

1984

EC84-106 Revised 1985 Nebraska Grain Sorghum Performance Tests 1984

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NEBRASKA

GRAIN SORGHUM

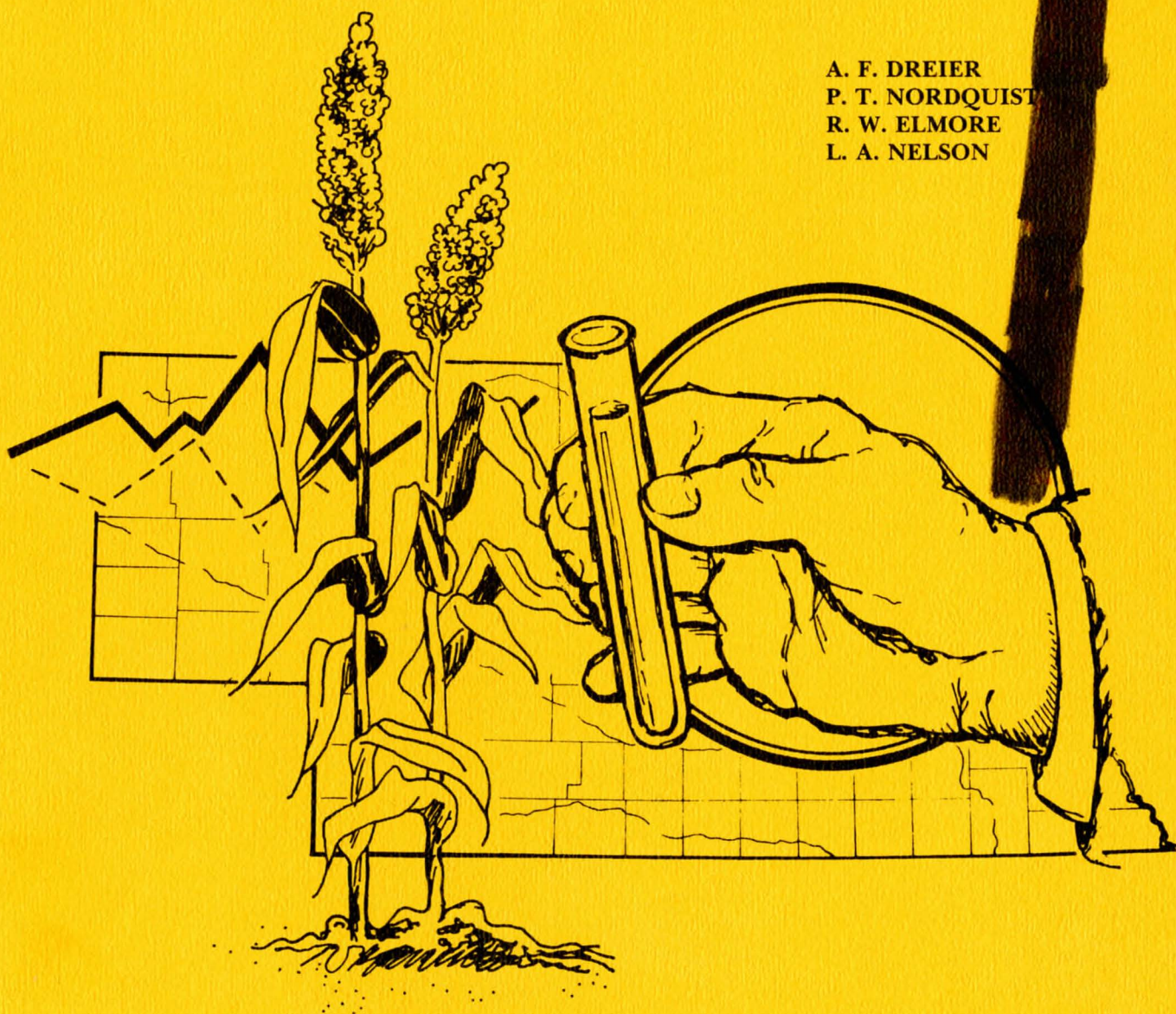
PERFORMANCE TESTS

1984

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EXTENSION CIRCULAR 84-106

January 1985

CONTENTS

Introduction	2
Location of tests and maturity zones	3
Names and addresses of entrants	4
Grain sorghum entries	5
Results	6
Average performance at each location	8
Average performance by years	9
Grain sorghum performance data	
Zone A	
1984 average two locations	10
1984 Saunders County	12
1984 Clay County Irrigated	14
1983-1984	16
1982-1984	17
1980-1984	18
Zone B	
1984 Lincoln County	19
1983-1984	20
1979-1984	21
Zone C	
1984 average two tests	22
1984 Cheyenne County Black Fallow	23
1984 Cheyenne County Ecofallow	24
1979-1984	25

ACKNOWLEDGEMENT

This circular is a progress report of grain sorghum trials conducted to obtain yield and other information for some of the sorghum hybrids and varieties which have been developed. The 1984 season was the 27th that private hybrid strains were included in extensive trials. Seed producers supported tests through payment of fees.

Cooperating in this project were the Agronomy Department and the South Central, West Central, and Panhandle Centers. Acknowledgement is made to County Extension Agents and others who assisted in these tests. Special acknowledgement is made to farmer cooperators and to W. M. Ross, U.S.D.A. sorghum breeder. Conduct of experiments and publication of results is a joint effort of the Agricultural Experiment Station and the Cooperative Extension Service.

NEBRASKA GRAIN SORGHUM PERFORMANCE TESTS

1984

A. F. Dreier, P. T. Nordquist, R. W. Elmore
and L. A. Nelson ^{1/}

Recent grain sorghum acreages and yields in Nebraska were as follows:

	1977	1978	1979	1980	1981	1982	1983	1984
Yield bu/A	71.0	75.0	79.0	60.0	80.0	73.0	60.0	65.0
Acres(000)	2,070	1,830	1,830	2,030	2,060	1,760	1,000	1,900

For the state, total grain production in 1984 was more than double the 1983 crop. The average yield per acre was 5 bushels greater and acreage was 90% above last year.

Nebraska had a cold wet spring. This delayed field operations and planting of row crops. On June 3, only 40% of the grain sorghum acreage had been planted. Normal for this date is 60%. On June 17, 75% of the planting was complete compared to a normal of 100% for this date.

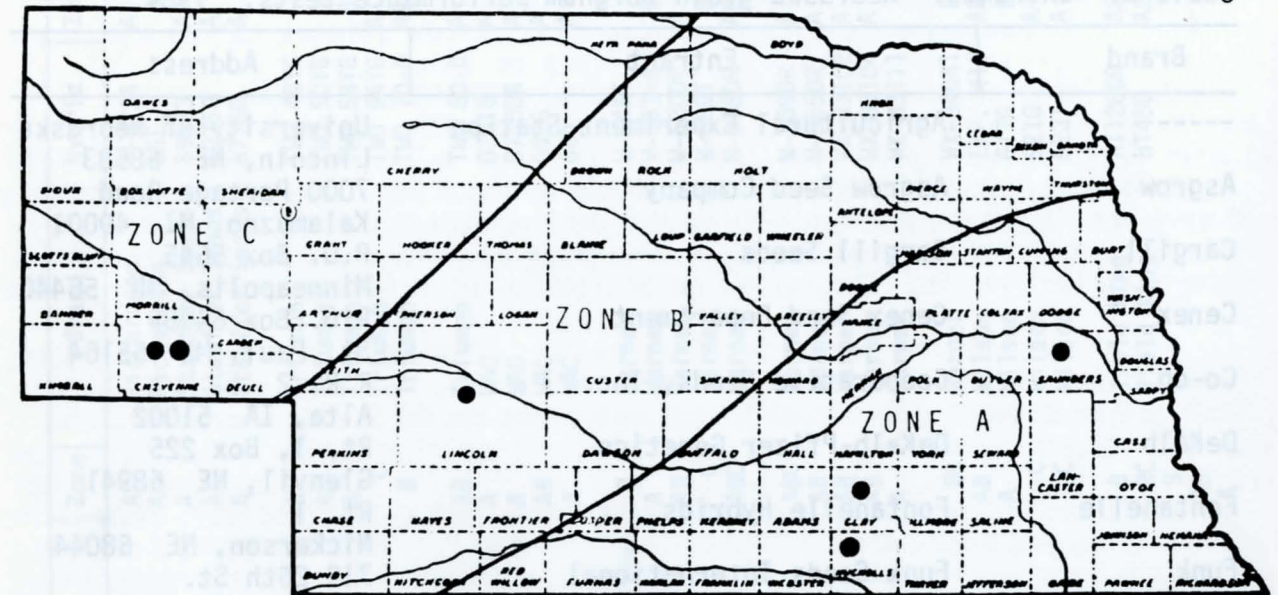
July and August generally were months of below normal rainfall except in the north and west. Temperatures were more moderate than in 1983. The crop made good progress but development remained slightly behind normal. On September 9, the crop development was estimated as 10 days later than the five-year average.

September conditions were favorable for development. The crop was at a near normal stage when growth was stopped by killing frost on September 24-25. Early harvest progressed at a rate near the five-year acreage. Wet weather preceeding mid-October slowed harvest. This delay was accompanied by excessive lodging in most areas of the state. Lodging and wet fields delayed final completion of harvest.

This circular is a progress report of grain sorghum trials conducted by the Agricultural Experiment Station. Testing zones and locations of the trials are shown on the map (Page 3) and names of cooperators are shown in Table A. Data from Nuckolls County are not reported because of extreme plot variability resulting from uneven stands.

Names and addresses of entrants are shown in Table B. A list of entries and zones where tested are included in Table C. Selection of hybrids for each zone was made by the entrants. Entries are listed alphabetically by brand name and hybrid designation. Open-pedigree hybrids were entered by the Nebraska Agricultural Experiment Station.

^{1/} Agronomists; Agricultural Experiment Station, Lincoln; West Central Center, North Platte; South Central Center, Clay Center; and Panhandle Center, Scottsbluff, respectively.



SORGHUM MATURITY ZONES AND LOCATIONS
OF NEBRASKA PERFORMANCE TESTS 1984

Table A. Location and cooperators. Nebraska Grain Sorghum Performance Tests. 1984.

Location	Cooperator
Zone A	
Saunders	Mead Field Laboratory
Nuckolls	Bill & Brad Mumm, Chester
Clay (irrigated)	South Central Center
Zone B	
Lincoln	West Central Center
Zone C	
Cheyenne (Black fallow)	High Plains Agricultural Laboratory
Cheyenne (ecofallow)	High Plains Agricultural Laboratory

Table B. Entrants. Nebraska grain sorghum performance tests. 1984.

Brand	Entrant	Address
-----	Agricultural Experiment Station	University of Nebraska Lincoln, NE 68583
Asgrow	Asgrow Seed Company	7000 Portage Road Kalamazoo, MI 49001
Cargill	Cargill Seeds	P.O. Box 5645 Minneapolis, MN 55440
Cenex	Cenex Seed Department	P.O. Box 64089 St. Paul, MN 55164
Co-op	Cooperative Seeds, Inc.	R.R. 2 Alta, IA 51002
Dekalb	Dekalb-Pfizer Genetics	Rt. 1, Box 225 Glensvil, NE 68941
Fontanelle	Fontanelle Hybrids	Rt. 1 Nickerson, NE 68044
Funk	Funk Seeds International	719 26th St. Lubbock, TX 79404
Golden Acres	Taylor-Evans Seed Co.	Box 68 Tulita, TX 79088
Horizon	Horizon Seeds	P.O. Box 81823 Lincoln, NE 68501
Jacques	Jacques Seed Co.	720 St. Croix Prescott, WI 54021
McCurdy	McCurdy Seed Co.	P.O. Box 66 Fremont, IA 52561
NC+	NC+ Hybrids	Box 4408 Lincoln, NE 68504
Northrup King	Northrup King Co.	1452 29th St. Des Moines, IA 50265
Oro	R. C. Young Seed & Grain Co.	624 27th St. Lubbock, TX 79404
O's Gold	O's Gold Seed Co.	P.O. Box 460 Parkersburg, IA 50665
PAG	PAG Seeds	P.O. Box 9480 Minneapolis, MN 55440
Paymaster	Paymaster Seeds	P.O. Box 9493 Minneapolis, MN 55440
Quality Plus	Quality Plus Seeds	P.O. Box 64089 St. Paul, MN 55164
Richardson	Richardson Seeds, Inc.	Drawer B Vega, TX 79092
Stauffer Seeds	Stauffer Seeds	P.O. Box 125 Phillips, NE 68865
Triumph	Triumph Seed Company	P.O. Box 1050 Ralls, TX 79357
WAC	SeedTec International Inc.	P.O. Box 2212 Hereford, TX 79045
Warner	George Warner Seed Co.	P.O. Box 1448 Hereford, TX 79045
Wilson	Wilson Hybrids, Inc.	P.O. Box 391 Harlan, IA 51537
Yield King	Terra Seed Company	P.O. Box 10121 Lubbock, TX 79408

Table C. Grain sorghum entries and zone where tested. 1984.

Brand	Hybrid	Zone	Brand	Hybrid	Zone	Brand	Hybrid	Zone	Brand	Hybrid	Zone
-----	Martin	AB	DeKalb	DK-42y	AB	McCurdy	M737	A	Richardson	Y-322A	A
-----	RS 626	AB	DeKalb	DK-59E	A	McCurdy	M747	A	Richardson	85E	C
-----	RS 671	AB	DeKalb	X-350	AB	McCurdy	X097	A	Stauffer Seeds	S9533	A
Asgrow	Chaparral	A	DeKalb	X-418	B	NC+	160	A	Stauffer Seeds	S9750	A
Asgrow	Colt	A	DeKalb	X-4449	A	NC+	172	A	Stauffer Seeds	677GR	A
Asgrow	Corral	BC	DeKalb	X-4456	A	NC+	174	A	Triumph	TWO 48YG	C
Asgrow	H8206	A	Fontanelle	2233	C	NC+	271	A	Triumph	TWO 50YG	C
Asgrow	Mustang	A	Fontanelle	3345	BC	Northrup King	X8139	A	Triumph	TWO 54YG	B
Asgrow	Nugget	BC	Fontanelle	4455	B	Northrup King	1210	C	Triumph	TWO 64YG	A
Asgrow	Opal	B	Fontanelle	5583	A	Northrup King	2030	B	Triumph	TWO 70-D	AB
Asgrow	Sierra	A	Fontanelle	6651	A	Northrup King	2244	AB	Triumph	TWO 80-D	A
Asgrow	Topaz	AB	Funk	G-1400	B	Northrup King	2778	A	WAC	D701G	A
Cargill	22	C	Funk	G-1460	C	O's Gold	GS5100	A	WAC	D710DR	A
Cargill	30	BC	Funk	G-1660	AB	O's Gold	GS709	AB	WAC	652G	A
Cargill	40	ABC	Funk	G-1711	A	O's Gold	GS712	A	WAC	686	A
Cargill	55	AB	Funk	G-550	B	Oro	Early Oro Xtra	B	Warner	W-545T	C
Cargill	60	BC	Funk	G-611	AB	Oro	Oro G Xtra	A	Warner	W-561-A	BC
Cargill	70	AB	Funk	HW2308	A	Oro	Oro Pronto	AB	Warner	W-630DR	A
Cargill	80	A	Funk	HW5449	A	PAG	2250	C	Warner	W-655T	B
Cenex	201 T	C	Funk	HW5883	C	PAG	3339	ABC	Warner	W-685DR	AB
Cenex	224 T	C	Golden Acres	T-E Dinero	A	PAG	3385	ABC	Warner	W-839DR	A
Cenex	228 T	BC	Golden Acres	T-E X-8657	A	PAG	4462	AB	Warner	W-866DR	A
Cenex	305	B	Golden Acres	T-E Y-101-G	A	PAG	5514	AB	Warner	WX-83102	A
Cenex	310 T	B	Golden Acres	T-E Y-77	A	PAG	5665	AB	Warner	WX-83104	A
Cenex	405 T	AB	Horizon	101G	AB	Paymaster	DR1125	A	Warner	WX-83111	C
Cenex	410 T	A	Horizon	114G	A	Paymaster	1022	BC	Warner	WX-84041	BC
Co-op	SG 40	GBR	Horizon	24G	C	Paymaster	1091	AB	Wilson	EXP. 417	AB
Co-op	W1046	A	Horizon	45G	BC	Paymaster	1099	A	Wilson	617G	B
Co-op	1188	B	Jacques	308	AB	Quality Plus	ET 21	C	Wilson	621G	A
Co-op	1212	AB	Jacques	408	AB	Quality Plus	ET 24	C	Wilson	623T	A
Co-op	1410	B	Jacques	505	A	Quality Plus	M 35	B	Yield King	HT126DR	AB
DeKalb	DK-18	C	Jacques	606	A	Quality Plus	MT 28	BC	Yield King	HT45G	AB
DeKalb	DK-28	C	McCurdy	M57 YG	A	Quality Plus	MT 40	B			
DeKalb	DK-38	B	McCurdy	M637	B	Quality Plus	MT 45	AB			
DeKalb	DK-42	B	McCurdy	M687	A	Quality Plus	MT 50	A			

Parentage of released open-pedigree entries follows:

Martin	Variety or line
RS 626	TX 3197 x TX 414
RS 671	Redlan x TX 415

Data on one half bloom were obtained by visiting plots on alternate days during the flowering period. Where included, grain moisture determinations were made at or before harvest at a time when differences between entries were relatively high. This gives an indication of relative grain drying rates.

Plant height and head exertion readings were made at harvest. Lodging readings were taken at harvest. In previous years, readings sometimes were taken after harvest. Reported yields are based on 56 pounds per bushel and 14 percent grain moisture.

Entries in data tables are listed in order of increasing days from planting to one half bloom. There are variations in maturity among trials and over years. The maturity of a hybrid is an important consideration in its adaptation to a given location, etc. In making yield evaluations, hybrids should be compared with those having similar maturities.

Variations in soil fertility, moisture conditions and other factors are found in each test area. This makes it impossible to measure yielding ability of hybrids with absolute accuracy. For this reason, small yield differences have little meaning. A statistical measure of differences required for significance is given in each table. These differences were computed at the 5 percent and 25 percent levels of significance. At the 5 percent level a difference of that magnitude would be expected once in twenty trials through chance alone. At the 25 percent level, a difference as large or larger would be expected by chance alone in one of four trials.

RESULTS

The average performance of all entries at each 1984 test location is shown in Table D. The Saunders and Lincoln County trials were hand harvested. Others were machine harvested.

The maturity yield correlation (r value) is an indication of the relationship between maturity (as measured by days to bloom) and grain yield. In Zone A, later bloom was correlated with higher grain in two trials. In Zones B and C, earlier maturity was correlated with higher grain yields. The average performance of hybrids included in trials over a five-year period is shown in Table E. These data indicate the effects of years on the characters measured.

Zone A

Eighty nine hybrids were grown at three Zone A locations in 1984. Stands were uneven in Nuckolls County and no data were obtained. Average data for Clay and Saunders Counties are shown in Table 1A and individual location results are shown in tables 1B and 1C. Period-of-years data are shown in Tables 1D, 1E and 1F.

Excellent yields were produced in Saunders County. Late entries were actively growing when frosted on September 25. Stalk quality was poor but early harvest preceded any stalk lodging. Low temperatures in late September in Clay County also caused poor stalk quality. Harvest was delayed during the

storm period in mid-October. Stalk lodging was excessive. Special pickups were used on the combine and harvest losses were relatively low.

Later maturity was correlated with higher grain yield at both locations. These relationships were not high enough to account for a major portion of the yield differences. In 14 of the last 16 years, later maturity was significantly correlated with higher yield in Zone A trials. In 1974, a very drouthy year with cooler than normal August and September temperatures, earlier maturity was accompanied by higher grain yield. In 1971, there was no relationship between these characters.

Zone B

Data from Lincoln County are shown in Table 2A. The soil was cold and wet at planting. No significant rainfall was received between June 17 and late in the growing season. Killing frost on September 24 reduced yields and bushel weights of later-maturing entries. Later maturity was correlated with lower yields. Data from 1979-1984 trials are summarized in Tables 2B and 2C. In 16 years of trials in southwest Nebraska, later maturity was correlated with higher grain yield in 5 seasons, earlier maturity was correlated with higher grain yield in 6 seasons, and there was little relationship in 5 seasons. This is an area of high year-to-year variability in climatic conditions.

Zone C

Thirty three entries were planted in Cheyenne County on black and ecofallow. Average yields were 63.2 and 46.5 bushels per acre, respectively. Soil moisture was adequate at planting. Little rain fell until near the end of July. Plants were killed by frost on September 25. Both trials were planted May 22. Bloom date was slightly delayed on ecofallow. There was no correlation between moisture and yield on black fallow. One ecofallow, early maturity was correlated with higher grain yield. In tests since 1977, earlier maturity was correlated with higher grain yield in 1978, 1979, 1983 and 1984. There was no close relationship in 1977, 1980 and 1981. No data were obtained in 1982.

THE METRIC SYSTEM

Some equivalents are as follows:

1 centimeter	= 0.394 inches	cm	= inches x 2.54
1 hectare	= 2.471 acres	ha	= acres x 0.405
1 kilogram	= 2.205 pounds	kg	= pounds x 0.454
1 hectoliter	= 2.838 bushels	hl	= bushels x 0.352

Kilogram/hectoliter (kg/hl) = lb/bu x 1.287
 Kilogram/hectare (kg/ha) = bu/A x 62.78 (56# bushel)

Table D. Grain Sorghum. Average performance at each test location. 1984.

Location	Planted	Seed spacing inches ^{1/}	Planting to bloom days	Plant height inches	Head exsertion inches	Test weight lb/bu	Grain yield bu/A	Maturity yield correlation r ^{2/}
Zone A (89 entries)								
Saunders	May 31	3.3	72.2	42.2	3.3	57.7	127.1	.31**
Clay (irrigated)	May 29	2.2	73.9	52.3	6.0	55.1	134.9	.35**
Average 2 locations	-----	---	73.5	47.5	4.9	56.4	131.2	.37**
Zone B (61 entries)								
Lincoln	May 30	4.0	77.0	----	---	57.0	58.0	-.62**
Zone C (33 entries)								
Black fallow	May 22	4.8	81.8	40.8	---	50.5	63.2	-.09
Ecofallow	May 22	4.8	83.5	40.3	---	52.4	46.5	-.62**
Average 2 locations	-----	---	82.9	40.8	---	51.5	55.1	-.35*

^{1/} Live seed basis. All row spacings 30 inches.

^{2/} Correlation of average days to bloom for zone with acre grain yield. Higher r values indicate closer agreement. * significant (5% level). ** highly significant (1% level). Negative values indicate that later flowering was accompanied by lower yield.

Table E. Average performance by years. Entries common over years by zones. 1979-1984.

Zone and year	Planting bloom days	Plant height inches	Head exsertion inches	Early-grain moisture %	Stalk lodging %	Test weight lb/bu	Grain yield bu/A
Zone A (19 entries)							
1980	70.4	42.0	3.4	29.2	----	59.6	119.1
1981	67.9	47.1	3.9	31.2	9.9	58.0	120.4
1982	70.6	47.2	4.5	29.3	----	51.6	102.4
1983	73.2	44.1	3.8	----	1.1	55.9	109.3
1984	72.9	46.9	4.7	26.8	66.6	56.1	127.5
Five-year average	70.9	45.4	4.2	29.1	25.9	56.3	115.7
Zone B (12 entries) ^{1/}							
1979	76.7	45.1	---	----	65.6	57.3	69.0
1980	74.6	39.4	---	----	----	55.0	84.3
1981	70.0	48.3	---	----	6.0	59.0	98.1
1983	75.1	41.5	---	----	0.4	56.9	97.1
1984	77.6	----	---	----	9.1	56.5	54.7
Five-year average	74.8	43.4	---	----	20.3	56.9	80.7
Zone C (1 entry) ^{1/}							
1979	90.8	35.4	---	----	----	50.3	37.7
1980	76.2	35.4	---	15.3	0.0	57.5	39.1
1981	102.0	44.0	---	25.0	----	51.4	89.0
1983	76.5	42.0	---	----	0.0	52.6	70.0
1984	84.0	39.0	---	19.5	----	49.8	50.0
Five-year average	86.0	39.0	---	20.0	0.0	52.3	57.0

^{1/}No 1982 data.

TABLE 1A. ZONE A. SUMMARY. SAUNDERS AND CLAY (IRR.) COUNTIES. 1984.

BRAND	HYBRID	PLANT BLOOM DAYS	PLANT HT IN	HEAD EXSERT IN	EARLY MOIST PCT	STALK LODGE PCT	TEST WEIGHT LB/BU	GRAIN YIELD BU/A
AVERAGE TWO LOCATIONS								
CO-OP	1212	67	51	9	21	75	57.4	122
JACQUES	308	67	50	8	20	63	57.5	126
NC+	160	67	50	8	21	85	57.1	119
O'S GOLD	GS709	67	51	9	22	90	57.0	115
WAC	652G	67	50	9	20	83	56.9	124
YIELD KING	HT45G	67	50	9	20	88	56.9	125
-----	RS 626	68	46	6	22	83	54.8	109
PAG	3339	68	47	8	22	55	57.6	119
WARNER	W-685DR	68	53	7	21	100	56.6	124
CARGILL	40	69	45	7	23	48	57.3	123
DEKALB	X-350	69	51	5	24	100	56.2	144
STAUFFER SEEDS	S9533	69	53	7	23	100	56.2	122
MC CURDY	M687	70	36	4	24	0	53.3	126
ORO	ORO PRONTO	70	49	6	22	100	54.8	115
PAG	3385	70	47	4	23	88	57.2	128
STAUFFER SEEDS	677GR	70	45	6	25	50	57.7	133
-----	MARTIN	71	45	9	19	53	56.8	92
CARGILL	55	71	47	5	27	90	56.9	134
DEKALB	DK-42Y	71	46	6	27	48	58.6	133
NORTHROP KING	2244	71	46	7	25	100	56.6	120
WAC	686	71	48	5	24	93	57.7	120
CARGILL	70	72	43	5	26	10	56.4	135
JACQUES	505	72	44	4	27	28	56.9	134
O'S GOLD	GS5100	72	43	5	26	0	57.2	140
PAG	4462	72	50	5	28	80	57.2	136
PAG	5665	72	46	4	25	40	56.9	142
QUALITY PLUS	MT 45	72	44	6	27	18	56.4	134
TRIUMPH	TWO 64YG	72	44	5	24	15	57.0	135
WARNER	W-630DR	72	55	7	24	90	57.1	122
WARNER	WX-83104	72	47	4	21	55	57.9	113
ASGROW	MUSTANG	73	45	5	28	38	56.5	139
ASGROW	TOPAZ	73	48	5	27	83	57.7	138
CENEX	405 T	73	43	4	26	8	56.8	126
GOLDEN ACRES	T-E Y-101-G	73	43	3	27	10	56.9	132
HORIZON	101G	73	43	4	27	20	57.0	135
HORIZON	114G	73	48	5	29	98	57.2	136
MC CURDY	M737	73	43	4	26	8	56.8	133
NC+	172	73	44	4	26	13	56.3	128
NORTHROP KING	2778	73	48	5	25	95	57.0	133
PAG	5514	73	45	5	26	78	52.6	127
RICHARDSON	Y-322A	73	47	5	30	55	58.0	133
WILSON	621G	73	44	4	25	8	56.7	130
ASGROW	H8206	74	51	5	29	98	58.0	133
CENEX	410 F	74	48	4	27	93	55.2	140
CO-OP	SG 40 GBR	74	45	4	27	48	52.8	124

CONTINUED

TABLE 1A. ZONE A. SUMMARY. CONCLUDED.

BRAND	HYBRID	PLANT BLOOM DAYS	PLANT HT IN	HEAD EXSERT IN	EARLY MOIST PCT	STALK LODGE PCT	TEST WEIGHT LB/BU	GRAIN YIELD BU/A
AVERAGE TWO LOCATIONS								
CO-OP	W1046	74	50	6	29	50	57.0	142
PONTANELLE	5583	74	48	5	29	88	55.6	138
GOLDEN ACRES	T-E DINERO	74	47	4	28	58	56.2	140
MC CURDY	M747	74	46	4	30	80	55.7	140
MC CURDY	X097	74	44	4	25	35	54.0	123
PAYMASTER	1091	74	51	4	27	88	54.5	143
WAC	D710DR	74	47	5	29	78	55.9	143
WARNER	W-866DR	74	47	5	26	90	57.4	129
WILSON	EXP. 417	74	48	6	31	68	56.1	139
YIELD KING	HT126DR	74	48	4	28	93	55.7	137
-----	RS 671	75	45	4	28	98	53.9	102
ASGROW	SIERRA	75	48	5	28	80	57.8	127
CARGILL	80	75	46	4	29	50	56.3	135
DEKALB	X-4456	75	53	3	27	100	59.0	129
FUNK	HW2308	75	45	6	27	5	55.8	127
JACQUES	408	75	48	6	30	85	56.7	130
NC+	271	75	48	5	26	68	56.4	128
NORTHROP KING	X8139	75	45	2	29	45	57.4	142
PAYMASTER	1099	75	43	3	29	3	57.2	134
QUALITY PLUS	MT 50	75	49	4	28	95	54.7	135
TRIUMPH	TWO 70-D	75	47	4	29	95	55.4	133
WARNER	W-839DR	75	47	3	29	90	56.0	138
ASGROW	CHAPARRAL	76	49	5	29	88	57.6	137
FUNK	G-1660	76	44	4	26	8	56.0	131
FUNK	G-611	76	52	6	29	100	55.5	131
JACQUES	606	76	50	3	30	98	56.7	136
NC+	174	76	51	4	30	98	56.8	139
ORO	ORO G XTRA	76	51	3	31	98	56.8	144
PAYMASTER	DR1125	76	46	4	30	78	55.8	136
STAUFFER SEEDS	S9750	76	50	3	30	98	56.6	154
WARNER	WX-83102	76	50	4	32	98	56.9	142
WILSON	623T	76	48	3	33	73	55.7	145
DEKALB	DK-59E	77	48	4	32	70	54.4	138
PONTANELLE	6651	77	49	4	33	90	56.7	133
GOLDEN ACRES	T-E Y-77	77	49	3	33	100	56.3	149
MC CURDY	M57 YG	77	50	4	34	98	56.1	139
O'S GOLD	GS712	77	49	4	31	85	57.1	129
TRIUMPH	TWO 80-D	77	50	4	34	98	57.1	143
WAC	D701G	77	50	3	32	93	56.7	136
FUNK	G-1711	78	49	3	31	98	55.9	137
FUNK	HW5449	78	49	5	29	83	57.5	126
GOLDEN ACRES	T-E X-8657	79	41	5	29	8	53.5	107
ASGROW	COLT	80	50	2	37	88	54.6	124
DEKALB	X-4449	80	53	4	38	90	56.5	132
AVERAGE ALL ENTRIES		73.3	47.5	4.9	27.2	68.1	55.4	131.2
DIF. REQ. FOR SIG.	5%	2.0	4.2	1.7	3.3	22.6	1.4	14.6
	25%	1.2	2.5	1.0	2.0	13.3	0.8	8.7

Head exsertion: Saunders County only.
Lodging: Clay County only.

TABLE 1B. ZONE A. SAUNDERS COUNTY, 1984.

BRAND	HYBRID	PLANT BLOOM DAYS	PLANT HT IN	HEAD EXSERT IN	EARLY MOIST PCT	STALK LODGE PCT	TEST WEIGHT LB/BU	GRAIN YIELD BU/A
CO-OP	1212	65	45	6	21	.	58.1	125
WAC	652G	65	44	7	20	.	58.1	120
YIELD KING	HT45G	65	43	7	20	.	58.3	129
JACQUES	308	66	45	7	20	.	58.3	118
NC+	160	66	43	5	21	.	57.8	109
O'S GOLD	GS709	65	43	6	22	.	58.0	112
PAG	3339	66	42	6	22	.	58.4	108
-----	RS 626	68	40	4	22	.	55.7	117
WARNER	W-685DR	67	47	6	21	.	57.3	129
CARGILL	40	67	40	6	23	.	58.0	115
STAUFFER SEEDS	S9533	67	46	5	23	.	57.4	115
DEKALB	X-350	68	44	2	24	.	57.8	141
MC CURDY	M687	69	35	2	24	.	54.8	122
ORO	ORO PRONTO	68	44	5	22	.	55.9	116
PAG	3385	68	40	2	23	.	58.0	128
STAUFFER SEEDS	677GR	69	39	3	25	.	58.5	127
-----	MARTIN	70	37	6	19	.	58.0	82
CARGILL	55	70	41	3	27	.	57.5	120
DEKALB	DK-42Y	70	42	4	27	.	60.1	128
NORTHROP KING	2244	71	42	5	25	.	58.0	125
WAC	686	70	43	4	24	.	59.1	125
JACQUES	505	70	39	3	27	.	57.9	127
PAG	5665	71	41	3	25	.	58.3	134
QUALITY PLUS	MT 45	71	39	3	27	.	58.0	130
WARNER	W-630DR	72	48	6	24	.	58.3	118
WARNER	WX-83104	72	41	3	21	.	58.3	107
CARGILL	70	71	40	3	26	.	58.2	133
O'S GOLD	GS5100	71	40	3	26	.	58.3	135
PAG	4462	72	44	3	28	.	58.6	124
TRIUMPH	TWO 64YG	70	40	3	24	.	58.1	128
ASGROW	MUSTANG	71	40	3	28	.	57.8	139
CENEX	405 T	70	40	4	26	.	58.1	123
GOLDEN ACRES	T-E Y-101-G	70	40	2	27	.	58.2	119
NORTHROP KING	2778	72	41	4	25	.	58.1	124
PAG	5514	72	41	3	26	.	54.9	123
WILSON	621G	71	40	2	25	.	57.8	120
ASGROW	TOPAZ	73	43	3	27	.	59.1	131
HORIZON	101G	71	41	3	27	.	58.8	124
HORIZON	114G	73	42	3	29	.	58.7	134
MC CURDY	M737	71	40	2	26	.	58.6	128
NC+	172	71	39	2	26	.	58.5	112
RICHARDSON	Y-322A	73	41	3	30	.	59.1	128
ASGROW	H8206	73	44	4	29	.	58.8	140
CO-OP	SG 40 GBR	73	41	3	27	.	55.8	118
CO-OP	W1046	73	43	4	29	.	58.3	135

CONTINUED

TABLE 1B. SAUNDERS COUNTY. CONCLUDED.

BRAND	HYBRID	PLANT BLOOM DAYS	PLANT HT IN	HEAD EXSERT IN	EARLY MOIST PCT	STALK LODGE PCT	TEST WEIGHT LB/BU	GRAIN YIELD BU/A
FONTANELLE	5583	73	44	4	29	.	57.3	132
MC CURDY	X097	73	40	3	25	.	56.2	118
YIELD KING	HT126DR	74	42	3	28	.	57.2	129
CENEX	410 T	73	44	3	27	.	57.1	137
GOLDEN ACRES	T-E DINERO	73	43	3	28	.	57.8	135
MC CURDY	M747	73	42	3	30	.	57.4	140
PAYMASTER	1091	72	45	3	27	.	56.7	137
WAC	D710DR	73	43	3	29	.	57.1	141
WARNER	W-866DR	74	41	4	26	.	58.8	135
WILSON	EXP. 417	73	44	4	31	.	57.5	135
-----	RS 671	75	38	2	28	.	55.4	97
ASGROW	SIERRA	73	45	4	28	.	59.0	123
JACQUES	408	72	44	5	30	.	58.0	124
NC+	271	73	41	3	26	.	58.4	123
NORTHROP KING	X8139	74	40	1	29	.	58.6	141
PAYMASTER	1099	74	38	1	29	.	58.2	120
QUALITY PLUS	MT 50	73	44	3	28	.	56.9	132
TRIUMPH	TWO 70-D	74	43	2	29	.	57.2	131
WARNER	W-839DR	74	43	2	29	.	57.1	135
CARGILL	80	75	38	2	29	.	57.8	129
DEKALB	X-4456	74	45	2	27	.	59.7	133
FUNK	HW2308	74	41	5	27	.	56.4	117
FUNK	G-1660	74	41	4	26	.	57.8	124
FUNK	G-611	74	46	4	29	.	57.9	131
NC+	174	75	44	2	30	.	58.3	149
WARNER	WX-83102	75	43	3	32	.	57.4	127
ASGROW	CHAPARRAL	76	42	3	29	.	58.9	131
JACQUES	606	75	44	2	30	.	57.7	134
ORO	ORO G XTRA	75	45	2	31	.	58.0	145
PAYMASTER	DR1125	75	43	3	30	.	56.4	129
STAUFFER SEEDS	S9750	76	43	1	30	.	57.7	149
WILSON	623T	75	41	1	33	.	56.8	148
DEKALB	DK-59E	76	43	2	32	.	56.0	133
FONTANELLE	6651	76	44	1	33	.	57.0	127
GOLDEN ACRES	T-E Y-77	76	44	2	33	.	57.3	149
MC CURDY	M57 YG	76	44	3	34	.	57.5	141
O'S GOLD	GS712	76	42	1	31	.	57.8	128
TRIUMPH	TWO 80-D	76	43	2	34	.	57.9	148
WAC	D701G	76	44	2	32	.	57.4	135
FUNK	G-1711	77	43	1	31	.	56.7	136
FUNK	HW5449	77	44	3	29	.	59.1	123
GOLDEN ACRES	T-E X-8657	77	38	3	29	.	54.2	99
ASGROW	COLT	79	43	1	37	.	56.1	113
DEKALB	X-4449	79	47	3	38	.	57.1	123
AVERAGE ALL ENTRIES		72.2	42.2	3.3	27.2		57.7	127.1
DIF. REQ. FOR SIG.	5%	1.4	2.5	1.3	3.3		1.0	14.6
	25%	0.8	1.5	0.8	2.0		0.6	8.6

Planted: May 31
Harvested: October 11

TABLE 1C. ZONE A. CLAY COUNTY, IRRIGATED. 1984.

BRAND	HYBRID	PLANT BLOOM DAYS	PLANT HT IN	HEAD EXSERT IN	EARLY MOIST PCT	STALK LODGE PCT	TEST WEIGHT LB/BU	GRAIN YIELD BU/A
CO-OP	1212	68	56	11	.	75	56.7	119
WAC	652G	68	56	10	.	83	55.6	127
YIELD KING	HT45G	68	57	11	.	88	55.4	121
JACQUES	308	68	54	9	.	63	56.6	134
NC+	160	68	57	10	.	85	56.4	129
O'S GOLD	GS709	69	58	11	.	90	56.0	118
PAG	3339	69	52	9	.	55	56.8	130
-----	RS 626	68	52	7	.	83	53.8	101
WARNER	W-685DR	69	58	7	.	100	55.8	119
CARGILL	40	70	49	8	.	48	56.6	131
STAUFFER SEEDS	S9533	70	59	8	.	100	55.0	128
DEKALB	X-350	70	57	8	.	100	54.5	147
MC CURDY	M687	70	37	5	.	0	51.8	129
ORO	ORO PRONTO	71	54	7	.	100	53.7	114
PAG	3385	71	53	6	.	88	56.3	128
STAUFFER SEEDS	677GR	71	51	8	.	50	56.9	139
-----	MARTIN	71	52	11	.	53	55.5	101
CARGILL	55	72	53	7	.	90	56.2	148
DEKALB	DK-42Y	72	49	8	.	48	57.1	138
NORTHROP KING	2244	71	50	8	.	100	55.2	115
WAC	686	72	52	5	.	93	56.3	115
JACQUES	505	73	49	5	.	28	55.8	141
PAG	5665	72	50	5	.	40	55.4	150
QUALITY PLUS	MT 45	72	48	8	.	18	54.7	137
WARNER	W-630DR	71	61	8	.	90	55.9	126
WARNER	WX-83104	71	53	5	.	55	57.4	118
CARGILL	70	73	46	6	.	10	54.5	137
O'S GOLD	GS5100	73	46	6	.	0	56.0	145
PAG	4462	72	56	7	.	80	55.7	148
TRIUMPH	TWO 64YG	74	47	6	.	15	55.9	142
ASGROW	MUSTANG	74	50	7	.	38	55.1	139
CENEX	405 T	75	46	4	.	8	55.5	129
GOLDEN ACRES	T-E Y-101-G	75	45	4	.	10	55.5	145
NORTHROP KING	2778	73	55	6	.	95	55.8	141
PAG	5514	73	48	7	.	78	50.2	130
WILSON	621G	74	47	5	.	8	55.5	139
ASGROW	TOPAZ	73	53	7	.	83	56.3	144
HORIZON	101G	75	45	5	.	20	55.2	146
HORIZON	114G	73	54	6	.	98	55.7	137
MC CURDY	M737	75	46	5	.	8	54.9	137
NC+	172	75	48	6	.	13	54.1	144
RICHARDSON	Y-322A	73	52	7	.	55	56.8	138
ASGROW	H8206	74	57	5	.	98	57.1	126
CO-OP	SG 40 GBR	74	48	4	.	48	49.8	130
CO-OP	W1046	74	56	7	.	50	55.6	149

CONTINUED

TABLE 1C. CLAY COUNTY. CONCLUDED

BRAND	HYBRID	PLANT BLOOM DAYS	PLANT HT IN	HEAD EXSERT IN	EARLY MOIST PCT	STALK LODGE PCT	TEST WEIGHT LB/BU	GRAIN YIELD BU/A
FONTANELLE	5583	74	51	6	.	88	53.8	144
MC CURDY	X097	74	48	4	.	35	51.8	128
YIELD KING	HT126DR	73	53	4	.	93	54.2	145
CENEX	410 T	75	52	5	.	93	53.2	143
GOLDEN ACRES	T-E DINERO	75	50	5	.	58	54.6	144
MC CURDY	M747	75	50	5	.	80	53.9	139
PAYMASTER	1091	76	56	5	.	88	52.3	148
WAC	D710DR	75	50	6	.	78	54.7	145
WARNER	W-866DR	74	53	6	.	90	56.0	123
WILSON	EXP. 417	75	51	7	.	68	54.6	142
-----	RS 671	74	52	5	.	98	52.3	106
ASGROW	SIERRA	76	51	5	.	80	56.5	131
JACQUES	408	77	51	7	.	85	55.3	135
NC+	271	76	55	7	.	68	54.4	133
NORTHROP KING	X8139	75	50	3	.	45	56.1	143
PAYMASTER	1099	75	48	4	.	3	56.2	147
QUALITY PLUS	MT 50	76	53	5	.	95	52.4	137
TRIUMPH	TWO 70-D	75	51	5	.	95	53.6	135
WARNER	W-839DR	75	50	4	.	90	54.8	141
CARGILL	80	75	54	6	.	50	54.8	140
DEKALB	X-4456	76	60	4	.	100	58.2	124
FUNK	HW2308	76	49	7	.	5	55.1	137
FUNK	G-1660	77	46	4	.	8	54.1	137
FUNK	G-611	77	57	8	.	100	53.0	131
NC+	174	76	57	5	.	98	55.3	129
WARNER	WX-83102	76	57	5	.	98	56.3	156
ASGROW	CHAPARRAL	76	55	7	.	88	56.3	143
JACQUES	606	77	56	4	.	98	55.6	137
ORO	ORO G XTRA	77	57	3	.	98	55.5	142
PAYMASTER	DR1125	77	49	4	.	78	55.1	142
STAUFFER SEEDS	S9750	76	57	5	.	98	55.5	158
WILSON	623T	77	55	5	.	73	54.5	142
DEKALB	DK-59E	77	52	5	.	70	52.7	142
FONTANELLE	6651	77	54	6	.	90	56.3	139
GOLDEN ACRES	T-E Y-77	77	53	3	.	100	55.2	148
MC CURDY	M57 YG	77	55	5	.	98	54.7	137
O'S GOLD	GS712	77	56	6	.	85	56.4	130
TRIUMPH	TWO 80-D	77	57	6	.	98	56.2	138
WAC	D701G	77	55	4	.	93	55.9	136
FUNK	G-1711	78	55	4	.	98	55.1	138
FUNK	HW5449	78	53	6	.	83	55.8	129
GOLDEN ACRES	T-E X-8657	80	44	6	.	8	52.8	115
ASGROW	COLT	80	56	3	.	88	53.1	135
DEKALB	X-4449	80	59	4	.	90	55.9	141
AVERAGE ALL ENTRIES		73.9	52.3	6.0		68.1	55.1	134.9
DIF. REQ. FOR SIG.	5%	1.9	3.1	2.3		22.6	1.9	15.7
	25%	1.1	1.8	1.4		13.3	1.1	9.3

Planted: May 29
Harvested: November 1

TABLE 1D. ZONE A. 1983-1984.

BRAND	HYBRID	PLANT BLOOM DAYS	PLANT HT IN	HEAD EXSERT IN	EARLY MOIST PCT	STALK LODGE PCT	TEST WEIGHT LB/BU	GRAIN YIELD BU/A
TWO-YEAR AVERAGE								
JACQUES	308	68	48	7	20	32	57.0	117
NC+	160	68	49	7	21	43	56.8	112
O'S GOLD	GS709	68	48	7	22	47	56.2	107
WAC	652G	68	49	7	20	42	56.9	116
-----	RS 626	69	44	4	22	42	54.0	102
PAG	3339	69	46	7	22	29	57.0	109
WARNER	W-685DR	69	50	6	21	51	55.9	115
CARGILL	40	70	45	6	23	25	56.8	114
NORTHROP KING	2244	71	45	6	25	51	56.5	114
ORO	ORO PRONTO	71	49	6	22	51	53.9	107
PAG	4462	71	49	5	28	45	56.3	124
-----	MARTIN	72	44	8	19	27	56.3	82
CARGILL	55	72	47	5	27	46	56.1	120
CARGILL	70	72	43	5	26	5	56.2	124
JACQUES	505	72	43	4	27	14	56.2	125
NORTHROP KING	2778	72	47	5	25	48	56.5	120
O'S GOLD	GS5100	72	43	5	26	0	56.6	127
PAG	5665	72	45	4	25	20	56.5	126
WARNER	WX-83104	72	47	3	21	28	57.4	110
ASGROW	MUSTANG	73	44	5	28	19	56.3	125
FONTANELLE	5583	73	45	4	29	44	55.1	129
GOLDEN ACRES	T-E Y-101-G	73	43	4	27	5	56.6	123
HORIZON	101G	73	42	4	27	10	57.0	127
MC CURDY	M737	73	43	4	26	4	56.4	124
NC+	172	73	43	4	26	8	55.7	121
PAG	5514	73	44	5	26	39	52.8	119
RICHARDSON	Y-322A	73	46	5	30	28	57.6	128
WARNER	W-839DR	73	46	3	29	45	55.4	127
WILSON	621G	73	43	4	25	4	56.2	123
ASGROW	TOPAZ	74	46	5	27	42	57.8	134
NC+	271	74	47	5	26	34	56.2	121
WAC	D710DR	74	46	4	29	39	55.9	131
-----	RS 671	75	44	3	28	49	53.8	99
ASGROW	CHAPARRAL	75	47	5	29	44	57.5	123
FUNK	G-1660	75	43	4	26	4	55.6	125
FUNK	G-611	75	49	5	29	51	55.4	121
NC+	174	75	48	3	30	51	56.5	130
PAYMASTER	DR1125	75	46	4	30	39	55.4	131
WARNER	WX-83102	75	49	4	32	49	57.0	133
WILSON	623T	75	46	2	33	37	56.2	129
DEKALB	DK-59E	76	46	3	32	35	54.1	126
FONTANELLE	6651	76	47	3	33	45	56.5	122
FUNK	G-1711	76	48	2	31	49	56.3	125
GOLDEN ACRES	T-E Y-77	76	48	2	33	50	56.7	134
JACQUES	606	76	47	2	30	49	56.7	123
NORTHROP KING	X8139	76	44	2	29	23	57.1	131
O'S GOLD	GS712	76	47	2	31	43	56.5	122
ORO	ORO G XTRA	76	48	2	31	49	56.9	127
WAC	D701G	76	47	3	32	47	56.7	126
MC CURDY	M57 YG	77	48	3	34	49	56.2	130
FUNK	HW5449	78	48	4	29	42	56.0	121
ASGROW	COLT	80	48	2	37	52	55.7	114
AVERAGE ALL ENTRIES		73.3	46.0	4.3	27.2	35.1	56.2	121.1
DIF. REQ. FOR SIG. 5%		2.2	3.8	1.4	3.3	N.S.	1.2	9.4
25%		1.3	2.2	2.8	2.0	N.S.	0.7	5.5

Early grain moisture: no 1983 data.

TABLE 1E. ZONE A. 1982-1984.

BRAND	HYBRID	PLANT BLOOM DAYS	PLANT HT IN	HEAD EXSERT IN	EARLY MOIST PCT	STALK LODGE PCT	TEST WEIGHT LB/BU	GRAIN YIELD BU/A
THREE-YEAR AVERAGE								
JACQUES	308	67	48	6	24	32	56.1	113
NC+	160	67	49	6	24	43	55.8	107
WAC	652G	67	49	7	23	42	55.4	112
-----	RS 626	68	45	4	26	42	52.3	99
NORTHROP KING	2244	70	44	6	27	51	54.5	109
-----	MARTIN	71	44	7	23	27	55.3	85
CARGILL	55	71	48	5	28	46	54.8	114
JACQUES	505	71	44	4	28	14	54.6	118
ASGROW	MUSTANG	72	44	4	28	19	55.3	119
CARGILL	70	72	43	5	29	5	54.6	113
FONTANELLE	5583	72	46	4	31	44	53.0	123
GOLDEN ACRES	T-E Y-101-G	72	44	4	26	5	54.9	114
HORIZON	101G	72	43	4	27	10	55.1	115
MC CURDY	M737	72	43	4	28	4	54.3	115
NC+	172	72	44	4	26	8	54.2	113
NORTHROP KING	2778	72	48	5	26	48	55.1	115
O'S GOLD	GS5100	72	43	4	26	0	54.7	116
PAG	5514	72	44	4	27	39	51.1	110
WARNER	W-839DR	72	46	3	28	45	53.6	120
WILSON	621G	72	43	4	26	4	54.5	115
ASGROW	TOPAZ	73	47	5	27	42	56.6	128
WAC	D710DR	73	46	4	29	39	54.3	125
-----	RS 671	74	46	4	31	49	52.3	100
NC+	174	74	48	3	32	51	55.0	122
NC+	271	74	47	5	30	34	55.1	116
PAYMASTER	DR1125	74	46	4	29	39	53.4	125
WILSON	623T	74	47	3	31	37	53.8	122
FONTANELLE	6651	75	47	3	35	45	53.8	118
GOLDEN ACRES	T-E Y-77	75	48	2	35	50	55.0	125
MC CURDY	M57 YG	75	48	3	32	49	54.7	126
O'S GOLD	GS712	75	48	3	34	43	54.7	118
ORO	ORO G XTRA	75	49	3	34	49	55.0	122
WAC	D701G	75	48	3	32	47	55.3	122
FUNK	HW5449	77	49	4	32	42	54.1	119
ASGROW	COLT	78	48	2	36	52	54.5	113
AVERAGE ALL ENTRIES		72.5	46.1	4.1	28.9	34.2	54.5	115.6
DIF. REQ. FOR SIG. 5%		1.5	1.7	1.3	5.0	N.S.	1.3	10.5
25%		0.8	1.0	0.8	2.9	N.S.	0.8	6.1

Early grain moisture: no 1983 data.

Lodging: no 1982 data.

TABLE 1F. ZONE A. 1980-1984.

BRAND	HYBRID	PLANT BLOOM DAYS	PLANT HT IN	HEAD EXSERT IN	EARLY MOIST PCT	STALK LODGE PCT	TEST WEIGHT LB/BU	GRAIN YIELD BU/A
FOUR-YEAR AVERAGE								
-----	RS 626	66	45	4	26	40	53.4	96
NC+	160	66	49	6	25	36	56.3	108
WAC	652G	66	49	6	24	31	56.2	111
NORTHROP KING	2244	68	44	5	27	34	55.3	112
-----	MARTIN	70	44	6	24	29	55.9	83
ASGROW	MUSTANG	71	44	4	29	13	56.0	122
CARGILL	70	71	44	5	30	7	55.5	116
GOLDEN ACRES	T-E Y-101-G	71	44	4	27	3	55.7	119
HORIZON	101G	71	43	4	28	7	55.9	119
MC CURDY	M737	71	43	4	29	3	55.1	118
NC+	172	71	44	4	28	5	55.2	116
NORTHROP KING	2778	71	48	5	28	32	56.0	119
PAG	5514	71	44	4	28	26	52.3	112
WILSON	621G	71	44	4	28	3	55.4	118
ASGROW	TOPAZ	72	47	4	28	36	57.4	125
FONTANELLE	5583	72	46	4	30	32	54.1	123
-----	RS 671	73	46	4	31	44	53.3	98
NC+	174	73	49	3	32	34	55.9	125
NC+	271	73	48	5	31	23	56.0	121
WAC	D701G	73	48	3	32	31	55.9	125
WILSON	623T	73	48	3	31	24	55.1	125
FONTANELLE	6651	74	48	3	35	32	55.0	120
MC CURDY	M57 YG	74	49	3	32	42	55.7	126
ORO	ORO G XTRA	74	49	3	33	38	55.9	122
ASGROW	COLT	77	49	2	36	34	55.7	120
AVERAGE ALL ENTRIES		71.3	46.2	4.1	29.3	25.6	55.4	116.0
DIF. REQ. FOR SIG. 5%		1.2	1.6	1.1	3.8	N.S.	1.1	10.8
25%		0.7	0.9	0.6	2.2	19.3	0.6	6.3
FIVE-YEAR AVERAGE								
-----	RS 626	65	44	4	26	40	54.2	94
WAC	652G	65	48	6	24	31	56.9	112
NC+	160	66	48	6	26	36	56.9	110
-----	MARTIN	69	42	6	23	29	56.4	78
PAG	5514	70	43	4	28	26	53.5	112
ASGROW	MUSTANG	71	43	4	29	13	56.8	121
ASGROW	TOPAZ	71	46	4	28	36	58.2	127
CARGILL	70	71	43	5	29	7	56.3	117
HORIZON	101G	71	42	4	28	7	56.7	120
NC+	172	71	43	4	28	5	56.2	118
WILSON	621G	71	43	4	28	3	56.3	122
-----	RS 671	72	46	3	30	44	54.2	101
NORTHROP KING	2778	72	47	5	29	32	56.6	120
NC+	174	73	48	3	32	34	56.7	129
NC+	271	73	47	5	31	23	56.9	120
WAC	D701G	73	47	3	32	31	56.6	125
WILSON	623T	73	47	3	31	24	56.1	126
ORO	ORO G XTRA	74	48	3	33	38	56.8	124
ASGROW	COLT	77	48	3	37	34	56.5	122
AVERAGE ALL ENTRIES		70.9	45.4	4.2	29.1	25.9	56.3	115.7
DIF. REQ. FOR SIG. 5%		1.4	1.3	1.0	3.0	N.S.	0.9	10.9
25%		0.8	0.8	0.6	1.7	18.6	0.5	6.4

Early grain moisture: no 1983 data
Stalk lodging: no 1980, 1982 data.

TABLE 2A. ZONE B. SOUTHWEST. LINCOLN COUNTY. 1984.

BRAND	HYBRID	PLANT BLOOM DAYS	PLANT HT IN	HEAD EXSERT IN	EARLY MOIST PCT	STALK LODGE PCT	TEST WEIGHT LB/BU	GRAIN YIELD BU/A
CENEX	305	71	.	.	.	47	56.4	53
DEKALB	DK-38	72	.	.	.	20	59.1	60
FONTANELLE	4455	72	.	.	.	31	58.9	61
QUALITY PLUS	MT 28	72	.	.	.	9	59.2	59
ASGROW	CORRAL	73	.	.	.	27	59.0	61
CENEX	228 T	73	.	.	.	14	58.3	61
CENEX	310 T	73	.	.	.	33	58.4	64
QUALITY PLUS	M 35	73	.	.	.	30	58.3	64
WILSON	617G	73	.	.	.	28	59.1	66
YIELD KING	HT45G	73	.	.	.	13	58.6	63
DEKALB	DK-42	74	.	.	.	2	56.8	57
FONTANELLE	3345	74	.	.	.	28	58.6	54
HORIZON	45G	74	.	.	.	10	58.3	54
JACQUES	308	74	.	.	.	4	58.1	65
NORTHROP KING	2030	74	.	.	.	7	58.3	72
QUALITY PLUS	MT 40	74	.	.	.	25	58.3	65
WARNER	W-561A	74	.	.	.	19	59.3	62
WARNER	W-655T	74	.	.	.	32	58.2	60
WARNER	W-685DR	74	.	.	.	12	57.5	65
WARNER	WX-84041	74	.	.	.	8	59.7	64
-----	RS 626	75	.	.	.	9	56.9	58
CARGILL	30	75	.	.	.	6	56.5	62
CO-OP	1212	75	.	.	.	35	59.0	68
FUNK	G-1400	75	.	.	.	14	58.6	68
O'S GOLD	GS709	75	.	.	.	21	58.1	62
ORO	ORO PRONTO	75	.	.	.	6	56.3	52
PAG	3339	75	.	.	.	18	58.6	65
TRIUMPH	TWO 54YG	75	.	.	.	25	58.1	66
-----	MARTIN	76	.	.	.	3	58.1	49
CARGILL	40	76	.	.	.	5	58.0	58
MC CURDY	M637	76	.	.	.	29	58.7	64
PAG	3385	76	.	.	.	13	58.6	67
PAYMASTER	1022	76	.	.	.	5	57.4	57
DEKALB	DK-42Y	77	.	.	.	5	57.5	67
DEKALB	X-350	77	.	.	.	5	58.5	51
DEKALB	X-418	77	.	.	.	4	56.8	64
FUNK	G-550	77	.	.	.	2	58.2	57
NORTHROP KING	2244	77	.	.	.	9	57.3	64
ASGROW	NUGGET	78	.	.	.	1	58.6	66
PAG	5514	78	.	.	.	5	54.3	51
YIELD KING	HT126DR	78	.	.	.	5	55.2	50
ASGROW	OPAL	79	.	.	.	4	55.7	54
CARGILL	60	79	.	.	.	4	55.6	51
HORIZON	101G	80	.	.	.	14	55.6	46
ORO	EARLY ORO XTRA	80	.	.	.	6	57.3	50
PAG	4462	80	.	.	.	8	56.4	60
ASGROW	TOPAZ	81	.	.	.	1	56.3	44
CARGILL	70	81	.	.	.	0	55.6	61
CO-OP	1410	81	.	.	.	3	56.0	62
FUNK	G-1660	81	.	.	.	6	56.1	48
PAG	5665	81	.	.	.	4	55.9	67
TRIUMPH	TWO 70-D	81	.	.	.	1	54.2	52
CARGILL	55	82	.	.	.	10	53.3	58
CENEX	405 r	82	.	.	.	5	54.8	47
CO-OP	1188	82	.	.	.	2	53.9	58
QUALITY PLUS	MT 45	82	.	.	.	5	55.9	54
FUNK	G-611	83	.	.	.	2	54.0	44
WILSON	EXP. 417	83	.	.	.	6	53.9	56
PAYMASTER	1091	84	.	.	.	9	52.0	49
-----	RS 671	85	.	.	.	1	53.0	41
JACQUES	408	85	.	.	.	2	51.3	42
AVERAGE ALL ENTRIES		77.0				11.8	57.0	58.0
DIF. REQ. FOR SIG. 5%		2.9				21.3	2.1	N.S.
25%		1.7				12.5	1.2	11.0

Planted: May 30
Harvested: October 30

TABLE 2B. ZONE B. SOUTHWEST 1983-1984. NO 1982 DATA.

BRAND	HYBRID	PLANT BLOOM DAYS	PLANT HT IN	HEAD EXSERT IN	EARLY MOIST PCT	STALK LODGE PCT	TEST WEIGHT LB/BU	GRAIN YIELD BU/A
TWO-YEAR AVERAGE								
DEKALB	DK-38	71	45	.	.	10	59.5	88
FONTANELLE	4455	72	45	.	.	16	58.9	88
ASGROW	CORRAL	73	46	.	.	14	59.0	88
DEKALB	DK-42	73	39	.	.	2	57.7	84
NORTHROP KING	2030	73	40	.	.	4	58.9	93
ORO	ORO PRONTO	73	46	.	.	4	57.2	81
WARNER	W-685DR	73	45	.	.	9	58.5	88
WILSON	617G	73	47	.	.	14	59.5	91
-----	RS 626	74	40	.	.	5	57.3	83
CARGILL	30	74	43	.	.	4	57.4	81
FUNK	G-1400	74	48	.	.	8	59.0	96
JACQUES	308	74	45	.	.	2	58.8	95
PAG	3339	74	42	.	.	10	59.0	87
WARNER	W-561A	74	44	.	.	11	59.5	88
WARNER	W-655T	74	46	.	.	16	58.5	85
-----	MARTIN	75	39	.	.	3	58.9	65
CARGILL	40	75	41	.	.	3	58.8	88
MC CURDY	M637	75	43	.	.	16	59.0	89
NORTHROP KING	2244	76	42	.	.	6	58.2	85
PAG	4462	76	45	.	.	5	57.5	87
DEKALB	DK-42Y	77	41	.	.	3	57.2	75
PAG	5514	77	41	.	.	3	55.1	76
ASGROW	OPAL	78	42	.	.	2	55.4	78
CARGILL	60	78	40	.	.	2	55.0	76
ASGROW	TOPAZ	79	44	.	.	1	56.9	73
CARGILL	70	79	39	.	.	1	55.8	80
PAG	5665	79	43	.	.	3	55.5	84
FUNK	G-611	80	46	.	.	1	55.0	71
HORIZON	101G	80	39	.	.	7	55.6	59
CARGILL	55	81	45	.	.	5	53.8	70
FUNK	G-1660	81	42	.	.	3	55.3	70
-----	RS 671	83	41	.	.	1	52.2	54
AVERAGE ALL ENTRIES		75.9	42.9			6.1	57.3	81.1
DIF. REQ. FOR SIG. 5%		2.5	2.3			N.S.	1.6	16.4
25%		1.4	1.4			N.S.	0.9	9.4

Plant height: no 1984 data.

TABLE 2C. ZONE B. SOUTHWEST 1979-1984. NO 1982 DATA.

BRAND	HYBRID	PLANT BLOOM DAYS	PLANT HT IN	HEAD EXSERT IN	EARLY MOIST PCT	STALK LODGE PCT	TEST WEIGHT LB/BU	GRAIN YIELD BU/A
THREE-YEAR AVERAGE								
DEKALB	DK-38	69	50	.	.	8	59.5	92
ASGROW	CORRAL	71	50	.	.	13	59.3	95
CARGILL	30	71	46	.	.	4	57.8	85
DEKALB	DK-42	71	44	.	.	3	58.2	91
FONTANELLE	4455	71	49	.	.	14	59.0	93
NORTHROP KING	2030	71	42	.	.	3	59.3	94
-----	RS 626	72	45	.	.	10	58.0	87
MC CURDY	M637	72	47	.	.	12	59.4	97
WARNER	W-655T	72	49	.	.	13	58.8	92
-----	MARTIN	73	45	.	.	4	59.4	65
NORTHROP KING	2244	73	43	.	.	7	58.4	93
CARGILL	60	75	43	.	.	3	56.1	84
DEKALB	DK-42Y	75	45	.	.	2	58.2	85
PAG	5514	75	44	.	.	3	55.8	86
ASGROW	TOPAZ	77	47	.	.	1	57.8	83
CARGILL	70	78	43	.	.	1	56.5	87
HORIZON	101G	78	42	.	.	5	56.6	72
-----	RS 671	79	46	.	.	4	54.3	70
AVERAGE ALL ENTRIES		73.5	45.6			6.1	57.9	86.2
DIF. REQ. FOR SIG. 5%		2.1	3.3			N.S.	1.6	18.8
25%		1.2	1.9			6.4	0.9	10.8
FOUR-YEAR AVERAGE								
-----	RS 626	71	43	.	.	10	56.6	85
ASGROW	CORRAL	71	48	.	.	13	58.4	95
CARGILL	30	71	44	.	.	4	57.3	83
NORTHROP KING	2030	71	40	.	.	3	58.0	90
WARNER	W-655T	71	46	.	.	13	58.1	91
-----	MARTIN	74	43	.	.	4	58.4	63
CARGILL	60	75	42	.	.	3	56.3	85
DEKALB	DK-42Y	75	43	.	.	2	57.9	90
PAG	5514	75	42	.	.	3	55.6	87
ASGROW	TOPAZ	77	44	.	.	1	57.3	87
CARGILL	70	78	42	.	.	1	56.1	86
HORIZON	101G	78	40	.	.	5	56.0	76
-----	RS 671	79	43	.	.	4	54.3	75
AVERAGE ALL ENTRIES		74.3	43.1			5.1	56.9	84.1
DIF. REQ. FOR SIG. 5%		1.9	2.1			N.S.	1.8	14.6
25%		1.1	1.2			N.S.	1.0	8.4
FIVE-YEAR AVERAGE								
-----	RS 626	72	43	.	.	23	56.7	80
ASGROW	CORRAL	72	47	.	.	33	58.3	90
CARGILL	30	72	44	.	.	22	57.6	82
NORTHROP KING	2030	72	40	.	.	12	58.0	87
WARNER	W-655T	72	46	.	.	29	58.0	86
-----	MARTIN	74	44	.	.	17	58.3	62
CARGILL	60	76	42	.	.	20	55.8	82
PAG	5514	76	42	.	.	18	55.4	83
ASGROW	TOPAZ	77	45	.	.	17	57.9	84
CARGILL	70	78	43	.	.	14	56.5	85
HORIZON	101G	78	41	.	.	17	56.4	73
-----	RS 671	79	44	.	.	22	54.4	74
AVERAGE ALL ENTRIES		74.8	43.4			20.3	56.9	80.7
DIF. REQ. FOR SIG. 5%		1.9	2.2			11.8	1.6	11.7
25%		1.1	1.3			0.7	1.0	6.8

Plant height: no 1984 data.
Stalk lodging: no 1980 data.

TABLE 3A. ZONE C. WEST SUMMARY. CHEYENNE COUNTY. BLACK AND ECOFALLOW. 1984.

BRAND	HYBRID	PLANT BLOOM DAYS	PLANT HT IN	HEAD EXSERT IN	EARLY MOIST PCT	STALK LODGE PCT	TEST WEIGHT LB/BU	GRAIN YIELD BU/A
CENEX	201 T	74	41	.	17	.	54.2	44
NORTHROP KING	1210	74	39	.	17	.	53.8	48
QUALITY PLUS	ET 21	74	41	.	17	.	54.4	47
DEKALB	DK-18	75	41	.	17	.	52.3	56
PAG	2250	76	37	.	16	.	52.9	61
DEKALB	DK-38	77	46	.	17	.	52.2	65
QUALITY PLUS	ET 24	77	36	.	17	.	54.0	58
CARGILL	22	78	39	.	17	.	55.4	55
CENEX	224 T	78	36	.	19	.	52.6	65
DEKALB	DK-28	78	37	.	18	.	53.2	58
TRIUMPH	TWO 48YG	78	38	.	19	.	53.4	71
WARNER	W-545T	78	37	.	18	.	53.7	59
FONTANELLE	2233	79	39	.	18	.	53.5	59
WARNER	WX-83111	79	44	.	17	.	52.9	60
RICHARDSON	85E	80	44	.	18	.	52.5	65
CENEX	228 T	82	43	.	19	.	52.8	56
QUALITY PLUS	MT 28	82	43	.	18	.	53.0	53
FONTANELLE	3345	83	43	.	17	.	52.7	41
FUNK	G-1460	83	41	.	19	.	53.9	57
CARGILL	30	84	39	.	20	.	49.9	50
TRIUMPH	TWO 50YG	85	40	.	19	.	52.7	52
WARNER	WX-84041	85	41	.	18	.	52.3	60
FUNK	HW5883	87	40	.	18	.	49.3	64
HORIZON	24G	88	45	.	20	.	49.5	64
PAYMASTER	1022	88	40	.	20	.	50.6	57
WARNER	W-561A	88	46	.	19	.	49.4	51
ASGROW	CORRAL	89	44	.	20	.	49.6	57
PAG	3385	90	42	.	20	.	49.0	56
HORIZON	45G	91	42	.	20	.	49.2	51
PAG	3339	91	43	.	20	.	47.7	53
CARGILL	40	92	41	.	20	.	46.6	48
ASGROW	NUGGET	95	38	.	20	.	48.9	34
CARGILL	60	97	40	.	21	.	40.6	42
AVERAGE ALL ENTRIES		82.9	40.8		18.5		51.5	55.1
DIF. REQ. FOR SIG.	5%	4.3	1.7		N.S.		1.5	13.5
	25%	2.5	1.0		1.7		0.9	7.9

TABLE 3B. ZONE C. WEST CHEYENNE COUNTY. BLACK FALLOW. 1984.

BRAND	HYBRID	PLANT BLOOM DAYS	PLANT HT IN	HEAD EXSERT IN	EARLY MOIST PCT	STALK LODGE PCT	TEST WEIGHT LB/BU	GRAIN YIELD BU/A
CENEX	201 T	74	42	.	17	.	53.5	49
NORTHROP KING	1210	73	38	.	17	.	53.3	46
QUALITY PLUS	ET 21	73	42	.	19	.	52.9	52
DEKALB	DK-18	74	41	.	17	.	51.1	58
PAG	2250	75	37	.	15	.	51.9	65
DEKALB	DK-38	76	47	.	18	.	52.2	71
QUALITY PLUS	ET 24	75	36	.	18	.	53.1	67
DEKALB	DK-28	76	37	.	18	.	53.0	62
CARGILL	22	77	39	.	17	.	55.1	67
CENEX	224 T	77	37	.	20	.	50.8	76
TRIUMPH	TWO 48YG	77	38	.	20	.	52.0	86
WARNER	W-545T	77	37	.	19	.	52.7	61
WARNER	WX-83111	77	43	.	16	.	52.9	66
FONTANELLE	2233	78	39	.	19	.	52.4	68
RICHARDSON	85E	80	45	.	18	.	51.6	76
CENEX	228 T	82	43	.	20	.	52.0	66
QUALITY PLUS	MT 28	81	44	.	19	.	52.0	60
FONTANELLE	3345	81	41	.	17	.	52.2	43
FUNK	G-1460	83	41	.	20	.	52.3	60
CARGILL	30	83	39	.	21	.	48.4	55
TRIUMPH	TWO 50YG	84	39	.	20	.	51.9	57
WARNER	WX-84041	84	42	.	20	.	51.0	77
FUNK	HW5883	87	40	.	20	.	47.9	75
HORIZON	24G	86	44	.	22	.	49.2	82
PAYMASTER	1022	87	40	.	21	.	49.8	72
WARNER	W-561A	87	45	.	21	.	48.5	59
ASGROW	CORRAL	87	44	.	21	.	49.2	72
PAG	3385	90	42	.	22	.	47.2	62
HORIZON	45G	89	42	.	21	.	48.6	62
PAG	3339	89	43	.	22	.	47.2	66
CARGILL	40	90	40	.	21	.	45.8	61
ASGROW	NUGGET	96	38	.	23	.	46.9	37
CARGILL	60	96	41	.	25	.	38.8	49
AVERAGE ALL ENTRIES		81.8	40.8		19.5		50.5	63.2
DIF. REQ. FOR SIG.	5%	2.1	2.5		2.5		1.8	17.3
	25%	1.3	1.5		1.5		1.0	10.1

Planted: May 22

Early moist is harvest moisture October 2.

TABLE 3C. ZONE C. WEST CHEYENNE COUNTY. ECOFALLOW. 1984.

BRAND	HYBRID	PLANT BLOOM DAYS	PLANT HT IN	HEAD EXSERT IN	EARLY MOIST PCT	STALK LODGE PCT	TEST WEIGHT LB/BU	GRAIN YIELD BU/A
CENEX	201 T	74	39	.	16	.	54.9	38
NORTHROP KING	1210	75	39	.	16	.	54.3	49
QUALITY PLUS	ET 21	75	40	.	15	.	55.9	42
DEKALB	DK-18	75	40	.	17	.	53.5	53
PAG	2250	76	36	.	16	.	53.8	57
DEKALB	DK-38	78	45	.	16	.	52.1	58
QUALITY PLUS	ET 24	79	36	.	16	.	54.8	49
DEKALB	DK-28	79	37	.	18	.	53.4	54
CARGILL	22	79	39	.	17	.	55.6	42
CENEX	224 T	79	35	.	17	.	54.4	54
TRIUMPH	TWO 48YG	79	37	.	17	.	54.8	56
WARNER	W-545T	79	37	.	16	.	54.6	56
WARNER	WX-83111	80	44	.	18	.	52.8	54
FONTANELLE	2233	80	38	.	17	.	54.6	49
RICHARDSON	85E	80	42	.	17	.	53.4	53
CENEX	228 T	81	43	.	17	.	53.6	45
QUALITY PLUS	MT 28	83	42	.	16	.	54.0	45
FONTANELLE	3345	84	44	.	17	.	53.1	39
FUNK	G-1460	82	41	.	18	.	55.4	53
CARGILL	30	85	39	.	18	.	51.3	45
TRIUMPH	TWO 50YG	86	40	.	17	.	53.4	46
WARNER	WX-84041	86	40	.	16	.	53.5	43
FUNK	HW5883	87	40	.	16	.	50.6	53
HORIZON	24G	89	45	.	18	.	49.8	45
PAYMASTER	1022	89	40	.	19	.	51.4	42
WARNER	W-561A	89	46	.	17	.	50.3	43
ASGROW	CORRAL	90	44	.	18	.	50.0	42
PAG	3385	90	41	.	17	.	50.7	50
HORIZON	45G	92	41	.	18	.	49.8	40
PAG	3339	92	42	.	18	.	48.1	40
CARGILL	40	93	41	.	18	.	47.4	35
ASGROW	NUGGET	94	38	.	17	.	50.9	30
CARGILL	60	97	38	.	16	.	42.4	34
AVERAGE ALL ENTRIES		83.5	40.3		17.0		52.4	46.5
DIF. REQ. FOR SIG. 5%		2.1	2.5		1.3		1.4	8.2
25%		1.3	1.5		0.8		0.8	4.8

Planted May 22

Early moist is harvest moisture October 15.

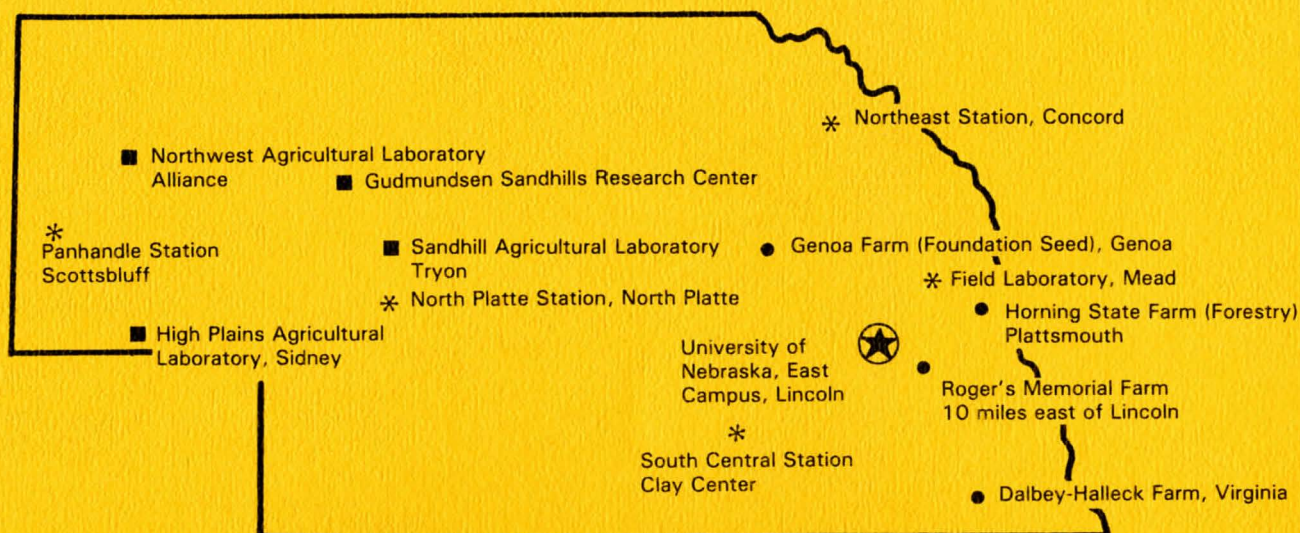
TABLE 3D. ZONE C. WEST. 1979-1984. NO 1982 DATA.

BRAND	HYBRID	PLANT BLOOM DAYS	PLANT HT IN	HEAD EXSERT IN	EARLY MOIST PCT	STALK LODGE PCT	TEST WEIGHT LB/BU	GRAIN YIELD BU/A
TWO-YEAR AVERAGE								
DEKALB	DK-18	71	41	.	17	4	52.9	72
NORTHROP KING	1210	72	38	.	17	12	53.3	59
DEKALB	DK-28	74	37	.	18	0	52.4	72
PAG	2250	74	38	.	16	0	53.4	71
DEKALB	DK-38	75	47	.	17	4	52.7	74
FONTANELLE	2233	75	38	.	18	0	54.1	74
CARGILL	22	76	40	.	17	0	55.8	65
FONTANELLE	3345	79	43	.	17	6	53.2	59
CARGILL	30	80	41	.	20	0	51.2	60
FUNK	G-1460	80	42	.	19	0	53.5	71
FUNK	HW5883	83	39	.	18	0	50.4	73
PAYMASTER	1022	83	41	.	20	0	52.1	72
ASGROW	CORRAL	84	45	.	20	0	50.9	69
CARGILL	40	89	41	.	20	0	47.9	53
AVERAGE ALL ENTRIES		78.2	40.8		18.1	1.9	52.4	67.4
DIF. REQ. FOR SIG. 5%		3.1	2.2		N.S.	6.6	2.2	10.5
THREE-YEAR AVERAGE								
NORTHROP KING	1210	79	39	.	18	12	53.9	69
DEKALB	DK-38	82	46	.	21	4	52.5	81
CARGILL	30	88	42	.	22	0	51.3	70
AVERAGE ALL ENTRIES		83.0	42.3		20.3	5.3	52.6	73.3
DIF. REQ. FOR SIG. 5%		1.7	3.8		N.S.	6.6	N.S.	8.1
25%		0.9	1.9		2.6	3.8	0.2	3.4
FOUR-YEAR AVERAGE								
NORTHROP KING	1210	76	38	.	15	9	54.8	61
CARGILL	30	85	40	.	20	0	52.8	62
AVERAGE ALL ENTRIES		80.5	39.0		17.5	4.5	53.8	61.5
DIF. REQ. FOR SIG. 5%		2.0	N.S.		3.8	N.S.	N.S.	N.S.
25%		0.9	1.7		1.4	7.2	1.6	N.S.
FIVE-YEAR AVERAGE								
CARGILL	30	86	39	.	20	0	52.3	57

Early moisture: harvest moisture, no data 1979, 1983.

Lodging: no data 1979, 1981, 1984.

Agricultural Research for All of Nebraska



The agricultural research division of the Institute of Agriculture and Natural Resources is the Nebraska Agricultural Experiment Station. The Experiment Station relies on its research centers and field laboratories to provide applied knowledge for development of Nebraska's largest industry—agriculture. In addition, many Nebraska farmers cooperate by furnishing land and other facilities for research projects. This provides information from areas not well represented by stations.

The Cooperative Extension Service transmits data to users through District and County Ex-

tension Offices. Area and County Extension Agents are available to provide additional interpretation and more specific recommendations.

Nebraska is a large state and has great variation due to topography and the continental type of climate. The elevation ranges from 1,000 feet to near a mile high in the northwest portion of the state, rainfall varies from 14 to 40 inches per year, and the soil types vary from sands to heavy clays. The research program thus is broad in subject matter and geography, resulting in the need for various stations and satellite locations.

The Cooperative Extension Service provides information and educational programs to all people without regard to race, color, national origin, sex or handicap.