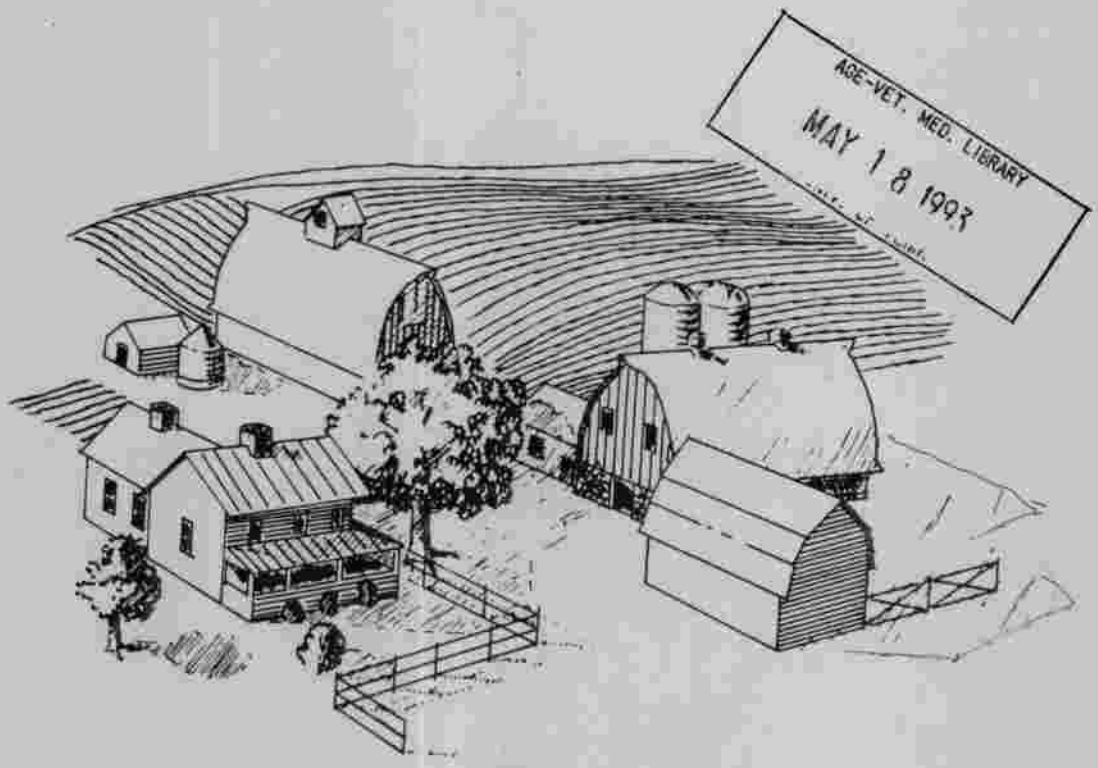
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Bulletin 684
January 1993

1992 Performance of Field Crop Varieties

C. R. Graves, B. N. Duck, D. R. West, V. H. Reich, F. L. Allen, D. Kincer, R. Thompson, G. Percell, C. L. Click, C. L. Brown, B. Pitt, and M. Smith



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Don O. Richardson, Dean

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LIST OF TABLES

Table A Soybean varieties recommended for 1993.
Table B Corn hybrids recommended for 1993.

Early-Season Hybrids Performance — Table

Yield by location - 1992 1
Characteristics 1992 2
Yield by location 2yr (1991-92) 3
Characteristics 2yr (1991-92) 4
Yield by location 3yr (1990-92) 5
Characteristics 3yr (1990-92) 6

Medium-Season (500 Group) Corn Hybrids Performance

Yield by location - 1992 7
Characteristics 1992 8
Yield by location 2yr (1991-92) 9
Characteristics 2yr (1991-92) 10

Medium-Season (600 Group) Corn Hybrids Performance

Yield by location - 1992 11
Characteristics 1992 12
Yield by location 2yr (1991-92) 13
Characteristics 2yr (1991-92) 14

Full-Season Hybrids Performance

Yield by location - 1992 15
Characteristics 1992 16
Yield by location 2yr (1991-92) 17
Characteristics 2yr (1991-92) 18
Yield by location 3yr (1990-92) 19
Characteristics 3yr (1990-92) 20

Smallgrain (wheat, oats, barley, and rye)

1992 Wheat yield at seven locations 21
1992 Wheat yield and other characteristics 22
1992 Wheat yield and other characteristics at Crossville 23
1992 Wheat yield and other characteristics at Martin 24
1992 Wheat yield and other characteristics at Milan 25
1992 Wheat yield and other characteristics at Jackson 26
1992 Wheat yield of nine varieties evaluated at Ames Plantation planted October 26 and November 26, 1991 27
1990 & 92 Two year yield at four locations 28
1990 & 92 Two year avg. yield and other characteristics at 4 locations . 29
1992 Winter-seeded oats yeild evaluated at three locations 30
1992 Winter-seeded oats yield and characteristics at three locations . . 31
1992 Fall-seeded oats yield and other characteristics at Knoxville . . . 32
1992 Spring oats yield at Knoxville and Springfield 33
1992 Spring oats yield and othe characteristics of varities evalauted at Knoxville 34
1992 Rye yield and other characteristics at Knoxville 35

Soybeans

Maturity Group IV (Early)

1992 Yields 36
1992 Average yield and characteristics 37
1991-92 Yields 38
1991-92 Yield and characteristics 39
1990-92 Average yields 40
1990-92 Average yield and characteristics 41

Maturity Group V (medium)

1992 Yields 42
1992 Average yield and characteristics 43
1991-92 Yields 44
1991-92 Average yield and characteristics 45
1990-92 Yields 46
1990-92 Average yield and characteristics 47

Maturity Group VI and VII (late)

1992 Yields 48
1992 Average yield and characteristics 49
1991-92 Yields 50
1991-92 Average yield and characteristics 51
1990-92 Yields 52
1990-92 Average yield and characteristics 53
1992 Avg. Yield and characteristics of Maturity Group V Strain 54
1992 Yield and characteristics of Maturity Group IV Strain 55
1992 Cyst nematode ratings for Maturity Group IV 56
1992 Cyst nematode ratings for Maturity Group V 57
1992 Cyst nematode ratings for Maturity Group VI and VII 58

Summer Annuals

1992 Yields at Knoxville and Spring Hill 59
1991-92 Yields at Knoxville ant Spring Hill 60

Grain Sorghum

1992 Yield at three locations 61
1992 Yield and characteristics at three locations 62
1991-92 Yield at three locations 63

Alfalfa

1992 Yield of varieties seeded at three locations in 1991 64
1992 Yield of varieties seeded in the fall of 1989 at Spring Hill 65
1992 Yield of varieties seeded in the fall of 1989 at Springfield 66
1992 Yield of varieties seeded in the fall of 1989 at Jackson 67

Red Clover

1992 Yields of varieties seeded at two locations in 1991 68

1992

PERFORMANCE OF FIELD CROP VARIETIES

DATA FOR 1992

WITH SUMMARIES OF RESULTS FROM PREVIOUS YEARS

CORN - GRAIN SORGHUM - SUMMER ANNUALS - RYEGRASS - OATS

BARLEY - WHEAT - ALFALFA - SOYBEANS

Charles R. Graves, B. N. Duck, D. R. West, Vernon Reich, Fred Allen,
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[1]Professor Knoxville, Martin, Associate Professors, Knoxville, Senior Research Assistant Knoxville, Spring Hill, Jackson, Research Associate Milan, Greeneville, Springfield, Ames Plantation, respectively.

RECOMMENDED CROP VARIETIES

Listed Alphabetically

Corn Hybrids

See Table B.

Cotton

DES 119, Delcot 344, Deltapine 20, Deltapine 50, PD 3, Stoneville 506, Stoneville 453, Stoneville KC-311, and Terra C-40.

Oats

Fall: Southern States 76-30.

Spring: Don, Otee, Ogle, and Larry.

Wheat

Cardinal, FFR 525, Northrup King Coker 9323[1], Northrup King Coker 9733[1], Madison, Massey[1], Pioneer brand 2551, Pioneer brand 2555, Pioneer brand 2548, and Saluda, Sawyer, Terral 101 and Wakefield.

Barley

Anson and Wysor.

Alfalfa

Apollo, Apollo II[1], Armor[1], Anstar, Cimarron, Chief, Dart[1], Eagle, Garst 636, Liberty[1], Pioneer 5432, Shenandoah, Vancor[1], Voris A77[1], and WL 320[1].

Red Clover

Concorde, Kenstar[1], Redland II, Reddy, and Redman.

Grain Sorghum

Non-Bird Resistant: Chaparral[1], DeKalb DK 37, FFR 321DR[1], Deltapine G-1711[1], Deltapine G-522DR, HyPerformer HSC Wings, HyPerformer 1330DR[1], Penngrain yE[1], Pioneer brand 8230, N.K. S9740y[1], Pioneer brand 8333, Topaz, Northrup King RA 787[1], Northrup King 2660, Northrup King KS780[1], Deltapine RA 787[1], Northrup King KS 737.

Burley Tobacco

Clay 403, Clay 501, Co-op 313, Co-op 543, Ky 17, MS Bu. 21xKy 10, Ms Ky 14xL8, N.C. BH 129, R7-11, TN 86, TN 90, R 610, and Va. 509

Dark-Fire Cured Tobacco

Broad leaf Madole, Black Mammoth, DF-300, DR 485, DF-911, and Ky 190.

Dark-Air Cured Tobacco

Ky 180, Ky 160 and OS 802.

Soybeans

See Table A

---

[1]Present plans indicate that this variety will not be recommended after 1991.

Summer Annual recommendations are based on production when allowed to grow 20-40 inches before cutting or grazing.

Sorghum x Sudangrass crosses

DeKalb SX-17, Faster Pasture[1], Greentreat II, Greentreat III, Haygrazer II[1], FFR 202, Summergrazer III[1], Sordan 79, Tastemaker DR, Tastemaker III.

Sudangrass

Trudan 8.

Pearlmillet

Millex 24, Tifleaf I, and Millhy 99.

Table A Recommended Soybean Varieties for 1993

Brand	Variety	Yield Bu/A	Resistance to Stem Canker	Brand	Variety	Yield Bu/A	Resistance to Stem Canker
Early Maturity Group IV							
Not Resistant to Cyst Nematode							
N.K.	S 48-84	46	--*				
Pioneer	9461	43	--*	Pioneer	9442	41	--*
FFR	464	42	--*	HyPerformer	Hy 401	40	--*
DeKalb	CX 458	41	--*				
Resistant to Race 3				*Resistant to Races 3 and 4 Cyst Nematode*			
Delsoy	4900	44	--*	Tn	Tn 4-86	44	--*
				AgraTech	AT 495	40	--*
Medium Maturity Group V[4]							
Not Resistant to Cyst Nematode							
N.K.	Coker 425	49	MS[1]	Va.	Essex	45	MS
Va.	Hutcheson	48	HR	AgraTech	575	45	HR
FFR	561	46	HR	FFR	562	44	HR
Deltapine	105	46	MS	Pioneer	9591	--[2]	HR
Va.	Bay	--	HR	Mo.	Pershing	--+	MS
				N.K.	RA 452	--+	MS
Resistant to Race 3				*Resistant to Race 3 and 4 Cyst Nematode*			
N.K.	Coker 6955	50	HS	Asgrow	A 5979	53	MR
N.K.	Coker 485	49	MS	FFR	595	47	--*
Deltapine	415	48	MR	Asgrow	A 5403	47	MR
Terra-Vig	515	46	MR	AgraTech	AT 550	46	MR
Tn	Tn 5-85	45	MR	Mo.	Avery	--+	--*
Riverside	577	44	--*	FFR	565	--[2]	HS
Late Maturity Group VI							
Not Resistant to Cyst Nematode							
Pioneer	9641	46	--*	Riverside	699	44	--*
Asgrow	6785	--[3]	MR	Riverside	677	--[3]	--*
Resistant to Race 3				*Resistant to Race 3 and 4 Cyst Nematode*			
Deltapine	DPX 3627	46	--*	Asgrow	A 6297	--	--*
HyPerformer	HSC B2J	46	--*	N.K.	S 61-89	45	--*
Riverside	Cajun	45	MS				
N.K.	RA 606	--[3]	--*				
Pioneer	9691	--[3]	--*				
Riverside	696	--[3]	--*				

[1]HR=highly resistant; MR=moderately resistant;MS=moderately susceptible; S=susceptible; HS=highly susceptible. ratings compiled by Melvin A. Newman with the help of Albert Chambers and Lawrence Young, all located at the West Tn. Exp. Station, Jackson, Tn.

[2]Variety was not submitted for testing; Variety will be removed from recommended list if it is not submitted for evaluation for two consecutive years.

[3]Present plans indicate that this variety will not be recommended after 1993.

[4]Cordell recommended where Race 5 soybean cyst is a problem.

*Ratings not made.

+Evaluated in the early maturing group IV in previous years.

Table B

The Recommended Corn Hybrids for 1993 are as follows:
Two or three Year Average

Make yield comparisons only within a given maturity group because all maturity groups are not evaluated at the same location.

Brand	Hybrid	Yield	Grain Moisture	Virus Complex
		Bu/A	%	Rating[2]
		Early----------Yellow		
Beck's	72X	181	18.0	Low
Oro	188	167	19.8	---[4]
		Not included in 1992 trials		
DeKalb	DK 649	---	---	Med-Low
Deltapine	DP 4543	---	---	Low
Oro	180	---	---	Low
		Not included in 1991 or 1992 trials		
Oro	151[1]	---	---	Med-Low
FFR	747C[1]	---	---	Low
Jacques	7820[1]	---	---	Low
Pioneer	3389[1]	---	---	Low
		Early----------White		
Zimmerman	Z-17W	167	19.4	---
		Medium-season------500-------Yellow[3]		
HyPerformer	HS 9773	176	19.1	---
McCurdy	7777	174	20.5	Low
DeKalb	DK 689	172	19.9	Med-High
Asgrow	RX 919	172	20.3	Med-High
ICI Garst	8315	171	18.5	Low
Pioneer	3295	169	18.1	Med-Low
Deltapine	DP 5750	168	20.1	---
Deltapine	G-4666	167	19.7	Low
Zimmerman	Z-27Y	167	18.7	Low
HyPerformer	HS 9911	164	19.7	---
		Not included in 1992 trials		
Northrup King	S 8505	---	---	---
Dekalb	KD 677	---	---	---
		Not included in 1991 or 1992 trials		
Deltapine	RA 1502[1]	---	---	Low
DeKalb	DK 711[1]	---	---	Med
Pioneer	3320[1]	---	---	Low
		Medium-Season---500--White		
Zimmerman	Z-61W	173	20.0	---
Deltapine	G-4644W	165	21.4	---

[1]Present plans indicate that this hybrid will not be recommended after 1993.
[2]Hybrids rated lower than medium-high are not recommendeed under heavy virus conditions.
[3]For the medium-season hybrids, 500 and 600 refer to the entry numbers used in the two tests. Yields should be compared within each entry group only.
[4]Not enough virus at test site to obtain accurate ratings.

Table B
Recommendations cont.

		Medium-Season---600--Yellow		
Pioneer	3154	176	17.2	---[4]
Terra	TR 1180	161	16.9	Low
Jacques	8210	159	16.5	---
FFR	892	151	16.7	---
FFR	812	150	15.8	---
AgraTech	6780	150	16.2	---
		Not included in 1992 trials		
Terra	TR 1190	---	---	Low
Terra	TR 1170	---	---	Low
HyPerformer	HS 97	---	---	Low
		Medium-season--600---White		
HyPerformer	HS 175W	158	18.4	---
Asgrow	RX 956W	156	18.5	Med-Low
		Full-season------Yellow		
Pioneer	3165	157	19.4	Low
Pioneer	3140	149	17.7	Low
Jacques	9220	148	19.0	---
Deltapine	4820	148	21.0	---
Cargill	9027	146	18.4	---
Asgrow	RX 947	142	19.2	---
Northrup King	N 8727	141	19.2	Low
Northrup King	S 8645	140	17.9	---
		Not included in 1992 trials		
Asgrow	RX 908	---	---	Low
AgraTech	GX 900	---	---	Med-High
Deltapine	G-4868	---	---	Med-Low
Pioneer	3147	---	---	Med-High
		Not included in 1991 or 1992 trials		
DeKalb	DK 789[1]	---	---	Med-High
Jacques	8400[1]	---	---	Med
		Full-season-----White		
Zimmerman	Z-63W	141	18.7	---
Zimmerman	Z-16W	140	19.6	Low
Zimmerman	Z-54W	137	18.9	Med-Low
		Not included in 1992 trials		
Pioneer	3144W	---	---	Med-Low
		Not included in 1991 or 1992 trials		
FFR	925W[1]	---	---	Low

[1]Present plans indicate that this hybrid will not be recommended after 1993.
[2]Hybrids rated lower than medium-high are not recommendeed under heavy virus conditions.
[3]For the medium-season hybrids, 500 and 600 refer to the entry numbers used in the two tests. Yields should be compared within each entry group only.
[4]Not enough virus at test site to obtain accurate ratings.

Non-bird resistant varieties

Chaparral: A medium variety in plant height with medium-tight type heads. Red pericarp and hetero-yellow endosperm. Has resistance to head smut.

FFR 321: A medium variety in plant height, maturity, and head type. Red pericarp with a hetero-yellow endosperm. It is reported to be resistant to anthracnose and downy mildew.

DeKalb DK 37: A medium tall variety in plant height. Red pericorp with hetero-yellow endosperm. Early maturing with medium head type. It is reported to be resistant to MDMV, head smut, greenbug, downy mildew and charcoal rot.

Deltapine RA 787: A non-bird resistant variety with hetero-yellow and red pericarp. Reported to have resistance to MDMV, head smut, and downy mildew.

Deltapine G-1711: A medium-tall variety in plant height with medium-tight type heads. Red pericarp with hetero-yellow endosperm. Reported to be resistant to MDMV, head smut, greenbug, anthracnose, and downy mildew.

Deltapine G-522DR: A medium variety in plant height with resistance to MDMV, head smut, anthracnose, and downy mildew. Red pericarp and hetero-yellow endosperm.

HyPerformer HSC Wings: A medium-tall variety in plant height with medium-tight heads. Hetero-yellow endosperm. Reported to be resistant to MDMV, head smut, anthracnose and downy mildew.

HyPerformer 1330DR: Tall with medium to open type head. Medium to late in maturity. Bronze pericarp with a hetero-yellow endosperm. Resistant to MDMV, head smut, and anthracnose.

Penngrain yE: Medium-tall and medium maturing variety with a brown pericarp and yellow endosperm.

Pioneer brand 8333: A medium variety in plant height with an open type head. has a yellow endosperm with bronze grain color. It is late maturing and has performed well at Milan under no-till and conventional seedbed.

Northrup King KS 737: A non-bird resistant variety with hetero-yellow endosperm with bronze pericarp and grain color.

Northrup King KS 780: A non-bird resistant variety with hetero-yellow endosperm and bronze pericarp. Reported to be resistant to MDMV and head smut.

Northrup King 2660: A non-bird resistant variety with yellow endosperm and red pericarp. Reported to have MDMV disease resistance.

Northrup King S9740y: Medium-tall plant height with a medium type head. Has a cream color endosperm with a yellow pericarp and cream colored grain. It is reported to have moderate resistance to MDMV.

Topaz: A medium variety in plant height and maturity. Resistant to head smut and downy mildew. Red pericarp with a hetero-yellow endosperm.

SOYBEANS

Asgrow A5403: Has purple flowers, grey pubescence, and seed with an imperfect black hila. Has resistance to Race 3 soybean cyst nematodes and moderate resistance to Race 4. Has shown moderate resistance to stem canker. Maturity Group V.

Asgrow A5979: Has white flowers, grey pubescence, and seed with buff hila. Has resistance to race 3 soybean cyst nematode and moderate resistance to race 4. Maturity Group V. Has shown moderate resistance to stem canker.

Asgrow A6785: Has white flowers, grey pubescence with moderate resistance to Incognita. Has no resistance to soybean cyst nematode. Maturity Group VI. Plant height similar to Asgrow A6242.

Asgrow A6297: Has white flowers, grey pubescence, and seed with a buff hila. Has resistance to race 3 soybean cyst nematode and moderate resistance to race 4. Maturity Group VI.

AgraTech AT 495: Has white flowers, brown pubescence and seed with a black hila. Has resistance to races 3 and 4 soybean cyst nematode. Maturity Group IV.

AgraTech AT 575: Has white flowers, grey pubescence, and seed with buff hila. Has no resistance to soybean cyst nematode. Highly resistant to stem canker and moderate resistant to frog eye. Maturity Group V.

AgraTech AT 550: Has purple flowers, tawny pubescence, and seed with black hila. Has resistance to race 3 and 4 of soybean cyst nematodes. It is rated moderately resistant to stem canker. Maturity Group V.

Avery: Has white flowers, tawny pubescence, and seed with a black hila. Resistance to Races 3 and 4 soybean cyst nematodes. Highly resistant to SDS. Maturity Group V.

Delsoy 4900: Has purple flowers, tawny (brown) pubescence and seed with a brown hila. Resistant to race 3 soybean cyst nematode. Maturity Group IV.

Bay: Has purple flowers, grey pubescence, and seed with buff hila. Resistant to bacterial pustule. Maturity Group V. Has shown resistance to stem canker.

Northrup King Coker 425: Has purple flowers, tawny pubescence, and seed with black hila. Similar to Essex in maturity, lodging resistance, and a few inches shorter in plant height. Has no resistance to soybean cyst nematode. Maturity Group V.

Northrup King S 61-89: Has purple flowers, tawny pubescence, and seed with black hila. Has resistance to race 3 and 4 soybean cyst nematode Maturity Group V.

Northrup King Coker 485: Has purple flowers, tawny pubescence, and seed with black hila. It is reported to have resistance to stem canker, southern root knot nematode, phytophthora rot and race 3 of the soybean cyst nematode. Taller than Essex and about a week later in maturity. Late Maturity Group V.

Northrup King RA 452: Has white flowers, grey pubescence, and seed with buff hila. Has some resistance to stem canker with no resistance to soybean cyst nematodes. Maturity Group IV.

Northrup King RA 606: Has white flowers, grey pubescence and seed with buff hila. Resistance to race 3 of the soybean cyst nematode. Maturity Group VI.

Northrup King Coker 6955: Has white flowers, tawny pubescence, and seed with a black hila. Has resistance to Race 3 soybean cyst nematode. Maturity Group V.

Northrup King C 48-84: Has purple flower, tawny pubescence, and seed with a brown hila. It is reported to be resistant to race 3 and 4 soybean cyst nematode. Ratings at Jackson has not supported these rating.s Using a three year average, the ratings for race 3 was 4.5 and race 4 was 4.4. It seems that it has some tolerance to race 5. The rating for the past year was 3.2 for race 5. Maturity Group IV.

DeKalb CX458: Has white flowers, tawny pubescence, and seed with a black hila. Has no resistance to soybean cyst nematode. Early Maturity IV or Late Maturity Group III.

Deltapine DP 3627: Has purple flowers, gray pubescence and seed with an imperfect hila. Has no resistance to soybean cyst nematode. Maturity Group IV.

Deltapine 415: Has purple flowers, grey pubescence, and seed with imperfect black hila. Resistant to race 3 of soybean cyst nematode. Reported to be resistant to stem canker. Maturity Group V.

Deltapine 105: Has purple flowers, grey pubescence, and seed with imperfect black hila. Tolerant to phytophthora root-rot and susceptible to soybean cyst nematodes. Has yielded well under soybean cyst nematode free conditions. Late Maturity Group V.

Essex: Early-maturing variety (Maturity Group V) which is short and stands well. Has purple flowers, grey pubescence, and a tawny pod wall. Has a high yield potential under good moisture conditions, but appears to be more sensitive to moisture stress than many of the other varieties evaluated. Has not performed well on fine-textured soils. Similar to Dare in seed size, quality, and shatter resistance.

FFR 561: Has white flower, grey pubescence, and seed with buff hila. Has no resistance to soybean cyst nematodes. Maturity Group V. Has shown resistance to stem canker.

FFR 464: Has purple flowers, tawny pubescence, and seed with a black hila. Has no resistance to soybean cyst nematode. Maturity group IV.

FFR 562: Has purple flowers, grey pubescence, and seed with buff hila. Has no resistance to soybean cyst nematode. In trials at Jackson, it has shown good resistance to stem canker. Maturity Group V.

FFR 595: Has white flowers, brown pubescence, and seed with a black hila. Reported to be resistant to race 3 and 4 soybean cyst nematode. Ratings at Jackson has shown variability from year to year for resistance to race 3. Maturity Group V.

FFR 565: Has white flowers, brown pubescence, and seed with black hila. Has resistance to race 3 and 4 soybean cyst nematode. Maturity Group V.

Hutcheson: Has white flowers, grey pubescence, and seed with a buff hila. Has high resistance to stem canker and moderate resistance to frog eye disease, Maturity group V. Has no resistance to soybean cyst nematode.

Pershing: Has white flowers, grey pubescence, and seed with buff hila. This variety stands well but does not have any cyst nematode resistance. Maturity Group V.

Pioneer brand 9442: Has purple flowers, tawny pubescence, and seed with black hila. Has no soybean cyst nematode resistance. Maturity Group IV.

Pioneer brand 9461: Has white flowers, tawny pubescence, and seed with black hila. Has no resistance to soybean cyst nematode. Maturity Group IV.

Pioneer brand 9591: Has purple flowers, grey pubescence and seed with buff hila. Has no resistance to soybean cyst nematode. Maturity Group V.

Pioneer brand 9691: Has white flowers, tawny pubescence, and seed with a black hila. Has resistance to Race 3 soybean cyst nematode. Maturity Group VI.

Pioneer brand 9641: Has purple flowers, gray pubescence, and seed with imperfect hila. Has no soybean cyst nematode resistance. Maturity Group VI.

Riverside 577: Has white flowers, grey pubescence, and seed with black hila. Resistant to race 3 of soybean cyst nematode. Is reported to have resistance to root rot nematodes. Maturity Group V.

Riverside 677: Has white flowers, tawny pubescence, and seed with a buff hila. Maturity Group VI.

Riverside 696: Has purple flowers, and tawny pubescence. Resistant to race 3 soybean cyst nematode. Maturity Group VI.

Riverside 699: Has white flowers, grey pubescence, and seed with buff hila. Has no resistance to soybean cyst nematode. Maturity Group VI.

Riverside Cajun: Has white flowers, tawny pubescence, and seed with black hila. Has resistance to Race 3 soybean cyst nematode. Has moderate resistance to frog eye leaf disease. Maturity Group VI.

HSC B2J (HyPerformer): Has purple flowers, tawny pubescence, and seed with a black hila. Resistant to Race 3 soybean cyst nematode. Maturity group VI.

HyPerformer HSC 401: Has purple flowers, grey pubescence and seed with buff hila. Has no resistance to soybean cyst nematode. Maturity Group IV.

TN 5-85: Has white flowers, grey pubescence, and seed with buff hila. Resistant to race 3 of soybean cyst nematode. Maturity Group V. Has moderate resistance to stem canker and MR to SDS.

TN 4-86: Has purple flowers and tawny pubescence. Resistant to races 3 and 4 of the soybean cyst nematode. Has good resistance to stem canker and high resistance to sudden death syndrome (SDS) and frog eye. Maturity Group IV.

Terra-Vig 515: Has purple flowers, tawny pubescence, and seed with a black hila. Resistance to Race 3 soybean cyst nematode. Maturity Group V.

OATS

Fall-Seeded

FFR Southern States 76-30: About two days earlier than Cumberland in maturity and a few inches higher in plant height. It has out-yielded Cumberland and Coker 716 in the state variety test with standing ability similar to Coker 716.

BARLEY

Anson: A medium maturing, medium test weight with good straw strength. It has good disease resistance to leaf rust and powdery mildew. Test weight has been similar to Wysor.

Wysor: A winter-type feed barley that is six-rowed and awnletted to awnless, with short rough awns usually occurring on central spikelets and occasionally on lateral spikelets. Wysor is similar to Henry in test weight, height, lodging and winter hardiness. Wysor is reported to have good resistance to scald, powdery mildew and leaf rust found in Virginia. It is also reported to have some resistance to barley yellow dwarf virus.

SOFT RED WINTER WHEAT

Cardinal: A medium maturing soft red winter wheat variety released by Ohio. Reported to have some resistance to races GP, A, C, & F hessian fly.

Northrup King Coker 9323: An early variety similar to Coker (N.K.) 916 in plant height, lodging resistance with a slightly lower test weight. This variety is reported to have good leaf rust and powdery mildew resistance with no Hessian fly resistance. In the variety trials there has been a moderate amount of leaf rust and powdery mildew on this variety.

Northrup King Coker 9733: This variety performs similar to Coker (N.K.) 9766 in yield with the same maturity and with good straw strength similar to Coker (N.K.) 916. Plant height is taller than Coker (N.K.) 9766 with better test weight than Coker (N.K.) 9766. It is reported to be resistant to leaf rust and powdery mildew. No Hessian fly resistance.

Madison: A medium, early maturing, apically-awnletted white-chaffed cultivar of medium height and straw strength. Moderate resistant to powdery mildew, resistant to spendile streak virus, and moderately tolerant to septoria.

Massey: This variety is white-chaffed, awnletted, midtall, and medium in maturity. It has good field tolerance to powdery mildew, stem rust, and some races of Hessian fly. It is susceptible to leaf rust. This variety has done well at Greeneville in the presence of barley yellow dwarf virus disease. Massey is a Virginia release.

Pioneer brand 2555: An early variety with similar maturity, plant height, test weight, and straw strength as Pioneer brand 2550. Headed a few days earlier than Pioneer brand 2550 or 2551. Field tolerance to prevalent biotype of Hessian fly.

Pioneer brand 2548: An early maturing variety similar to Pioneer brand 2555 in maturity. A few inches shorter than 2555 with higher average test weight. Has shown some tolerance to leaf rust, and powdery mildew disease. Has no resistance to Hessian fly.

Sawyer: An early maturing variety with moderate straw strength. It is similar in height to Saluda. It is reported to have moderate resistance to leaf, and stem rust, powdery mildew and septoria leaf blotch.

Saluda: An awnletted variety with very short tip awns, is white-chaffed and medium-short in height. Spikes are short and compact and generally tend to have three seeds per spikelet. In Virginia, it has shown moderate resistance to powdery mildew and leaf rust. It is moderately susceptible to spindle streak virus and is susceptible to stem rust and Hessian fly.

Terral 101: A soft red winter cultivar with medium early maturity. It is reported to have resistance to leaf and stem rust and powdery mildew and bacterial streak. It is also reported to have moderate resistance to septoria leaf blotch.

Wakefield: An apically-awnletted, white-chaffed, mid-to late- season cultivar. It is reported to have some resistance to wheat spindle streak virus, and is moderately tolerant to septoria. Wakefield is a soft red winter wheat cultivar.

ALFALFA

Anstar: A winter-hardy variety with good recovery ability. Anstar is reported to have resistance to bacterial wilt and anthracnose. It also has moderate resistance to vaerticillium wilt. Fall dormancy rating of 4. Similar to Saranac.

Apollo: A winter-hardy variety with good recovery ability. Has high resistance to phytophthora root rot which is worse on poorly drained soils. In most cases, alfalfa would not be grown on these soils. However, alfalfa can be grown on poorly drained soils (such as Henry) if the surface water is controlled. Alfalfa cannot tolerate flooding for any period of time. Apollo has high resistance to bacterial wilt.

Apollo II: A winter-hardy variety with good recovery ability. Apollo II is reported to be resistant to bacterial wilt, Fusarium wilt and moderate resistance to anthracnose and verticillium wilt. It is reported to have high resistance to phytophythora root rot and spotted alfalfa aphid.

Armor: Developed by Northrup King and is resistant to bacterial, fusarium wilt and phytophthora root rot with moderate resistance to anthracnose.

Chief: Similar fall dormancy to Saranac (4 rating). It is reported to have high resistance to bacterial wilt and moderate high resistance to verticillium with fusarium wilt and anthracnose.

Cimarron: Flowers range from purple to light blue with a low frequency of white and yellow. Reported to be resistant to pea aphid and has intermediate resistance to the spotted alfalfa aphid. Is similar to Arc and Team in resistance to the alfalfa weevil. Reported to have high resistance to anthracnose and bacterial wilt diseases, and moderate resistance to phytophthora root-rot, common leafspot, stem-phylium leafspot, and sclerotinia crown and stem rot diseases.

Dart: Developed by AgriPro and has resistance to bacterial, verticillum and fusarium wilt. Dart also has anthracnose and phytophthora root rot resistance.

Eagle: Similar fall dormancy to Saranac (4 rating). It is reported to have resistance to bacterial wilt, verticillium wilt, fusarium wilt and anthracnose.

Garst 636: Has a fall dormancy rating of 2. It is reported to have (HR) high resistance to bacterial wilt and moderate resistance to anthracnose. It is also reported to have resistance to verticillium wilt and fusarium wilt.

Liberty: Moderately winter-hardy. Tolerance to alfalfa weevil. Resistant to pea aphid and anthracnose disease. Developed from the same germplasm base as Team and Arc.

Pioneer 5432: A winter-hardy variety with good recovery ability. Reported to have high resistance to bacterial wilt and fusarium wilt. Has resistance to verticillium wilt and moderate resistance to phytothora.

Voris A77: Has resistance to anthracnose, bacterial wilt, and fusarium wilt.

Shenandoah: A Great Plains variety with resistance to bacterial and fusarium wilt. This variety also has resistance to anthracnose, phytophtora root rot and stem nematode.

Vancor: Developed by Northrup King and is resistant to bacterial and fusarium wilt. Vancor has moderate resistance to phytophtora root rot and pea aphid. It also has resistance to anthracnose and stem nematode.

WL 320: A winter-hardy variety with good recovery ability. It is reported to be resistant to bacterial wilt, phytophthora root rot, and spotted alfalfa aphid. It is also reported to be moderately resistant to verticillium wilt, anthracnose, spotted alfalfa aphid, pea aphid, blue alfalfa aphid, stem nematode and root knot nematode. Has high resistance to fusarium wilt.

DARK FIRE-CURED TOBACCO

Broad Leaf Madole: A relatively high-yielding, high acre-value variety. Susceptible to mosaic and wildfire.

Black Mammoth: Leaf is somewhat darker and broader than Madole. Usually does not droop quite as much as Madole. Susceptible to mosaic and wildfire.

DF-300: Moderately resistant to black shank. Is a broad-leaved, open-growing tobacco, lighter green in color than Madole with plant growth similar to Madole. The cured tobacco is usually lighter brown in color than Madole. Is best adapted to the production of wrapping tobacco, but is capable of producing cutting or snuff tobacco.

DF-485: Has high resistance to black root rot, wildfire, and mosaic virus and moderate resistance to black shank races "0" and "1". Closely resembles Black Mammoth, except has a longer, wider, and darker green leaf. Flowers are the same as Madole, it is taller and has fewer leaves than Madole, yet the leaf yield is similar.

DF-911: A multiple disease resistant dark fire-cured variety. Is resistant to black root rot, mosaic, and wildfire, but not to black shank. Compared very favorably with Madole in growth, yield, and quality, but is slightly darker in color. Growth habit and appearance are a little more open than Madole, especially at maturity, and the leaf attachment is more upright.

Ky 190: Dark fire cured tobacco cultivar. It has high resistance to black root rot, (TMV) tobacco mosiac virus and wildfire. Has medium resistance to black shank.

DARK AIR-CURED TOBACCO

Ky 160: A medium to large leaf, one-sucker variety. Leaves are dark green in color and fairly smooth. Resistant to tobacco mosaic.

OS-802: A one-sucker variety with medium resistance to black shank and high resistance to wildfire and tobacco mosaic. Is light green in color with an open growth habit and tends to have a smoother leaf surface than Ky 160.

Ky 180: Dark air-cured cultivar with high resistance to black root rot, (TMV) and wildfire.

BURLEY TOBACCO

Black Shank Resistant Varieties

TN 86: is a stand-up variety with moderate to high yield potential. TN 86 is resistant to Tobacco Vein Mottling and Tobacco Etch Viruses. It matures about 10-14 days later than 14xL8. For maximum yields, TN 86 should be topped at approximately 22-24 leaves at the elongated button to early flower stage and harvested about five weeks after topping.

TN 90: is a new variety released by the University of Tennessee that has moderate yield potential. Is resistant to Tobacco Vein Mottling and Tobacco Etch Viruses. TN 90 differs from TN 86 in that it has mosaic virus resistance, matures about seven days earlier, has a smaller stalk and tolerates drought better.

CLAY 501: has low to moderate yield potential and generally blooms a few days earlier than other varieties with black shank resistance. Clay 501 is recommended for use where black shank disease is severe and crop rotation is restricted.

COOP 543: has low to moderate yield potential. Coop 543 is recommended for use where black shank disease is severe and crop rotation is restricted.

VA 509: has moderate to high yield potential. VA 509 should not be grown where black root rot is a problem. This variety has a large stalk in comparison to other varieties.

R 610: is a new variety by Rikard Seed Company that has moderate yield potential R610 is comparable to TN 90 in yield potential and black shank resistance but has no resistance to viruses.

Black Shank Susceptible Varieties

14xL8: has high yield potential and is early maturing. 14xL8 has large, semi-drooping leaves. This variety has no resistance to Race 1 black shank and should not be grown in fields infested with black shank. 14xL8 tends to produce excessive suckers in some years.

21x10: has high yield potential and usually produces large plants. This variety should not be grown where black root rot is a problem.

COOP 313: has high yield potential. Coop 313 has low resistance to black shank and should not be grown where black shank is a problem.

1992
PERFORMANCE OF FIELD CROP VARIETIES

Corn - Grain Sorghum - Summer Annuals - Oats
Barley - Wheat - Alfalfa - Soybeans

DATA FOR 1992
WITH SUMMARIES OF RESULTS FROM PREVIOUS YEARS

INTRODUCTION

The purpose of the project, "Field Crop Variety Evaluation," is to test field crop varieties available to farmers in Tennessee and neighboring states, as well as the best experimental varieties being developed by experiment stations, other public agencies, and private companies.

The tests were conducted using field plot designs, fertility levels, and experimental techniques that have been found suitable for each crop.

Committees composed of specialists from the research, resident instruction, and extension staffs of the University of Tennessee Institute of Agriculture based on a study of the performance data determine varieties to be recommended.

For a variety to be recommended, it must yield well and have other characteristics suitable for Tennessee conditions.

PRESENTATION OF DATA

The tests were conducted in each of the principal agricultural regions of the state where the specific crop is grown. Plots of each variety were replicated several times at each location. Locations of field tests are given in each table of data. An average of the performance of a variety across the area of adaptation and over a period of years is the best basis for evaluation.

The tables on the following pages have been prepared with the entries listed in order of performance, the highest-yielding entry being listed first.

Least significant difference (L.S.D.) values at the five percent level for the 1991 tests are shown at the bottom of each table. Yields of any two varieties being compared must differ by at least this amount to be considered different in yielding ability. Also, coefficient of variation (C.V. %) values are shown at the bottom of each table. This value is a measure of the variability found within each experiment. At each location where tests were conducted in 1991, the soil types are reported at the end of the table.

PERFORMANCE OF CORN HYBRIDS FROM 1990 THROUGH 1992

The medium-season hybrid trials were conducted at seven locations, the full-season at four locations, and the early-maturing hybrids at five locations in 1992. All experimental field trials at Crossville were destroyed in 1990 by a severe hail storm. Early-maturing data from Martin in 1990 was not reported due to yield variability caused by drought. Medium-season (500 group) data were not reported in 1991 for the same reason. The medium-season (600 group) at Springfield was not harvested in 1991 due to poor stands caused by flooded conditions. The medium-season (500 group) at Springfield was not reported in 1992 because of a malfunction in the combine weigh cell.

All corn hybrid tests were over-planted and thinned from about 19,000 to 28,000 plants per acre. Population varied with location but was the same for all hybrids at a given location. Variation in population among locations was due to different row spacings. Spacing within the row was the same at all locations. Most tests were conducted using thirty-six inch row spacings except at Milan and Knoxville, where space between rows was thirty inches. The tests were fertilized with 150 pounds or more of nitrogen per acre. At least as much phosphorus and potassium were applied as recommended by soil test results. The plot size for hand-planted plots at most locations was two rows 11 feet long, while mechanically harvested plots were two rows 25 to 30 feet in length. Plots were replicated four times at each location. In 1992, the corn hybrid studies at Jackson, Martin, Spring Hill, and Knoxville were harvested with a combine-sheller while all other tests were harvested by hand. The early-maturing hybrids at Ames Plantation and full-season hybrids at Jackson were grown with and without irrigation each of three years (1990-92).

Two medium-season corn hybrid trials were grown each year with one being referred to as the 500 group and the other as the 600 group. The 500 and 600 refer to entry numbers. Two trials of this maturity group are conducted because most variety trials are limited to 40 entries and there are usually 70 to 80 hybrids in the medium-maturity group.

Corn yields are expressed in bushels per acre, ADJUSTED TO 15.5 PERCENT MOISTURE. The percent of GRAIN MOISTURE AT HARVEST is presented to show the RELATIVE MATURITY OF EACH HYBRID.

Early Season

The early-season data for 1992 are reported in Tables 1 through 6. Yields were high at all five locations (Table 1). The average yield among locations ranged from 147 to 194 bu/a. Beck's 72X produced the highest yield of 194 bushels per acre. Lodging was low at all locations. Grain quality ratings were made at Crossville, where the corn was harvested by hand. Husk cover was taken at all locations. The two year results for the early-season hybrids are shown in Tables 3 and 4. Beck's 72X produced an average yield of 180 bushels per acre (Table 3).

The three year early-medium corn hybrid results are presented in Tables 5 and 6. Only five early-maturing hybrids were evaluated for the three years. Beck's 72X was the highest producing hybrid (Table 5).

Yield Results - Medium-Season-500 Group

Results of the medium-season 500 group hybrids are reported in Tables 7 through 10. The average for forty hybrids and six locations in 1992 was 162 bushels per acre (Table 7). Using Dekalb DK 689 as the check hybrid in the 1992 medium-season 500 group, no hybrid produced higher yields (Table 7). The Dekalb DK 689 average yield of 171 bushels per acre (Table 7) was higher than 17 of the 40 varieties evaluated at six locations.

High yields were obtained at all six locations. Average yields and other characteristics of medium-season hybrids (500 group) are shown in Table 8. The two year results are shown in Tables 9 and 10. HyPerformer HS 9773 and McCurdy 7777 produced higher yields than the average yield of 164 bushels per acre (Table 9).

Yield Results - Medium-season-600 Group

The 600 group results are shown in Tables 11 through 14. Pioneer brand 3154 was used as a check hybrid in the medium-season 500 group, the medium-season

600 group and the full-season hybrids. Pioneer brand 3154 ranked first in yield in both 500 and 600 medium-season groups. Two-year summaries for medium-season (600 group) hybrids are presented in Tables 13 and 14.

Full-Season Hybrids

The results of thirty-eight hybrids evaluated in 1992 at four locations are shown in Tables 15 and 16. Pioneer brand 3154 was first in yield for the medium-season 500 and 600 groups. In the full-season trials, Pioneer brand 3154 ranked 29th in average yield out of thirty-eight hybrids evaluated (Table 15). Pioneer brand 3154 yielded 243, 240 and 234 bushels per acre in medium-season 500, 600, and full-season trials, respectively. The full-season hybrids were evaluated for a response to irrigation at Jackson and Pioneer brand 3154 was low in both the non-irrigated and irrigated trials (Table 15). At Spring Hill and Ames Plantation, Pioneer brand 3154 produced yields similar to the average of all hybrids at both locations. The five leading hybrids in the full-season trials were FFR 943, Pioneer brand 3165, Dekalb DK 689, Asgrow XP 9482 and Asgrow XP 9451 (Table 15). The 1992 full-season average yields and other characteristics are presented in Table 16.

The two year full-season results are shown in Tables 17 and 18 and the three year results in Tables 19 and 20.

An experiment to evaluate all hybrids for susceptibility to the corn virus disease complex was conducted at Knoxville in 1992. The incidence of virus disease in the experiemnt was too low to make reliable virus ratings. This has occurred for three consecutive years.

Table 1. Yield of early-maturing corn hybrids evaluated at five locations in 1992.

Color Cross	Brand	Hybrid	Avg. Yield	Knox-ville	Cross-ville	Ames Plantation		Milan	Martin
						Non-Irr.	Irrigated		
				Bushels per acre					
Y 2X	Beck's	72X	194	250	179	159	208	223	142
Y 2X	Pioneer	3215	184	231	172	167	196	206	135
Y 2X	Augusta	A 413	182	239	171	158	177	199	147
Y 2X	HyPerformer	HS 9773	178	217	165	147	198	202	140
W 2X	Zimmerman	Z-17 W	178	244	146	160	180	197	141
Y 2X	Pioneer	3245	178	244	167	148	172	192	143
W 2X	Pioneeer	3281W	176	251	162	145	175	199	125
W 2X	Hyperformer	HS 165W	175	218	140	154	197	192	151
Y 2X	Pioneer	3279	175	246	152	154	184	180	136
Y 2X	Augusta	A 513	175	227	166	131	182	209	133
Y 2X	DeKalb	DK 646	173	238	167	140	158	202	133
W 2X	HyPerformer	HS 185 W	172	221	151	152	181	199	130
W 2X	Asgrow	XP 8091W	172	215	166	149	176	190	133
Y 2X	Deltapine	4581	171	211	169	146	162	192	143
Y 2x	AgraTech	757	171	230	165	147	157	182	143
Y 2x	Oro	188	170	218	163	140	169	209	121
Y 2X	Asgrow	RX 811	167	208	159	148	167	186	135
Y 2X	Southern Cross	412	167	204	171	147	168	181	132
Y 2X	Deltapine	8620	167	222	163	136	144	190	145
Y 2X	Northrup King	X 701	167	212	157	130	165	205	130
Y 2X	Stine	1118	165	228	149	153	145	190	127
Y 2X	Hyperformer	HS 9502	165	213	149	141	163	191	132
Y 2X	Northrup King	X 748	165	211	152	143	154	188	141
Y 2x	Pioneer	3394	165	228	135	122	178	196	129
Y 2X	Jacques	7970	164	216	149	135	162	185	138
Y 2x	Stine	1157	163	210	151	139	165	189	122
Y 2X	Agusta	A 505	162	221	142	129	158	194	129
Y 2X	Asgrow	XP 7831	161	219	148	141	157	164	136
Y 2X	DeKalb	DX 633	157	194	151	132	159	184	119
Y 2x	Northrup King	PX 9540	156	207	157	119	149	182	125
Y 2X	Northrup King	N 6330	156	207	146	129	156	173	127
Y 2X	Asgrow	RX 809	155	186	150	135	159	177	127
Y 2X	Exp.	B73 X Mo17	154	196	151	140	143	179	114
Y 2x	ICI Garst	8513	154	219	130	132	149	167	126
Y 2X	Southern Cross	411	153	194	143	149	153	160	121
Y 2X	Asgrow	XP 8101	147	181	134	148	145	148	126
L.S.D. (.05)									
C.V. %									
Avg.									
R-Square									

Table 2. Corn: Yield and other characteristics of early-maturing hybrids evaluated at five locations in 1992.

Color Cross	Brand	Hybrid	Avg. Yield	Lodged Plants	Grain[1] Quality	Husk[2] Cover	Ear Ht.	Grain Moisture At Harvest
			Bu/a	No.	Rating	Rating	In.	%
Y 2X	Beck's	72 X	194	2.4	4.0	4.1	51	17.6
Y 2X	Pioneer	3215	184	1.5	3.0	3.9	53	17.2
Y 2X	Augusta	A 413	182	3.4	4.5	4.1	51	17.4
Y 2X	HyPerformer	HS 9773	178	3.3	4.5	4.4	50	17.4
W 2X	Zimmerman	Z-17 W	178	0.4	3.0	3.0	51	18.5
Y 2X	Pioneer	3245	178	1.5	3.5	4.1	45	17.4
W 2X	Pioneer	3281 W	176	0.1	3.0	2.7	51	18.0
W 2X	HyPerformer	HS 165W	175	1.0	3.0	3.5	51	18.5
Y 2X	Pioneer	3279	175	1.1	3.5	4.2	48	16.8
Y 2X	Augusta A	513	175	0.7	3.0	2.9	50	17.3
Y 2X	DeKalb	DK 646	173	2.1	3.5	3.4	46	16.4
W 2X	HyPerformer	HS 185W	172	1.1	2.5	3.1	52	19.5
W 2X	Asgrow	XP 8091W	172	0.5	2.0	2.7	51	18.0
Y 2X	Deltapine	4581	171	0.2	2.5	3.0	50	16.9
Y 2X	AgraTech	757	171	0.5	2.5	3.0	51	17.1
Y 2X	Oro	188	170	0.5	3.5	3.5	49	19.1
Y 2X	Asgrow	RX 811	167	1.1	3.5	4.1	48	17.6
Y 2X	Southern Cross	412	167	2.0	2.0	3.9	50	16.8
Y 2X	Deltapine	8620	167	1.2	3.0	3.1	44	17.9
Y 2X	Northrup King	X 701	167	0.5	3.5	3.0	45	17.0
Y 2X	Stine	1118	165	0.8	4.0	4.7	46	16.3
Y 2X	HyPerformer	HS 9502	165	0.1	4.0	4.2	47	16.5
Y 2X	Northrup King	X 748	165	1.0	2.5	3.4	49	16.9
Y 2X	Pioneer	3394	165	1.2	4.5	4.6	47	16.2
Y 2X	Jacques	7970	164	0.5	3.5	2.9	43	18.1
Y 2X	Stine	1157	163	1.1	3.0	4.0	51	17.0
Y 2X	Augusta	A 505	162	0.5	5.0	3.7	45	16.4
Y 2X	Asgrow	XP 7831	161	0.4	4.0	3.6	48	17.0
Y 2X	DeKalb	DK 633	157	1.1	4.0	3.5	49	16.4
Y 2X	Northrup King	Px 9540	156	1.4	3.0	3.6	46	17.0
Y 2X	Northrup King	N 633	156	1.1	4.0	3.6	45	16.0
Y 2X	Asgrow	Rx 809	155	0.4	4.5	4.2	52	16.3
Y 2X	B73 X Mo17		154	1.8	4.0	4.0	49	16.6
Y 2X	ICI Garst	8513	154	1.3	4.5	4.5	47	16.2
Y 2X	Southern Cross	411	153	0.3	3.5	5.0	49	17.1
Y 2X	Asgrow	XP 8101	147	0.3	4.0	3.7	49	16.6

[1]Rating based on a scale of 1 through 9 with 1 being excellent and 9 poor.
[2]Grain quality was taken at Crossville where corn was harvested by hand.

Table 3. Corn: Yield of early-maturing hybrids evaluated at four locations for two years (1991-92).

Brand	Hybrid	Avg. Yield	Knox-ville	Cross-ville	Milan	---Ames Plantation--- Un-Irr.	Irrigated
			Bushels per acre				
Y 2X Beck's	72X	180	220	155	207	131	185
Y 2X Pioneer	3215	176	216	148	191	145	179
W 2X Zimmerman	Z-17W	165	212	127	192	129	167
W 2X Pioneer	3281W	165	214	134	192	120	165
Y 2X Oro	188	159	191	134	189	120	161
Y 2X Asgrow	RX 811	157	193	133	185	125	151
Y 2X Pioneer	3394	152	198	126	178	107	153
Y 2X Jacques	7970	152	193	128	179	117	143
Y 2X Northrup King	PX 9540	150	195	135	177	104	140
Y 2X B73 X Mo17		144	184	116	165	114	144
Y 2X Southern Cross	411	141	179	125	157	118	127
L.S.D. (.05)		7.0	16.5	13.4	16.3	13.5	15.9
C.V. %		10.1	8.3	10.1	8.9	11.2	10.2
Avg.		158.4	199.5	132.8	182.9	121.0	155.9
R-Square		0.87	0.80	0.84	0.65	0.84	0.76

Table 4. Corn: Yield and other characteristics of early-maturing hybrids evaluated at four locations for two years (1991-92).

Color Cross Brand	Hybrid	Avg. Yield	Lodged Plants	Grain Quality	Husk Cover	Ear Ht.	Grain Moisture At Harvest
		Bu/A	No.	Rating	Rating	In.	%
Y 2X Beck's	72X	180	2.1	4.0	3.7	51	18.4
Y 2X pioneer	3215	176	1.0	3.3	2.7	54	18.5
W 2X Zimmerman	Z-17W	165	0.5	3.0	2.6	52	19.1
W 2X Pioneer	3281W	165	0.3	3.3	2.2	51	18.9
Y 2X Oro	188	159	0.7	4.0	2.6	52	20.0
Y 2X Asgrow	RX 811	157	0.9	3.7	3.5	50	18.2
Y 2X Pioneer	3394	152	0.9	4.3	4.4	48	17.0
Y 2X Jacques	7970	152	0.6	4.0	2.3	43	18.9
Y 2X Northrup King	PX 9540	150	1.2	3.3	2.8	46	18.1
Y 2X B73 X Mo17		144	1.3	5.5	3.7	49	17.7
Y 2X Southern Cross	411	141	0.6	3.7	3.3	49	18.2

Table 5. Corn: Yield of early-maturing hybrids evaluated three locations for three years (1990-92).

Color Cross	Brand	Hybrid	Avg. Yield	Knox-ville	Milan	Ames Plantation Un-Irr.	Ames Plantation Irrigated
				Bushels per acre			
Y 2X	Beck's	72X	181	224	194	117	189
W 2X	Zimmerman	Z-17W	167	200	178	113	178
Y 2X	Oro	188	167	191	187	115	175
Y 2X	B73 X Mo17		152	176	163	109	162
Y 2X	Southern Cross	411	148	180	159	106	146
L.S.D. (.05)			7.6	17.9	16.6	10.7	12.8
C.V. %			11.6	11.2	11.4	11.7	9.2
Avg.			163.0	194.0	176.0	111.8	170.1
R-Square			0.84	0.72	0.62	0.87	0.83

Table 6. Corn: Yield of early-maturing hybrids evaluated at three locations for three years (1990-92).

Cross	Color	Brand	Hybrid	Avg. Yield	Husk Cover	Plant Ht.	Grain Moisture At Harvest
				Bu/A	Rating[1]	In.	%
Y 2X		Beck's	72X	181	6.2	47	18.0
W 2X		Zimmerman	Z-17W	167	6.4	48	19.4
Y 2X		Oro	188	167	6.9	48	19.8
Y 2X		B73 X Mo17		152	6.2	48	17.5
Y 2X		Southern Cross	411	148	6.0	45	17.7

[1]Rating based on a scale of 1 through 9 with one being excellent and 9 poor.

Table 7. Corn: Yield of medium-season hybrids (500 group) evaluated at six locations in 1992.

Color Cross	Brand	Hybrid	Avg. Yield	Knox-ville	Cross-ville	Greene-ville	Spring Hill	Milan	Martin
			Bushels per acre						
Y 2X	Pioneer	3154	180	243	164	182	154	190	147
Y 2X	Pioneer	3295	174	239	136	159	148	198	164
Y 2X	HyPerformer	HS 9773	173	241	143	157	141	195	163
W 2X	Zimmerman	Z-61W	173	245	133	192	133	186	150
Y 2X	AgraTech	787	173	241	146	153	145	189	163
Y 2X	Asgrow	RX 919	172	248	142	162	144	180	156
Y 2X	DeKalb	689	171	250	133	168	145	178	154
Y 2X	McCurdy	7777	170	231	137	174	142	189	144
Y 2X	Asgrow	RX 897	167	215	144	166	164	163	153
Y 2X	ICI Garst	8315	166	225	154	151	142	183	141
Y 2X	Stine	1181	166	226	151	158	153	167	141
Y 2X	Zimmerman	Z-27y	166	226	151	151	139	171	156
Y 2X	Gutwein	2727	164	221	142	166	141	170	144
Y 2X	ICI Garst	8105	164	228	149	157	145	162	141
Y 2X	AgraTech	525	164	224	144	182	137	158	138
Y 2X	Deltapine	4581	164	210	144	162	151	167	148
W 2X	Deltapine	G-4644	163	227	139	149	133	183	150
Y 2X	Deltapine	G-4666	163	216	138	174	133	171	148
Y 2X	DeKalb	715	163	233	151	119	151	172	149
Y 2X	Beck's	87 MDM	163	226	124	154	135	183	153
Y 2X	FFR	892	162	221	142	164	156	159	134
Y 2X	Gutwein	2810	162	224	146	149	143	166	145
Y 2X	Northrup King	S 8645	161	196	149	166	150	168	138
Y 2X	Deltapine DP	5750	160	214	145	163	122	174	146
Y 2X	Asgrow RX	897	160	225	141	138	148	168	142
Y 2X	AgraTech	757	160	221	138	150	152	151	148
Y 2X	Stine	1195	159	214	145	163	146	152	134
W 2X	Asgrow	XP 9431W	159	225	124	148	128	176	152
Y 2X	HyPerformer	HS 9704	157	205	132	152	139	175	138
Y 2X	Beck's	81X	157	209	149	159	113	161	150
Y 2X	Deltapine	G-4631	157	223	145	140	127	162	143
Y 2X	Beck's Exp.	1341	156	212	122	149	134	176	146
Y 2X	HyPerformer	HS 9911	156	210	130	159	133	173	134
W 2X	ICI Garst	N 9122W	156	209	141	163	128	164	133
W 2X	Asgrow	RX 856W	156	213	128	148	138	163	146
Y 2X	DYNAGRO	5510	156	212	147	153	147	151	125
Y 2X	AgraTech	888	155	211	119	169	126	170	137
Y 2X	Northrup King	S 7759	153	199	137	149	146	155	130
Y 2X	Beck's	85 MDM	152	207	139	137	141	161	123
Y 2X	Northrup King	N 7816	148	193	137	147	127	147	134
L.S.D. (.05)			9.2	19.0	20.9	26.0	26.8	20.3	14.6
C.V.%			9.9	6.2	10.6	11.8	13.6	8.5	7.2
Avg.			162.5	221.5	140.5	157.6	140.4	170.6	144.5
R-Square			0.83	0.60	0.47	0.45	0.28	0.51	0.54

Table 8. Corn: Yield and other characteristics of medium-season (500 group) hybrids evaluated at six locations in 1992.

Color Cross	Brand	Hybrid	Avg. Yield	Lodged Plants	Grain Quaity	Husk Cover	Ear Ht.	Grain Moisture at Harvest
			Bu/A	No.	Rating	Rating	In.	%
Y 2X	Pioneer	3154	180	1.6	3.2	4.0	52	19.6
Y 2X	Pioneer	3295	174	0.4	4.5	4.7	50	17.4
Y 2X	HyPerformer	HS 9773	173	0.9	4.0	3.5	51	18.4
W 2X	Zimmerman	Z-61W	173	0.1	3.0	4.2	55	19.1
Y 2X	AgraTech	787	173	0.6	3.7	3.1	52	18.3
Y 2X	Asgrow	RX 919	172	0.9	2.7	3.3	56	20.1
Y 2X	DeKalb	689	171	0.9	3.2	3.6	53	19.4
Y 2X	McCurdy	7777	170	0.5	4.0	3.3	50	20.2
Y 2X	Asgrow	RX 897	167	0.3	3.5	3.1	47	18.4
Y 2X	ICI Garst	8315	166	1.4	3.2	3.5	56	17.5
Y 2X	Stine	1181	166	0.8	3.5	2.9	51	17.7
Y 2X	Zimmerman	Z-27Y	166	2.1	2.5	3.2	56	20.4
Y 2X	Gutwein	2727	164	0.6	3.2	2.5	51	18.5
Y 2X	ICI Garst	8105	164	0.5	3.2	3.3	48	20.5
Y 2X	AgraTech	525	164	0.4	3.2	3.1	44	19.5
Y 2X	Deltapine	4581	164	0.4	3.2	3.5	51	17.5
W 2X	Deltapine	G-4644	163	1.7	2.7	3.0	54	21.1
Y 2X	Deltapine	G-4666	163	0.2	3.2	2.4	49	19.4
Y 2X	Beck's	87 MDM	163	0.9	3.7	3.2	56	21.1
Y 2X	DeKalb	715	163	1.1	3.5	3.4	49	19.4
Y 2X	FFR	892	162	0.3	3.2	2.8	51	17.8
Y 2X	Gutwein	2810	162	0.0	3.0	2.8	54	17.8
Y 2X	Northrup King	S 8645	161	0.1	3.0	2.5	50	19.1
Y 2X	Deltapine	DP 5750	160	0.0	3.2	2.6	49	19.7
Y 2X	Asgrow	RX 897	160	0.7	3.5	2.9	53	18.0
Y 2X	AgraTech	757	160	0.6	3.2	3.5	51	17.8
Y 2X	Stine	1195	159	0.7	3.0	3.3	45	18.8
W 2X	Asgrow	XP 9431W	159	1.2	2.5	2.9	47	20.3
Y 2X	HyPerformer	HS 9704	157	0.9	4.0	3.2	49	18.4
Y 2X	Beck's	81X	157	0.1	3.0	3.5	50	20.7
Y 2X	Deltapine	G-4631	157	0.8	3.2	2.5	52	18.8
Y 2X	Beck's	1341	156	2.6	4.2	3.6	50	20.3
Y 2X	Hyper	HS 9911	156	0.4	3.5	2.6	48	19.1
W 2X	ICI Garst	N 9122W	156	0.4	3.2	2.8	53	20.0
Y 2X	Asgrow	RX 856W	156	3.0	3.2	2.9	54	20.5
Y 2X	DYNOGRO	5510	156	0.4	3.7	3.5	43	18.5
Y 2X	AgraTech	888	155	0.4	3.5	2.8	48	20.0
Y 2X	Northrup King	S 7759	153	1.9	3.0	3.8	52	17.6
Y 2X	Beck's	85 MDM	152	2.8	3.0	2.7	57	19.8
Y 2X	Northrup King	N 7816	148	0.4	3.7	4.4	53	17.5

Table 9. Corn: Yield of medium-season hybrids evaluated at four locations for two years (1991-92).

Color	Cross	Brand	Hybrid	Avg.	Greene-ville	Knox-ville	Cross-ville	Milan
						Bushels per acre		
Y	2X	HyPerformer	HS 9773*	176	173	207	141	182
Y	2X	McCurdy	7777*	174	165	221	135	174
W	2X	Zimmerman	Z-61W*	173	170	214	129	178
Y	2X	DeKalb	DK 689*	172	163	221	129	175
Y	2X	Asgrow	RX 919*	172	150	227	133	177
Y	2X	ICI Garst	8315*	171	149	206	139	188
Y	2X	Pioneer	3295*	169	165	200	140	172
Y	2X	DeKalb	715	168	132	205	135	200
Y	2X	Deltapine	DP 5750*	168	157	202	137	175
Y	2X	Deltapine	G-4666*	167	167	207	128	168
Y	2X	Zimmerman	Z-27Y*	167	160	203	135	169
W	2X	Deltapine	G-4644W*	165	154	204	129	174
Y	2X	HyPerformer	HS 9911*	164	162	197	122	177
Y	2X	Beck's	97 MDM	163	156	202	112	183
Y	2X	AgraTech	888*	161	158	189	128	169
Y	2X	HyPerformer	HS 9704	161	153	192	134	164
Y	2X	AgraTech	825*	159	154	195	134	155
Y	2X	Beck's	81X	159	152	191	135	157
Y	2X	Deltapine	4581	157	150	189	126	161
Y	2X	Northrup King	S7759*	157	146	193	127	161
Y	2X	AgraTech	757	155	147	195	129	149
Y	2X	Beck's	85 MDM	153	142	183	125	165
Y	2X	Northrup King	N7816	153	145	192	121	152
L.S.D. (.05)				9.9	20.9	16.0	15.6	21.2
C.V.%				12.3	13.6	8.0	12.1	12.6
Avg.				164.5	155.2	201.5	130.6	170.6
R-Square				0.73	0.41	0.77	0.53	0.42

* Evaluated for three or more years.

Table 10. Corn: Yield and other characteristics of medium-season hybrids evaluated at four locations for two years (1991-92).

Color	Cross	Brand	Hybrid	Avg. Yield	Lodged Plants	Grain Quality	Husk Cover	Ear Ht	Grain Moisture at Harvest
				Bu/A	%	Rating	Rating	In.	%
Y	2X	HyPerformer	HS 9773*	176	2.2	4.1	3.9	57	19.1
Y	2X	McCurdy	7777*	174	0.9	4.4	3.6	55	20.5
W	2X	Zimmerman	Z-61W*	173	0.2	3.1	3.7	61	20.0
Y	2X	DeKalb	DK 689*	172	0.6	3.2	3.6	57	19.9
Y	2X	Asgrow	RX 919*	172	0.7	3.0	3.3	61	20.3
Y	2X	ICI Garst	8315*	171	0.5	3.2	3.4	60	18.5
Y	2X	Pioneer	3295*	169	0.1	4.1	5.2	55	18.1
Y	2X	DeKalb	715	168	0.9	3.6	3.6	51	19.9
Y	2X	Deltapine	DP 5750*	168	0.3	3.4	2.7	53	20.1
Y	2X	Deltapine	G-4666*	167	0.1	3.6	2.6	52	19.7
Y	2X	Zimmerman	Z-27Y*	167	1.2	2.7	3.2	59	18.7
W	2X	Deltapine	G-4644W*	165	1.3	2.9	3.0	58	21.4
Y	2X	HyPerformer	HS 9911*	164	0.3	3.9	2.9	54	19.7
Y	2X	Beck'S	97 MDM	163	1.0	4.1	3.4	61	21.3
Y	2X	AgraTech	888*	161	0.5	3.9	2.9	52	20.1
Y	2X	HyPerformer	HS 9704	161	0.5	3.5	3.2	52	18.8
Y	2X	AgraTech	825*	159	0.1	3.9	3.9	46	20.1
Y	2X	Beck's	81X	159	0.3	3.0	3.6	57	18.7
Y	2X	Deltapine	4581	157	0.2	3.2	3.5	55	18.2
Y	2X	Northrup King	S 7759*	157	1.3	3.2	3.4	56	18.3
Y	2X	AgraTech	757	155	0.4	3.2	3.8	54	18.4
Y	2X	Beck's	85 MDM	153	1.2	3.5	2.8	62	20.4
Y	2X	Northrup King	N 7816	153	0.2	3.9	4.7	56	18.2

Table 11. Corn: Yield of medium-season hybrid (600 group) evaluated at seven locations in 1992.

Color Cross	Brand	Hybrid	Yield	Knox-ville[1]	Greene-ville[2]	Cross-ville[3]	Spring Hill[4]	Spring-field[5]	Milan[6]	Martin[7]
				-- Bushels per acre --						
Y2X	Pioneer	3154	191	240	231	159	116	244	203	140
Y2X	Dekalb	DK 689	190	253	200	166	136	233	185	159
Y2X	Asgrow	X 8982	190	252	231	162	118	213	193	158
Y2X	Deltapine	8695	189	240	231	165	124	234	180	146
Y2X	Cargill	X 9203	185	259	193	165	124	207	200	110
Y2X	FFR	793	182	233	219	172	128	210	170	146
Y2X	Best	6700	181	231	226	165	118	210	179	138
YM2X	AVA	2870	179	230	222	166	106	211	181	140
Y2X	FFR	812	178	228	201	160	139	222	166	132
Y2X	Asgrow	X9152	178	241	212	164	113	190	173	152
Y2X	AVA	2819	177	229	203	162	133	216	145	155
Y2X	HyPerformer	HS 9905	177	230	209	158	139	192	173	138
Y2X	South. Cross	612	176	222	197	153	122	233	158	150
Y2X	Oro Exp.	1008	176	207	213	167	125	222	167	133
Y2X	Oro	190	176	228	200	161	138	195	166	144
Y2X	Terra	TR 1167	175	221	184	158	128	225	173	135
Y2X	Jacques	8510	174	209	190	161	135	214	179	134
Y2X	Cargill	7997	174	216	178	158	129	226	168	142
Y2X	HyPerformer	HS 9843	174	228	204	151	116	217	159	142
Y2X	Jacques	8210	174	226	204	164	128	184	173	138
Y2X	Terra	Tr 1180	173	216	211	159	111	200	169	145
Y2X	AVA	2712	173	207	210	164	129	211	153	134
W2X	HyPerformer	HS 175 W	172	203	210	149	99	207	191	142
Y2X	FFR	892	171	214	194	158	137	208	154	131
Y2X	AVA	2759	170	198	204	161	134	223	152	119
Y2X	Terra	Tr 641E	170	211	182	171	125	187	175	138
Y2X	Callahan	C 783	169	215	198	152	135	202	154	131
Y2X	Asgrow	X 9402	168	171	204	175	144	178	172	135
Y2X	AVA	2777	168	223	188	157	109	210	160	130
W2X	Asgrow	Rx 956W	168	223	197	159	123	175	169	129
Y2X	Terra	TR 621E	166	214	188	170	113	181	169	127
Y2X	AVA	2737	165	220	191	161	118	189	148	129
Y2X	Cargill	1710009	165	210	176	157	112	201	169	131
Y2X	AgraTech	6780	162	201	187	133	124	196	156	134
Y2X	Cargill	179091	159	207	204	129	107	197	150	120
YM2X	AVA	2880	159	203	199	139	109	174	162	123
L.S.D. .05			8.2	30.1	10.9	16.3	16.2	25.1	19.4	19.0
C.V.%			9.0	9.7	7.4	7.3	9.4	8.6	8.2	9.8
Avg.			174.3	221.1	202.5	159.2	123.4	206.6	169.3	138.0
R-Square			0.88	0.47	0.57	0.58	0.56	0.59	0.58	0.45

[1]Sequatchie silt loam (2% to 5% slopes).
[2]Hermitage/Huntington silt loam (2% to 5% slopes).
[3]Hartsells loam (2% to 5% slopes).
[4]Maury silt loam (2% to 5% slopes).
[5]Huntington silt loam (2% to 5% slopes).
[6]Falaya silt loam (2% to 5% slopes).

Table 12. Corn: Yield and other characteristics of medium maturity hybrids (600 group) evaluated at seven locations in 1992.

Color Cross	Brand	Hybrid	Yield	Lodged Plants	Grain Quality	Husk Cover	Ear Ht.	Grain Moisture at harvest
			Bu/A	Avg.	Rating[1]	Rating[1]	In.	%
Y2X	Pioneer	3154	191	3.0	3.0	4.1	57	17.3
Y2X	DeKalb	DK 689	190	0.9	3.2	4.0	53	17.2
Y2X	Asgrow	X 8982	190	1.3	3.7	3.7	51	16.2
Y2X	Deltapine	8695	189	1.7	3.2	4.3	57	17.7
Y2X	Cargill	X 9203	185	0.4	3.7	4.2	49	18.4
Y2X	FFR	793	182	1.4	3.2	4.1	51	16.7
Y2X	Best	6700	181	2.1	3.2	3.6	53	16.8
YM2X	AVA	2870	179	0.5	3.0	3.7	46	17.2
Y2X	FFR	812	178	0.7	2.7	3.9	53	16.1
Y2X	Asgrow	X 9152	178	2.1	3.5	4.2	54	17.7
Y2X	AVA	2819	177	0.4	2.7	4.1	52	16.2
Y2X	HyPerformer	HS 9905	177	0.3	3.5	3.2	49	17.4
Y2X	Southern Cross	612	176	0.2	4.0	3.7	47	16.8
Y2X	ORO Exp.	1008	176	1.3	3.5	4.2	46	17.7
Y2X	ORO	190	176	0.9	3.0	3.7	48	16.8
Y2X	Terra	TR 1167	175	0.4	3.0	3.7	55	16.0
Y2X	Jacques	8510	174	1.6	3.0	3.7	49	17.8
Y2X	Cargill	7997	174	0.3	3.5	4.4	47	16.1
Y2X	HyPerformer	HS 9843	174	0.7	3.7	4.0	51	16.1
Y2X	Jacques	8210	174	1.1	3.5	4.2	51	16.7
Y2X	Terra	TR 1180	173	1.0	3.0	3.7	50	16.9
Y2X	AVA	2712	173	0.5	3.0	3.9	48	15.6
W2X	HyPerformer	HS 175W	172	2.3	3.5	3.4	52	18.0
Y2X	FFR	892	171	0.3	3.2	4.0	46	16.2
Y2X	AVA	2759	170	0.6	3.5	4.1	48	15.4
Y2X	Terra	TR 641E	170	0.8	3.0	3.9	46	16.6
Y2X	Callahan	C 783	169	1.4	3.0	3.8	50	17.0
Y2X	Asgrow	X 9402	168	0.6	2.7	3.5	53	17.3
Y2X	AVA	2777	168	0.6	3.0	3.6	48	16.9
W2X	Asgrow	RX 956W	168	2.4	2.5	3.9	53	18.3
Y2X	Terra	TR 621E	166	1.2	2.7	3.7	49	16.7
Y2X	AVA	2737	165	0.8	3.5	3.9	49	16.1
Y2X	Cargill	1710009	165	2.7	3.7	3.7	50	18.0
Y2X	AgraTech	6780	162	1.8	3.2	3.7	53	16.5
Y2X	Cargill	179091	159	1.1	3.7	3.8	55	17.3
YM2X	AVA	2880	159	1.2	3.0	4.2	46	16.5

[1]Rating based on a scale of 1 through 9 with 1 being excellent and 9 being poor.

Table 13. Corn: Yield of medium-season hybrids (group 600) evaluated at four locations for two years (1991-92).

Color Cross	Brand	Hybrid	Avg.	Greene-ville	Cross-ville	Milan	Martin
				Bushels per acre			
Y 2X	Pioneer	3154*	176	201	153	200	152
Y 2X	Terra	TR 1180*	161	180	147	174	141
Y 2X	Jacques	8210*	159	173	148	173	140
W 2X	HyPerformer	HS 175W*	158	182	135	169	144
W 2X	Asgrow	RX 956W*	156	181	141	171	132
Y 2X	Cargill	7997	152	178	138	165	145
Y 2X	FFR	892*	151	171	143	161	130
Y 2X	FFR	812*	150	171	138	163	129
Y 2X	AgraTech	6780*	150	163	127	163	147
Y 2X	Callahan	C 783	149	163	133	160	141
L.S.D. (.05)			7.9	15.3	12.3	12.6	18.0
C.V.%			10.3	8.7	8.8	7.4	13.1
Avg.			156.2	174.5	140.4	169.9	140.0
R-Square			0.74	0.84	0.76	0.63	0.45

*Evaluated for three or more years.

Table 14. Corn: Yield and other characteristics of medium-season hybrids (Group 600) evaluated at four locations for two years (1991-92).

Color Cross	Brand	Hybrid	Yield	Lodged Plants	Grain Quality	Husk Cover	Ear Ht.	Grain Moisture at Harvest
			Bu/A	Avg.	Rating[1]	Rating[1]	In.	%
Y 2X	Pioneer	3154*	176	1.4	2.9	3.9	61	17.2
Y 2X	Terra	TR 1180*	161	0.8	3.2	3.1	51	16.9
Y 2X	Jacques	8210*	159	1.3	3.5	3.1	53	16.5
W 2X	HyPerformer	HS 175W*	158	1.4	3.5	3.0	53	18.4
W 2X	Asgrow	RX 956W*	156	0.2	2.7	3.3	56	18.5
Y 2X	Cargill	7997	152	0.0	4.2	4.7	49	15.8
Y 2X	FFR	892*	151	0.4	3.1	3.6	47	16.7
Y 2X	FFR	812*	150	1.1	3.1	3.8	47	15.8
Y 2X	AgraTech	6780*	150	0.4	3.5	4.1	53	16.2
Y 2X	Callahan	C 783	149	1.1	3.2	2.8	51	16.5

[1]Rating based on a scale of 1 through 9 with 1 being excellent and 9 poor.
*Evaluated for three or more years.

Table 15. Corn: Yield of full-season hybrids evaluated at four locations in 1992.

Color Cross	Brand	Hybrid	Avg.	Knox-ville	Spring Hill	Ames Plantation	----Jackson---- Non-Irr.	Irrigated
					Bushels per acre			
Y 2X	FFR	943	201	245	172	170	179	238
Y 2X	Pioneer	3165	195	253	168	170	183	200
Y 2X	DeKalb	DK 689	194	242	146	169	215	201
Y 2X	Asgrow	XP 9482	194	238	159	168	176	231
Y 2X	Asgrow	XP 9451	193	232	149	168	189	228
Y 2X	DeKalb	DK 743	191	240	166	156	188	207
Y 2X	Pioneer X	7702 RP	190	244	164	168	184	191
Y 2X	Asgrow	X 9231	190	262	151	162	173	202
Y MX	FFR	883	186	243	150	154	178	202
Y 2X	HyPerformer	HS 9977	185	221	158	156	186	206
Y 2X	Asgrow	RX 947	185	232	160	155	188	192
W 2X	Zimmerman	Z-63W	185	228	153	154	180	208
Y 2X	Deltapine	4820	183	228	158	160	174	197
Y 2X	Deltapine	G-4742	183	209	166	157	187	194
Y 2X	Asgrow	XP 9380	182	227	150	158	174	200
Y 2X	Cargill	9027	181	225	146	147	200	189
Y 2X	Northrup King	N 8811	181	226	162	148	195	174
Y 2X	Northrup King	N 8727	181	237	148	155	184	179
Y 2X	Pioneer	3140	180	254	153	132	167	196
W 2X	Zimmerman	Z-54W	180	222	160	141	183	193
W 2X	Zimmerman	Z-16W	179	211	138	153	196	196
Y 2X	Augusta	A 503 AA	178	222	148	147	181	193
W 2X	Exp. T171	X Mo17W	178	225	142	153	171	198
Y 2X	Jacques	9810	177	220	139	147	186	195
Y 2X	Jacques	9220	177	213	139	166	183	182
Y 2X	Callahan	C 7269	176	217	154	150	171	186
Y 2X	Stine	1250	176	195	164	155	172	192
Y 2X	Beck's	82 MVP	175	223	131	133	193	196
Y 2X	Pioneer	3154	171	234	146	153	144	180
Y 2X	AgraTech	990	170	212	139	162	160	178
Y 2X	Northrup King	S 8645	170	209	147	143	163	190
Y 2X	DYNAGRO	8116	169	218	133	146	174	174
W 2X	Northrup King	N 8565W	167	221	131	148	170	164
Y MX	AgraTech	9251	166	218	139	133	170	171
Y 2X	Stine	1230	165	188	124	140	187	188
Y 2X	USN SS	328	165	210	140	127	176	170
Y 2X	Augusta	A 403 AA	164	238	110	130	181	163
Y MX	AgraTech	9200	162	202	138	136	180	154
L.S.D. (.05)			11.3	25.5	23.2	18.8	28.5	28.4
C.V. %			10.1	8.0	11.1	8.8	11.3	10.6
Avg.			179.6	225.81	148.4	151.8	180.0	192.0
R-Square			0.80	0.51	0.48	0.53	0.34	0.50

Table 16. Corn: Yield and other characteristics of full-season hybrids evaluated at four locations in 1992.

Color	Cross	Brand	Hybrid	Yield	Lodged Plants	Husk Cover	Ear Ht.	Grain Moisture at Harvest
				Bu/A	Avg.	Rating[1]	In.	%
Y	2X	FFR	943	201	1.0	3.8	46	19.0
Y	2X	Pioneer	3165	195	1.9	3.8	49	19.5
Y	2X	DeKalb	DK 689	194	1.6	3.2	49	18.3
Y	2X	Asgrow	XP 9482	194	0.3	2.2	54	18.3
Y	2X	Asgrow	XP 9451	193	0.4	2.6	49	18.3
Y	2X	DeKalb	DK 743	191	1.2	4.0	49	18.4
Y	2X	Pioneer	X 7702 RP	190	0.5	3.0	45	19.7
Y	2X	Asgrow	X 9231	190	1.0	1.8	50	18.4
Y	MX	FFR	883	186	0.8	3.8	46	18.3
Y	2X	HyPerformer	HS 9977	185	0.8	3.4	45	19.2
Y	2X	Asgrow	RX 947	185	1.3	2.0	48	19.0
W	2X	Zimmerman	Z-63W	185	4.7	2.4	50	18.5
Y	2X	Deltapine	4820	183	1.3	2.8	48	20.2
Y	2X	Deltapine	G-4742	183	1.4	3.2	44	19.6
Y	?X	Asgrow	XP 9380	182	1.6	3.0	49	18.3
Y	2X	Cargill	9027	181	1.5	3.4	46	18.3
Y	2X	Northrup King	N 8811	181	1.3	3.0	44	19.4
Y	2X	Northrup King	N 8727	181	1.3	3.4	46	18.6
Y	2X	Pioneer	3140	180	0.8	3.2	49	18.1
W	2X	Zimmerman	Z-54W	180	3.9	2.2	49	18.8
W	2X	Zimmerman	Z-16W	179	2.8	2.0	48	18.6
Y	2X	Augusta	A 503 AA	178	1.8	2.8	47	17.4
W	2X	Exp. T171 X	Mo17W	178	1.1	2.2	49	19.9
Y	2X	Jacques	9810	177	0.7	2.0	46	18.9
Y	2X	Jacques	9220	177	1.8	3.2	49	18.6
Y	2X	Callahan	C 7269	176	0.8	2.8	49	16.3
Y	2X	Stine	1250	176	1.5	4.0	46	18.5
Y	2X	Beck's	82 MVP	175	0.8	2.6	48	17.3
Y	2X	Pioneer	3154	171	1.7	4.4	49	17.4
Y	2X	AgraTech	990	170	1.4	3.2	44	19.3
Y	2X	Northrup King	S 8645	170	1.3	2.8	46	17.7
Y	2X	DYNAGRO	8116	169	1.3	2.0	46	17.9
w	2X	Northrup King	N 8565W	167	2.1	1.6	47	20.4
Y	MX	AgraTech	9251	166	1.4	2.0	53	19.2
Y	2X	Stine	1230	165	1.7	2.8	46	17.4
Y	2X	USN SS	328	165	0.8	2.2	50	16.9
Y	2X	Augusta	A 403 AA	164	2.8	3.0	54	18.1
Y	MX	AgraTech	9200	162	1.3	2.2	50	19.2

[1]Rating based on a scale of 1 through 9 with 1 being excellent and 9 poor.

Table 17. Corn: Yield of full-season hybrids evaluated at four locations for two years (1991-92).

Color Cross	Brand	Hybrid	Avg.	Knox-ville	Spring-Hill	Ames Plantation	----Jackson---- No-Irr.	Irrigated
					Bushels per acre			
Y 2X	Pioneer	3165	165	218	140	141	155	173
Y 2X	Asgrow	X 9231	163	226	131	133	148	177
Y 2X	DeKalb	DK 743	161	219	129	127	159	170
Y 2X	Deltapine	4820	157	204	120	127	153	182
Y 2X	Cargill	9027	156	217	118	116	156	172
Y MX	FFR	883	155	215	120	126	141	174
Y 2X	Jacques	9220	155	201	113	139	156	166
Y 2X	Asgrow	RX 947	154	206	116	117	151	181
Y 2X	Pioneer	3140	154	221	120	111	150	168
W 2X	Zimmerman	Z-63W	154	218	116	116	145	173
Y 2X	Pioneer	3154	151	230	103	135	132	156
Y 2X	Agratech	990	150	210	107	129	143	163
Y 2X	Northrup King	S 8645	149	200	117	120	142	166
Y 2X	Northrup King	N 8727	148	214	104	124	146	152
W 2X	Zimmerman	Z-16W	148	203	101	121	150	163
Y 2X	DYNAGRO	8116	147	194	113	118	151	160
Y MX	AgraTech	9200	147	195	120	116	152	150
A 2X	Exp. T171 X	Mo17W	146	195	106	122	146	164
W 2X	Zimmerman	Z-54W	145	203	116	111	141	155
W 2X	Northrup King	N 8565W	143	195	112	116	142	150
Y MX	AgraTech	9251	139	190	101	109	141	154
L.S.D. (.05)			7.8	15.0	18.5	12.5	17.8	19.2
C.V. %			11.8	7.3	16.2	10.3	12.2	11.7
Avg.			151.8	208.2	115.4	122.6	147.6	165.1
R-Square			0.88	0.79	0.83	0.89	0.80	0.72

Table 18. Corn: Yield and other characteristics of full-season hybrids evaluated at four locations for two years (1991-92).

Color	Cross	Brand	Hybrid	Yield	Lodged	Husk Cover	Ear Ht.	Grain Moisture at Harvest
				Bu/A	Avg.	Rating[1]	In.	%
Y	2X	Pioneer	3165	165	2.3	3.3	50	19.7
Y	2X	Asgrow	X 9231	163	1.7	2.0	51	18.8
Y	2X	DeKalb	DK 743	161	2.5	3.5	50	19.0
Y	2X	Deltapine	4820	157	1.8	2.5	50	20.9
Y	2X	Cargill	9027	156	1.6	2.7	47	18.7
Y	MX	FFR	883	155	2.5	3.7	49	19.0
Y	2X	Jacques	9220	155	4.0	2.8	51	18.9
Y	2X	Asgrow	RX 947	154	1.9	1.8	53	19.2
Y	2X	Pioneer	3140	154	1.8	3.1	52	18.0
W	2X	Zimmerman	Z-63W	154	4.2	2.3	51	18.6
Y	2X	Pioneer	3154	151	3.4	3.3	51	17.5
Y	2X	AgraTech	990	150	1.4	2.7	44	19.4
Y	2X	Northrup King	S 8645	149	1.5	2.5	47	18.1
Y	2X	Northrup King	N 8727	148	1.8	3.0	46	19.1
W	2X	Zimmerman	Z-16W	148	2.8	2.0	48	19.3
Y	2X	DYNAGRO	8116	147	2.3	2.2	47	18.3
Y	MX	AgraTech	9200	147	1.8	2.3	51	19.7
W	2X	Exp. T171 .X	Mo17W	146	3.0	2.1	51	20.3
W	2X	Zimmerman	Z-54W	145	4.2	1.9	51	19.1
W	2X	Northrup King	N 8565W	143	2.1	2.1	47	20.8
Y	MX	AgraTech	9251	139	1.3	1.9	54	20.1

[1]Rating based on a scale of 1 through 9 with 1 being excellent and 9 poor.

Table 19. Corn: Yield of full-season hybrids evaluated at four locations for three years (1990-92).

Color	Cross	Brand	Hybrid	Avg.	Knox-ville	Spring Hill	Ames Plantation	----Jackson---- No Irr.	Irrigted
						Bushels per acre			
Y	2X	Pioneer	3165	157	214	141	131	135	164
Y	2X	Pioneer	3140	149	223	121	109	134	156
Y	2X	Jacques	9220	148	206	113	126	137	158
Y	2X	Deltapine	4820	148	207	121	117	130	163
Y	2X	Cargill	9027	146	212	117	112	131	156
Y	2X	Pioneer	3154	143	220	104	127	118	145
Y	2X	Asgrow	RX 947	142	204	112	104	124	167
W	2X	Zimmerman	Z-63W	141	217	108	105	122	156
Y	2X	Northrup King	N 8727	141	219	107	107	123	151
W	2X	Zimmerman	Z-16 W	140	203	107	112	128	151
Y	2X	Northrup King	S 8645	140	201	120	107	121	151
W	2X	Exp. T171 X	Mo17W	138	194	108	115	125	147
W	2X	Zimmerman	Z-54W	137	209	114	103	119	141
L.S.D. (.05)				6.7	14.8	16.0	10.3	13.2	14.7
C.V. %				12.9	8.7	17.2	11.3	12.9	11.7
Avg.				143.9	210.0	114.9	113.4	126.8	154.3
R-Square				0.88	0.63	0.78	0.88	0.89	0.79

Table 20. Corn: Yield and other characteristics of full-season hybrids evaluated at four locations for three years (1990-92).

Color	Cross	Brand	Hybrid	Yield	Husk Cover	Ear Ht.	Grain Moisture at Harvest
				Bu/A	Rating[1]	In.	%
Y	2X	Pioneer	3165	157	3.9	49	19.4
Y	2X	Pioneer	3140	149	3.7	50	17.7
Y	2X	Jacques	9220	148	3.7	49	19.0
Y	2X	Deltapine	4820	148	3.4	49	21.0
Y	2X	Cargill	9027	146	3.9	46	18.4
Y	2X	Pioneer	3154	143	4.1	50	17.5
Y	2X	Asgrow	RX 947	142	2.9	51	19.2
W	2X	Zimmerman	Z-63W	141	3.2	50	18.7
Y	2X	Northrup King	N 8727	141	4.0	44	19.2
W	2X	Zimmerman	Z-16 W	140	3.2	48	19.6
Y	2X	Northrup King	S 8645	140	3.4	47	17.9
W	2X	Exp. T171 X	Mo17W	138	3.2	49	20.3
W	2X	Zimmerman	Z-54W	137	3.0	50	18.9

[1]Rating based on a scale of 1 through 9 with 1 being excellent and 9 poor.

Performance of Wheat, Oats, and Rye Varieties for 1992

----------Wheat----------

Thirty-six soft red winter wheat varieties were evaluated at Knoxville, Crossville, Greeneville, Spring Hill, Springfield, Milan, Martin, and Jackson in 1992. Nine varieties were seeded at two planting dates (Oct. 16 and Nov. 26) at Ames Plantation.

Disease incidence was lower than usual in 1992 at all locations. No wheat or oat data are reported for Greeneville due to crop injury from previous applications of tobacco herbicide and sucker control chemicals.

The wheat variety trials at Jackson were evaluated for a response to Tilt fungicide.

The wheat data are reported in Tables 21 through 29. The yield level was higher than usual at most locations in 1992 due to a dry spring which resulted in low disease pressure. Although, there was some powdery mildew at Greeneville and Springfield in early May, the other locations were relatively free of disease.

In 1992 (Table 21) ten varieties produced higher yields than the average of all locations of 55.2 bushels per acre. FFR 555 produced over 90 bushels per acre at Springfield and Spring Hill. In addition to FFR 555, Pioneer brand 2548, Mallard and Wakefield produced 90 or more bushels per acre at Spring Hill. At Martin GR 876 and Pioneer brand 2510 produced 90 and 91 bushels per acre respectively. The C. V. (Coefficient of Variation) of each test ranged from a high of 16.0 at Springfield to a low of 8.0 at Spring Hill. When yield levels are high the C. V.'S are usually lowered.

Take-All disease was severe at Spring Hill in 1990 and at Knoxville in 1991, but little or no Take-All disease occurred at these two locations in 1992.

The winter of 1991-92 was mild with only two short cold periods, one occurring in the fall and the other in late spring when the wheat was in the late boot to early heading stage. Crossville was the only location where winter injury occurred. Several varieties had stand reduction from cold injury at this location. Andy, Bayles, Terral 877, Delhi DS 2368 and FFR 525 were the most affected with Andy being 100% killed. Bayles produced only 8 bushels per acre at Crossville and 35 at Knoxville, however, this variety yielded over 50 bushels per acre at all other locations in 1992.

At Jackson all varieties were evaluated for a response to the fungicide Tilt. No response was obtained from Tilt due to the lack of disease pressure. The average yield for the sprayed and un-sprayed was the same (Table 21).

Yield and other characteristics of varieties evaluated in 1992 are shown in Table 22. The test weight (lb/bu) for 1992 was higher than usual, especially compared with the 1991 test weight which was low due to disease and a wet spring. The higher test weight for wheat in 1992 was due in part to the dry spring and low disease pressure.

Wheat yield and other characteristics from Crossville are shown in Table 23. The Crossville location did not have a dry spring which resulted in wheat test weights being lower than other locations (Table 23).

The yield level at Martin was high (71 bu. Avg.). Martin was the only location exhibiting much lodging (Table 24). The test weight ranged from 53.7 for Terral 101 to a high of 59.5 for GR 876. GR 876 was one of the highest yielding varieties at Martin (Table 24) and one of the lowest at Milan (Table 25).

Data for 9 wheat varieties planted on two planting dates at Ames Plantation are shown in Table 27. There was no significant difference among varieties for yield when planted on October 16. There was a significant

difference among varieties when planted Nov. 26, 1991, (Table 27).

The 1991 data were not averaged with the 1990 and 1992 data because of the erratic and low yields that were obtained in 1991. These erratic and low yields in 1991 were due, in part, to the disease complex caused by excessive moisture in the spring. Using the two year average of 1990 and 1992, Wakefield, Sawyer, Pioneer brand 2548, Cardinal, and Madison produced higher yields than the mean of the test (Table 28). The two year (1990 and 1992) average yield and other characteristics are presented in Table 29.

The recommended wheat varieties for 1992-93 are Cardinal. FFR 525, Northrup King Coker 9323[1], Northrup King Coker 9733[1], Massey[1] Madison, Pioneer brand 2555, Pioneer brand 2548, Saluda, Sawyer, Terral 101 and Wakefield. Becker has yielded well in the state variety trials, but it is very susceptible to powdery mildew disease. For this variety to yield consistently well, a fungicide spray program should be used to control this disease.

------Fall seeded Oats------

Fall-seeded oats data are presented in tables 30 through 32. Very little winter injury occurred in 1992. N.C. Exp. 85-129 and FFR SS 96-30 outyielded Brooks and Ozark. Although many of these yields are high in 1992, it has been risky to grow winter oats due to winter killing in recent years. The recommended winter oat variety for 1992-93 is FFR SS 76-30.

------Spring seeded oats------

The spring seeded oat data are shown in tables 33 and 34. Don was the leading variety in yield. Otee and Porter produced low seed yields at Springfield (Table 33). The forage yields will be presented in the variety test bulletin which will be published in Feb. 1993.

The recommended spring oat varieties are Don, Ogle, Larry and Otee.

----------Rye----------

Seventeen rye varieties and two triticale varieties were evaluated at Knoxville in 1992. These data are summarized in table 35. The forage yield will be presented in the 1993 variety test bulletin which will be published in early Feb. 1993. In 1992 most Rye varieties outyielded Triticale varieties for grain. In the past most rye varieties have performed similarly.

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[1]Present plans indicate that these varieties will not be recommended after this year.

Table 21. Yield of soft red winter wheat varieties evaluated at seven locations in 1992.

Brand/Variety		Avg. Yield	Knox-ville[1]	Cross-ville[2]	Spring-field[3]	Spring Hill[4]	--Jackson[5]--	Milan[6]	Martin[7]
					Bushels per acre				
Co-op	FFR 555	70[8]	48	37	92	91	56	95	82
Pioneer	2510	68	45	35	80	87	64	77	91
Pioneer	2545	65	49	35	87	77	60	89	64
Stoneville	350	64	42	34	78	83	54	96	74
Ky.	Verne	64	48	30	78	87	47	83	86
Pioneer	2548	64	41	26	67	92	56	87	81
AgriPro	Mallard	64	44	33	69	92	52	92	75
Va.	Wakefield	62	48	30	65	90	59	84	71
AgriPro	Sawyer	62	43	32	79	88	54	86	61
N.K.* Coker	9543	62	45	40	70	86	52	84	66
Ohio	Cardinal	62	45	32	51	85	54	84	85
N.K. Coker	833	62	38	33	73	77	54	86	80
Ohio	GR 863	62	37	29	68	79	54	83	82
Ohio	GR 915	60	36	33	87	79	52	80	69
Terral	101	59	45	32	67	76	52	79	68
Ohio	GR 876	59	39	29	69	66	53	66	90
Ga.	Gore	58	41	21	56	89	50	86	76
N.K. Coker	916	58	39	22	65	82	52	87	70
N.K. Coker	9803	58	43	23	71	85	52	79	59
Exp.	T84-519	57	38	26	68	88	46	76	70
Ohio	Becker	56	44	29	59	59	58	86	62
Ohio	Clark	56	30	24	70	74	48	84	76
Ohio	Excel	56	33	26	70	72	50	76	76
Exp.	T84-774	56	43	29	64	73	51	72	65
Va.	Madison	56	42	26	61	73	53	82	61
Ohio	Dynasty	56	40	32	64	66	49	80	67
Ga.	Bayles	55	35	8	71	75	52	82	74
Va.	Saluda	55	42	18	62	75	52	75	68
Exp.	T84-517	54	38	26	65	77	47	84	53
Ga.	Ga 100	54	43	24	56	76	52	72	61
AgriPro	Cherokee	54	39	19	46	74	48	75	83
N.K.Coker	9024	54	41	31	44	81	48	69	62
Co-op	FFR 525	54	42	15	52	80	50	90	62
Terral	877	51	44	11	48	80	49	76	61
Delhi	DS 2368	51	36	13	49	78	48	76	61
Ga.	Andy	48	42	0	35	75	47	76	62
L.S.D. .05		3.5	7.7	4.7	14.6	9.0	8.1	15.4	11.1
C.V. %		12.2	13.2	12.7	16.0	8.0	11.1	13.5	11.2
Avg.		58.6	41.3	26.2	65.4	79.7	52.0	81.3	70.9

*N.K.=Northrup King.

[1]Cumberland silt loam (2% to 5% slopes).

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

[3]Dickson silt loam (2% to 5% slopes).

[4]Maury silt loam (2% to 5% slopes).

[5]Lexington silt loam(2% to 5% slopes).

[6]Memphis silt loam (2% to 5% slopes).

[7]Falaya silt loam (2% to 5% slopoes).

[8]Average includes the sprayed data for Jackson which was not evaluated in this table.

Table 22. Yield and other characteristics of soft red winter wheat varieties evaluated at seven locations in 1992.

Brand/Variety		Avg. Yield	Date Headed	Date Mature	Plant Height	Lodging	Bushel Weight
		Bu/A			in.	%	lb/bu
Co-op	FFR 555	70	5-5	6-8	32	1	55.0
Pioneer	2510	68	5-8	6-9	33	3	57.0
Pioneer	2545	65	5-6	6-8	33	3	55.4
Stoneville	350	64	5-3	6-7	34	5	56.6
Ky.	Verne	64	5-5	6-8	37	2	56.6
Pioneer	2548	64	5-5	6-7	31	1	56.0
AgriPro	Mallard	64	5-4	6-6	32	1	55.4
Va.	Wakefield	62	5-6	6-8	36	8	56.3
AgriPro	Sawyer	62	5-2	6-6	32	12	53.9
N.K. Coker*	9543	62	5-2	6-5	29	7	57.1
Ohio	Cardinal	62	5-6	6-8	37	7	56.6
N.K. Coker	833	62	5-8	6-10	34	4	57.4
Ohio	GR 863	62	5-1	6-5	33	1	56.4
Ohio	GR 915	60	5-8	6-7	31	2	54.7
Terral	101	59	5-6	6-8	35	9	54.5
Ohio	GR 876	59	5-1	6-13	36	2	58.2
Ga.	Gore	58	4-30	6-5	32	1	54.8
N.K. Coker	916	58	5-1	6-5	31	5	56.0
N.K. Coker	9803	58	5-2	6-6	29	4	58.0
Exp.	T84-519	57	5-3	6-7	36	13	58.3
Ohio	Becker	56	5-6	6-6	32	0	53.8
Ohio	Clark	56	5-1	6-5	34	1	56.0
Ohio	Excel	56	5-6	6-6	33	0	53.7
Exp.	T84-774	56	5-9	6-10	39	8	55.6
Va.	Madison	56	5-1	6-6	32	10	55.3
Ohio	Dynasty	56	5-5	6-5	34	3	55.8
Ga.	Bayles	55	5-4	6-6	32	1	54.6
Va.	Saluda	55	5-6	6-6	30	5	56.5
Exp.	T84-517	54	5-4	6-6	35	13	58.5
Ga.	GA. 100	54	5-5	6-6	31	0	54.6
AgriPro	Cherokee	54	5-1	6-5	37	1	56.1
N.K. Coker	9024	54	5-6	6-9	36	8	54.5
Co-op	FFR 525	54	5-4	6-6	33	4	54.9
Terral	877	51	5-6	6-9	33	8	55.0
Delhi	DS 2368	51	5-3	6-6	31	1	57.0
Ga.	Andy	48	5-2	6-7	32	1	56.2

*N.K. = Northrup King

Table 23. Wheat: Yield and other characteristics of soft red winter wheat varieties evaluated at Crossville in 1992.

Brand/Variety		Yield	Date Headed	Plant Height	Bushel Weight	Cold Injury
		Bu/A	HEADED	in.	lb/bu	Rating (0-10)
N.K. Coker*	9543	40	5-11	27	54.0	0.0
Co-op	FFR 555	37	5-14	30	53.0	0.0
Pioneer	2510	35	5-17	31	51.7	0.0
Pioneer	2545	35	5-14	30	52.7	0.0
Stoneville	350	34	5-13	31	53.2	0.2
Ohio	GR 915	33	5-16	30	52.0	0.0
N.K. Coker	833	33	5-17	31	54.2	0.0
AgriPro	Mallard	33	5-14	30	53.0	0.0
Ohio	Dynasty	32	5-15	31	52.5	0.0
AgriPro	Sawyer	32	5-12	30	52.5	0.0
Ohio	Cardinal	32	5-15	35	51.5	0.0
Terral	101	32	5-14	33	52.2	0.0
N.K. Coker	9024	31	5-16	32	52.7	0.2
Va.	Wakefield	30	5-15	33	52.5	0.0
Ky.	Verne	30	5-14	33	54.0	0.0
Exp.	T84-774	29	5-18	36	52.5	0.2
Ohio	GR 863	29	5-11	31	52.7	0.0
Ohio	Becker	29	5-15	31	51.5	0.0
Ohio	GR 876	29	5-20	36	53.2	0.0
Ohio	Excel	26	5-15	30	51.2	0.0
Exp.	T84-519	26	5-13	33	54.0	0.0
Pioneer	2548	26	5-16	27	51.9	0.0
Va.	Madison	26	5-12	28	53.0	1.0
Exp.	T84-517	26	5-15	31	53.0	0.0
Ga.	100	24	5-15	28	53.7	0.0
Ohio	Clark	24	5-11	28	53.7	0.0
N.K. Coker	9803	23	5-14	26	54.7	1.5
N.K. Coker	916	22	5-20	27	52.5	0.0
Ga.	Gore	21	5-8	28	52.7	0.5
AgriPro	Cherokee	19	5-12	34	51.0	0.2
Va.	Saluda	18	5-18	27	52.0	0.5
Co-op	FFR 525	15	5-16	28	53.2	3.0
Delhi	DS 2368	13	5-16	28	54.0	4.7
Terral	877	11	5-19	27	52.7	6.5
Ga.	Bayles	8	5-17	25	53.2	6.7
Ga.	Andy	0	--	--	---	10.0
L.S.D .05		4.7				
C.V. %		12.7				
Avg.		26.2				
R-Square		0.90				

*N.K. = Northrup King

Table 24. Wheat: Yield and other characteristics of soft red winter wheat varieties evaluated at Martin in 1992.

Brand/Variety		Yield	Headed	Mature	Plant Height	Lodging	Bushel Weight
		Bu/A	(No days after 4-1-92)		in.	%	lb/bu
Pioneer	2510	91	36	78	35	11	59.2
Ohio	GR 876	90	41	79	37	8	59.5
Ky.	Verne	86	35	77	36	5	57.9
Ohio	Cardinal	85	35	76	38	34	58.2
AgriPro	Cherokee	83	31	73	37	1	58.9
Co-op	FFR 555	82	35	77	33	1	55.0
Ohio	GR 863	82	33	73	34	3	58.4
Pioneer	2548	81	34	74	31	4	56.5
N.K. Coker*	833	80	38	78	35	20	58.4
GA.	Gore	76	34	74	32	1	56.4
Ohio	Excel	76	35	75	32	0	54.2
Ohio	Clark	76	32	74	36	1	56.6
AgriPro	Mallard	75	34	76	32	5	54.6
Ga.	Bayles	74	34	77	33	1	55.9
Stoneville	350	74	34	76	35	21	57.0
Va.	Wakefield	71	36	77	36	38	57.2
Exp.	T84-519	70	33	77	36	49	57.9
N.K. Coker	916	70	32	73	30	16	56.0
Ohio	GR 915	69	38	76	29	9	56.0
Terral	101	68	34	76	35	43	53.7
Va.	Saluda	68	34	73	30	24	56.2
Ohio	Dynasty	67	35	72	35	15	56.5
N.K. Coker	9543	66	33	73	27	33	57.2
Exp.	T84-774	65	40	76	38	34	54.9
Pioneer	2545	64	34	75	33	13	55.5
Co-op	FFR 525	62	33	76	34	16	58.6
Ga.	Andy	62	34	76	32	1	58.2
Ohio	Becker	62	35	74	32	0	54.8
N.K. Coker	9024	62	35	77	38	35	56.7
Delhi	DS 2368	61	34	76	31	1	58.5
Terral	877	61	36	77	35	35	56.6
Ga.	100	61	35	75	30	0	54.4
AgriPro	Sawyer	61	32	73	34	49	54.4
Va.	Madison	61	31	76	31	46	55.4
N.K. Coker	9803	59	34	76	29	19	58.7
Exp.	T84-517	53	34	76	35	53	59.4
L.S.D .05		11.1					
C.V. %		11.2					
Avg.		70.9					
R-Square		0.67					

*N.K.=Northrup King

Table 25. Wheat: Yield and other characteristics of soft red winter wheat varieties evaluated at Milan in 1992.

Brand/Variety		Yield	Headed	Mature	Plant Ht.
		Bu/A	(Days after 4-1-92)		in
Stoneville	350	96	27	69	37
Co-op	FFR 555	95	33	70	32
AgriPro	Mallard	92	30	68	33
Co-op	FFR 525	90	27	68	35
Pioneer	2545	89	36	69	35
Pioneer	2548	87	32	70	32
N.K. Coker*	916	87	25	69	33
Ga.	Gore	86	23	69	34
Ohio	Becker	86	35	68	33
AgriPro	Sawyer	85	27	70	33
N.K. Coker	833	85	36	70	36
Exp.	T84-517	85	30	69	37
Ohio	Cardinal	84	34	69	38
Va.	Wakefield	84	36	70	37
Ohio	Clark	84	24	67	34
N.K. Coker	9543	84	28	67	30
Ohio	GR 863	83	24	68	35
Ky.	Verne	83	31	69	39
Ga.	Bayles	82	31	68	34
Va.	Madison	82	23	67	33
Ohio	GR 915	80	37	69	32
Ohio	Dynasty	80	32	67	34
N.K. Coker	9803	80	24	68	30
Terral	101	79	36	69	36
Delhi	DS 2368	79	30	68	34
Pioneer	2510	77	37	70	34
Ohio	Excel	76	35	69	35
Ga.	Andy	76	32	70	34
Exp.	T84-519	76	27	70	37
Va.	Saluda	76	34	68	32
AgriPro	Cherokee	75	26	66	39
Ga.	100	73	34	68	32
Exp.	T84-774	71	37	72	43
N.K. Coker	9024	70	33	71	37
Terral	877	69	35	70	34
Ohio	GR 876	67	37	72	37
L.S.D..05		15.4			
C.V.%		13.5			
Avg.		81.3			
R-Square		0.37			

*N.K. = Northrup King

Table 26. Wheat: Yield and other characteristics of soft red winter wheat varieties evaluated at Jackson in 1992.

Brand/Variety		Yield	Headed	Mature	Plant Ht.	Lodging	Bushel Weight
		Bu/A	(Days after 4-1-92)		in.	%	lb/bu
Pioneer	2510	64	32	62	31	1	57.1
Pioneer	2545	60	31	62	31	2	55.3
Va.	Wakefield	59	31	59	35	3	56.7
Ohio	Becker	58	31	58	31	2	55.1
Pioneer	2548	56	31	61	29	1	55.4
Co-op	FFR 555	56	29	59	29	2	55.8
Ohio	Cardinal	54	30	61	35	3	57.3
Ohio	GR 863	54	25	56	32	3	55.8
N.K.Coker	833	54	32	64	33	2	57.4
Stoneville	350	54	30	59	32	3	56.1
AgriPro	Sawyer	54	28	57	30	10	54.3
Ohio	GR 876	53	35	69	34	1	58.8
Va.	Madison	53	25	58	31	3	56.7
Ga.	Bayles	52	29	56	32	2	55.6
N.K. Coker	9543	52	26	56	27	4	58.4
N.K. Coker	916	52	26	57	30	7	56.4
Terral	101	52	31	59	33	4	55.5
AgriPro	Mallard	52	30	58	30	2	56.0
Ohio	GR. 915	52	33	59	28	1	53.3
Va.	Saluda	52	30	58	30	1	56.3
N.K. Coker	9803	52	25	56	28	2	57.5
Ga.	100	52	29	56	29	2	55.7
Exp.	T84-774	51	34	61	38	4	56.3
Co-op	FFR 525	50	28	56	31	3	45.1
Ga.	Gore	50	26	56	30	2	53.6
Ohio	Excel	50	31	57	31	1	54.9
Ohio	Dynasty	49	30	56	32	2	56.4
Terral	877	49	30	59	33	3	54.5
N.K. Coker	9024	48	31	59	35	5	55.8
Delhi	DS 2368	48	24	56	29	2	56.8
AgriPro	Cherokee	48	25	56	36	4	56.3
Ohio	Clark	48	27	59	33	1	55.7
Exp.	T84-517	47	30	56	33	14	57.6
Ky.	Verne	47	31	58	34	3	56.8
Ga.	Andy	47	25	57	31	1	56.4
Exp.	T84-519	46	29	58	34	16	57.6
L.S.D. .050		8.1					
C.V. %		11.1					
Avg.		52.0					
R-Square		0.53					

Table 27. Wheat: Yield of soft red winter wheat varieties evaluated at Ames Plantation seeded on October 16 and November 26, 1991.

Brand/Variety		Avg.	Planting Date Oct. 16	Nov. 26
			Bushels per acre	
Co-op	FFR 525	55	50	59
Ohio	Cardinal	54	54	54
Va.	Saluda	52	52	52
Co-op	FFR 544	52	54	50
Pioneer	2548	49	47	52
Pioneer	2555	47	51	44
Ind.	Caldwell	46	43	49
Northrup King	Coker 916	45	44	46
Ohio	Clark	41	41	41
L.S.D. .05		7.2	N.S.	7.2
C.V.%		14.7	16.4	10.0
Avg.		49.0	48.4	49.6
R-Square		0.43	0.49	0.64

Table 28. Wheat: Yield of soft red winter wheat varieties evaluated at four locations for two years (1990 and 1992).[1]

Brand/Variety		Avg. Yield	Knoxville	Springfield	Jackson	Milan
			Bushels per acre			
Va.	Wakefield	59	59	59	61	58
AgriPro	Sawyer	59	58	65	52	61
Pioneer	2548	59	54	58	60	61
Ohio	Cardinal	57	60	45	59	65
Va.	Madison	57	59	55	54	59
Ohio	Becker	55	53	46	58	62
Terral	101	54	60	56	51	51
Ohio	GR 863	52	49	55	50	56
Northrup King	Coker 916	52	49	51	54	58
Va.	Saluda	52	57	51	48	52
Ohio	Dynasty	51	54	50	46	56
Exp.	Tn 84-774	50	50	53	47	48
Co-op	FFR 525[2]	49	49	38	51	58
L.S.D. .05		4.1	5.7	7.8	5.9	10.6
C.V. %		15.1	10.6	15.0	11.2	18.4
Avg.		54.0	54.6	52.4	53.1	57.3
R-Square		0.76	0.90	0.82	0.64	0.79

[1]1991 dataa not include because of the severe disease and low yields.
[2]Performed better in 1991 than in 1990 or 1992.

Table 29. Wheat yield and other characteristics of soft red winter wheat evaluated at four locations for two years (1990 and 1992).[1]

Brand/Variety		Avg. Yield	Date Headed	Date Mature	Plant Height	Lodging	Bushel Weight	Cold Injury
		Bu/A			in.	%	lb/bu	Rating (0-10)[2]
Va.	Wakefield	59	5-4	6-9	37	6.6	55.0	1.8
AgriPro	Sawyer	59	4-29	6-7	33	9.2	53.5	1.2
Pioneer	2548	59	5-2	6-6	32	7.1	54.5	1.0
Ohio	Cardinal	57	5-4	6-9	38	2.3	55.3	0.3
Va.	Madison	57	4-27	6-7	34	7.7	54.9	0.3
Ohio	Becker	55	5-4	6-8	33	2.7	52.6	1.1
Terral	101	54	5-4	6-9	36	17.7	53.6	1.8
Ohio	GR 863	52	4-28	6-6	35	5.1	54.0	1.0
N.K.*	Coker 916	52	4-28	6-7	32	5.7	54.5	1.7
Va.	Saluda	52	5-3	6-6	32	14.5	55.6	2.2
Ohio	Dynasty	51	5-2	6-6	36	6.7	54.2	1.2
Exp.	T84-774	50	5-7	6-11	41	7.2	53.8	0.8
Co-op	FFR 525	49	4-30	6-7	34	13.9	52.7	2.2

[1]1991 data not included because of the severe disease and low yields.
[2]Rating based on scale of 0 through 10 with 0 being none and 10 severe.
*N.K. = Northrup King

Table 30. Winter-Oats: Yield and other characteristics of varieties evaluated at three locations in 1992.

Brand/Variety	Avg.	Date Headed	Date Mature	Plant Height	Lodging	Bushel Weight
	Bu/A			in.	%	lb/bu
N.C. Exp. 85-129	103	5-7	5-30	39	19	38.3
FFR SS 76-30	102	5-2	5-31	39	18	40.9
N.C. Brooks	90	5-7	5-30	40	23	39.2
AK Ozark	86	5-10	6-6	36	14	41.2
L.S.D. .05	7.8					
C.V.%	9.5					
Avg.	95.6					
R-Square	0.98					

Table 31. Winter-oats: Yield of varieties evaluated at three locations in 1992.

Brand/Variety		Avg.	Crossville[1]	Spring Hill[2]	Jackson[3]
			Bushels per acre		
N.C. Exp	85-129	103	54	146	109
Co-op	FFR SS 76-30	102	54	146	107
N.C.	Brooks	90	43	137	90
AK	Ozark	86	51	104	105
L.S.D. .05		7.8	6.7	17.7	18.2
C.V. %		9.5	8.3	8.3	11.1
Avg.		95.6	50.6	133.4	102.7
R-Square		0.98	0.68	0.84	0.45

[1]Hartsells loam (2% to 5% slopes). [3]Lexington silt loam (2% to 5% slopes).
[2]Maury silt loam (2% to 5% slopes).

Table 32. Fall-seeded Oats: Yield and other characteristics of varieties evaluated at Knoxville in 1992.[1]

Brand/Variety	Yield	Date Headed	Date Mature	Plant Height	Lodging	Bushel Weight
	Bu/A			in.	%	lb/bu
N.C. Brooks	127	5-15	6-29	42	30	33.9
S.C. Exp.	123	5-13	6-29	40	40	32.0
N.C. Exp. 85-129	122	5-16	6-28	40	20	28.7
Co-op FFR SS 76-30	122	5-9	6-27	39	50	30.6
AK Ozark	102	5-14	6-27	36	60	31.3
L.S.D. .05	21.4					
C.V.%	11.7					
Avg.	119.1					
R-Square	0.62					

[1]Cumberland silt loam (2% slopes to 5% slopes).

Table 33. Spring-Oats : Grain yield of varieties evaluated at Knoxville and Springfield in 1992.

Brand/Variety	Avg. Yield	Knoxville[1]	Springfield[2]
	Bushels per acre		
Don	87	109	65
Ogle	81	92	69
Hazle	74	89	60
Larry	65	75	56
Porter	63	86	40
Otee	52	67	38
Dal	51	49	53
L.S.D. .05	12.5	12.3	24.3
C.V. %	17.7	10.2	20.0
Avg.	67.8	81.0	54.5
R-Square	0.91	0.89	0.63

[1]Cumberland silt loam (2% to 5% slopes).
[2]Dickson silt loam (2% to 5% slopes).

Table 34. Yield and other characteristics of varieties evaluated at Knoxville and Springfield in 1992.

Brand/Variety	Yield	Date Headed	Date Mature	Plant Height	Lodging	Bushel Weight
	Bu/A			in.	%	lb/bu
Don	87	5-23	7-7	28	3	30.6
Ogle	81	5-27	7-4	29	0	28.8
Hazle	74	5-25	7-4	26	0	27.1
Larry	65	5-23	7-1	23	2	30.3
Porter	63	5-30	7-5	30	0	31.4
Otee	52	5-26	7-3	25	1	30.0
Dal	51	5-29	7-6	30	0	30.5

Table 35. Yield and other characteristics of rye varieties evaluated at Knoxville in 1992.[1]

Brand/Variety		Yield	Date Headed	Date Mature	Plant Height	Lodging	Bushel Weight
		Bu/A			in.	Rating (0-10)[2]	lb/bu
Aroostock		68	4-23	6-21	59	4	47.5
GI	87	60	4-24	6-23	57	4	47.6
FFR	20-30	57	4-23	6-22	57	5	48.2
Grazer King	90	57	4-22	6-23	60	5	47.6
AFC	20-10	56	4-24	6-24	60	5	48.9
GI	88	54	4-22	6-21	58	6	47.6
GI	90	53	4-23	6-24	59	6	50.2
Volunteer Magic		52	4-23	6-24	58	5	48.2
AFC	20-20	52	4-23	6-20	56	6	46.2
Dossco Gracer III		52	4-23	6-21	57	7	48.2
Gurley Grazer 2000		52	4-23	6-23	59	6	48.9
GI	87X	51	4-24	6-25	59	4	49.5
Swan Grazer		50	4-22	6-24	57	8	48.2
GI	85	50	4-23	6-19	58	7	46.2
AFC	20-30	49	4-21	6-21	61	6	48.2
Stan I (Triticale)		48	5-18	6-26	51	1	42.3
Volunteer Magic II		48	4-22	6-22	59	8	46.9
Winter King		46	4-22	6-20	57	8	48.9
Jenkins (Triticale)		24	5-19	6-27	62	9	39.7
L.S.D. .05		11.6					
C.V. %		15.8					
Avg.		51.6					
R-Square		0.60					

[1]Cumberland silt loam (2% to 5% slopes).
[2]Rating: 0 = no lodging and 10 = 100% lodged.

Performance of Soybean Varieties in 1992

Early Maturing Soybeans
(Maturity Group IV)

Thirty two early-maturing varieties were evaluated at five locations, Knoxville, Crossville, Springfield, Milan, and Ames Plantation in 1992. Commercial strains of maturity group IV and V were grown at Jackson only. The maturity of varieties in the early test ranged from late maturity group IV to the earlier maturity group III. Northrup King S 46-44 (X9146) was the highest yielding and late in maturity (10-7). HyPerformer HB2 X490 matured 10-9 (Table 37). These varieties should have been evaluated with maturity group V.

The maturity group IV results are presented in Tables 36 through 41. Northrup King S 46-44, Delsoy 4900, Tn Exp. 89-68, Pershing, Tn. Exp. 89-206 Callahan 3500X, Callahan 3484X, Asgrow A 4715, and Pioneer Brand 9501 produced higher yields than the check variety Tn 4-86.

The two year yield and other characteristics are presented in Tables 38 and 39. Pioneer brand 9501, Delsoy 4900, Northrup King S 48-84 and FFR 464 produced higher yields than Tn 4-86 (Table 38).

Three years data are shown in Table 40 and 41. Northrup King S 48-84, Delsoy 4900 produced similar yields to Tn 4-86 (Table 40).

Table 36. Soybeans: Yield of varieties (Maturity Group IV) evaluated at five locations in 1992.

Brand	Variety	Avg. Yield	Knox-ville	Cross-ville	Spring-field	Milan	Ames Plantation
				Bushels per acre			
Northrup King	S 46-44	49	56	52	44	51	45
Delsoy	4900	47	48	47	47	41	53
Tn Exp.	89-68	47	51	48	48	41	45
Mo.	Pershing	46	48	53	41	43	46
Tn Exp.	89-206	46	54	52	47	39	39
Callahan	3500x	46	44	61	37	37	50
Callahan	3484x	46	53	61	33	37	45
Asgrow	A 4715	46	47	55	40	42	44
Pioneer	9501	46	51	50	40	41	44
Tn Exp.	90-03	45	55	48	38	39	46
HyPerformer	HB2 X484	45	51	57	35	38	45
DeKalb	CX 458	44	51	58	36	30	43
Tn Exp.	90-09	44	54	43	37	36	48
Northrup King	S 48-84	43	43	50	38	42	44
HyPerformer	HB 2x498	42	41	49	40	39	44
FFR	464	42	41	55	38	34	44
Hartz	H 4464	42	36	52	31	43	50
HyPerformer	HY 401	42	30	56	36	34	55
Callahan	1490x	41	43	56	33	36	38
Delsoy	4710	40	35	57	28	37	43
Deltapine	DP 3456	40	40	50	33	35	42
AgraTech	AT 455	40	43	48	31	34	43
Tn.	Tn 4-86	40	50	34	33	38	43
Pioneer	9461	39	46	59	27	31	34
Pioneer	9442	39	43	49	36	30	38
Tn Exp.	89-162	39	43	36	43	37	38
Stine	4150	37	40	42	28	31	45
Hartz	4242	37	23	45	38	36	42
HyPerformer	HB2 X490	37	22	45	36	36	44
DeKalb	CX 415	36	40	48	32	26	35
AgraTech	AT 495	36	36	41	39	31	31
Pioneer	9443	33	42	39	24	28	32
L.S.D. (.05)		4.4	10.0	7.9	6.6	7.3	11.1
C.V. %		17.0	16.2	11.3	12.8	14.1	18.4
Avg.		42.0	43.8	49.9	36.5	36.7	43.1
R-Square		0.64	0.68	0.76	0.69	0.60	0.47

Table 37. Soybeans: Yield and other characteristics of varieties (Maturity Group IV) evaluated at five locations in 1992.

Brand	Variety	Yield	Full Bloom	Maturity	Plant Ht	Lodged	Flower	Pubescence	Moist. at Harvest
		Bu/A	Date	Date	In.	%	Color[3]	Color[4]	%
Northrup King	S 46-44	49	7-23	10-7	37	36	W[1]	T	15.8
Delsoy	4900	47	7-22	9-30	31	33	P	T(B)	17.5
Tn Exp.	89-68	47	7-23	10-3	34	13	P	T	17.7
Mo.	Pershing	46	7-22	9-29	30	18	W	G	16.7
Tn Exp.	89-206	46	7-22	10-4	32	15	W	G	16.6
Callahan	3500X	46	7-6	9-17	37	11	P	G	16.5
Callahan	3484X	46	7-4	9-18	35	16	P	L-T[2]	16.2
Asgrow	A 4715	46	7-6	9-18	36	08	W	T	16.3
Pioneer	9501	46	7-9	9-25	38	11	W	T	16.6
Tn Exp.	90-03	45	7-10	9-26	42	06	P	G	16.7
HyPerformer	HB2 X484	45	7-6	9-17	36	10	W	T	16.2
DeKalb	CX 458	44	7-5	9-12	31	12	W	T	16.9
Tn Exp.	90-09	44	7-10	9-24	42	05	P	G	17.1
Northrup King	S 48-84	43	7-8	9-21	35	45	P	T	17.0
HyPerformer	HB2 X498	42	7-21	10-2	41	38	W	G	17.0
FFR	464	42	7-7	9-14	36	33	P	T	16.4
Hartz	H 4464	42	7-9	9-18	38	38	W	B	17.7
HyPerformer	Hy 401	42	7-6	9-15	38	44	P	G	19.1
Callahan	1490X	41	7-5	9-18	35	08	P	T	18.1
Delsoy	4710	40	7-6	9-21	37	40	P	T	17.0
Deltapine	DP 3456	40	7-4	9-13	31	27	W	T	15.4
AgraTech	AT 455	40	7-7	9-16	33	11	P	T	16.1
Tn.	Tn 4-86	40	7-8	9-18	40	11	P	T	17.3
Pioneer	9461	39	7-5	9-11	29	24	W	T	16.6
Pioneer	9442	39	7-5	9-9	30	13	P	T	16.1
Tn Exp.	89-162	39	7-25	10-3	33	22	W	T	16.1
Stine	4150	37	7- 2	9-11	34	27	W/P	T	16.1
Hartz	4242	37	7-20	9-21	29	32	W	B	16.7
HyPerformer	HB2 X490	37	7-26	10-9	48	40	P	G	22.9
DeKalb	CX 415	36	7-32	9-7	34	23	W	T	16.0
AgraTech	AT 495	36	7-18	9-22	29	23	W	T(B)	17.1
Pioneer	9443	33	7-5	9-8	29	06	W	T	17.5

[1]Flower color was white in test and purple on entry form.
[2]Light tawny in pubescence color.
[3]Flower color: w=white p=purple.
[4]pubescence color: t=tawny g=gray.

Table 38. Soybeans: Yield of varieties (Maturity Group IV) evaluated at five locations for two years (1991-92).

Brand	Variety	Avg.	Knox-ville	Cross-ville	Spring-field	Ames Plantation	Milan
				Bushels per acre			
Pioneer	9501	49	51	57	53	41	44
Delsoy	4900	49	45	54	61	45	39
Northrup King	S 48-84	47	46	56	48	39	48
FFR	464	46	43	55	49	41	39
DeKalb	CX 458	45	46	56	53	37	34
HyPerformer	Hy 401	44	36	50	52	45	37
Callahan	1490x	44	43	52	45	38	41
AgraTech	AT 455	44	43	50	47	38	39
Deltapine	DPX 3456	43	44	45	49	39	38
Pioneer	9461	43	48	51	47	31	36
Tn.	Tn 4-86	42	50	36	47	37	42
Pioneer	9442	42	43	44	48	36	36
AgraTech	495	40	39	43	43	33	40
DeKalb	CX 415	37	43	43	41	31	28
Pioneer	9443	35	46	37	35	28	32
L.S.D. (.05)		4.0	10.2	10.2	8.1	6.6	6.2
C.V.%		21.0	23.2	21.2	16.9	17.8	16.4
Avg.		43.3	44.4	48.6	47.8	37.3	38.2
R-Square		0.57	0.26	0.48	0.82	0.64	0.64

Table 39. Soybeans:Yield and other characteristics of varieties (Maturity Group IV) evaluated at five locations for two years (1991-92).

Brand	Variety	Yield	Full Bloom	Date Mature	Plant Ht.	Lodging	Flower	Pubescence
		Bu/A	Date	Date	In.	%	Color[1]	Color[2]
Pioneer	9501	49	7-15	9-29	39	10	W	T
Delsoy	4900	49	7-26	10-1	32	30	P	T
Northrup King	S 48-84	47	7-14	9-26	36	40	P	T
FFR	464	46	7-12	9-19	36	30	P	T
DeKalb	CX 458	45	7-10	9-17	30	10	W	T
HyPerformer	Hy 401	44	7-13	9-21	39	40	P	G
Callahan	1490x	44	7-10	9-23	34	10	P	T
AgraTech	AT 455	44	7-13	9-20	33	10	P	T
Deltapine	DPX 3456	43	7-10	9-18	31	20	W	T
Pioneer	9461	43	7-10	9-16	28	20	W	T
Tn.	Tn 4-86	42	7-15	9-26	40	10	P	T
Pioneer	9442	42	7-10	9-15	30	10	P	T
AgraTech	495	40	7-21	9-26	29	10	W	T
DeKalb	CX 415	37	7-9	9-11	33	20	W	T
Pioneer	9443	35	7-10	9-12	28	10	W	T

[1]Flower color: w=white p=purple.
[2]pubescence: t=tawny g=gray.

Table 40. Soybeans: Yield of varieties (Maturity Group IV) evaluated at three locations for three years (1990-92).

Brand	Variety	Avg.	Knox-ville	Spring-field	Milan
			Bushels per acre		
Northrup King	S 48-84	46	46	41	52
Delsoy	4900	44	44	47	41
Tn.	Tn 4-86	44	48	41	42
Pioneer	9461	43	46	43	39
FFR	464	42	42	43	39
DeKalb	CX 458	41	44	44	36
Pioneer	9442	41	44	43	38
HyPerformer	Hy 401	40	37	45	38
AgraTech	AT 495	40	42	36	40
DeKalb	CX 415	37	41	38	33
L.S.D. (.05)		4.1	N.S.	6.4	5.5
C.V. %		21.0	21.0	18.8	16.9
Avg.		41.8	43.4	42.2	39.8
R-Square		0.60	0.34	0.85	0.70

Table 41. Soybeans: Yield and other characteristics of varieties (Maturity Group IV) at four locations for three years (1990-92).

Brand	Variety	Yield	Full Bloom	Maturity	Plant Height	Lodged	Flower	Pubescence
		Bu/A	Date	Date	In	%	Color[1]	Color[2]
Northrup King	S 48-84	46	7-12	9-29	37	40	P	T
Delsoy	4900	44	7-22	10-3	33	20	P	T
Tn.	Tn 4-86	44	7-12	9-26	40	10	P	T
Pioneer	9461	43	7-10	9-15	28	20	W	T
FFR	464	42	7-10	9-22	35	30	p	T
DeKalb	CX 458	41	7-10	9-20	29	10	W	T
Pioneer	9442	41	7-10	9-18	29	10	P	T
HyPerformer	Hy 401	40	7-10	9-24	37	40	P	G
AgraTech	AT 495	40	7-18	9-28	29	10	W	T
DeKalb	CX 415	37	7-9	9-15	32	20	W	T

[1]Flower color: w=white p=purple.
[2]pubescence: t=tawny g=gray.

Table 42. Soybeans: Yield of varieties (Maturity Group V) evaluated at six locations in 1992.

Brand	Variety	Avg.	Green-ville	Knox-ville	Spring-field	Milan	Ames Plantation	Martin
				Bushels per acre				
Asgrow	A 5403	59	69	53	49	53	51	77
Callahan	2565 NX	59	64	65	50	57	57	58
Asgrow	A 5979	58	56	59	49	52	65	68
Pioneer	9593	58	69	54	52	54	58	63
Deltapine	415	57	67	57	53	52	59	56
Asgrow	A 5560	57	70	59	43	52	55	63
Terra-Vig	5693	57	71	56	45	49	55	65
FFR	595	56	59	59	42	51	59	67
HyPerformer	JSC 591	56	65	56	40	47	61	68
FFR	561	56	56	61	45	50	53	70
Pioneer	9551	56	64	61	41	53	57	58
Deltapine	105	55	65	60	44	43	56	64
Northrup King	C 6955	55	61	63	50	54	62	41
Deltapine	DPX 3589	55	67	52	48	52	52	60
Va.	Hutcheson	55	63	55	48	51	53	60
AgraTech	2555	55	55	57	46	51	52	70
Northrup King	C 425	55	63	56	43	52	57	59
Hartz	H 5350	55	54	60	48	54	57	57
FFR Exp	38108	55	69	53	48	47	51	62
Tn Exp.	88-87	55	62	57	44	53	45	68
AgraTech	AT 575	55	65	57	48	46	49	64
Deltapine	DPX 3553	55	67	50	48	45	55	63
Callahan	7510 N	54	59	50	46	52	52	66
Terra-Vig	515	54	55	56	45	51	54	64
FFR	562	54	65	53	40	44	56	65
Stine	5970 CN	54	66	58	39	52	52	57
HyPerformer	HSC 501	54	59	53	39	46	53	72
Northrup King	C 485	54	43	66	47	53	54	59
Hartz	H 5566	53	55	57	46	46	55	56
Hartz	H 5810	53	59	57	41	49	58	52
Mo.	Rhodes	53	61	49	46	50	48	62
Northrup King	S 59-60	52	47	53	47	49	61	57
AgraTech	2520	52	52	52	43	47	53	64
FFR	500	52	56	52	33	51	48	71
Terra-Vig	TVX 5653	52	58	50	44	43	58	56

continued on next page.

Table 42 continued:

HyPerformer	HB2-X 549	51	57	56	46	43	53	54
Eagle	Silverado	51	62	54	36	46	46	64
Mo.	Pershing	51	62	50	41	46	51	59
AgraTech	AT 550	51	70	53	40	46	55	43
Callahan	2575 NX	51	45	60	37	45	57	64
Riverside	499	51	67	53	41	37	55	53
HyPerformer	HSC 557	51	49	57	40	41	57	62
UAPX	42	51	58	50	36	42	57	61
Mo.	Hartwig	51	45	54	43	47	59	57
Tn.	Tn 5-92	50	46	58	45	46	49	58
HyPerformer	HB2-X 544	50	53	50	39	46	48	65
Hartz	H 5070	50	49	39	52	45	53	62
Pioneer	9521	50	54	49	49	51	43	54
Hartz	H 5033	50	53	46	47	41	52	60
Va.	Essex	50	57	51	41	50	44	55
UAPX	76	50	51	47	44	55	63	39
Callahan	3545 NX	50	46	47	43	46	48	69
Stoneville	551	50	50	40	45	52	49	62
Tn.	Tn 5-85	50	52	52	40	53	46	54
AgraTech	2665	50	54	51	42	43	49	58
Deltapine	DPS 3541	49	55	35	39	40	58	69
Terra-Vig	5452	49	50	57	44	41	54	50
Mo.	Avery	49	62	55	33	38	50	57
Riverside	577	48	53	49	39	42	52	53
Terra-Vig	TVX 6897	45	53	45	41	41	54	38
Stine	5300	44	58	41	27	37	40	58
HyPerformer	Hy 401	41	50	24	34	38	52	50
Tn Exp.	88-21	40	39	40	42	37	39	43
Eagle	Excaliber	38	44	39	29	33	37	49
L.S.D. (.05)		3.7	9.3	10.8	6.4	6.5	9.5	10.0
C.V. %		12.6	11.6	14.7	10.7	9.9	12.9	12.1
Avg.		52.1	57.5	52.6	43.0	47.2	53.0	59.4
R-Square		0.70	0.66	0.55	0.65	0.65	0.47	0.64

Maturity Group V

The maturity group V varieties were evaluated at Greeneville, Knoxville, Spring Hill, Springfield, Martin, Milan and Ames Plantation. The Spring Hill test was not harvested in time to be included in the 1992 research report. These results will be reported in the variety test bulletin in early 1993.

The soybean trials at Knoxville were affected by race 2 soybean cyst nematode and Sudden Death Syndrome (SDS) disease. The 1992 trials at Knoxville were planted early following corn and on land infested with race 2 soybean cyst nematodes. Moisture was adequate during the growing season and the damage from nematodes was not apparent. Some varieties were severely damaged by SDS. One of these varieties was HyPerformer Hy 401.

Maturity group V trials consisted of 64 entries. These 64 varieties were evaluated in two-rows instead of the standard four row plots and harvesting the two center rows for yield. All other trials of maturity group IV and VI were evaluated using four row plots. All yields were adjusted to 13% moisture.

The data for maturity group V are reported in Tables 42 through 47. The test at Greeneville and Martin produced the highest average yields (Table 42). The average yield among locations ranged from 43 to 59 bushels per acre.

Asgrow A 5403, Callahan 2565 NH, Asgrow A 5979, Pioneer brand 9593 produced higher yields in 1992 than the check variety Hutcheson (Table 42). At Knoxville where Race 2 soybean cyst nematode and SDS were present, Hartz H 5070, Deltapine DPS 3541, HyPerformer Hy 401 and Excaliber produced low yields (Table 42).

The two year results for maturity group V are shown in Tables 44 and 45. Asgrow A 5979, Asgrow A 5403, Terra-Vig 5693, and Pioneer brand 9593 produced higher yields than the check variety Hutcheson. Essex produced lower yields than the check variety (Table 44).

The three year results for maturity group V are presented in Tables 46 and 47. Based on the three year average Asgrow A 5979 produced higher yields than check variety Hutcheson (Table 46).

Table 43. Soybeans: Yield and other characteristics of varieties (Maturity Group V) evaluated at six locations in 1992.

Brand	Variety	Yield	Full Bloom	Maturity	Plant Ht.	Lodging	Flower	Pubescence	Moist. at Harv.
		Bu/A	Date	Date	In.	%	Color+	Color*	%
Asgrow	A 5403	59	7-14	9-30	35	14	P	G	12.8
Callahan	2565 NX	59	7-14	10-8	35	20	P	T	12.3
Asgrow	A 5979	58	7-17	10-10	38	21	W	G	12.5
Pioneer	9593	58	7-17	10-6	41	27	W	T	12.8
Deltapine	415	57	7-14	10-3	38	22	P	G	12.9
Asgrow	A 5560	57	7-12	10-2	35	21	P	T	12.8
Terra-Vig	5693	57	7-18	10-7	35	35	P	G	12.6
FFR	595	56	7-18	10-11	45	23	W	T	12.5
HyPerformer	HSC 591	56	7-21	10-13	44	26	W	T	12.6
FFR	561	56	7-14	10-7	36	14	W	G	13.3
Pioneer	9551	56	7-13	10-1	36	10	W	T	12.7
Deltapine	105	55	7-18	10-7	39	36	P	G	12.9
Northrup King	C 6955	55	7-15	10-7	37	26	W	T	12.9
Deltapine	DPX 3589	55	7-19	10-9	49	32	P	T	13.5
Va.	Hutcheson	55	7-16	10-2	34	20	W	G	12.8
AgraTech	2555	55	7-15	10-5	37	09	W	G	12.9
Northrup King	C 425	55	7-16	9-29	29	08	P	T	12.4
Hartz	H 5350	55	7116	10-9	37	32	W	T	12.7
FFR Exp.	38108	55	7-14	10-2	37	16	P	G	13.2
Tn Exp.	88-87	55	7-14	9-30	36	11	P	T	12.6
AgraTech	AT 575	55	7-19	10-7	38	24	W	G	13.4
Deltapine	DPX 3553	55	7-18	10-6	43	29	P	G	13.0
Callahan	7510 N	54	7-12	9-30	34	11	P	T	12.7
Terra-Vig	515	54	7-18	10-13	38	43	P	T	13.4
FFR	562	54	7-18	10-5	43	27	P	G	12.8
Stine	5970 CN	54	7-15	10-6	38	22	P	T	12.8
HyPerformer	HSC 501	54	7-13	9-28	33	14	P	T	12.7
Northrup King	C 485	54	7-17	10-10	36	39	P	T	12.8
Hartz	H 5566	53	7-17	10-6	39	43	W	T	13.0
Hartz	5810	53	7-16	10-8	40	28	W[1]	T	12.6
Mo.	Rhodes	53	7-13	10-4	40	20	W	T	13.1
Northrup King	S 59-60	52	7-16	10-8	36	46	P	T	13.0
AgraTech	2520	52	7-14	10-1	34	29	W	T	12.4
FFR	500	52	7-18	9-28	32	08	W	G	12.9
Terra-Vig	TVX 5653	52	7-19	10-10	45	45	P	T	12.9

[1]Flower color reported on entry form as purple.
+Flower color: w=white p=purple.
*pubescence: t=tawny g=gray.
continued on next page.

Table 43 continued:

HyPerformer	HB2-X 549	51	7-21	10-14	42	52	M	T	13.1
Eagle	Silverado	51	7--11	10-1	46	36	P	G	12.7
Mo.	Pershing	51	7-13	9-26	30	11	W	G	12.9
Agratech	AT 550	51	7-15	10-6	44	28	P	T(B)	13.0
Callahan	2575 NX	51	7-15	10-5	37	33	P	T	12.7
Riverside	499	51	7-13	9-25	47	29	P[3]	G	12.7
HyPerformer	HSC 557	51	7-23	10-9	47	48	P	T	13.1
UAPX[5]	42	51	7-20	10-9	44	50	W	T	12.8
Mo.	Hartwig	51	7-13	10-7	35	35	W	T	12.8
Tn.	Tn 5-92	50	7-19	10-4	41	21	W	G	12.3
HyPerformer	HB2-X 544	50	7-10	10-1	33	12	W	G	12.3
Hartz	H 5070	50	7-15	10-6	37	22	W	T	12.9
Pioneer	9521	50	7-11	10-29	35	19	P	T	13.0
Hartz	H 5033	50	7-17	10-2	34	20	P	G[2]	12.3
Va.	Essex	50	7-10	9-28	30	16	P	G	12.8
UAPX[5]	76	50	7-14	10-7	33	52	W[6]	G	13.0
Callahan	3545 NX	50	7-13	9-30	34	17	W	T	12.7
Stoneville	551	50	7-17	10-2	37	22	W	T	12.9
Tn.	Tn 5-85	50	7-13	10-3	36	27	W	G	12.5
AgraTech	2665	50	7-10	9-26	43	16	W	G[4]	13.0
Deltapine	DPS 3541	49	7-18	10-2	42	34	P	T	13.2
Terra-vig	5452	49	7-17	10-4	38	31	W	G	13.0
Mo.	Avery	49	7-13	10-25	52	48	W	T	12.2
Riverside	577	48	7-18	10-9	42	52	W	G	12.5
Terra-Vig	TVX 6897	45	7-19	10-8	36	61	W	T	12.9
Stine	5300	44	7-1	9-20	44	24	P	G	13.0
HyPerformer	Hy 401	41	7-1	9-15	45	56	P	G	13.4
Tn Exp.	88-21	40	7-15	10-3	34	21	W	G	12.9
Eagle	Excaliber	38	7-5	9-26	39	24	P/W	T	13.1

[2]Pubescence color reported as brown on entry forms.
[3]Flower color reported on entry form as white.
[4]Pubescence color reported as tawny on entry form.
[5]Tri-state Delta Chemical, Inc.
[6]Flower color reported on entry form as purple.

Table 44. Soybeans: Yield of varieties (Maturity Group V) evaluated at five locations for two years (1991-92).

Brand	Variety	Avg.	Knox-ville	Spring-field	Ames Martin	Ames Plantation	Milan
			Bushels per acre				
Asgrow	A 5979	52	59	44	55	53	48
Asgrow	A 5403	50	52	45	62	46	46
Terra-Vig	5693	49	52	46	53	50	42
Pioneer	9593	49	55	45	49	50	45
Northrup King	S 59-60	48	53	44	50	52	44
FFR	561	48	57	42	53	45	43
Deltapine	415	48	52	47	47	50	43
HyPerformer	HSC 591	48	52	40	54	52	41
Northrup King	Coker 485	48	56	40	50	46	46
Northrup King	Coker 6955	47	60	42	37	53	44
AgraTech	AT 575	47	52	45	53	46	39
Pioneer	9551	47	57	38	48	48	45
FFR	595	47	53	39	51	51	42
Terra-Vig	515	47	51	41	53	48	43
Northrup King	Coker 425	47	53	40	50	46	44
Deltapine	105	47	50	41	52	51	39
Va.	Hutcheson	46	51	43	49	47	42
FFR	562	46	49	39	51	49	39
Terra-Vig	5452	46	56	41	45	47	39
Mo.	Hartwig	46	53	37	50	47	41
Mo.	Rhoads	45	50	40	51	43	42
Stoneville	551	45	45	42	52	41	44
Tn.	Tn 5-85	44	53	37	45	45	42
UAPX	42	44	48	35	50	50	39
Tn.	Tn 5-92	44	54	40	46	42	38
Pioneer	9521	44	51	42	44	39	43
Va.	Essex	43	50	37	45	43	42
Riverside	577	43	45	40	46	47	38
AgraTech	AT 550	43	50	38	38	48	40
L.S.D. (.05)		2.9	6.3	4.4	6.7	7.8	4.1
C.V. %		14.0	12.2	10.8	13.9	16.6	10.0
Avg.		46.4	15.4	41.0	49.3	47.4	42.2
R-Square		0.69	0.51	0.67	0.81	0.63	0.82

Table 45. Soybeans: Yield and other characteristics of varieties (Maturity Group V) evaluated at five locations for two years (1991-92).

Brand	Variety	Yield	Full Bloom	Maturity	Plant Ht	Lodging	Flower	Pubescence
		Bu/A	Date	Date	In.	%	Color[1]	Color[2]
Asgrow	A 5979	52	7-16	10-9	35	10	W	G
Asgrow	A 5403	50	7-14	10-1	33	10	P	G
Terra-Vig	5693	49	7-18	10-7	33	20	P	G
Pioneer	9593	49	7-17	10-6	40	20	W	T
Northrup King	S 59-60	48	7-17	10-7	35	30	P	T
FFR	561	48	7-15	10-6	34	10	W	G
Deltapine	415	48	7-16	10-3	35	10	P	G
HyPerformer	HSC 591	48	7-22	10-11	42	10	W	T
Northrup King	C 485	48	7-18	10-9	35	20	P	T
Northrup King	C 6955	47	7-15	10-6	34	10	W	T
AgraTech	AT 575	47	7-20	10-7	36	10	W	G
Pioneer	9551	47	7-13	10-2	33	10	W	T
FFR	595	47	1-19	10-10	43	10	W	T
Terra-Vig	515	47	1-19	10-12	36	30	P	T
Northrup King	C 425	47	1-18	10-2	27	00	P	T
Deltapine	105	47	1-19	10-6	38	30	P	G
Va.	Hutcheson	46	1-17	10-4	31	10	W	G
FFR	562	46	1-19	10-5	41	20	P	G
Terra-Vig	5452	46	1-18	10-5	36	20	W	G
Mo.	Hartwig	46	1-20	10-6	33	20	W	T
Mo.	Rhodes	45	1-15	10-4	37	10	W	T
Stoneville	551	45	1-17	10-1	35	10	W	T
Tn.	Tn 5-85	44	1-14	10-3	36	20	W	G
UAPX	42	44	1-21	10-8	43	40	W	T
Tn.	Tn 5-92	44	1-19	10-3	38	10	W	G
Pioneer	9521	44	1-12	9-28	32	10	P	T
Va.	Essex	43	1-11	9-29	28	10	P	G
Riverside	577	43	1-18	10-8	40	40	W	G
AgraTech	AT 550	43	1-15	10-6	42	20	P	T

[1]Flower color: w=white p=purple.
[2]pubescence: t=tawny g=gray.

Table 46. Soybeans: Yield of varieties (Maturity Group V) evaluated at three locations for three years (1990-92).

Brand	Variety	Avg.	Knoxville	Milan	Ames Plantation
			Bushels per acre		
Asgrow	A 5979	53	55	54	48
Northrup King Coker	6955	50	57	45	46
Northrup King Coker	485	49	55	51	42
Northrup King Coker	425	49	53	50	44
Deltapine	415	48	50	49	45
Va.	Hutcheson	48	51	49	44
FFR	595	47	50	48	43
Asgrow	A 5403	47	51	47	42
Deltapine	105	47	49	46	45
Terra-Vig	515	46	49	47	42
FFR	561	46	54	44	41
AgraTech	AT 550	46	49	44	44
Va.	Essex	45	47	49	39
Tn.	Tn 5-85	45	51	45	40
Tn.	Tn-592	45	52	44	39
AgraTech	AT 575	45	49	45	41
FFR	562	44	47	44	42
Riverside	HSC 577	44	46	44	41
L.S.D. (.05)		3.3	5.6	5.1	6.6
C.V.%		15.4	13.1	13.5	19.1
Avg.		46.9	50.9	47.0	42.6
R-Square		0.65	0.52	0.77	0.66

Table 47. Soybeans: Yield and other characteristics or varieties (Maturity Group V) evaluated at three locations for three years (1990-92).

Brand	Variety	Yield	Full Bloom	Maturity	Plant Ht.	Lodging	Flower	Pubescence
		Bu/A	Date	Date	In.	%	Color[1]	Color[2]
Asgrow	A 5979	53	7-15	10-7	36	10	W	G
Northrup King	C 6955	50	7-12	10-4	34	10	W	T
Northrup King	C 485	49	7-17	10-8	36	20	P	T
Northrup King	C 425	49	7-8	9-30	28	00	P	T
Deltapine	415	48	7-13	10-1	36	10	P	G
Va.	Hutcheson	48	7-15	10-2	32	10	W	G
FFR	595	47	7-18	10-11	44	20	W	T
Asgrow	A 5403	47	7-12	9-29	33	00	P	G
Deltapine	105	47	7-16	10-6	40	40	P	G
Terra-Vig	515	46	7-18	10-11	38	40	P	T
FFR	561	46	7-12	10-4	35	00	W	G
AgraTech	AT 550	46	7-13	10-6	43	10	P	T
Va.	Essex	45	7-10	9-29	29	10	P	G
Tn.	Tn 5-85	45	7-11	10-2	36	10	W	G
Tn.	Tn 5-92	45	7-18	10-3	42	20	W	G
AgraTech	AT 575	45	7-19	10-7	36	10	W	G
FFR	562	44	7-17	10-5	42	20	P	G
Riverside	577	44	7-16	10-8	41	50	W	G

[1]Flower color: w=white p=purple.
[2]pubescence: t=tawny g=gray.

Maturity Groups VI and VII

Sixteen late maturing soybean varieties (Groups VI and VII) were grown at Knoxville, Spring Hill, Milan, and Ames Plantation in 1991 and 1992. No data are reported for Spring Hill in 1992 due to late harvest. These results will be published in the variety test bulletin in early 1993. The late maturing varieties at Knoxville were grown in Race 2 soybean cyst nematode infested soil. SDS (Sudden Death Syndrome disease) was a problem at Knoxville in 1992.

The late maturing soybean data are reported in Tables 48 through 53. Northrup King S 62-66 and Northrup King S 61-89 produced higher yields than the average of 52 bushels per acre (Table 48).

Two year results are shown in Tables 50 and 51. The three year late maturing data are presented in Tables 52 and 53. There were no difference in yield among the seven varieties evaluated for three years (Table 52).

Table 48. Soybeans: Yield of varieties (Maturity Groups VI & VII) evaluated at three locations in 1992.

Brand	Variety	Avg.	Knoxville	Milan	Ames Plantation
			Bushels per acre		
Northrup King	S 62-66	59	52	70	55
Northrup King	S 61-89	58	58	66	51
Va.	Hutcheson	56	48	63	58
Eagle	Pulsar	55	55	59	53
Riverside	Cajun	55	48	64	54
Deltapine	DP 3627	55	52	61	52
HyPerformer	HSC B2J	55	44	62	58
Riverside	699	54	51	61	51
Pioneer	9641	54	49	58	56
Eagle	Galaxy	53	48	58	52
Tn	Tn 6-90	50	36	63	52
Northrup King	S 64-23	49	38	55	53
Eagle	Zodiac	49	50	43	53
Eagle	Argosy	46	32	57	49
Deltapine	DPX 3606	45	29	54	52
Eagle	Telstar	45	34	52	49
L.S.D. (.05)		6.0	13.0	10.4	6.2
C.V. %		14.2	20.2	12.3	8.3
Avg.		52.4	45.1	59.0	52.9
R-Square		0.65	0.59	0.54	0.41

Table 49. Soybeans: Yield and other characteristics of varieties (Maturity Groups VI & VII) evaluated at three locations in 1992.

Brand	Variety	Yield	Full Bloom	Date Mature	Plant Ht.	Lodging	Flower	Pubescence	Moisture at harvest
		Bu/A	Date	Date	In.	%	Color[1]	Color[2]	%
Northrup King	S 62-66	59	7-17	10-17	36	37	P	T	14.8
Northrup King	S 61-89	58	7-16	10-14	45	20	P	T	13.5
Va.	Hutcheson	56	7-14	10-10	34	20	W	G	14.5
Eagle	Pulsar	55	7-20	10-20	38	48	W	T	13.8
Riverside	Cajun	55	7-16	10-18	34	15	W	T	13.5
Deltapine	DP 3627	55	7-21	10-15	42	07	P	G	14.2
HyPerformer	HSC B2J	55	7-15	10-15	41	12	P	T	14.2
Riverside	699	54	7-16	10-16	42	05	W	G	14.2
Pioneer	9641	54	7-22	10-16	41	20	P	G	14.1
Eagle	Galaxy	53	7-23	10-21	45	37	W	T	14.3
Tn	Tn 6-90	50	7-24	10-20	43	10	W	T	14.2
Northrup King	S 64-23	49	7-26	10-17	52	42	W	T	14.2
Eagle	Zodiac	49	8-4	10-24	52	43	W	G	14.3
Eagle	Argosy	46	7-25	10-24	49	40	W	G	14.1
Deltapine	DPX 3606	45	7-18	10-12	42	43	P	G	14.6
Eagle	Telstar	45	7-24	10-19	41	12	W	T	14.2

[1]Flower color: w=white p=purple.
[2]pubescence: t=tawny g=gray.

Table 50. Soybeans: Yield of varieties (Maturity Group VI & VII) evaluated at three locations for two years (1991-92).

Brand	Variety	Avg.	Knoxville	Milan	Ames Plantation
			Bushels per acre		
HyPerformer	HSC B2J	50	43	55	52
Deltapine	DPX 3627	49	43	55	50
Northrup King	S 61-89	49	45	58	46
Riverside	Cajun	49	43	54	51
Pioneer	9641	49	41	54	52
Riverside	699	48	44	50	51
Tn	Tn 6-90	45	31	54	50
L.S.D. (.05)		3.5	6.7	6.0	3.8
C.V. %		12.7	16.0	10.9	7.5
Avg.		48.6	41.5	54.2	50.2
R-Square		0.72	0.73	0.77	0.68

Table 51. Soybeans: Yield and other characteristics of varieties (Maturity Groups VI & VII) at three locations for two years (1991-92).

Brand	Variety	Yield	Full Bloom	Matur-ity	Plant Ht.	Lodged	Flo-wer	Pubes-cence
			Date	Date	In.	%	Color[1]	Color[2]
HyPerformer	HSC B2J	50	7-11	10-15	38	9	P	T
Deltapine	DPX 3627	49	7-17	10-16	39	5	P	G
Northrup King	S 61-89	49	7-12	10-15	43	16	P	T
Riverside	Cajun	49	7-15	10-17	32	13	W	T
Pioneer	9641	49	7-20	10-17	38	26	P	G
Riverside	699	48	7-13	10-16	40	6	W	G
Tn	Tn 6-90	45	7-23	10-20	41	7	W	T

[1]Flower color: w=white p=purple.
[2]pubescnece: t=tawny g=gray.

Table 52. Soybeans: Yield of varieties (Maturity Groups VI & VII) evaluated at three locations for three years (1990-92).

Brand	Variety	Avg.	Knoxville	Milan	Ames Plantation
			Bushels per acre		
Deltapine	DPX 3627	46	47	54	38
HyPerformer	HSC B2J	46	46	53	39
Pioneer	9641	46	45	52	39
Northrup King	S 61-89	45	46	56	35
Riverside	Cajun	45	44	53	38
Riverside	699	44	44	51	38
Tn	Tn 6-90	44	38	55	38
L.S.D. (.05)		N.S.	5.4	4.8	2.8
C.V.%		13.2	15.0	11.1	9.2
Avg.		45.2	44.2	53.5	37.9
R-Square		0.86	0.69	0.70	0.97

Table 53. Soybeans: Yield and other characteristics of varieties (Maturity Groups VI & VII) evaluated at three locations for three years (1990-92).

Brand	Variety	Yield	Full Bloom	Mat-urity	Plant Ht.	Lodg-ed	Flower	Pubes-cence
		Bu/A	Date	Date	In.	%	Color[1]	Color[2]
Deltapine	DPX 3627	46	7-30	10-21	39	10	P	G
HyPerformer	HSC B2J	46	7-25	10-20	37	10	P	T
Pioneer	9641	46	8-1	10-24	37	30	P	G
Northrup King	S 61-89	45	7-26	10-20	41	40	P	T
Riverside	Cajun	45	7-28	10-23	33	20	W	T
Riverside	699	44	7-26	10-23	38	10	W	G
Tn	Tn 6-90	44	8-4	10-29	40	10	W	T

[1]Flower color: w=white p=purple.
[2]pubescence: t=tawny g=gray.

Strains Evaluated at Jackson in 1992

Maturity group IV and V data are shown in Tables 54 and 55.

Six strains in maturity group V were compared to Hutcheson. AgraTech was the only strain that yielded different from Hutcheson (Table 54). FFR Exp. 19853 strain should have been evaluated with the early strains.

Two early maturing strains were compared to Tn 4-86. Deltapine DPX 3488 produced lower yields than the check Tn 4-86.

Table 54. Soybeans: Yield and other characteristics of strains (Maturity Group V) evaluated at Jackson in 1992.

Brand	Strain	Yield	Full Bloom	Maturity	Plant Ht.	Lodged	Flower	Pubescence	Moisture at harvest
		Bu/A	Date	Date	In.	%	Color[1]	Color[2]	%
Hartz	HX 512042	50	7-21	10-6	44	52	W	T	12.7
Stoneville	38472	50	7-24	10-6	34	34	P	G	12.4
Va.	Hutcheson	49	7-19	10-6	32	9	W	G	12.2
FFR	19853	48	7-9	9-20	39	36	P	G	13.0
Hartz	HX 511694	47	7-22	10-6	33	50	P	G	11.7
Hartz	HX 512088	46	7-20	10-20	36	16	P	T	12.4
AgraTech	X 2665	37	7-28	10-13	43	28	W	T	11.2

[1]Flower color: w=white p=purple.
[2]pubescence: t=tawny g=gray.

Table 55. Soybeans: Yield and other characteristics of strains (Maturity Group IV) evaluated at Jackson in 1992.

Brand	Strain	Yield	Maturity	Plant Ht.	Lodged	Flower	Pubescence	Moisture at Harvest
		Bu/A	Date	In.	%	Color[1]	Color[2]	%
Dekalb	CX 469C	57	9-20	43	37.5	P	T	13.6
TN	Tn 4-86	55	9-20	44	20.0	P	T	14.1
Deltapine	DPX 3488	47	9-20	35	52.5	P	T	13.6
L.S.D. (.05)		4.2						
C.V.%		4.6						
Avg.		52.9						
R-Square		0.88						

[1]Flower color: p=purple.
[2]pubescence: t=tawny.

Soybean Cyst Nematode ratings Made in 1992

Soybean cyst nematode ratings were made by Lawrence D. Young (USDA-ARS, Jackson, TN) in 1992. Soybean varieties from the state variety trials were evaluated for resistance to races 3, 4, and 5. A susceptible and resistant check variety was used for each race. The ratings were based on a scale of 1 through 5 with 5 being the most susceptible. The mean severity index is the sum of the values obtained by multiplying the rating times the number of plants with that rating, divided by the total number of plants. These mean severity indices are presented for each variety for the three cyst nematode races. These data are presented in tables 21 through 23. The cyst nematode reaction information from the organization that supplied the seed for testing are shown for each variety along with our ratings. Most of the greenhouse ratings correlated well with the seed supplier's ratings. There were some exceptions such as Northrup King S 48-84 in maturity group IV which showed resistance to race 5 and little resistance to races 3 and 4 (Table 21).

The ratings for maturity group V are shown in table 22. FFR 595 showed resistance to race 3 in 1991 but no resistance to this race in 1992. This variety was resistant to race 4 both years. Pioneer brand 9521 and Pioneer brand 593 claimed no resistance for these two varieties but in these greenhouse trials good resistance to Race 3 was shown (Table 22).

The late maturing variety cyst nematode ratings are presented in Table 23.

Table 56. Soybeans: Soybean cyst nematode ratings for Maturity Group IV grown in the greenhouse at Jackson during the summer of 1992[1].

Brand	Variety	Soybean Cyst Nematode Race 3	4	5	Resistant to Cyst Nematode[2]
TN	4-86	1.3	1.8	4.7	3,4
DeKalb	Cx 415	5.0	5.0	4.4	None
Pioneer	9442	4.8	5.0	4.4	None
Dekalb	Cx 458	5.0	5.0	5.0	None
Pioneer	9461	5.0	5.0	4.7	None
HyPerformer	Hy 401	5.0	5.0	4.7	None
FFR	464	5.0	4.7	4.6	None
Delsoy	4900	1.1	4.7	4.5	3
Northrup King	S 48-84	4.8	4.4	2.8	3,4
AgraTech	AT 495	1.2	1.0	3.0	3,4
Pioneer	9501	5.0	5.0	3.8	None
Pioneer	9443	2.0	1.3	4.3	3,4
Deltapine	DPX 3456	5.0	4.7	5.0	None
AgraTech	AT 455	2.7	4.2	5.0	None
Callahan	1490X	5.0	4.6	5.0	None
Northrup King	X9146	1.0	4.8	4.8	3,4
Asgrow	A 4715	1.4	2.1	5.0	3,4
Delsoy	4710	1.0	1.0	5.0	3,4
Callahan	3484X	4.8	4.7	5.0	None
Callahan	3500X	5.0	4.8	5.0	None
Stine	4150	4.3	5.0	5.0	None
Hartz	4242	4.8	4.8	5.0	----*
HyPerformer	HB2 X498	4.7	4.8	5.0	----*
HyPerformer	HB2 X490	4.7	4.7	5.0	----*
HyPerfomer	HB2 X484	5.0	4.8	5.0	----*
Hartz	H 4464	1.2	4.5	2.2	3

[1]The mean severity index is the sum of the values obtained by multiplying the rating times the number of plants with that rating, divided by the total number of plants. Rating was based on a scale of 1 through 5, with 5 being the most susceptible.

[2]Ratings supplied by the organization which supplied the seed for testing.

*Not reported or unknown.

Table 57. Soybeans: Soybean cyst nematode ratings for Maturity Group V grown in the greenhouse at Jackson during the summer of 1992[1].

Brand	Variety	Soybean cyst Nematode Race 3	4	5	Resistance to Cyst Nematode[2]
Va.	Essex	4.8	5.0	5.0	None
Deltapine	105	5.0	5.0	4.7	Trace
FFR	561	5.0	5.0	5.0	None
TN	5-85	1.1	4.8	4.4	3
Northrup King Coker	485	1.0	5.0	3.8	3
Northrup King Coker	425	5.0	5.0	5.0	None
FFR	562	4.8	4.8	5.0	None
Terra-Vig	515	1.5	4.8	4.7	3
Mo.	Avery	1.4	2.2	5.0	3,4
HyPerformer	Hy 401	4.7	5.0	5.0	None
Riverside	577	1.1	5.0	3.3	3
Deltapine	415	1.0	4.7	5.0	3
AgraTech	AT 575	4.7	5.0	5.0	None
AgraTech	AT 550	1.0	1.0	5.0	3,4
Asgrow	A 5403	1.0	1.0	5.0	3,4
Northrup King Coker	6955	1.0	2.7	5.0	3
Va.	Hutcheson	5.0	4.8	5.0	None
UAPX	42	1.0	1.0	1.0	---*
Mo.	Hartwig	1.0	1.0	1.0	3,4,5
Asgrow	A 5979	1.0	1.0	5.0	3,4
FFR	595	5.0	1.0	4.8	3,4
TN 5-92	(85-157)	1.0	3.2	1.2	3,4,5
Pioneer	9521	1.4	3.7	4.7	None
Pioneer	9551	1.3	1.0	5.0	3,4
Pioneer	9593	1.0	4.6	5.0	None
Mo.	Rhodes	1.0	4.1	3.7	3,4
Northrup King	S 59-60	1.4	1.0	5.0	3,4
Terra-Vig	5693	1.0	4.7	5.0	None
Terra-Vig	5452	5.0	3.7	5.0	3
HyPerformer	JSC 591	1.7	1.0	5.0	3,4
Stoneville	ST 551	1.2	3.6	5.0	3
Deltapine	DPX 3553	1.0	4.5	4.7	3,4
Deltapine	DPX 3589	4.7	4.6	5.0	3
Deltapine	DPX 3541	1.1	2.2	5.0	3,4
Asgrow	A 5560	1.4	1.0	5.0	3,4
FFR	500	1.0	1.0	5.0	3,4
FFR	Exp. 38108	1.0	1.0	5.0	3,4
TN Exp.	88-87	1.0	1.0	5.0	3,4
TN Exp.	88-21	1.2	4.0	4.0	None
Terra-Vig	TVX 5653	1.0	1.3	4.8	3,4

continued on next page.

Table 57 continued:

Terra-Vig	TVX 6897	1.0	1.2	4.8	3,4
HyPerformer	HSC 501	1.0	1.0	5.0	3,4
HyPerformer	HSC 557	1.1	1.0	5.0	3,4
Callahan	3545 NX	1.2	1.0	5.0	3,4
Callahan	7510 N	1.7	4.3	5.0	3
Callahan	2565 NX	1.3	4.8	2.4	3
Hartz	H 5350	1.1	1.0	4.8	3
Hartz	H 5810	1.0	1.0	5.0	3
Hartz	H 5070	3.7	4.3	5.0	---*
Hartz	H 5033	4.4	4.3	5.0	---*
Stine	5300	4.4	4.7	5.0	None
Stine	5970 CN	1.5	1.2	5.0	3,4
Hartz	H 5566	1.0	1.4	5.0	3
Eagle	Silverado	4.3	5.0	4.6	None
Eagle	Excaliber	4.2	5.0	5.0	None
Riverside	499	4.3	4.5	4.8	None
Mo.	Pershing	4.3	5.0	5.0	None
AgraTech	2520	1.4	4.5	5.0	3
AgraTech	2555	1.3	1.0	5.0	3
HyPerformer	HB2 X 549	4.7	5.0	4.4	---*
HyPerformer	HB2 X 544	1.0	1.0	5.0	3,4
Callahan	2575 NX	1.4	1.0	5.0	3,4
UAPX	76	3.8	4.6	5.0	---*
AgraTech	8665	4.8	4.3	5.0	3

[1]The mean severity index is the sum of the values obtained by multiplying the rating times the number of plants with that rating, divided by the total number of plants. Rating was based on a scale of 1 through 5 with 5 being the most susceptible.
[2]Ratings supplied by the organization which supplied the seed for testing.
*Not reported or unknown.

Table 58. Soybeans: Soybean cyst nematode ratings for Maturity Groups VI and VII grown in the greenhouse at Jackson during the summer of 1992[1].

Brand	Variety	Sobyean Cyst Nematode Race 3	4	5	Resistant to Cyst Nematode[2]
Hutcheson		4.7	4.8	4.7	None
Riverside	Cajun	2.1	4.8	4.8	3
Riverside	699	4.0	4.7	3.8	None
HyPerformer	HSC B2J	1.1	5.0	1.6	3
Pioneer	9641	4.7	5.0	3.7	None
TN 6-90		1.3	2.6	4.6	3
Deltapine	DPX 3627	5.0	5.0	4.6	3
Northrup King	S 61-89	1.1	1.7	4.8	3,4,5
Deltapine	3606	5.0	4.8	5.0	3,4
Northrup King	S 64-23	1.0	1.7	4.7	3,4
Northrup King	X 9161	1.0	2.3	4.8	3,4
Eagle	Pulsar	1.0	4.2	2.8	---*
Eagle	Telstar	5.0	4.8	4.8	---*
Eagle	Argosy	1.0	2.3	4.5	---*
Eagle	Galaxy	5.0	4.6	4.0	---*
Eagle	Zodiac	2.4	4.6	4.4	---*
Centennial		1.3	4.8	4.3	3
Essex		5.0	---[3]	---[3]	None
Forrest		1.3	---[3]	---[3]	3
Lee 68		5.0	---[3]	---[3]	None
Bedford		---	1.7	4.8	4
Hartwig		---	1.0	1.0	3,4,5

[1]The mean severity index is the sum of the values obtained by multiplying the rating times the number of plants with that rating, divided by the total number of plants. Rating was based on a scale of 1 through 5 with 5 being the most susceptible.

[2]Ratings supplied by the organization which supplied the seed for testing.

[3]Not included in this test.

*Not reported or unknown.

Performance of Summer Annuals
(Sorghum X Sudangrass Cross and Pearl Millets)

Eleven summer annuals were evaluated for forage production at Knoxville and Spring Hill in 1992. The plants were cut to a six inch stuble when they reached 30 to 36 inches in height. The tests were harvested with a forage harvester at both locations. The yields are reported as tons of oven dry forage per acre (Table 59). The two year average of five varieties for Knoxville and Spring Hill are presented in table 60.

Table 59. Summer Annuals: Yield of varieties evaluated at Knoxville and Spring Hill in 1992.

Brand	Type	Variety	Avg.	Knoxville	Spring Hill
			Tons of oven dry forage per acre		
Vista	SS	Greentreat II	3.33	3.25	3.41
Hyper	SS	Tastemaker DR	3.23	3.44	3.02
Pen.	SS	Southgraze II	3.26	3.34	3.19
FFR Co-op	SS	202	3.04	3.11	2.98
FFR Co-op	SD	110	3.04	3.62	2.47
DeKalb	Sudax	X 285C	3.02	2.85	3.18
Co-op	Mil	Mark II	3.01	3.21	2.82
	SS	Tastemaker III	2.95	3.10	2.80
Vista	SS	Greentreat III	2.88	2.49	3.26
DeKalb	SS	SX 17	2.66	2.59	2.73
Conlee	#	291	---	2.49	---
L.S.D. (.05)				0.69	0.29
C.V. %				15.6	6.7
Avg.				3.0	3.0
R-Square				0.60	0.74

Table 60. Summer Annuals: Yield of varieties evaluated at Knoxville and Spring Hill for two years (1991-92).

Brand	Type	Variety	Avg.	Knoxville 1992	Knoxville 1991	Spring Hill 1992	Spring Hill 1991
				Tons of oven dry forage per acre			
HyPerformer	SS	Tastemaker DR	3.82	3.44	6.27	3.02	2.54
Vista	SS	Greentreat II	3.65	3.25	5.22	3.41	2.73
HyPerformer	SS	Tastemaker III	3.44	3.10	5.38	2.80	2.47
Vista	SS	Greentreat III	3.22	2.49	4.52	3.26	2.62
DeKalb	SS	SX 17	3.10	2.59	4.45	2.73	2.64

Performance of Grain Sorghum Varieties

Thirty varieties were evaluated at Springfield, Milan, Spring Hill, and Ames Plantation in 1992. The test at Milan was planted no-till in killed wheat. The other trials were conducted in a conventional seedbed. The trials at Spring Hill in 1992 were not harvested due to bird damage. The data for grain sorghum are shown in Tables 61 through 63.

Table 61. Grain Sorghum: Yield of varieties evaluated at three locations in 1992.

Brand	Variety	Avg.	Springfield	Milan	Ames Plantation
		Bushels per acre			
DeKalb	X-166	93	74	101	104
Deltapine	G-522A	93	73	98	108
Deltapine	G-522DR	87	72	89	100
HyPerformer	1225DR	86	70	82	107
HyPerformer	Wings	86	69	91	99
Cargill	X-10216	85	55	103	97
Asgrow	Topaz	84	75	92	87
Northrup King	2660	84	63	84	105
HyPerformer	HSC-17	83	66	69	116
Cargill	575	83	52	102	94
Cargill	837	82	67	77	103
Pioneer	8212Y	82	62	75	108
DeKalb	DK 60	81	53	78	113
Northrup King	KS 560Y	81	50	104	90
Deltapine	G-1616	80	53	80	107
DeKalb	DK 37	78	61	69	106
DeKalb	DK 40Y	78	68	63	104
Cargill	857	78	55	79	99
Northrup King	KS 737	77	54	78	100
Northrup King	KS 555Y	77	52	88	91
Pioneer	8446	77	48	91	90
HyPerformer	Cherokee	77	60	75	95
Deltapine	1552	75	52	79	95
DeKalb	DK 56	75	58	75	94
Cargill	797	75	56	75	93
Pioneer	8333	74	57	71	96
Northrup King	KS 524	71	59	80	75
Deltapine	G-1711	69	59	56	91
Northrup King	KS 710	67	56	64	82
FFR	321	67	59	70	71
L.S.D. (.05)		12.5	10.9	30.0	19.9
C.V. %		19.2	12.7	25.6	14.4
Avg.		80.5	61.0	82.1	98.5
R-Square		0.69	0.78	0.42	0.48

Table 62. Grain Sorghum: Yield and other characteristics of varieties evaluated at three locations in 1992.

Brand	Variety	Yield	Headed[1]	Head Ext.	Plant Ht.	Grain Moisture	Maturity[1]
		Bu/A	Date	In	In.	%	Date
DeKalb	X-166	94	7-29	7.1	58	13.7	9-28
Deltapine	G-522A	94	7-28	7.7	51	13.1	9-28
Deltapine	G-522DR	88	7-26	6.7	51	13.5	9-23
HyPerformer	1225DR	87	7-28	7.6	52	13.4	9-26
HyPerformer	Wings	87	7-26	6.5	57	13.7	9-26
Cargill	X-10216	86	7-23	8.0	50	14.1	9-22
Asgrow	Topaz	85	7-25	7.1	54	13.9	9-25
Northrup King	2660	85	7-26	6.2	52	13.7	9-25
HyPerformer	HSC-17	84	7-28	5.1	54	14.1	9-24
Cargill	575	84	7-24	8.7	56	13.6	9-24
Cargill	837	83	7-26	7.7	54	13.8	9-27
Pioneer	8212Y	83	7-27	6.0	51	13.8	9-29
DeKalb	DK 60	82	7-31	7.6	58	14.0	9-28
Northrup King	KS 560Y	82	7-22	6.2	48	13.2	9-20
Deltapine	G-1616	81	7-25	6.1	54	13.7	9-26
DeKalb	DK 37	79	7-21	8.5	56	13.9	9-22
DeKalb	DK 40Y	79	7-24	7.5	52	13.4	9-24
Cargill	857	79	7-27	6.1	52	13.9	9-27
Northrup King	KS 7378	78	7-22	8.3	55	13.8	9-22
Northrup King	KS 555Y	78	7-21	8.4	54	13.6	9-20
Pioneer	8446	77	7-22	7.6	48	13.8	9-16
HyPerformer	Cherokee	77	7-24	6.9	53	14.0	9-23
Deltapine	1552	76	7-27	6.1	55	14.0	9-25
DeKalb	DK 56	76	7-26	8.4	56	13.9	9-24
Cargill	797	76	7-25	6.4	48	13.6	9-22
Pioneer	8333	75	7-24	7.6	52	14.3	9-25
Northrup King	KS 524	72	7-24	6.2	47	14.1	9-23
Deltapine	G-1711	69	7-27	6.5	52	14.4	9-29
Northrup King	KS 710	68	7-23	8.3	48	13.8	9-21
FFR	321	67	7-24	7.7	51	14.2	9-24

[1]One location only.

Table 63. Grain Sorghum: Yield of varieties evaluated at three locations for two years (1991-92).

Brand	Variety	Avg.	Springfield	Milan	Ames Plantation
		Bushels per acre			
Deltapine	G-522A	89	69	102	97
HyPerformer	Wings	85	71	95	89
Northrup King	2660	83	68	92	89
Cargill	837	82	72	83	90
Deltapine	G-522DR	81	64	94	87
DeKalb	DK 37	79	67	74	95
HyPerformer	Cherokee	78	65	85	85
DeKalb	DK 40Y	78	63	70	99
Northrup King	KS 555Y	77	63	82	86
Northrup King	KS 737	76	61	78	90
HyPerformer	1225 DR	76	60	78	90
Pioneer	8333	76	60	80	88
DeKalb	DK 60	75	57	77	92
Northrup King	KS 710	75	66	77	82
DeKalb	DK 56	74	65	70	84
Deltapine	G-1711	73	65	69	83
FFR	321	70	62	75	73
L.S.D. (.05)		8.7	11.4	20.6	12.9
C.V.%		19.2	17.8	23.8	14.7
Avg.		77.9	64.7	81.2	88.4
R-Square		0.58	0.54	0.43	0.63

Performance of Alfalfa

Alfalfa results are from tests grown at Knoxville, Spring Hill, Springfield, Martin, and Jackson. A new seeding was made at Spring Hill in the fall of 1992. Several new varieties were planted at Spring Hill, Pioneer brand 5773, DeKalb DK-133 Pioneer brand 5454, Key (Great Plains), Resistar (FFR), Rio (Great Plains) Fortress (Northrup King), Viking 1 (Northrup King) Asset (Allied) Alfagraze Apollo Supreme and Aggressor (ABI).

Three trials were seeded in 1989. These data are shown in table 64 through 67. No 1990 data were reported for Jackson and Springfield due to grass and weed mixtures in early harvest. From trials at Spring Hill seeded in 1989 the five top varieties ranged in yield from 4.7 to 4.9 tons per acre. The range in average yield for this location was 3.9 to 4.9. Garst 636 yielded 4.9 and Anstar and Cimmaron yielded 3.9 tones per acre. The yields of trials seeded in 1989 at Springfield were low with no difference among means. The Jackson data from trials seeded in 1989 are shown in Table 67.

Results from trials seeded in 1991 are shown in Table 64. The yields at Knoxville were high and Springfield very low. Several new entries in these trials show promise of being good alfalfa varieties.

Table 64. Alfalfa: Yield of varieties seeded in the fall of 1991 at three locations.

Brand	Variety	Avg.	Knoxville	Springfield	Martin
		Tons of oven dry forage per acre			
Great Plains	Belmont	4.23	6.97	2.04	3.69
Jacques	Chief	4.16	6.03	2.86	3.58
ABI	Aggressor	4.12	5.74	2.86	3.77
Allied	Asset	4.10	6.28	2.20	3.81
FFR	Multistar	4.09	6.40	3.15	3.73
Garst	630	4.07	6.99	1.81	3.40
ABI	Apollo Sup.	4.04	6.23	2.15	3.74
Allied	AS-BD	4.04	6.29	2.13	3.70
Jacques	Multi-Plyer	4.02	6.16	2.16	3.73
Northrup King	Crockett	3.99	6.30	2.19	3.48
Green Seed	Legacy	3.97	6.34	1.92	3.66
FFR	Anstar	3.96	6.11	2.04	3.72
Va.	Shenandoah	3.95	3.19	2.13	3.54
FFR	98 A 89	3.94	5.85	2.24	3.72
FFR	A 8813	3.92	6.44	1.76	3.92
Pioneer	5373	3.91	5.95	2.07	3.70
ABI	Alfagraze	3.90	5.81	2.23	3.67
Garst	636	3.77	5.68	2.02	3.60
Graet Plains	Cimarron VR	3.77	5.76	1.82	3.74
FFR	Haymark	3.67	5.66	1.93	3.41
Northrup King	Multi King 1	3.61	5.08	2.18	3.58
DeKalb	DK 125	---	5.96	2.62	----
DeKalb	DK 135	---	5.55	1.88	----
L.S.D. (.05)			0.65	0.55	0.35
C.V. %			7.4	18.2	6.8
Avg.			6.03	2.14	3.64
R-Square			0.53	0.49	0.26

Table 65. Alfalfa: Yield of varieties seeded in the fall of 1989 at Spring Hill

Brand	Variety	Avg.	1992	1991	1990
			Tons of oven dry forage per acre		
Garst	636	4.9	6.1	5.1	3.5
FFR	WAMPER	4.8	6.1	4.9	3.3
Vista	VS 639	4.7	5.5	5.1	3.4
WL	320	4.7	5.5	5.2	3.3
Asgrow	Eagle	4.7	5.8	5.2	3.2
Jacques	Chief	4.7	5.9	4.9	3.3
Ga.	Plains	4.7	6.0	5.1	2.9
Stanford	Lancaster	4.6	5.5	4.9	3.3
Garst	630	4.6	5.9	4.8	3.0
Pioneer	5432	4.5	5.9	4.7	2.9
ABI	Apollo II	4.5	5.3	4.8	3.3
DeKalb	DK 135	4.5	4.8	5.1	3.5
Stanford	Medistan	4.4	4.9	4.9	3.3
Vista	VS 622	4.4	5.1	5.1	3.1
Great Plains	Shenandoah	4.4	5.1	4.6	3.5
Stanford	Mohawk	4.4	5.5	4.9	2.7
Allied	Asset	4.3	4.7	4.7	3.5
ABI	8640	4.2	5.0	4.7	2.9
Pioneer	531	4.2	5.1	4.8	2.8
Great Plains	Cimarron VR	4.1	4.5	4.7	3.2
Plant Genetics	Huskey	4.0	4.3	4.5	3.1
Great Plains	Liberty	4.0	4.4	4.5	3.0
Plant Genetics	Milkmaker	4.0	4.5	4.6	3.0
ABI	8650	4.0	4.8	4.5	2.6
Great	Cimarron	3.9	4.1	4.7	2.9
FFR	Anstar	3.9	4.4	4.5	2.7
L.S.D. (.05)			1.4	0.49	0.40
C.V. %			19.5	7.3	19.9
Avg.			5.2	4.8	4.8

Table 66. Alfalfa: Yield of varieties seeded at Springfield in 1989.

Brand	Variety	Avg.	1992	1991
		Tons per acre		
Jacques	Chief	3.2	2.3	4.0
Great Plains	Shenandoah	3.0	2.0	4.0
FFR	WAMPR	3.0	2.1	4.0
Northrup King	Vancor	3.0	2.0	4.0
Stanford	Lancaster	3.0	2.1	3.9
Great Plains	Cimarron	3.0	2.2	3.9
Stanford	Mesistan	3.0	2.1	3.9
Pioneer	526	3.0	2.1	3.8
FFR	Haymark	3.0	2.0	3.8
W. L.	320	3.0	2.2	3.8
Pioneer	531	3.0	2.2	3.7
FFR	Anstar	2.9	2.0	3.8
Garst	630	2.9	2.0	3.8
ABI	Dart	2.9	2.0	3.8
W.L	Southern Special	2.9	2.1	3.8
	Raidor	2.9	2.0	3.8
Garst	636	2.9	2.1	3.7
Lovelock	Milkmaker	2.9	2.0	3.7
Great Plains	Cimarron VR	2.8	1.8	3.9
Plant Genetics	Husker	2.8	1.9	3.8
Stanford	Mohawk	2.8	2.0	3.7
Asgrow	Eagle	2.8	2.0	3.7
DeKalb	DK 135	2.8	2.0	3.6
Great Plains	Liberty	2.8	1.9	3.6
Pioneer	5432	2.8	2.0	3.6
ABI	Arrow	2.8	2.0	3.5
L.S.D. (.05)		0.2	N.S.	
C.V. %		6.8	7.6	
Avg.		2.0	3.8	

Table 67. Alfalfa: Yield of varieties seeded in the fall of 1989 at Jackson.[1]

Brand	Variety	Avg.	1992	1991
		Tons of oven dry forage per acre		
ABI	Dart	5.2	5.4	5.0
Stanford	Medistan	5.1	5.2	5.0
Great Plains	Liberty	5.1	5.3	4.9
Jacques	Chief	5.0	5.2	4.8
Lovelock	Milkmaker	5.0	5.3	4.8
Garst	636	5.0	5.2	4.8
Great Plains	Cimarron	5.0	5.4	4.7
	Raidor	5.0	5.3	4.6
FFR	WAMPR	4.9	5.2	4.6
W.L.	Southern Sp.	4.9	5.2	4.9
Plant Genetics	Huskey	4.8	5.0	4.8
ABI	Arrow	4.8	5.0	4.6
Stanford	Mohawk	4.8	5.1	4.5
Pioneer	5432	4.8	5.1	4.4
Garst	630	4.8	5.1	4.4
Great Plains	Shenandoah	4.7	4.9	4.5
Stanford	Landcaster	4.7	4.9	4.5
FFR	Anstar	4.7	4.9	4.5
Great Plains	Cimarron VR	4.7	5.0	4.4
	Haymaker	4.7	5.2	4.4
Northrup King	Vancor	4.6	4.8	4.5
Asgrow	Eagle	4.6	4.7	4.4
W.L.	320	4.6	4.8	4.3
Pioneer	526	4.6	5.2	4.1
Pioneer	531	4.4	4.5	4.2
DeKalb	DK 135	4.4	4.8	4.1
L.S.D. (.05)			0.50	0.50
C.V.%			6.9	6.9
Avg.			5.1	5.1

[1]1990 data not reported.

Red Clover

Data are reported from two trials seeded in 1991 (Table 68). Yields were high at Knoxville and low at Springfield. A new seeding was made at Spring Hill in the fall of 1992.

Table 68. Red Clover: Yield of varieties seeded in the fall of 1991.

Variety	Avg.	Knoxville	Springfield
		Tons of oven dry forage per acre	
Concorde[1]	4.18	5.55	2.80
Redstar	3.98	5.37	2.50
Redbaron	3.82	5.45	2.19
Cimmaron[2]	3.80	4.82	2.77
Redland II	3.76	5.53	2.00
Reddy	3.50	4.85	2.14
Renegade	3.47	4.77	2.17
Mor Red	3.45	4.86	2.04
Fur	3.09	4.00	2.18
L.S.D. (.05)	--	0.80	0.38
C.V.%	--	11.0	11.1
Avg.	--	5.0	2.3

[1]Evaluated as Redland III in previous years.
[2]Evaluated as FFr Exp SX 8402.

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