7-8	8-17	8-24	9-24	52
Pershing (S76-2109)	42	7-24	8-15	8-26	9-29	37
Mitchell 450	42	7-8	8-14	8-25	9-24	47
DeKalb-Pfizer CX482	42	7-6	8-13	8-21	9-24	48
RA 452	41	7-22	8-16	8-24	9-27	46
DeKalb-Pfizer CX453	40	7-6	8-16	8-21	9-16	44
RA 481	40	7-22	8-17	8-26	9-27	48
RA 451	38	7-8	8-15	8-27	9-27	46
Lawrence	37	7-6	8-4	8-17	9-14	40
Franklin	36	7-6	8-2	8-17	9-15	43
DeKalb CX380	35	7-6	8-5	8-17	9-14	39
Fayette	33	7-6	8-2	8-15	9-14	44
Union	32	7-6	8-4	8-15	9-14	44
L.S.D. (.05)	6.0					
C.V. %	10.8					
Avg.	39.2					

Table 24. Soybeans: Yield of early-maturing varieties (maturity group IV or less) evaluated at five locations for two years (1983-84).

Variety	Avg. yield	Knox-ville	Cross-ville	Spring-field	Milan	Ames Plantation
		Bushels per acre				
DeKalb-Pfizer CX482	34	39	43	25	33	28
RA 481	34	40	36	28	36	29
Mitchell 450	32	40	43	24	30	26
Lawrence	30	35	40	24	37	17
DeKalb-Pfizer CX453	30	36	41	21	34	19
DeKalb-Pfizer CX380	29	32	38	24	34	18
Franklin	28	31	33	20	32	21
Union	28	30	35	25	36	16
Fayette	27	33	35	21	32	16

Table 25. Soybeans: Yield and other characteristics of strains (maturity group V) evaluated at Jackson in 1984.

Strain	Yield	Flower color	Date 1st flower	Pubescence color	Plant ht.	Lodging	Date mature	Sencor injury
	Bu/A				In.	%		%
CFC 81[1/]	42	W	7-12	T	34	0.2	10-8	59
H-78-168[2/]	40	W	7-20	T	37	1	10-8	60
CFC 79	39	W	7-12	T	36	1	10-6	50
RAX 115[3/]	38	W	7-14	T	42	2	10-9	40
Forrest	38	W	7-14	T	33	0	10-8	60
RAX 20-1A	38	P	7-16	T	36	3	10-10	50
CFC-78	38	W	7-12	T	35	0.2	10-8	55
Jacques Exp. 83140	37	P	7-12	G	31	0.5	9-29	28
TN 81-22[4/]	36	P	7-20	G	42	4	10-9	54
CFC-80	36	W	7-14	T	34	0.2	10-8	70
Deltapine X688	35	P	7-16	T	38	0.8	10-11	59
TN 82-221	35	W	7-14	G	36	0.8	10-2	42
Funk M81-910511	34	P	7-12	T	34	2	10-4	48
Deltapine X628	33	W	7-14	G	30	1	10-8	45
TN 83-159	30	W	7-16	T	36	4	10-9	55
TN 82-91	28	W	7-10	G	46	2	9-24	62
RAX 108	24	P	7-16	G	40	1	10-7	26
RAX Code 30	--	-	-	-	--	-	-	100[5/]
L.S.D. (.05)	6.5							
C.V. %	12.7							
Avg.	35.5							

1/ Cetus Madison Corp. (Wisc.)
2/ Hartz Seed Co.
3/ Ring Around Seed Co.
4/ Tennessee Experimental.
5/ No yield due to 100 percent kill from Sencor herbicide.

Table 26. Soybeans: Yield and other characteristics of strains (maturity groups VI and VII) evaluated at Jackson in 1984.[1/]

Strain	Yield	Flower color	Date 1st flower	Pubescence color	Plant ht.	Lodging	Date mature	Sencor injury
	Bu/A				In.	%		%
Deltapine X817	63	P	7-24	G	54	79	11-11	40
Esco B13-600[2/]	50	W	8-13	T	59	76	11-5	52
TN 83-157	47	W	7-15	T	37	4	10-14	55
N.K. KNX-M760815	47	W	8-2	G	49	41	11-5	69
Funk M81-570703	46	W	7-24	T	44	17	11-5	0
Deltapine X821	45	W	7-24	T	44	58	11-5	62
H79-15331[3/]	45	P	7-30	G	52	51	11-7	68
H79-21046	44	W	7-30	T	44	28	11-5	64
Esco B12-567	44	W	7-24	G	46	3	10-16	58
N.K. KNX-M751111	43	P	7-22	T	42	11	11-5	50
Deltapine X806	43	P	8-7	G	47	92	11-11	50
Funk M81-571402	43	P	7-16	T	44	12	10-26	0
Funk M81-503305	41	W	7-22	T	44	22	10-16	0
H-79-8080	39	W	7-24	T	49	55	11-5	48
Esco B5-217	38	W	7-30	T	57	81	11-8	58
Funk M81-502910	36	W	7-24	T	44	9	10-17	0
Funk M81-600908	35	W	7-24	T	43	13	10-26	42
Centennial	34	P	7-24	T	44	19	11-5	70
TN 83-162[4/]	34	W	7-16	G	54	26	10-16	51
Esco B4-211	33	W	7-30	T	54	58	11-5	71
Esco B4-720	22	P	-	T	56	83	10-15	60
Esco B4-492	20	P	7-16	T	52	41	10-20	56
L.S.D. (.05)	7.3							
C.V. %	12.8							
Avg.	40.5							

1/ Lexington silt loam (0% to 2% slopes).
2/ Eagle Seed Co., Arkansas.
3/ Hartz Seed Co.
4/ Tennessee Experimental.

Table 27. Soybean: Yield and other characteristics of strains (maturity group IV) evaluated at Jackson in 1984.

Strain	Yield	Flower color	Date 1st flower	Pubescence color	Plant height	Lodging	Date mature	Sencor injury
	Bu/A				In.	%		%
CWC-78[1/]	49	W	6-28	T	36	1	9-6	6
CWC-79	48	W	6-22	T	38	2	9-5	6
CWC-81	47	W	6-24	T	36	0.5	9-4	5
CWC-80	42	W	6-22	T	36	2	9-4	10
RA 481	34	W	7-9	G	45	16	9-30	11
TN 83-67[2/]	34	P	6-24	T	46	25	9-13	6
E 84404[3/]	34	P	6-28	T	41	2	9-18	5
TN 83-6	33	P	6-28	T	47	4	9-15	19
TN 83-7	31	P	6-25	T	47	9	9-14	16
TN 81-142	28	P	6-25	T	46	14	9-15	12
L.S.D. (.05)	6.0							
C.V. %	10.9							
Avg.	38.1							

1/ Cetus Madison Corp. (Wisc.)
2/ Tennessee Experimental.
3/ Rohm and Haas Seed Inc.

Table 28. Soybeans: Reaction of selected varieties & strains from all maturity groups when evaluated in the greenhouse for resistance to races 3 and 4 of the soybean cyst nematode.[1/]

Entry	Race 3	Race 4	Entry	Race 3	Race 4
Bradley	R[2/]	R	E-84404	S	S
Bedford	R	R	CWC-78	S	S
Forrest	R	S	CWC-79	S	S
Asgrow A5474	R	R	CWC-80	S	S
Asgrow A5980	R	MR	CWC-81	S	S
Asgrow A6520	R	R	CFC-78	R	S
Asgrow A6242	R	R	CFC-79	R	S
Pioneer brand 9561	R	S			
Pioneer brand 9571	R	R	CFC-80	R	S
FFR 560	R	R	CFC-81	R	S
Hartz 5171	R	S	D77-6106	R	R
Hartz 5370	R	S	H-79-7817	R	R
Hartz 5252	R	S	H-79-8080	R	R
Hartz 6383	R	S	H-79-21046	R	S
Hartz 7126	R	S	H-79-15331	R	R
Coker 355	R	R	DeKalb Exp4903	R	R
Coker 485	R	S	DeKalb Exp4904	R	R
RA 580	MR	S	TN 83-157	R	R
Yield King 593	R	S	TN 83-162	R	R
Yield King 613	R	S			

1/ Ratings were made by Dr. Lawrence D. Young, Research Plant Pathologist, USDA, ARS, Jackson, Tenn.
2/ R=resistant, MR=moderate resistance, S=susceptible.