University of Nebraska - Lincoln
DigitalCommons@University of Nebraska - Lincoln

Historical Materials from University of Nebraska-Lincoln Extension

Extension

1984

EC84-106 Nebraska Grain Sorghum Performance Tests 1983

A. F. Dreier

P. T. Nordquist

Roger Wesley Elmore
University of Nebraska-Lincoln, roger.elmore@unl.edu

Follow this and additional works at: http://digitalcommons.unl.edu/extensionhist

Dreier, A. F.; Nordquist, P. T.; and Elmore, Roger Wesley, "EC84-106 Nebraska Grain Sorghum Performance Tests 1983" (1984). *Historical Materials from University of Nebraska-Lincoln Extension*. 4413.
http://digitalcommons.unl.edu/extensionhist/4413

This Article is brought to you for free and open access by the Extension at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Historical Materials from University of Nebraska-Lincoln Extension by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

AGR1
S
85
E7
#84-106
C.2

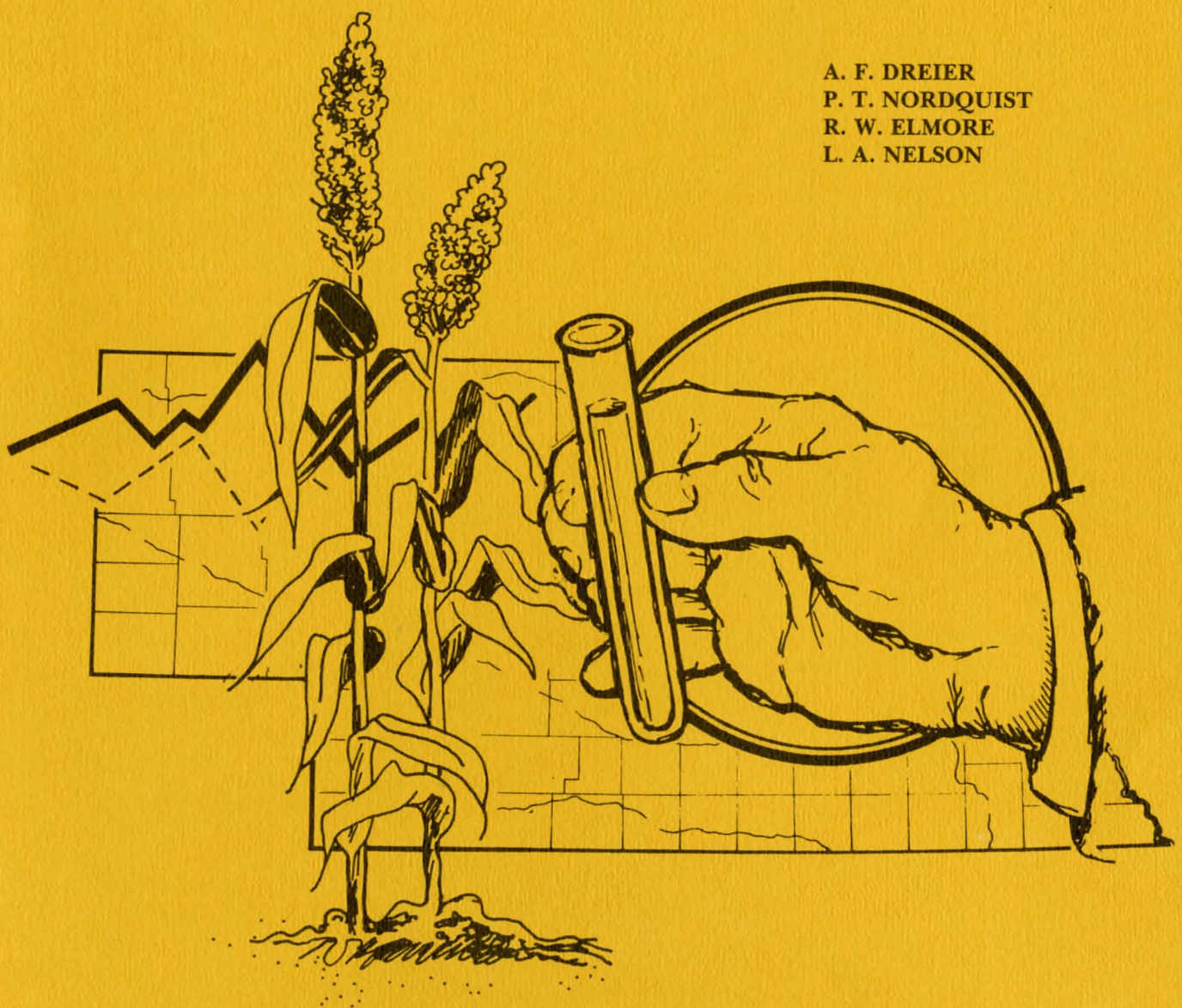
January 1984

Nebraska Cooperative Extension Service
Nebraska Agricultural Experiment Station

EC 84-106

NEBRASKA GRAIN SORGHUM PERFORMANCE TESTS 1983

A. F. DREIER
P. T. NORDQUIST
R. W. ELMORE
L. A. NELSON



Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Leo E. Lucas, Director of Cooperative Extension Service, University of Nebraska, Institute of Agriculture and Natural Resources.

EXTENSION CIRCULAR 84-106

January 1984

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
1983 average three locations 10
1983 Saunders County 12
1983 Clay County Irrigated 14
1982-1983 16
1981-1983 17
1979-1983 18

Zone B
1983 Lincoln County 19
1981-1983 20
1978-1983 21

Zone C
1983 average two tests 22
1983 Cheyenne County Black Fallow 23
1983 Cheyenne County Ecofallow 24
1978-1983 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 1983 season was the 26th 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, North Platte, and Panhandle Stations. 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

1983

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
Yield bu/A	71.0	75.0	79.0	60.0	80.0	73.0	59.0
Acres(000)	2,070	1,830	1,830	2,030	2,060	1,670	1,080

Nebraska had a cold wet spring. This delayed grain sorghum planting. On May 10 only 10% of the crop was planted. Normal for this date is 30% planted. On June 1, planting was 35% compared to an average of 60% completion. Early June planting proceeded rapidly and planting was 93% complete on June 14.

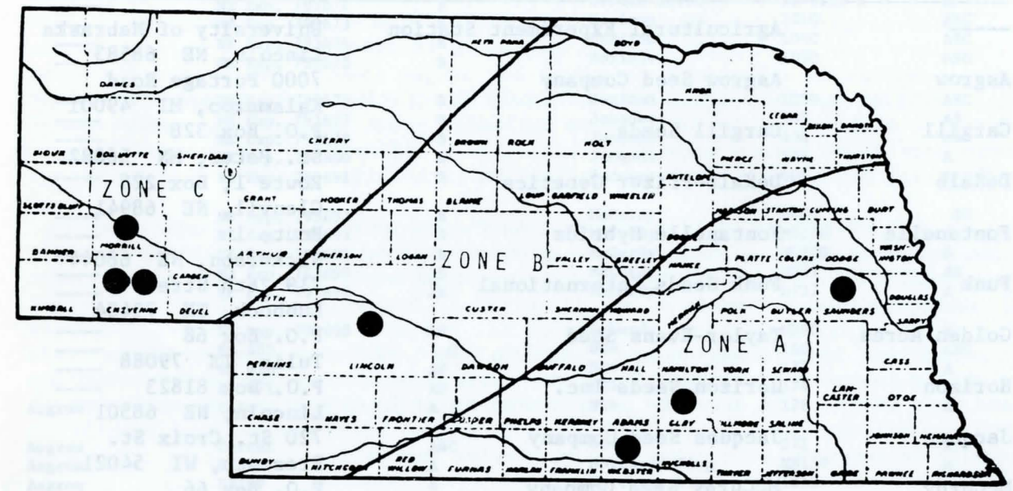
June was cooler than normal with above average precipitation. July temperatures ranged from two degrees above normal in the West to four degrees above in the East. Precipitation ranged from 25% of average in the Southeast to 150% in the Sandhills. Early heading was delayed, but by mid-August development was only 5% behind.

August average temperatures ranged from +4 degrees in the West to +8 degrees in the East. Rainfall ranged from 100% of usual in the West to 25% in the East. Grain sorghum made rapid progress. Maturity was ahead of normal. Harvest proceeded rapidly. On October 11, 50% of the crop was out of the field. Normal completion for this date is 25%.

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 Franklin and Morrill Counties are not reported because of extreme plot variability resulting from uneven stands and other complications.

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; North Platte Station, North Platte; South Central Station, Clay Center; and Panhandle Station, Scottsbluff, respectively.



SORGHUM MATURITY ZONES AND LOCATIONS
OF NEBRASKA PERFORMANCE TESTS 1983

Table A. Location and Cooperators. Nebraska Grain Sorghum Performance Tests. 1983.

Location	Cooperator
Zone A	
Saunders	Mead Field Laboratory
Franklin	Richard Shepler, Hildreth
Clay (Irr.)	South Central Station
Zone B	
Lincoln	North Platte Station
Zone C	
Cheyenne (black fallow)	High Plains Agricultural Laboratory
Cheyenne (ecofallow)	High Plains Agricultural Laboratory
Morrill (irr.)	Robert Schildt, Broadwater

Table B. Entrants. Nebraska grain sorghum performance tests. 1983.

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 328 St. Peter, MN 56082
DeKalb	DeKalb-Pfizer Genetics	Route 1, Box 225 Glenvil, NE 68941
Fontanelle	Fontanelle Hybrids	Route 1 Nickerson, NE 68044
Funk	Funk Seeds International	719 26th Street Lubbock, TX 79404
Golden Acres	Taylor-Evans Seed	P.O. Box 68 Tulia, TX 79088
Horizon	Horizon Seeds Inc.	P.O. Box 81823 Lincoln, NE 68501
Jacques	Jacques Seed Company	720 St. Croix St. Prescott, WI 54021
McCurdy	McCurdy Seed Company	P.O. Box 66 Fremont, IA 52561
NC+	NC+ Hybrids	P.O. Box 66 Fremont, IA 52561
Northrup King	Northrup King Company	725 N. Cherry Red Cloud, NE 68970
Oro	R. G. Young Seed & Grain Co.	624 27th Street Lubbock, TX 79404
O's Gold	O's Gold Seed Company	P.O. Box 460 Parkersburg, IA 50665
PAG	PAG Seeds	P.O. Box 1207 Fremont, NE 68025
Paymaster	Paymaster Seeds	P.O. Box 405 Seward, NE 68434
Richardson	Richardson Seeds Inc.	P.O. Drawer B Vega, TX 79092
WAC	Seedtec International Inc.	P.O. Box 2212 Hereford, TX 79045
Warner	George Warner Seed Company	P.O. Box 1448 Hereford, TX 79045
Wilson	Wilson Hybrids Inc.	P.O. Box 391 Harlan, IA 51537

Table C. Grain Sorghum Entries and Zone where listed. 1983.

Brand	Hybrid	Zone	Brand	Hybrid	Zone
-----	Martin	AB	Golden Acres	TE Y-77	A
-----	NE Exp. 793672	B	Golden Acres	TE Y101-G	A
-----	NE Exp. 793673	B	Horizon	101G	ABC
-----	NE Exp. 793674	B	Horizon	104G	ABC
-----	NE Exp. 793675	B	Horizon	106D	ABC
-----	NE Exp. 793676	B	Horizon	108D	ABC
-----	NE Exp. 793677	B	Jacques	308	AB
-----	NE Exp. 793679	B	Jacques	404	AB
-----	NE Exp. 793680	B	Jacques	505	A
-----	NE Exp. 793691	B	Jacques	606	A
-----	NE Exp. 793692	B	McCurdy	M444	BC
-----	NE Exp. 793693	B	McCurdy	M51YG	A
-----	NE Exp. 793694	B	McCurdy	M57YG	A
-----	NE Exp. 793695	B	McCurdy	M637	AB
-----	NE Exp. 793696	AB	McCurdy	M737	A
-----	NE Exp. 793698	AB	McCurdy	M990	A
-----	RS 455	C	NC+	160	ABC
-----	RS 626	AB	NC+	172	A
-----	RS 671	AB	NC+	174	A
Asgrow	Colt	A	NC+	178	A
Asgrow	Corral	ABC	NC+	271	A
Asgrow	H768	A	Northrup King	X8139	A
Asgrow	H8107	A	Northrup King	1210	C
Asgrow	Mustang	AB	Northrup King	1580	C
Asgrow	Opal	B	Northrup King	2030	B
Asgrow	Topaz	AB	Northrup King	2244	AB
Cargill	22	C	Northrup King	2778	A
Cargill	30	BC	O's Gold	GS 5100	A
Cargill	40	ABC	O's Gold	GS 709	A
Cargill	55	ABC	O's Gold	GS 712	A
Cargill	60	B	Oro	G Xtra	A
Cargill	70	AB	Oro	Pronto	AB
DeKalb	DK-18	C	Oro	8102	B
DeKalb	DK-28	C	PAG	2250	C
DeKalb	DK-38	BC	PAG	3339	AB
DeKalb	DK-46	AB	PAG	4462	AB
DeKalb	DK-57	B	PAG	5514	AB
DeKalb	DK-58	AB	PAG	5665	AB
DeKalb	DK-59E	A	Paymaster	930	C
DeKalb	DK-61	A	Paymaster	1022	BC
DeKalb	DK-64A	A	Paymaster	1099	AB
DeKalb	DK-69	A	Paymaster	1125	A
DeKalb	DK-42	B	Richardson	Y-322A	A
DeKalb	DK-42Y	B	WAC	D701G	ABC
Fontanelle	2233	C	WAC	652G	ABC
Fontanelle	3345	C	WAC	694G	ABC
Fontanelle	4455	B	WAC	710DR	ABC
Fontanelle	5537	A	Warner	W-561A	B
Fontanelle	5547	B	Warner	W-655T	AB
Fontanelle	5583	A	Warner	W-685DR	AB
Fontanelle	6651	A	Warner	W-839DR	A
Funk	G-1400	B	Warner	W-851DR	A
Funk	G-1460	C	Warner	WX-83102	A
Funk	G-1711	A	Warner	WX-83104	A
Funk	G-1660	AB	Warner	WX83107	BC
Funk	G-611	AB	Warner	WX-83108	C
Funk	HW5449	A	Warner	WX-9181	C
Funk	HW5883	C	Wilson	617G	AB
Golden Acres	TE Y-45-G	A	Wilson	621G	A
Golden Acres	TE Y-60	A	Wilson	623T	A

Parentage of released open-pedigree entries follows:

Martin	Variety or line
RS 455	M-44 x SD 104
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 exsertion 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 evaluations for a given location. In making yield evaluation, 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 1983 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. This relationship was especially high in the ecofallow trial. 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

Seventy-seven hybrids were grown at three Zone A locations in 1983. The Webster County data were discarded because of extreme plot variability. Average data for Saunders and Clay Counties are shown in Table 1a and individual location results are included in Tables 1b and 1c. Period-of-years data are shown in Tables 1d, 1c and 1f.

The Saunders County Trial was under moisture stress in August and early September. Clay County yields were not as high as would be desirable under full irrigation. Later maturity was correlated with higher yield at both locations. These relationships were not high enough to account for a major portion of hybrid differences. In 13 of the last 15 years, later maturity was 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 factors.

Zone B

Data from Lincoln County are shown in Table 2a. Excellent yields were produced in 1983. High temperatures in mid-August greatly reduced corn yields at this location. Later maturity was correlated with lower yields. Data from 1978-1983 trials are summarized in Tables 2b and 2c. In 15 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 5 seasons and there was little relationship in 5 seasons. This is in an area of high year to year variability in climatic conditions.

Zone C

A total of 31 entries were planted in Cheyenne County on black fallow and ecofallow (Tables 3a, 3b and 3c). Average yields were 75.2 and 56.5 bushels per acre, respectively. The ecofallow trial was planted 18 days later; however, the average bloom date was only 3 days later. Later maturity was correlated with lower grain yield. A limited number of entries are included in 2-, 3-, 4- and 5-year averages (Table 3d). In tests since 1977, earlier maturity was correlated with higher grain yield in 1978, 1979 and 1983. There was no relationship in 1977, 1980 and 1981. No data were obtained in 1982.

Data from an irrigated trial in Morrill County were discarded because of uneven stands.

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 performance. Average performance at each test location. 1983.

Location	Planted	Seed spacing inches 1/	Planting to bloom days	Plant height inches	Head exsertion inches	Test weight lb/bu	Grain yield bu/A	Yield C. V. %	Maturity yield correlation r
Zone A (77 entries)									
Saunders	May 28	3.3	71.0	41.3	3.6	56.8	102.7	9.7	.34**
Clay (irrigated)	May 26	2.2	74.5	49.0	4.2	54.9	117.8	10.3	.25*
Average 2 locations	------	---	73.0	45.4	4.2	55.8	110.5	----	.35**
Zone B (66 entries)									
Lincoln	June 3	4.0	73.9	42.8	---	57.4	101.0	14.3	-.41**
Zone C (31 entries)									
Cheyenne (black fallow)	May 23	4.8	87.0	42.5	---	50.5	75.2	12.9	-.41*
Cheyenne (ecofallow)	June 10	4.8	72.3	42.1	---	48.9	56.5	11.7	-.93**
Average 2 locations	------	4.8	79.9	42.5	---	49.7	66.1	----	-.89**

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. 1978-1983.

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 (17 entries)							
1979	75.2	45.2	4.7	26.0	2.5	59.1	140.3
1980	69.8	41.9	3.5	28.8	----	59.4	114.8
1981	67.5	46.4	3.9	30.8	----	58.0	116.6
1982	70.1	47.5	4.6	28.8	14.7	51.5	101.5
1983	72.9	44.2	4.2	----	1.1	55.7	107.5
Five-year average	71.1	45.1	4.2	28.6	6.2	56.7	116.2
Zone B (7 entries)1/							
1978	77.0	34.6	---	----	17.1	57.4	55.2
1979	77.5	45.1	---	----	60.9	57.3	63.9
1980	76.5	38.5	---	----	----	54.7	83.7
1981	71.4	48.3	---	----	6.0	58.9	95.7
1983	76.9	40.6	---	----	0.4	56.2	87.7
Five-year average	76.0	41.4	---	----	21.1	56.9	77.1
Zone C (1 entry)1/							
1978	82.0	44.0	---	18.5	4.0	52.8	45.9
1979	72.2	39.8	---	----	----	56.9	41.7
1980	63.6	43.6	---	10.5	8.0	56.1	29.6
1981	90.0	48.0	---	17.0	----	55.9	59.0
1983	67.5	50.0	---	----	20.0	56.0	56.5
Five-year average	75.1	45.1	---	15.3	10.7	55.5	46.5

1/ No 1982 data

TABLE 1A. ZONE A. SUMMARY. SAUNDERS AND CLAY (IRR.) COUNTIES. 1983.

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						
-----	RS 626	69	42	3	.	0	53.2	94
GOLDEN ACRES	TE Y-45-G	69	49	7	.	0	56.4	105
JACQUES	308	69	47	5	.	0	56.5	109
NC+	160	69	47	6	.	0	56.5	106
O'S GOLD	GS 709	69	46	6	.	4	55.3	98
WILSON	617G	69	48	7	.	0	56.7	102
ASGROW	CORRAL	70	48	7	.	0	56.6	101
ASGROW	H768	70	49	4	.	0	57.9	112
HORIZON	108D	70	45	4	.	2	54.9	105
MC CURDY	M637	70	47	6	.	0	56.2	101
NORTHRUP KING	2244	70	43	5	.	1	56.3	107
WAC	652G	70	48	6	.	0	56.9	108
WARNER	W-655T	70	47	6	.	0	57.2	115
WARNER	W-685DR	70	48	5	.	2	55.3	106
CARGILL	40	71	45	5	.	1	56.3	105
FONTANELLE	5537	71	46	5	.	0	56.8	104
GOLDEN ACRES	TE Y-60	71	46	5	.	0	56.3	103
HORIZON	104G	71	46	6	.	1	56.5	117
MC CURDY	M51YG	71	44	5	.	1	52.8	105
PAG	3339	71	45	6	.	3	56.4	99
PAG	4462	71	48	4	.	10	55.5	111
CARGILL	55	72	47	4	.	1	55.4	106
DEKALB	DK-58	72	47	3	.	0	56.7	109
JACQUES	505	72	42	4	.	0	55.6	115
NC+	172	72	43	4	.	2	55.1	113
NORTHRUP KING	2778	72	47	5	.	0	56.0	107
ORO	PRONTO	72	48	6	.	1	53.0	99
RICHARDSON	Y-322A	72	46	4	.	0	57.2	122
WARNER	W-839DR	72	46	3	.	0	54.8	117
-----	MARTIN	73	43	7	.	0	55.7	73
-----	NE EXP. 793698	73	45	5	.	0	53.4	104
ASGROW	MUSTANG	73	43	4	.	0	56.1	112
CARGILL	70	73	42	5	.	0	56.0	113
FONTANELLE	5583	73	43	3	.	0	54.6	120
GOLDEN ACRES	TE Y101-G	73	44	4	.	0	56.4	115
HORIZON	106D	73	45	5	.	0	53.0	106
JACQUES	404	73	44	5	.	1	52.9	100
MC CURDY	M737	73	43	4	.	0	56.0	115
O'S GOLD	GS 5100	73	43	5	.	0	56.0	114
PAG	5665	73	44	4	.	0	56.1	110
PAYMASTER	1099	73	43	2	.	1	56.1	115
PAYMASTER	1125	73	45	5	.	0	55.0	127
WAC	694G	73	49	5	.	1	56.8	116
WAC	710DR	73	46	4	.	0	55.9	119
WARNER	WX-83104	73	46	2	.	0	57.0	107

CONTINUED

TABLE 1A. ZONE A. SUMMARY 1983. 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						
WILSON	621G	73	43	5	.	0	55.8	117
-----	NE EXP. 793696	74	44	4	.	0	54.3	102
ASGROW	H8107	74	46	5	.	0	57.4	109
ASGROW	TOPAZ	74	44	4	.	0	57.9	130
DEKALB	DK-46	74	46	5	.	0	57.6	103
FUNK	G-1660	74	42	4	.	0	55.2	119
FUNK	G-611	74	47	5	.	1	55.3	111
HORIZON	101G	74	41	4	.	0	57.0	119
MC CURDY	M990	74	44	4	.	0	53.7	116
NC+	271	74	46	6	.	0	56.0	113
PAG	5514	74	43	4	.	0	53.0	112
WARNER	W-851DR	74	44	3	.	1	53.3	112
WILSON	623T	74	45	1	.	0	56.7	114
-----	RS 671	75	44	3	.	0	53.7	97
DEKALB	DK-64A	75	50	6	.	11	56.5	116
FUNK	G-1711	75	46	2	.	0	56.7	113
GOLDEN ACRES	TE Y-77	75	47	1	.	0	57.2	119
JACQUES	606	75	44	2	.	0	56.8	110
NC+	174	75	46	2	.	3	56.2	122
NC+	178	75	44	3	.	0	56.8	108
O'S GOLD	GS 712	75	45	1	.	0	55.8	115
WAC	D701G	75	45	2	.	1	56.7	117
WARNER	WX-83102	75	48	4	.	0	57.1	124
DEKALB	DK-59E	76	45	2	.	0	53.9	115
FONTANELLE	6651	76	44	3	.	0	56.3	111
CRO	G XTRA	76	46	2	.	0	56.9	110
DEKALB	DK-61	77	47	4	.	0	56.7	109
MC CURDY	M57YG	77	46	3	.	0	56.3	121
NORTHRUP KING	X8139	77	42	3	.	0	56.8	121
FUNK	HW5449	78	48	4	.	0	54.5	115
ASGROW	COLT	80	46	2	.	15	56.8	104
DEKALB	DK-69	81	52	4	.	0	54.6	117
AVERAGE ALL ENTRIES		73.0	45.4	4.2		0.8	55.8	110.5
DIF. REQ. FOR SIG.	5%	1.6	5.6	0.9		4.3	1.1	7.5
	25%	0.9	3.3	0.5		2.5	0.7	4.4

TABLE 1B. ZONE A. SAUNDERS COUNTY. 1983.

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
O'S GOLD	GS 709	67	43	6	.	4	54.5	80
-----	RS 626	68	39	4	.	0	53.5	91
GOLDEN ACRES	TE Y-45-G	68	44	6	.	0	56.3	97
JACQUES	308	68	44	6	.	0	56.6	105
NC+	160	68	44	7	.	0	56.7	106
WILSON	617G	67	43	6	.	0	56.9	105
ASGROW	CORRAL	68	43	7	.	0	56.8	92
ASGROW	H768	69	44	3	.	0	57.9	106
MC CURDY	M637	69	43	6	.	0	56.2	90
WARNER	W-655T	68	43	6	.	0	57.0	111
WARNER	W-685DR	68	44	6	.	2	56.0	98
HORIZON	108D	69	41	4	.	2	55.3	102
NORTHRUP KING	2244	69	40	5	.	1	56.6	97
WAC	652G	69	44	6	.	0	57.4	107
CARGILL	40	69	40	5	.	1	57.0	99
FONTANELLE	5537	69	42	5	.	0	56.9	96
GOLDEN ACRES	TE Y-60	69	43	5	.	0	57.3	99
MC CURDY	M51YG	68	40	5	.	1	52.4	99
PAG	3339	68	40	5	.	3	56.6	90
PAG	4462	68	43	4	.	10	54.5	99
HORIZON	104G	69	41	6	.	1	57.0	109
JACQUES	505	69	38	4	.	0	56.1	103
ORO	PRONTO	71	44	5	.	1	52.4	93
CARGILL	55	70	41	4	.	1	56.4	94
DEKALB	DK-58	71	43	3	.	0	57.6	100
NC+	172	68	39	4	.	2	56.2	95
NORTHRUP KING	2778	70	42	4	.	0	56.1	92
RICHARDSON	Y-322A	70	42	4	.	0	58.2	113
WARNER	W-839DR	70	41	3	.	0	56.1	110
-----	MARTIN	73	38	6	.	0	57.2	71
CARGILL	70	70	38	3	.	0	57.3	103
FONTANELLE	5583	71	41	3	.	0	55.4	104
GOLDEN ACRES	TE Y101-G	68	40	5	.	0	57.4	104
HORIZON	106D	70	42	4	.	0	53.4	96
MC CURDY	M737	70	39	3	.	0	57.3	101
O'S GOLD	GS 5100	69	39	5	.	0	56.8	111
PAG	5665	70	39	3	.	0	56.5	100
PAYMASTER	1099	69	39	1	.	1	57.3	98
WAC	694G	70	45	5	.	1	56.6	105
WILSON	621G	69	39	3	.	0	56.0	105
-----	NE EXP. 793698	73	42	4	.	0	54.8	110
ASGROW	MUSTANG	69	38	3	.	0	56.9	102
JACQUES	404	71	39	3	.	1	54.1	95
PAYMASTER	1125	72	41	3	.	0	56.5	115
WAC	710DR	71	41	3	.	0	56.7	110

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
WARNER	WX-83104	75	42	2	.	0	58.5	97
ASGROW	H8107	72	42	4	.	0	59.3	105
FUNK	G-611	71	42	4	.	1	55.7	102
HORIZON	101G	70	39	4	.	0	58.1	112
PAG	5514	70	39	4	.	0	55.2	98
WARNER	W-851DR	72	40	3	.	1	54.3	105
-----	NE EXP. 793696	73	40	3	.	0	56.3	98
ASGROW	TOPAZ	72	41	3	.	0	59.3	120
DEKALB	DK-46	74	43	5	.	0	59.2	101
FUNK	G-1660	73	38	3	.	0	57.4	102
MC CURDY	M990	72	41	3	.	0	55.7	118
NC+	271	72	42	5	.	0	56.9	104
WILSON	623T	73	41	1	.	0	58.0	95
-----	RS 671	74	39	2	.	0	55.3	90
NC+	174	73	43	1	.	3	57.7	118
NC+	178	73	40	2	.	0	58.5	90
O'S GOLD	GS 712	71	41	0	.	0	57.7	109
WAC	D701G	74	42	1	.	1	58.1	108
WARNER	WX-83102	73	42	3	.	0	58.3	118
DEKALB	DK-64A	75	45	6	.	11	57.1	102
FUNK	G-1711	74	43	1	.	0	57.4	108
GOLDEN ACRES	TE Y-77	74	42	1	.	0	58.4	111
JACQUES	606	74	41	1	.	0	58.1	107
FONTANELLE	6651	74	41	1	.	0	58.6	104
DEKALB	DK-59E	75	41	1	.	0	56.0	115
ORO	G XTRA	75	43	1	.	0	58.4	106
DEKALB	DK-61	76	43	4	.	0	58.7	97
MC CURDY	M57YG	74	42	2	.	0	58.7	122
NORTHRUP KING	X8139	73	39	1	.	0	58.1	123
FUNK	HW5449	75	43	2	.	0	56.3	113
ASGROW	COIT	76	40	1	.	15	59.4	90
DEKALB	DK-69	78	44	2	.	0	57.0	115
AVERAGE ALL ENTRIES		71.0	41.3	3.6		0.8	56.8	102.7
DIF. REQ. FOR SIG.	5%	2.2	1.7	1.3		4.3	1.8	13.9
	25%	1.3	1.0	0.8		2.5	1.1	8.2

Planted May 28

TABLE 1C. ZONE A. CLAY COUNTY IRRIGATED. 1983.

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
O'S GOLD	GS 709	70	48	5	.	.	56.1	116
-----	RS 626	70	44	2	.	.	52.9	97
GOLDEN ACRES	TE Y-45-G	70	53	7	.	.	56.5	112
JACQUES	308	70	49	4	.	.	56.5	112
NC+	160	70	50	5	.	.	56.3	105
WILSON	617G	71	52	7	.	.	56.6	99
ASGROW	COBRAL	71	52	7	.	.	56.5	110
ASGROW	H768	70	54	4	.	.	58.0	118
MC CURDY	M637	70	50	5	.	.	56.2	112
WARNER	W-655T	71	51	5	.	.	57.4	119
WARNER	W-685DR	71	52	4	.	.	54.6	113
HORIZON	108D	71	48	4	.	.	54.6	107
NORTHRUP KING	2244	71	46	5	.	.	56.0	117
WAC	652G	71	51	6	.	.	56.4	109
CARGILL	40	72	49	5	.	.	55.5	111
FONTANELLE	5537	72	49	5	.	.	56.8	111
GOLDEN ACRES	TE Y-60	72	49	5	.	.	55.3	106
MC CURDY	M51YG	73	47	4	.	.	53.3	111
PAG	3339	73	50	6	.	.	56.2	107
PAG	4462	73	53	4	.	.	56.6	123
HORIZON	104G	73	51	6	.	.	56.0	125
JACQUES	505	74	46	3	.	.	55.2	127
CRO	PRONTO	72	52	6	.	.	53.6	104
CARGILL	55	74	52	4	.	.	54.5	118
DEKALB	DK-58	73	50	2	.	.	55.8	118
NC+	172	76	47	4	.	.	54.0	131
NORTHRUP KING	2778	74	51	6	.	.	56.0	121
RICHARDSON	Y-322A	74	49	4	.	.	56.2	131
WARNER	W-839DR	74	50	3	.	.	53.6	123
-----	MARTIN	72	47	7	.	.	54.3	74
CARGILL	70	75	46	6	.	.	54.7	122
FONTANELLE	5583	74	44	3	.	.	53.9	135
GOLDEN ACRES	TE Y101-G	77	47	3	.	.	55.5	125
HORIZON	106D	75	48	6	.	.	52.6	115
MC CURDY	M737	75	46	5	.	.	54.8	129
O'S GOLD	GS 5100	76	46	4	.	.	55.3	116
PAG	5665	75	48	4	.	.	55.7	120
PAYMASTER	1099	76	46	2	.	.	54.9	132
WAC	694G	75	53	4	.	.	57.1	127
WILSON	621G	76	47	7	.	.	55.7	128
-----	NE EXP. 793698	73	48	5	.	.	52.0	98
ASGROW	MUSTANG	77	48	5	.	.	55.4	121
JACQUES	404	75	48	7	.	.	51.8	104
PAYMASTER	1125	74	49	6	.	.	53.6	138
WAC	710DR	75	51	4	.	.	55.1	127

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
WARNER	WX-83104	71	50	2	.	.	55.5	117
ASGROW	H8107	75	50	5	.	.	55.6	112
FUNK	G-611	76	51	5	.	.	54.9	120
HORIZON	101G	77	43	3	.	.	55.9	126
PAG	5514	77	46	4	.	.	50.9	125
WARNER	W-851DR	75	47	2	.	.	52.3	119
-----	NE EXP. 793696	75	47	4	.	.	52.3	105
ASGROW	TOPAZ	76	47	5	.	.	56.6	140
DEKALB	DK-46	74	49	4	.	.	56.1	105
FUNK	G-1660	75	46	4	.	.	53.0	135
MC CURDY	M990	76	47	4	.	.	51.7	114
NC+	271	76	49	6	.	.	55.2	122
WILSON	623T	75	48	1	.	.	55.4	132
-----	RS 671	75	48	4	.	.	52.1	104
NC+	174	76	48	2	.	.	54.8	125
NC+	178	76	47	3	.	.	55.0	125
O'S GOLD	GS 712	78	48	2	.	.	53.9	121
WAC	D701G	75	48	3	.	.	55.4	126
WARNER	WX-83102	76	54	4	.	.	56.0	129
DEKALB	DK-64A	75	55	5	.	.	55.9	129
FUNK	G-1711	76	49	3	.	.	56.1	118
GOLDEN ACRES	TE Y-77	76	52	1	.	.	56.1	126
JACQUES	606	76	47	2	.	.	55.5	113
FONTANELLE	6651	77	47	4	.	.	54.0	118
DEKALB	DK-59E	77	48	3	.	.	51.9	114
ORO	G XTRA	77	48	2	.	.	55.4	114
DEKALB	DK-61	77	50	4	.	.	54.8	121
MC CURDY	M57YG	79	49	3	.	.	54.0	119
NORTHRUP KING	X8139	80	45	4	.	.	55.6	118
FUNK	HW5449	81	53	5	.	.	52.7	117
ASGROW	COLT	83	51	2	.	.	54.3	117
DEKALB	DK-69	84	60	5	.	.	52.3	118
AVERAGE ALL ENTRIES		74.5	49.0	4.2			54.9	117.8
DIF. REQ. FOR SIG.	5%	3.0	4.8	2.6			2.0	16.8
	25%	1.8	2.8	1.5			1.2	9.9

Planted May 26

TABLE 1D. ZONE A. 1982-1983.

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						
ASGROW	CORRAL	67	49	6	26	0	55.5	101
GOLDEN ACRES	TE Y-45-G	67	49	6	26	0	54.2	102
JACQUES	308	67	47	5	27	0	55.4	106
MC CURDY	M637	67	48	5	24	0	54.5	100
NC+	160	67	49	6	26	0	55.1	101
WARNER	W-655T	67	48	5	24	0	54.9	110
WILSON	617G	67	48	6	24	0	54.2	102
-----	RS 626	68	44	4	30	0	51.1	94
FONTANELLE	5537	68	47	5	26	0	55.2	102
WAC	652G	68	48	6	25	0	54.7	106
MC CURDY	M51YG	69	45	5	29	1	49.8	98
NORTHRUP KING	2244	69	44	5	28	1	53.4	103
DEKALB	DK-58	70	47	3	25	0	55.5	110
-----	MARTIN	71	43	6	26	0	54.5	82
CARGILL	55	71	48	5	29	1	53.8	105
HORIZON	104G	71	48	6	29	1	55.1	114
JACQUES	404	71	45	5	30	1	50.8	96
JACQUES	505	71	44	4	29	0	53.5	110
PAG	5514	71	44	4	27	0	50.3	102
WARNER	W-839DR	71	46	4	26	0	52.4	112
WILSON	621G	71	43	5	26	0	53.4	107
ASGROW	MUSTANG	72	44	4	28	0	54.7	109
CARGILL	70	72	44	5	31	0	53.8	102
FONTANELLE	5583	72	45	4	32	0	51.8	116
GOLDEN ACRES	TE Y101-G	72	44	4	24	0	53.9	106
HORIZON	101G	72	43	4	27	0	54.2	105
MC CURDY	M737	72	43	4	29	0	53.1	106
NC+	172	72	44	4	26	2	53.2	105
NORTHRUP KING	2778	72	48	5	27	0	54.2	106
O'S GOLD	GS 5100	72	43	4	26	0	53.5	105
PAYMASTER	1099	72	43	3	32	1	54.3	109
PAYMASTER	1125	72	46	5	28	0	52.3	120
-----	NE EXP. 793696	73	46	4	34	0	51.6	101
ASGROW	TOPAZ	73	46	5	26	0	56.0	123
MC CURDY	M990	73	46	4	30	0	51.1	111
NC+	271	73	47	5	33	0	54.4	110
WAC	710DR	73	46	4	29	0	53.5	115
WILSON	623T	73	46	3	28	0	52.9	111
-----	RS 671	74	47	4	34	0	51.6	99
DEKALB	DK-61	74	48	4	29	0	53.5	110
FONTANELLE	6651	74	46	3	36	0	52.3	111
GOLDEN ACRES	TE Y-77	74	48	2	37	0	54.4	113
NC+	174	74	47	2	33	3	54.1	114
NC+	178	74	46	4	31	0	55.0	112
WAC	D701G	74	47	3	32	1	54.6	115
WARNER	W-851DR	74	46	3	37	1	52.4	110
MC CURDY	M57YG	75	47	3	30	0	53.9	119
O'S GOLD	GS 712	75	47	3	36	0	53.4	112
ORO	G XTRA	75	48	3	37	0	54.1	112
FUNK	HW5449	76	49	4	34	0	52.5	115
ASGROW	COLT	77	48	2	34	15	54.4	108
AVERAGE ALL ENTRIES		71.5	46.1	4.3	29.3	0.5	53.6	107.3
DIF. REQ. FOR SIG.	5%	2.1	2.0	1.6	6.4	4.3	1.9	12.2
	25%	1.2	1.2	1.0	3.8	2.5	1.1	7.1

Early grain moisture - no 1983 data.

TABLE 1E. ZONE A. 1981-1983.

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						
-----	RS 626	65	45	3	29	19	53.0	91
MC CURDY	M637	65	48	5	26	19	55.8	100
WARNER	W-655T	65	48	5	27	20	56.2	109
WILSON	617G	65	49	6	26	4	55.6	104
ASGROW	CORRAL	66	49	6	27	9	56.6	105
GOLDEN ACRES	TE Y-45-G	66	49	6	28	19	55.6	104
NC+	160	66	49	6	28	12	56.0	105
WAC	652G	66	48	5	27	5	56.0	106
FONTANELLE	5537	67	47	5	27	10	56.2	106
DEKALB	DK-58	68	48	4	30	0	56.7	119
MC CURDY	M51YG	68	46	4	30	10	52.2	102
NORTHRUP KING	2244	68	44	5	28	1	54.8	109
-----	MARTIN	70	44	6	26	18	55.6	81
HORIZON	104G	70	48	5	31	10	56.1	117
PAG	5514	70	44	4	29	0	52.2	107
WILSON	621G	70	44	4	30	0	55.0	115
ASGROW	MUSTANG	71	44	4	30	0	55.8	117
ASGROW	TOPAZ	71	46	4	28	13	57.3	121
CARGILL	70	71	44	5	32	5	55.2	110
FONTANELLE	5583	71	46	4	31	4	53.6	118
GOLDEN ACRES	TE Y101-G	71	44	4	27	0	55.4	115
HORIZON	101G	71	43	4	29	0	55.5	114
MC CURDY	M737	71	43	4	30	0	54.5	113
NC+	172	71	44	4	29	1	54.8	113
NORTHRUP KING	2778	71	48	5	30	0	55.6	114
-----	RS 671	72	47	4	32	17	53.1	97
NC+	174	72	48	3	33	2	55.6	121
NC+	271	72	47	5	34	0	55.9	118
WAC	D701G	72	48	3	33	1	55.7	122
WARNER	W-851DR	72	47	3	35	3	54.6	115
WILSON	623T	72	47	3	30	0	55.0	119
DEKALB	DK-61	73	47	4	31	0	55.4	115
FONTANELLE	6651	73	47	3	36	3	54.4	116
MC CURDY	M57YG	73	49	3	31	14	55.5	121
ORO	G XTRA	73	48	3	35	8	55.6	115
ASGROW	COLT	76	48	2	35	8	56.0	118
AVERAGE ALL ENTRIES		69.8	46.5	4.3	30.0	6.5	55.2	110.9
DIF. REQ. FOR SIG.	5%	1.6	1.9	1.1	4.7	N.S.	1.5	15.7
	25%	0.9	1.1	0.7	2.7	N.S.	0.9	9.2

Early grain moisture - no 1983 data.
Stalk lodging - no 1981 data.

TABLE 1F. ZONE A. 1979-1983.

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	65	44	3	28	19	54.1	90
ASGROW	CORRAL	65	48	6	26	9	57.5	107
NC+	160	65	48	5	27	12	56.8	108
WAC	652G	65	47	5	26	5	56.9	109
WARNER	W-655T	65	47	5	26	20	57.1	111
WILSON	617G	65	48	6	26	4	56.5	106
FONTANELLE	5537	67	45	4	26	10	57.1	111
DEKALB	DK-58	68	46	3	29	0	57.7	121
MC CURDY	M51YG	68	44	4	29	10	53.7	103
-----	MARTIN	69	42	5	25	18	56.2	75
PAG	5514	69	43	4	28	0	53.8	108
HORIZON	104G	70	47	5	31	10	57.1	121
-----	RS 671	71	46	3	30	17	54.3	101
ASGROW	MUSTANG	71	43	4	29	0	56.9	117
ASGROW	TOPAZ	71	45	4	28	13	58.3	124
CARGILL	70	71	43	4	31	5	56.3	113
HORIZON	101G	71	42	4	29	0	56.6	116
NC+	172	71	43	4	29	1	56.1	116
NORTHRUP KING	2778	71	47	5	30	0	56.5	117
WILSON	621G	71	43	4	29	0	56.3	120
NC+	174	72	47	3	33	2	56.6	127
NC+	271	72	46	5	33	0	57.0	119
WAC	D701G	72	47	3	32	1	56.6	122
WILSON	623T	72	47	3	31	0	56.3	121
ORO	G XTRA	73	47	3	34	8	56.8	119
WARNER	W-851DR	73	47	3	35	3	55.9	118
DEKALB	DK-61	74	46	4	33	0	56.3	114
ASGROW	COLT	76	48	3	37	8	57.0	122
AVERAGE ALL ENTRIES		69.8	45.6	4.1	29.6	6.3	56.4	112.7
DIF. REQ. FOR SIG. 5%		2.4	1.8	1.0	3.6	16.9	1.2	11.7
25%		1.4	1.0	0.6	2.1	9.7	0.7	6.8
		FIVE-YEAR AVERAGE						
WARNER	W-655T	65	47	5	24	14	57.8	118
-----	RS 626	66	44	4	25	14	54.8	93
ASGROW	CORRAL	67	48	6	25	7	58.0	114
MC CURDY	M51YG	69	44	4	28	7	54.4	112
-----	MARTIN	70	42	5	22	13	56.8	77
PAG	5514	70	43	4	28	1	54.5	114
HORIZON	104G	71	48	5	32	7	57.7	126
-----	RS 671	72	46	4	29	12	55.0	107
ASGROW	MUSTANG	72	43	4	29	1	57.4	122
ASGROW	TOPAZ	72	45	4	28	9	58.8	130
CARGILL	70	72	43	4	30	5	56.9	119
HORIZON	101G	72	42	4	28	1	57.3	122
NC+	172	72	43	4	28	1	56.8	121
NORTHRUP KING	2778	72	47	5	30	1	57.2	124
ORO	G XTRA	74	48	3	32	6	57.2	127
DEKALB	DK-61	75	46	4	32	1	57.0	121
ASGROW	COLT	77	47	3	36	6	56.9	128
AVERAGE ALL ENTRIES		71.1	45.1	4.2	28.6	6.2	56.7	116.2
DIF. REQ. FOR SIG. 5%		1.7	1.4	0.8	3.5	N.S.	1.1	11.2
25%		1.0	0.8	0.5	2.0	N.S.	0.6	6.5

Early grain moisture - no 1983 data.
Stalk lodging - no 1980-1981 data.

TABLE 2A. ZONE B. LINCOLN COUNTY. 1983.

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
-----	NE EXP. 793672	62	54	.	.	42	58.1	78
-----	NE EXP. 793676	67	43	.	.	7	58.7	96
-----	NE EXP. 793674	68	39	.	.	2	58.1	93
-----	NE EXP. 793675	68	45	.	.	13	58.8	101
-----	NE EXP. 793680	69	46	.	.	17	58.7	99
DEKALB	DK-38	69	45	.	.	0	59.8	116
-----	NE EXP. 793673	70	45	.	.	7	57.7	94
-----	NE EXP. 793677	70	42	.	.	0	57.7	94
WARNER	WX-83107	70	40	.	.	10	59.5	101
-----	NE EXP. 793679	71	44	.	.	7	58.4	99
DEKALB	DK-42	71	39	.	.	1	58.5	110
NORTHRUP KING	2030	71	40	.	.	0	59.5	113
ORO	PRONTO	71	46	.	.	2	58.1	110
WARNER	W-685DR	71	45	.	.	5	59.4	111
-----	NE EXP. 793691	72	39	.	.	0	57.2	98
-----	RS 626	72	40	.	.	1	57.6	108
ASGROW	CORRAL	72	46	.	.	0	58.9	115
CARGILL	30	72	43	.	.	1	58.3	99
FONTANELLE	4455	72	45	.	.	1	58.8	115
FONTANELLE	5547	72	45	.	.	0	58.3	109
MC CURDY	M444	72	39	.	.	2	59.3	105
NC+	160	72	45	.	.	3	59.4	125
O'S GOLD	GS 712	72	42	.	.	1	60.1	122
PAG	4462	72	45	.	.	2	58.6	113
WAC	652G	72	44	.	.	0	59.3	122
WILSON	617G	72	47	.	.	0	59.9	115
FUNK	G-1400	73	48	.	.	1	59.4	123
JACQUES	308	73	45	.	.	0	59.5	125
MC CURDY	M637	73	43	.	.	2	59.2	113
PAG	3339	73	42	.	.	1	59.3	108
WARNER	W-561A	73	44	.	.	2	59.6	114
WARNER	W-655T	73	46	.	.	0	58.8	109
-----	MARTIN	74	39	.	.	2	59.7	81
-----	NE EXP. 793693	74	41	.	.	0	57.9	110
-----	NE EXP. 793694	74	40	.	.	1	58.8	99
CARGILL	40	74	41	.	.	1	59.6	117
DEKALB	DK-46	74	43	.	.	0	59.3	105
NORTHRUP KING	2244	74	42	.	.	3	59.0	106
-----	NE EXP. 793692	75	37	.	.	0	58.3	98
DEKALB	DK-57	75	44	.	.	0	57.5	102
DEKALB	DK-58	75	43	.	.	3	55.7	92
JACQUES	404	75	41	.	.	1	55.7	97
-----	NE EXP. 793698	76	43	.	.	2	56.9	100
ASGROW	OPAL	76	42	.	.	0	55.0	102
CARGILL	60	76	40	.	.	0	54.3	101
ORO	8102	76	43	.	.	0	58.1	105
PAG	5514	76	41	.	.	0	55.8	101
PAG	5665	76	43	.	.	1	55.0	100
ASGROW	TOPAZ	77	44	.	.	0	57.4	101
CARGILL	70	77	39	.	.	1	56.0	99
DEKALB	DK-42Y	77	41	.	.	0	56.8	83
FUNK	G-611	77	46	.	.	0	55.9	97
HORIZON	104G	77	45	.	.	1	54.9	104
HORIZON	106D	77	42	.	.	4	55.5	95
HORIZON	108D	77	45	.	.	2	53.8	102
WAC	694G	77	47	.	.	0	54.1	86
ASGROW	MUSTANG	78	40	.	.	0	56.1	85
PAYMASTER	1099	78	40	.	.	0	55.8	75
-----	NE EXP. 793696	79	42	.	.	0	53.0	89
CARGILL	55	79	45	.	.	0	54.2	82
WAC	D701G	79	46	.	.	1	53.5	91
WAC	710DR	79	43	.	.	2	55.2	100
-----	NE EXP. 793695	80	37	.	.	1	52.8	80
FUNK	G-1660	80	42	.	.	0	54.4	91
HORIZON	101G	80	39	.	.	0	55.5	72
-----	RS 671	81	41	.	.	0	51.3	66
AVERAGE ALL ENTRIES		73.9	42.8			2.4	57.4	101.0
DIF. REQ. FOR SIG. 5%		2.4	2.3			6.5	1.6	20.2
25%		1.4	1.4			3.8	1.0	11.8

Planted June 3

TABLE 2B. 1981-1983. 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	68	50	.	.	2	59.6	108
CARGILL	30	69	46	.	.	3	58.4	97
-----	RS 626	70	45	.	.	10	58.5	102
DEKALB	DK-42	70	44	.	.	3	58.9	107
FONTANELLE	4455	70	49	.	.	6	59.1	108
NORTHRUP KING	2030	70	42	.	.	1	59.8	104
-----	MARTIN	71	45	.	.	5	60.0	73
ASGROW	CORRAL	71	50	.	.	6	59.4	111
FONTANELLE	5547	71	49	.	.	8	59.2	106
MC CURDY	M637	71	47	.	.	4	59.7	113
NC+	160	71	49	.	.	4	60.1	114
NORTHRUP KING	2244	71	43	.	.	6	58.9	107
WAC	652G	71	48	.	.	4	59.8	120
WARNER	W-655T	71	49	.	.	3	59.1	108
DEKALB	DK-57	72	47	.	.	1	58.4	99
DEKALB	DK-58	73	47	.	.	4	57.2	95
PAG	5514	73	44	.	.	2	56.6	103
CARGILL	60	74	43	.	.	3	56.3	100
DEKALB	DK-42Y	74	45	.	.	0	58.5	94
ASGROW	TOPAZ	75	47	.	.	1	58.5	103
CARGILL	70	76	43	.	.	1	56.9	101
HORIZON	104G	76	48	.	.	4	57.1	105
WAC	D701G	76	50	.	.	4	55.9	105
-----	RS 671	77	46	.	.	6	54.9	85
ASGROW	MUSTANG	77	44	.	.	0	57.4	91
HORIZON	101G	77	42	.	.	1	57.1	86
AVERAGE ALL ENTRIES		72.5	46.2			3.5	58.2	101.7
DIF. REQ. FOR SIG.	5%	2.5	2.8			N.S.	2.5	N.S.
	25%	1.4	1.6			N.S.	1.4	12.4

TABLE 2C. ZONE B. 1978-1983. 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								
CARGILL	30	69	44	.	.	3	57.5	91
-----	RS 626	70	43	.	.	10	56.5	93
NORTHRUP KING	2030	70	40	.	.	1	57.8	95
ASGROW	CORRAL	71	48	.	.	6	58.1	106
FONTANELLE	5547	71	47	.	.	8	58.6	100
NC+	160	71	47	.	.	4	59.4	105
WAC	652G	71	47	.	.	4	58.2	108
WARNER	W-655T	71	46	.	.	3	58.0	101
-----	MARTIN	73	43	.	.	5	58.5	68
DEKALB	DK-57	73	45	.	.	1	57.4	100
CARGILL	60	74	42	.	.	3	56.5	96
DEKALB	DK-42Y	74	43	.	.	0	58.0	97
DEKALB	DK-58	74	45	.	.	4	57.0	94
PAG	5514	74	42	.	.	2	56.0	99
ASGROW	TOPAZ	76	44	.	.	1	57.7	101
-----	RS 671	77	43	.	.	6	54.7	87
ASGROW	MUSTANG	77	42	.	.	0	57.0	89
CARGILL	70	77	42	.	.	1	56.2	95
WAC	D701G	77	47	.	.	4	55.1	102
HORIZON	101G	78	40	.	.	1	56.1	85
AVERAGE ALL ENTRIES		73.4	44.0			3.4	57.2	95.6
DIF. REQ. FOR SIG.	5%	2.0	1.8			N.S.	2.2	17.4
	25%	1.2	1.0			N.S.	1.2	10.1
FOUR-YEAR AVERAGE								
-----	RS 626	71	43	.	.	28	56.6	86
CARGILL	30	71	44	.	.	28	57.9	88
NORTHRUP KING	2030	71	40	.	.	13	57.9	90
ASGROW	CORRAL	72	47	.	.	35	58.1	97
FONTANELLE	5547	72	47	.	.	24	58.7	94
WARNER	W-655T	72	46	.	.	28	57.9	92
-----	MARTIN	73	44	.	.	22	58.3	66
DEKALB	DK-57	74	46	.	.	24	57.8	99
CARGILL	60	75	42	.	.	25	55.8	89
PAG	5514	75	42	.	.	22	55.7	91
-----	RS 671	77	44	.	.	29	54.7	82
ASGROW	TOPAZ	77	45	.	.	22	58.2	94
ASGROW	MUSTANG	78	42	.	.	16	57.2	81
CARGILL	70	78	43	.	.	18	56.7	91
HORIZON	101G	78	41	.	.	19	56.6	80
AVERAGE ALL ENTRIES		74.3	43.7			23.5	57.2	88.0
DIF. REQ. FOR SIG.	5%	2.0	2.1			N.S.	1.8	13.2
	25%	1.2	1.2			7.8	1.1	7.6
FIVE-YEAR AVERAGE								
-----	RS 626	72	42	.	.	29	56.6	79
-----	MARTIN	74	42	.	.	19	58.4	63
PAG	5514	76	41	.	.	21	55.8	85
ASGROW	TOPAZ	77	42	.	.	18	58.3	84
HORIZON	101G	77	40	.	.	20	56.9	76
-----	RS 671	78	43	.	.	26	55.0	77
ASGROW	MUSTANG	78	40	.	.	15	57.4	76
AVERAGE ALL ENTRIES		76.0	41.4			21.1	56.9	77.1
DIF. REQ. FOR SIG.	5%	2.1	1.8			N.S.	1.6	N.S.
	25%	1.2	1.0			5.3	1.0	7.8

Stalk lodging - no 1980 data.

TABLE 3A. ZONE C. SUMMARY. CHEYENNE COUNTY, BLACK AND ECOFALLOW. 1983.

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 EXPERIMENTS							
-----	RS 455	68	50	.	.	20	56.0	57
DEKALB	DK-18	68	41	.	.	4	53.5	88
DEKALB	DK-28	70	37	.	.	0	51.6	86
NORTHRUP KING	1210	70	38	.	.	12	52.8	70
DEKALB	DK-38	72	47	.	.	4	53.2	84
FONTANELLE	2233	72	37	.	.	0	54.7	90
PAG	2250	72	39	.	.	0	53.9	82
WARNER	WX-83108	72	41	.	.	2	54.9	75
WARNER	WX-9181	72	39	.	.	2	52.5	79
CARGILL	22	73	41	.	.	0	56.3	75
PAYMASTER	930	74	41	.	.	0	54.2	83
FONTANELLE	3345	76	43	.	.	6	53.7	78
MC CURDY	M444	76	40	.	.	0	53.5	78
WARNER	WX-83107	76	42	.	.	0	51.7	73
CARGILL	30	77	42	.	.	0	52.6	70
FUNK	G-1460	77	44	.	.	0	53.1	85
NORTHRUP KING	1580	77	42	.	.	0	54.2	78
PAYMASTER	1022	78	42	.	.	0	53.5	86
ASGROW	CORRAL	79	47	.	.	0	52.1	81
FUNK	HW5883	79	39	.	.	0	51.5	83
WAC	652G	79	45	.	.	0	51.4	83
NC+	160	80	47	.	.	0	51.1	77
CARGILL	40	86	42	.	.	0	49.1	58
HORIZON	108D	91	46	.	.	0	40.4	42
CARGILL	55	94	46	.	.	0	42.0	30
HORIZON	104G	94	45	.	.	0	44.4	32
HORIZON	106D	94	41	.	.	0	40.1	32
WAC	694G	94	48	.	.	0	42.1	29
WAC	710DR	94	43	.	.	0	34.6	33
HORIZON	101G	96	40	.	.	0	41.0	25
WAC	D701G	96	44	.	.	0	34.4	26
AVERAGE ALL ENTRIES		79.9	42.5			1.6	49.7	66.1
DIF. REQ. FOR SIG.	5%	3.3	1.4			6.6	4.0	12.7
	25%	1.9	0.8			3.8	2.3	7.3

Stalk lodging black fallow only.

TABLE 3B. ZONE C. CHEYENNE COUNTY. BLACK FALLOW. 1983.

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
-----	RS 455	74	50	.	.	20	56.2	60
DEKALB	DK-18	74	41	.	.	4	53.7	97
DEKALB	DK-28	76	36	.	.	0	51.3	89
NORTHRUP KING	1210	77	38	.	.	12	52.0	69
FONTANELLE	2233	77	37	.	.	0	54.1	100
WARNER	WX-83108	78	41	.	.	2	56.1	81
WARNER	WX-9181	77	39	.	.	2	52.5	89
DEKALB	DK-38	78	48	.	.	4	53.6	96
PAG	2250	79	39	.	.	0	53.9	89
CARGILL	22	80	41	.	.	0	56.8	82
PAYMASTER	930	81	41	.	.	0	54.9	95
FONTANELLE	3345	82	44	.	.	6	53.5	83
WARNER	WX-83107	83	42	.	.	0	51.8	84
MC CURDY	M444	83	40	.	.	0	54.6	84
CARGILL	30	83	42	.	.	0	52.8	83
FUNK	G-1460	83	44	.	.	0	54.2	99
NORTHRUP KING	1580	84	41	.	.	0	54.4	91
PAYMASTER	1022	85	42	.	.	0	54.4	98
ASGROW	CORRAL	86	47	.	.	0	52.6	95
FUNK	HW5883	86	39	.	.	0	52.4	103
WAC	652G	86	46	.	.	0	51.3	92
NC+	160	87	48	.	.	0	51.5	92
CARGILL	40	93	43	.	.	0	48.1	73
HORIZON	108D	98	46	.	.	0	44.5	54
HORIZON	106D	104	40	.	.	0	42.2	36
CARGILL	55	103	46	.	.	0	43.6	38
HORIZON	104G	103	45	.	.	0	46.6	41
WAC	694G	103	48	.	.	0	44.5	36
WAC	710DR	104	42	.	.	0	34.2	37
HORIZON	101G	104	39	.	.	0	44.3	32
WAC	D701G	105	43	.	.	0	39.5	32
AVERAGE ALL ENTRIES		87.0	42.5			1.6	50.5	75.2
DIF. REQ. FOR SIG.	5%	1.6	1.2			6.6	3.8	12.2
	25%	0.9	1.1			3.8	2.2	7.1

Planted May 23

TABLE 3C. CHEYENNE COUNTY. ECOFALLOW. 1983.

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
-----	RS 455	61	50	.	.	.	55.8	53
DEKALB	DK-18	62	40	.	.	.	53.3	78
DEKALB	DK-28	63	38	.	.	.	52.0	83
NORTHRUP KING	1210	62	38	.	.	.	53.6	71
FONTANELLE	2233	66	37	.	.	.	55.3	79
WARNER	WX-83108	65	40	.	.	.	53.8	69
WARNER	WX-9181	66	38	.	.	.	52.5	68
DEKALB	DK-38	66	46	.	.	.	52.9	72
PAG	2250	65	38	.	.	.	53.9	74
CARGILL	22	66	40	.	.	.	55.9	67
PAYMASTER	930	67	41	.	.	.	53.5	71
FONTANELLE	3345	69	42	.	.	.	53.9	72
WARNER	WX-83107	68	42	.	.	.	51.7	62
MC CURDY	M444	69	39	.	.	.	52.4	72
CARGILL	30	70	42	.	.	.	52.5	57
FUNK	G-1460	70	43	.	.	.	52.0	70
NORTHRUP KING	1580	70	42	.	.	.	54.1	65
PAYMASTER	1022	70	42	.	.	.	52.7	74
ASGROW	CORRAL	71	46	.	.	.	51.6	67
FUNK	HW5883	72	38	.	.	.	50.7	62
WAC	652G	72	44	.	.	.	51.6	74
NC+	160	73	46	.	.	.	50.8	62
CARGILL	40	79	41	.	.	.	50.1	43
HORIZON	108D	83	45	.	.	.	36.4	29
HORIZON	106D	83	42	.	.	.	38.0	27
CARGILL	55	85	46	.	.	.	40.4	21
HORIZON	104G	85	44	.	.	.	42.2	23
WAC	694G	85	47	.	.	.	39.7	22
WAC	710DR	84	43	.	.	.	35.1	28
HORIZON	101G	87	40	.	.	.	37.8	18
WAC	D701G	87	45	.	.	.	29.3	19
AVERAGE ALL ENTRIES		72.3	42.0				48.9	56.5
DIF. REQ. FOR SIG. 5%		72.3	1.6				3.5	8.3
25%		0.9	0.9				2.0	4.9

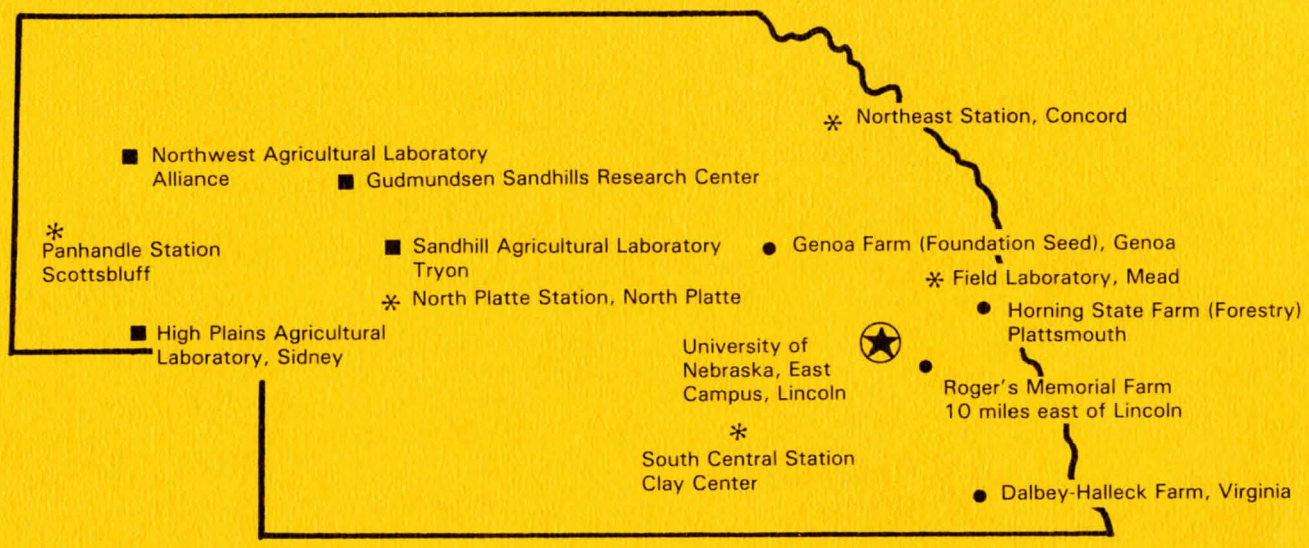
Planted June 10

TABLE 3D. ZONE C. 1978-1983. 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								
-----	RS 455	79	49	.	17	20	55.9	58
NORTHRUP KING	1210	82	39	.	19	12	54.0	79
DEKALB	DK-38	85	46	.	24	4	52.6	89
CARGILL	30	89	43	.	25	0	52.0	80
HORIZON	101G	111	40	.	35	0	42.8	29
AVERAGE ALL ENTRIES		89.2	43.4		24.0	7.2	51.5	67.0
DIF. REQ. FOR SIG. 5%		6.6	3.8		5.2	6.6	4.2	13.8
25%		3.2	1.8		3.1	3.8	2.0	6.6
THREE-YEAR AVERAGE								
-----	RS 455	74	47	.	14	14	56.0	48
NORTHRUP KING	1210	77	37	.	15	9	55.1	66
CARGILL	30	85	40	.	20	0	53.8	66
AVERAGE ALL ENTRIES		78.7	41.3		16.3	7.7	55.0	50.0
DIF. REQ. FOR SIG. 5%		2.2	3.6		5.6	N.S.	N.S.	13.7
25%		1.1	1.7		2.1	6.8	N.S.	6.6
FOUR-YEAR AVERAGE								
-----	RS 455	73	45	.	14	14	56.2	47
CARGILL	30	86	39	.	20	0	52.9	59
AVERAGE ALL ENTRIES		79.5	42.0		17.0	7.0	54.6	53.0
DIF. REQ. FOR SIG. 5%		6.4	3.6		N.S.	N.S.	N.S.	N.S.
25%		2.9	1.6		3.9	N.S.	2.4	9.9
FIVE-YEAR AVERAGE								
-----	RS 455	75	45	.	15	11	55.5	47

Early moist is harvest moisture 1978, 1980, 1981.
Stalk lodging 1978, 1980, 1983.

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 Extension 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.