

1989

EC89-106 Nebraska Grain Sorghum Hybrid Tests 1989

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NEBRASKA GRAIN SORGHUM HYBRID TESTS

1989

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NEBRASKA GRAIN SORGHUM HYBRID TESTS

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This circular is a progress report of grain sorghum trials conducted to obtain yield and other information for some of the hybrids being marketed. The 1989 season was the 32nd that private hybrids were included in extensive trials. Seed producers supported tests through payment of fees.

Cooperating were the Agronomy Department and the South Central, West Central and Panhandle Research and Extension Centers. Acknowledgment is made to Extension Agents

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NEBRASKA GRAIN SORGHUM HYBRID TESTS

1989

Recent grain sorghum acreage and yields for Nebraska were as follows:

	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
Yield bu/A	73.0	61.0	64.0	80.0	89.0	90.0	76.0	62.0
Acres (000)	1,760	1,000	1,900	1,930	1,570	1,220	1,360	1,650

Conditions were favorable and grain sorghum planting proceeded rapidly. On June 11, 96% of the crop was planted and the 5-year average is 88%. Very stressful drought conditions prevailed during the summer. July 16, 1% of the acreage was headed, July 30, 20% of the acreage headed as compared to 57% last year and 5-year average of 45%.

Harvest was slower than normal. October 1, harvest was at 8% as compared to 31% last year, the 5-year average is 50%. November 12, harvest was 99% complete, the same as last year. The 5-year average is 93%. Harvest proceeded at a good rate because of dry fall conditions.

PROCEDURE

Locations of trials are shown on the map (page 3). Names of cooperators are shown in Table A. Entrants and entries are shown in Tables B and C, respectively.

Seed for testing was furnished by the entrant. In each trial, entries were seeded at equivalent seeding rates on a live-seed basis. Seeding rates varied with location as shown in Table D. Seeding was accomplished with cone or belt units mounted on commonly used row planters. Two-row plots, 20 to 30 feet long were used.

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 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. Reported yields are based on 56 pounds per bushel and 14 percent grain moisture.

Entries in data tables are listed in order of decreasing yield. There are variations in maturity among trials and over years. Maturity is listed as Plant Bloom Days or days from planting to bloom. 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 1989 test location is shown in Table D. All tests were machine harvested this year. The maturity yield correlation (r value) is an indication of the relationship between maturity (as measured by days from planting to bloom) and grain yield.

The average performance of hybrids included in trials over a five-year period is shown in Table E. These data indicate the effect of seasonal growing conditions on the characters measured. Stalk lodging data are included only for experiments where differentials among hybrids were observed.

Zone A (Tables 1 to 4)

Seventy-eight entries were planted at two locations in Zone A. In Lancaster County, yields were good (114 bu/A ave. on dryland) despite the drouth and chinchbugs. The chinchbug problem was caught in the early stages and was sprayed with a Hi-Boy sprayer.

The Clay County test had an average of 94.2 bu/A which was not too bad for the hot, dry summer.

Zone B (Tables 5 to 9)

A total of 38 entries were tested at three locations in the zone. In Lincoln County there was a very high correlation between earliness and yield. Many late hybrids were very immature when hit by a light frost September 13, and a killing frost on September 23. The crop had been delayed by drouth stress during the growing season and cool conditions in

the fall. The crop was responding well to late season moisture until it was cut off by frost.

The Chase County test was very dry upon planting but timely rains helped. Early fall frost prevented many varieties from reaching maturity. Earlier planting may have helped. Only the main head produced any grain.

Hitchcock County test was completely destroyed by hail on June 28. The yield trial was the result of regrowth.

Zone C (Tables 16 to 20)

Twenty-two entries were planted on black and ecofallow in Cheyenne County. Extreme hot, dry weather in early summer injured the crop mainly by delaying maturity. Rain in August caused plant size to be at least average, but frost September 12 injured the plants enough so it did not mature completely. Cheyenne County (black) was harvested in two days, waiting to harvest the second half made quite a difference in moisture.

Cultural Practices.

Lancaster (dryland): Cropping history: milo since 1987. Herbicides used were Igran 1.6 qts. + Atrazine Nine-0 1.1 lbs. Insecticide used for chinchbugs was Sevin 80S Carbaryl sprayable powder at 3 lbs./A. The fertilizer used was 110 lbs. of Anhydrous. This test was cultivated one time.

Clay (irrigated): Previous crop was soybeans. Herbicides used were Ramrod + Atrazine flowable 4 qts./A. 90 lbs. of N was the fertilizer used.

Lincoln (ecofallow): Cropping history: 1987: fallow, 1988: winter wheat. Atrazine + Paraquat were the herbicides used on the stubble and Landmaster preplant. 60 lbs. of N was the fertilizer used.

Chase (ecofallow): Cropping History: 1987: fallow, 1988: winter wheat. Herbicides used were 1 pt. Cyclone + 3.5 qts. Bullet + .72 pt. Banvel + .36 pt. Spreader preplant. Preplant fertilizer put on was 18 gal 28-0-0 and 54 lbs. of N. The fertilizer put on at planting time was 10.5 lbs. of N, 22.6 lbs. of P, 6.35 lbs. of S, and .9 lbs. of Zn.

Hitchcock (ecofallow): Cropping history: 1987: fallow, 1988: winter wheat. Herbicides used for fall treatment on the stubble in 1988 were 2.5 lbs. Atrazine, 54 ounces of Landmaster, and .5 pt. of 6 lb. LV ester 2,4-D. The spring preplant herbicides used were .5 lb. of Atrazine, 1.5 pts. of Dual, .66 pt. of 6 lb. LV ester 2,4-D. The fertilizer put on was 60 lbs. of N.

Cheyenne (black): Cropping history: 1987: wheat, 1988: fallow. Herbicides used were .75 lb. of Atrazine + 3 lbs. of Ramrod. 8 lbs. of N and 26 lbs. of P was the fertilizer used.

Cheyenne (ecofallow): Cropping history: 1987: fallow, 1988: wheat. .75 lb. of Atrazine + .75 lb. Ramrod were the herbicides used. The fertilizer put on at planting time was 8 lbs. of N and 26 lbs. of P. This plot was also side dressed with 50 lbs. of N (Ammonia Nitrate).

METRIC EQUIVALENTS

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

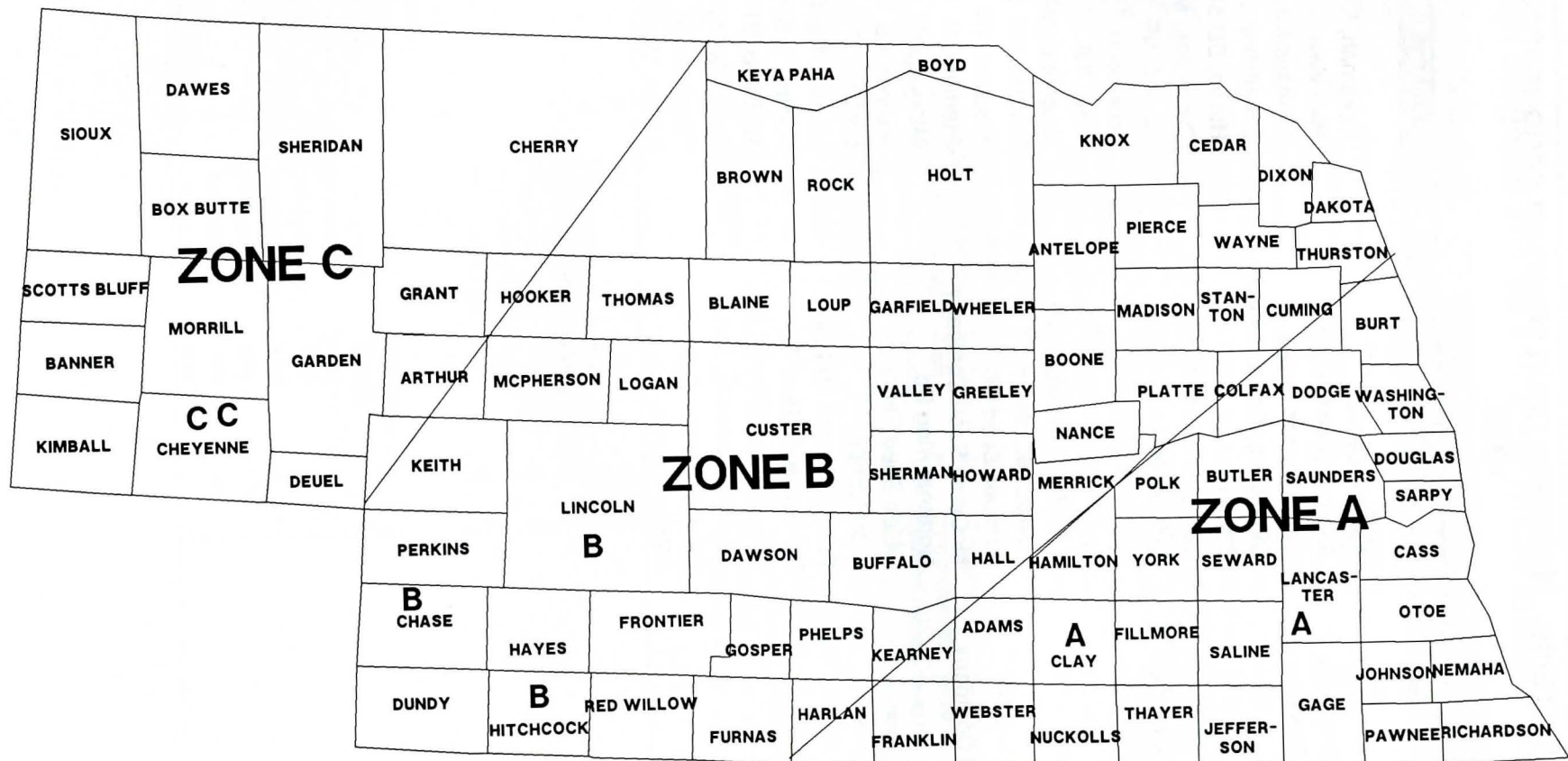
Kilogram/hectoliter (kg/hl) = lb/bu x 1.287
 Kilogram/hectare (kg/ha) = bu/A x 62.78 (56# bushel)

SORGHUM MATURITY ZONES AND LOCATIONS OF NEBRASKA PERFORMANCE TESTS 1989

**Table A. Location and cooperators
Nebraska Grain Sorghum Tests.**

Location	Soil Type/Herbicide	Cooperator
Zone A		
Lancaster (dryland)	Kennebec silt loam Atrazine + Igran	Kevin Lostrah Malcom
Clay (irrigated)	Hastings silt loam Ramrod + Atrazine	South Central REC Clay Center
Zone B		
Lincoln (ecofallow)	Hall silt loam Atrazine + Parquat on stubble Landmaster PP	West Central REC North Platte
Chase (ecofallow)	Ascalou fine sandy loam Cyclone + Bullet + Banvel + Spreader	Jeff Pribbeno Imperial
Hitchcock (ecofallow)	Keith-Goshen silt loam Atrazine + Dual + 6# LV 2,4-D	Warren Harrison Stratton
Zone C		
Cheyenne (ecofallow)	Keith silt loam Atrazine + Ramrod	High Plains Ag. Lab. Sidney
Cheyenne (black)	Keith silt loam Atrazine + Ramrod	High Plains Ag. Lab. Sidney

Locations of 1989 Sorghum Tests



**Table B. Entrants. Nebraska grain sorghum performance tests.
1989.**

Brand	Entrant	Address
AgriPro	AgriPro Seeds	Tekamah, NE 68061
Asgrow Seed Company	Asgrow Seed Company	Plainview, TX 79072
Cargill Hybrid Seeds	Cargill Hybrid Seeds	Minneapolis, MN 55440
Ciba-Geigy	Ciba-Geigy Seed Division	Greensboro, NC 27419
ContiSeed	ContiSeed	Huron, SD 57350
Dahlgren	Dahlgren and Company, Inc.	Crookston, MN 56716
DeKalb-Pfizer Genetics	DeKalb-Pfizer Genetics	Glenvil, NE 68941
Fontanelle Hybrids	Fontanelle Hybrids	Nickerson, NE 68044
Golden Acres	Taylor-Evans Seed Co.	Tulia, TX 79088
Golden Harvest	J.C. Robinson Seed Co.	Waterloo, NE 68069
Horizon	Horizon Seeds	Lincoln, NE 68501
Jacques	Jacques Seed Co.	Prescott, WI 54021
McCurdy Seed Company	McCurdy Seed Company	Fremont, IA 52561
Northrup King	Northrup King Co.	Minneapolis, MN 55440
Ohlde	Ohlde Seed Farms	Palmer, KS 66962
Oro Hybrids	Oro Hybrids	Lubbock, TX 79404
Pioneer	Pioneer Hibred Int'l., Inc.	Lincoln, NE 68505
S-Brand	Schechinger Seed Co.	Harlan, IA 51537
Super Crost	Edw. J. Funk & Sons, Inc	Kentland, IN 47951
Triumph	Triumph Seed Co., Inc.	Ralls, TX 79357
Warner Seed	George Warner Seed Co.	Hereford, TX 79045
Wilson	Wilson Hybrids, Inc.	Harlan, IA 51537

Table C. Grain sorghum entries and zone where tested. 1989.

Brand	Hybrid	Zone	Brand	Hybrid	Zone	Brand	Hybrid	Zone
AGRIPRO	AP940G	A	FONTANELLE	G-5590	A	PIONEER	8855	C
AGRIPRO	AP965G	AB	FONTANELLE	W-5000	A	S-BRAND	SM76	A
AGRIPRO	AP979G	A	FONTANELLE	GE-5571	A	S-BRAND	SM72C	A
AGRIPRO	TEK1094R	A	FONTANELLE	GE-4457	AB	S-BRAND	EXP. 15	A
AGRIPRO	AP984G	A	FONTANELLE	G-4455	B	S-BRAND	SM69	A
AGRIPRO	AP985G	A	GOLDEN ACRES	T-E DINERO	A	S-BRAND	SM67	A
ASGROW	OSAGE	A	GOLDEN ACRES	T-E Y101-G	A	SUPER CROST	SC 28	A
ASGROW	TOPAZ	A	GOLDEN ACRES	T-E 76	A	SUPER CROST	SC 30	A
ASGROW	GS712	A	GOLDEN ACRES	T-E Y-50	B	TRIUMPH	TR 46	C
ASGROW	XP5128	AB	GOLDEN ACRES	T-E Y-60	AB	TRIUMPH	TWO 48yG	C
ASGROW	X6038	A	GOLDEN ACRES	T-E Y-75	A	TRIUMPH	TR 50yG	C
ASGROW	SENECA	BC	GOLDEN ACRES	T-E Y-77	A	TRIUMPH	TR 56yG	B
ASGROW	MADERA	C	GOLDEN ACRES	T-E 20	C	TRIUMPH	TR 65-G	A
CARGILL	5572	A	GOLDEN ACRES	T-E 35	B	TRIUMPH	TR 74CR	AB
CARGILL	847	A	GOLDEN ACRES	T-E X490	A	TRIUMPH	TWO 70-D	B
CARGILL	575	A C	GOLDEN ACRES	T-E EMPIRE	B	TRIUMPH	TWO 80-D	A
CARGILL	X41218	ABC	GOLDEN HARVEST	H-520	A	WARNER SEED	Wx89028	A C
CARGILL	X15240	A	GOLDEN HARVEST	H-444W	A	WARNER SEED	W-917-E	A
CARGILL	630	ABC	HORIZON	114G	A	WARNER SEED	Wx88103	C
CARGILL	70	A	HORIZON	76G	A	WARNER SEED	W-695-E	B
CARGILL	X31070D	A	JACQUES	377-W	B	WARNER SEED	Wx89018	BC
CARGILL	40	BC	JACQUES	411	B	WARNER SEED	W-632-W	AB
CARGILL	X31010C	BC	JACQUES	606E	A	WARNER SEED	Wx89030	B
CARGILL	577	C	JACQUES	477-W	A	WARNER SEED	W-844-E	A
CIBA-GEIGY	G-1655	A	MCCURDY	M410	BC	WARNER SEED	W-876 DR	A
CIBA-GEIGY	G-1616	A	MCCURDY	M550	AB	WILSON	521	A
CIBA-GEIGY	G-1607	A	MCCURDY	M689	A			
CIBA-GEIGY	G-1492	B	MCCURDY	M737	AB			
CIBA-GEIGY	G-1460A	B	MCCURDY	M745	A			
CIBA-GEIGY	G-550E	B	NORTHRUP KING	KS 710	A			
CONTISEED	RUSTLER	A	NORTHRUP KING	KS 714 Y	A			
CONTISEED	PRONTO	C	NORTHRUP KING	KS 737	A			
CONTISEED	SILVERADO	A	NORTHRUP KING	2030	B			
CONTISEED	BANDIT	C	OHLDE	139A	A			
CONTISEED	HONCHO	C	OHLDE	140W	A			
DAHLGREN	DG-40B	A	ORO Hybrids	BARON	A			
DAHLGREN	DG-1699	A	ORO Hybrids	G XTRA	A			
DAHLGREN	DG-1707	A	PIONEER	8358	A			
DEKALB-PFIZER	DK-48	A	PIONEER	8379	A			
DEKALB-PFIZER	DK-40	B	PIONEER	8493	A			
DEKALB-PFIZER	DK-37	B	PIONEER	8500	AB			
DEKALB-PFIZER	X-832	B	PIONEER	8695	B			
DEKALB-PFIZER	DK-41Y	B	PIONEER	8790	C			

'Table D. Grain sorghum. Average performance at each test location. 1989.

Location	Planted	Planting to bloom days	Plant height inches	Head exertion inches	Test weight lb/bu	Grain yield bu/A	Maturity yield correlation r ¹
Zone A (78 entries)							
Lancaster	May 30	73.0	43.3	2.8	59.6	133.7	0.10
Clay (irrigated)	May 31	78.1	53.8	5.7	56.4	94.2	-0.38**
Average 2 tests	-----	75.6	48.6	4.3	58.0	114.0	-0.1
Zone B (38 entries)							
Lincoln (ecofallow)	June 1	78.6	-----	---	53.4	72.9	-0.83**
Chase (ecofallow)	May 31	-----	46.5	---	48.6	30.2	-0.76**
Hitchcock (ecofallow)	June 1	-----	45.1	---	43.6	12.3	-0.51**
Average 3 tests	-----	78.6	45.8	---	48.5	38.5	-0.83**
Zone C (22 entries)							
Cheyenne (black)	June 4	80.3	42.0	---	38.0	13.1	-0.89**
Cheyenne (ecofallow)	June 4	85.7	38.0	---	35.0	2.6	-0.87**
Average 2 tests	-----	83.0	40.0	---	36.5	7.9	-0.93**

¹ 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.
Five years.

Zone and year	Planting bloom days	Plant height inches	Head exsertion inches	Early-grain moisture %	Stalk lodging %	Test weight bu/A	Grain yield
Zone A (17 entries)							
1985	75.7	48.5	4.5	32.9	21.2	54.7	109.3
1986	68.6	49.0	3.6	20.8	4.1	58.1	146.8
1987	64.2	46.8	4.0	36.4	----	59.7	132.9
1988	73.1	44.0	1.8	51.5	6.3	35.1	104.9
1989	75.8	47.8	4.1	----	20.4	57.5	111.1
Five-year average	71.2	47.2	3.6	35.4	13.0	53.0	121.0
Zone B (7 entries)							
1985	82.1	----	---	----	3.6	52.0	67.3
1986	69.3	44.4	---	18.1	0.1	54.9	103.6
1987	68.3	----	---	----	2.9	55.6	69.1
1988	74.1	44.0	---	----	---	59.8	141.3
1989	79.8	46.9	---	----	4.3	48.2	32.8
Five-year average	74.7	45.1	---	18.1	2.7	54.1	82.5
Zone C (3 entries)							
1985	94.7	33.0	---	----	4.7	42.0	20.3
1986	82.7	37.7	---	20.3	---	52.5	56.3
1987	85.7	35.0	---	14.7	---	49.8	54.3
1988	74.7	36.7	---	----	---	53.9	54.7
1989	82.3	36.7	---	----	---	41.6	8.7
Five-year average	84.0	35.8	---	17.5	4.7	48.0	38.9

TABLE 1. ZONE A SORGHUM TEST. LANCASTER COUNTY. 1989.

BRAND	HYBRID	GRAIN YIELD BU/A	PLANT BLOOM DAYS	PLANT HEIGHT INCHES	HEAD EXSERT INCHES	TEST WEIGHT LB/BU	SEEDS/ POUND X 10
S-BRAND	SM69	163	74	50	2	59.8	1384
CIBA-GEIGY SEED	G-1616	160	73	51	3	58.9	1552
TRIUMPH	TWO 80-D	159	74	46	3	59.7	1659
FONTANELLE	5590	158	74	46	2	59.5	1579
ORO	BARON	156	74	46	2	60.1	1715
AGRIPRO	AP985G	154	75	45	2	59.5	1621
S-BRAND	SM76	154	73	45	2	59.8	1598
ORO	G XTRA	152	76	45	2	59.1	1557
NORTHRUP KING	KS737	151	72	43	5	60.1	1926
ASGROW	GS712	150	76	44	2	59.4	1674
ASGROW	OSAGE	149	74	44	2	60.2	1715
CONTISEED	RUSTLER	148	76	44	2	59.4	1676
AGRIPRO	AP979G	148	73	45	2	60.3	1778
WARNER SEED	W-876DR	147	73	48	2	58.9	1400
CARGILL	X15240	146	73	47	4	59.2	1470
PIONEER	8379	146	69	42	2	60.3	1763
GOLDEN ACRES	T-E DINERO	146	77	42	2	58.7	1361
DEKALB-PFIZER	DK-48	146	71	41	3	60.6	1699
GOLDEN ACRES	T-E Y-77	145	75	45	1	59.5	1533
DAHLGREN	DG-1707	143	74	44	2	60.3	1752
GOLDEN HARVEST	H-444W	143	72	46	3	60.2	1683
GOLDEN ACRES	T-E Y-60	143	69	48	4	59.7	1799
GOLDEN ACRES	T-E 76	142	74	42	1	59.3	1685
NORTHRUP KING	KS710	142	70	40	3	60.3	1754
CIBA-GEIGY SEED	G-1655	142	71	46	2	60.8	1750
S-BRAND	EXP.15	142	73	43	1	59.8	1660
PIONEER	8493	140	71	41	3	58.5	1640
OHLDE	139A	140	73	43	2	59.1	1534
JACQUES	606E	138	76	43	1	58.9	1618
AGRIPRO	TEK 1094R	137	71	39	3	59.2	1732
WARNER SEED	W-844-E	137	76	42	2	60.5	1733
NORTHRUP KING	KS714Y	136	71	42	4	60.4	1871
SUPER CROST	SC 28	136	71	40	2	59.5	1687
WARNER SEED	W-917-E	136	74	48	3	59.6	1569
FONTANELLE	GE-4457	136	72	45	2	59.6	1724
HORIZON	114G	135	71	43	3	59.5	1552
CARGILL	5572	135	77	44	2	59.3	1488
SUPER CROST	SC 30	135	71	42	4	60.0	1703
MCCURDY	M745	134	77	42	2	60.3	1678
S-BRAND	SM67	134	73	42	3	59.2	1773
(CONTINUED)							

TABLE 1. LANCASTER COUNTY (CONCLUDED)

BRAND	HYBRID	GRAIN YIELD BU/A	PLANT BLOOM DAYS	PLANT HEIGHT INCHES	HEAD EXSERT INCHES	TEST WEIGHT LB/BU	SEEDS/ POUND X 10
GOLDEN HARVEST	H-520	134	72	42	2	59.3	1721
PIONEER	8358	134	74	45	4	60.4	1881
AGRIPRO	AP940G	134	67	44	4	59.3	1776
CARGILL	847	133	76	45	2	60.3	1736
TRIUMPH	TR 74CR	133	72	48	4	59.9	1722
MCCURDY	M689	133	75	43	2	59.9	1496
CARGILL	X41218	133	69	42	4	59.7	1710
PIONEER	8500	133	70	42	3	60.1	1903
ASGROW	XP6038	133	80	48	4	59.4	1724
CONTISEED	SILVERADO	133	71	41	4	59.9	1826
GOLDEN ACRES	T-E Y-75	132	73	45	2	60.4	1746
-----	FARM ENTRY	132	73	45	2	59.3	1729
ASGROW	TOPAZ	131	76	41	3	60.0	1600
CARGILL	630	131	69	39	2	60.0	1919
DAHLGREN	DG-40B	131	73	40	3	59.3	1724
TRIUMPH	TR 65-G	131	71	42	3	60.1	1927
FONTANELLE	GE-5571	130	75	43	2	60.3	1689
GOLDEN ACRES	T-E X490	127	73	44	4	59.9	1835
GOLDEN ACRES	T-E Y101-G	127	72	38	3	59.0	1738
MCCURDY	M737	127	72	38	3	59.1	1632
MCCURDY	M550	125	67	43	4	57.6	1932
FONTANELLE	W5000	125	72	43	4	59.6	1822
AGRIPRO	AP965G	124	78	45	2	57.8	1442
ASGROW	XP5128	124	76	44	3	60.6	1439
CARGILL	X31070D	123	78	43	2	58.9	1503
CARGILL	70	122	72	38	2	59.8	1556
OHLDE	140W	121	72	42	4	59.9	1666
S-BRAND	SM72C	120	72	42	4	59.8	1756
WARNER SEED	WX89028	119	72	39	3	59.1	1924
DAHLGREN	DG-1699	118	71	44	4	59.9	1787
WILSON	521	115	72	41	4	59.9	1832
-----	RS626	109	69	40	3	57.8	1959
CIBA-GEIGY SEED	G-1607	108	72	42	3	59.6	1745
AGRIPRO	AP984G	103	74	44	5	59.7	1711
WARNER SEED	W-632-W	99	73	43	4	59.6	1671
JACQUES	477-W	92	74	45	4	59.3	1612
CARGILL	575	87	75	45	3	59.4	1581
-----	MARTIN	79	72	35	5	59.2	1727
AVERAGE ALL ENTRIES		134	72.9	43.2	7	59.6	1688
DIF. REQ. FOR SIG. 5%		20	2.7	3.7	1.5	0.8	152
25%		12	1.6	2.2	0.9	0.5	88

TABLE 2. ZONE A IRRIGATED SORGHUM TEST. CLAY COUNTY. 1989.

BRAND	HYBRID	GRAIN YIELD BU/A	PLANT BLOOM DAYS	PLANT HEIGHT INCHES	HEAD EXSERT INCHES	STALK LODGE %	TEST WEIGHT LB/BU
PIONEER	8500	124	72	50	6	3	59.6
TRIUMPH	TR 65-G	119	75	56	4	40	57.9
PIONEER	8379	116	76	48	4	3	58.8
FONTANELLE	GE-4457	114	77	62	4	24	58.1
MCCURDY	M550	110	70	55	11	54	56.2
WARNER SEED	W-917-E	109	81	65	5	34	56.2
DEKALB-PFIZER	DK-48	108	76	50	6	9	58.3
GOLDEN HARVEST	H-444W	108	74	60	7	80	57.4
S-BRAND	SM69	107	80	56	4	26	56.0
PIONEER	8493	107	76	48	4	0	56.9
CIBA-GEIGY SEED	G-1616	106	77	62	5	39	55.9
ASGROW	OSAGE	104	80	55	6	39	56.2
SUPER CROST	SC 28	104	75	49	6	3	57.0
CIBA-GEIGY SEED	G-1655	103	77	55	4	25	59.2
MCCURDY	M737	102	77	49	8	4	55.9
JACQUES	606E	102	81	56	3	8	55.9
GOLDEN ACRES	T-E 76	102	78	50	4	6	53.5
CARGILL	X15240	101	79	56	7	36	55.3
PIONEER	8358	101	81	54	5	13	56.5
GOLDEN ACRES	T-E X490	99	78	55	7	20	56.8
AGRIPRO	AP940G	98	70	56	8	43	57.3
CONTISEED	SILVERADO	98	78	55	8	8	57.0
WARNER SEED	W-876DR	98	77	61	7	38	56.4
GOLDEN HARVEST	H-520	98	78	54	6	13	56.9
JACQUES	477-W	97	79	53	8	19	56.5
AGRIPRO	AP979G	97	79	55	5	25	56.9
SUPER CROST	SC 30	97	78	55	9	36	57.2
GOLDEN ACRES	T-E Y-60	97	72	57	6	54	58.2
HORIZON	114G	97	77	59	8	28	56.9
DAHLGREN	DG-1699	97	77	57	10	19	56.5
S-BRAND	SM76	97	80	56	3	18	55.2
MCCURDY	M689	96	78	48	5	5	56.3
ASGROW	XP5128	96	81	52	7	4	57.1
S-BRAND	SM72C	95	79	53	8	14	56.1
FONTANELLE	W5000	95	78	57	9	24	56.9
ASGROW	TOPAZ	95	78	54	5	11	58.9
NORTHRUP KING	KS714Y	95	77	53	8	20	57.4
AGRIPRO	AP985G	94	82	55	4	24	55.4
ORO	G XTRA	94	81	56	3	21	54.5
CARGILL	630	94	72	49	4	19	58.8

(CONTINUED)

TABLE 2. CLAY COUNTY (CONCLUDED)

BRAND	HYBRID	GRAIN YIELD BU/A	PLANT BLOOM DAYS	PLANT HEIGHT INCHES	HEAD EXSERT INCHES	STALK LODGE %	TEST WEIGHT LB/BU
CARGILL	70	94	79	48	5	3	56.9
AGRI PRO	TEK 1094R	93	76	49	8	16	57.1
CONTISEED	RUSTLER	93	81	54	4	26	54.6
TRIUMPH	TWO 80-D	93	81	55	6	25	55.7
TRIUMPH	TR 74CR	93	77	60	8	73	58.5
WARNER SEED	W-632-W	92	80	53	6	6	55.1
DAHLGREN	DG-40B	92	78	50	6	10	57.1
FONTANELLE	GE-5571	92	80	56	4	29	56.3
NORTHRUP KING	KS737	91	76	55	7	14	57.7
ORO	BARON	91	80	56	4	63	55.7
S-BRAND	SM67	90	76	48	6	4	56.2
WARNER SEED	WX89028	90	77	46	4	6	57.2
GOLDEN ACRES	T-E Y101-G	90	76	47	5	20	57.0
NORTHRUP KING	KS710	89	76	49	6	6	57.4
CARGILL	X41218	89	71	47	6	21	57.5
S-BRAND	EXP.15	89	81	55	4	9	54.7
GOLDEN ACRES	T-E DINERO	88	80	51	4	9	52.0
FONTANELLE	5590	88	81	57	4	25	55.1
WARNER SEED	W-844-E	88	80	55	4	41	56.0
CARGILL	X31070D	87	82	54	4	23	52.9
CARGILL	5572	87	81	55	3	24	54.2
CARGILL	575	87	78	53	6	21	56.5
CIBA-GEIGY SEED	G-1607	87	78	55	8	28	57.0
DAHLGREN	DG-1707	86	81	55	5	29	55.9
WILSON	521	85	78	55	9	13	56.8
MCCURDY	M745	85	80	55	4	21	56.8
AGRI PRO	AP984G	85	80	51	6	24	55.6
GOLDEN ACRES	T-E Y-77	84	82	55	4	19	53.3
OHLDE	139A	84	78	51	5	14	56.3
CARGILL	847	82	81	56	4	24	55.8
OHLDE	140W	82	80	54	8	16	55.5
GOLDEN ACRES	T-E Y-75	81	80	56	5	20	56.2
ASGROW	XP6038	80	88	56	3	8	54.0
AGRI PRO	AP965G	80	82	52	4	6	53.0
-----	FARM ENTRY	76	79	53	7	30	57.5
-----	RS626	76	71	50	5	25	56.1
ASGROW	GS712	76	81	55	4	10	55.0
-----	MARTIN	64	78	51	9	24	57.9
AVERAGE ALL ENTRIES		94	78	54	6	22	56.4
DIF. REQ. FOR SIG. 5%		14	2	3	2.4	29	1.5
25%		9	1	2	1.4	17	0.9

TABLE 3. ZONE A (CONCLUDED).

BRAND	HYBRID	GRAIN YIELD BU/A	PLANT HEIGHT INCHES	HEAD EXSERT INCHES	STALK LODGE %	TEST WEIGHT LB/BU
AGRIPRO	TEK 1094R	115	44	6	16	58.2
GOLDEN ACRES	T-E Y-77	115	50	3	19	56.4
MCCURDY	M689	115	46	4	5	58.1
ASGROW	GS712	113	50	3	10	57.2
TRIUMPH	TR 74CR	113	54	6	73	59.2
WARNER SEED	W-844-E	113	49	3	41	58.3
ASGROW	TOPAZ	113	48	4	11	59.5
CARGILL	630	113	44	3	19	59.4
GOLDEN ACRES	T-E X490	113	50	6	20	58.4
S-BRAND	SM67	112	45	5	4	57.7
OHLDE	139A	112	47	4	14	57.7
DAHLGREN	DG-40B	112	45	5	10	58.2
FONTANELLE	GE-5571	111	50	3	29	58.3
CARGILL	X41218	111	45	5	21	58.6
CARGILL	5572	111	50	3	24	56.8
FONTANELLE	W5000	110	50	7	24	58.3
MCCURDY	M745	110	49	3	21	58.6
ASGROW	XP5128	110	48	5	4	58.9
GOLDEN ACRES	T-E Y101-G	109	43	4	20	58.0
DAHLGREN	DG-1699	108	51	7	19	58.2
S-BRAND	SM72C	108	48	6	14	58.0
CARGILL	70	108	43	4	3	58.4
CARGILL	847	108	51	3	24	58.1
ASGROW	XP6038	107	52	4	8	56.7
GOLDEN ACRES	T-E Y-75	107	51	4	20	58.3
WARNER SEED	WX89028	105	43	4	6	58.2
CARGILL	X31070D	105	49	3	23	55.9
-----	FARM ENTRY	104	49	5	30	58.4
AGRIPRO	AP965G	102	49	3	6	55.4
OHLDE	140W	102	48	6	16	57.7
WILSON	521	100	48	7	13	58.4
CIBA-GEIGY SEED	G-1607	98	49	6	28	58.3
WARNER SEED	W-632-W	96	48	5	6	57.4
JACQUES	477-W	95	49	6	19	57.9
AGRIPRO	AP984G	94	48	6	24	57.7
-----	RS626	93	45	4	25	57.0
CARGILL	575	87	49	5	21	58.0
-----	MARTIN	72	43	7	24	58.6
AVERAGE ALL ENTRIES		114	45	48	4	58.0
DIF. REQ. FOR SIG. 5%		21	2	4	2	1.9
25%		12	1	2	1	1.1

TABLE 4. ZONE A SORGHUM TESTS. 1985 - 1989.

BRAND	HYBRID	GRAIN YIELD BU/A	PLANT BLOOM DAYS	PLANT HEIGHT INCHES	HEAD EXSERT INCHES	STALK LODGE %	TEST WEIGHT LB/BU
2-YEAR AVERAGE							
AGRIPRO	AP985G	123	62	48	2	14	46.6
WARNER SEED	W-876DR	121	60	52	3	27	47.9
TRIUMPH	TWO 80-D	120	61	48	3	14	47.0
ORO	G XTRA	119	62	49	2	12	46.7
DEKALB-PFIZER	DK-48	119	59	45	3	5	47.5
GOLDEN ACRES	T-E Y-77	118	62	48	2	12	46.6
PIONEER	8500	117	56	46	4	3	47.0
FONTANELLE	5590	117	61	49	2	15	47.0
CONTISEED	RUSTLER	117	61	47	2	15	47.0
TRIUMPH	TR 74CR	116	61	51	4	37	48.4
GOLDEN ACRES	T-E Y-60	116	56	50	4	29	47.1
ORO	BARON	116	60	48	2	41	46.3
CIBA-GEIGY SEED	G-1655	115	57	48	2	17	47.2
ASGROW	OSAGE	115	60	48	3	24	46.6
CARGILL	5572	114	62	48	2	13	47.5
MCCURDY	M737	113	59	44	4	3	46.7
SUPER CROST	SC 30	113	60	47	4	19	46.5
AGRIPRO	TEK 1094R	112	59	43	4	9	47.1
OHLDE	139A	112	59	46	2	8	47.4
GOLDEN ACRES	T-E DINERO	112	61	45	2	6	46.2
CONTISEED	SILVERADO	112	60	46	4	4	47.3
DAHLGREN	DG-40B	111	60	44	3	5	47.3
ASGROW	TOPAZ	111	60	46	3	7	47.5
FONTANELLE	W5000	110	61	48	4	13	46.7
GOLDEN ACRES	T-E Y101-G	110	59	42	3	11	46.7
PIONEER	8358	109	60	46	3	19	45.5
MCCURDY	M745	108	60	47	2	24	46.5
AGRIPRO	AP940G	108	54	49	5	24	46.2
FONTANELLE	GE-4457	108	58	51	3	29	46.3
MCCURDY	M689	107	60	44	3	3	46.5
WARNER SEED	W-844-E	107	60	47	3	32	46.4
-----	FARM ENTRY	106	60	47	3	16	46.7
CARGILL	70	106	60	42	2	2	47.6
FONTANELLE	GE-5571	106	59	48	2	29	46.0
AGRIPRO	AP984G	105	62	46	4	12	46.6
AGRIPRO	AP965G	104	62	47	2	5	46.1
GOLDEN ACRES	T-E Y-75	103	59	48	3	24	46.2
CIBA-GEIGY SEED	G-1607	103	61	47	4	14	46.5
CARGILL	630	100	54	44	3	23	46.2
CARGILL	X41218	99	54	45	4	23	46.1
CARGILL	575	99	61	47	3	11	46.6
-----	RS626	84	54	44	4	19	44.9
-----	MARTIN	68	59	43	5	16	40.2
AVERAGE ALL ENTRIES		108	59	47	3	15	46.6
DIF. REQ. FOR SIG. 5%		5	1.2	0.9	0.5	NS	NS
25%		3	0.7	0.5	0.3	4.3	0.8

TABLE 4. ZONE A 1985 - 1989 (PAGE 2).

BRAND	HYBRID	GRAIN YIELD BU/A	PLANT BLOOM DAYS	PLANT HEIGHT INCHES	HEAD EXSERT INCHES	STALK LODGE %	TEST WEIGHT LB/BU
3-YEAR AVERAGE							
TRIUMPH	TWO 80-D	128	63	49	3	14	51.1
WARNER SEED	W-876DR	127	61	51	3	27	51.8
GOLDEN ACRES	T-E Y-77	127	63	49	2	12	50.9
ORO	G XTRA	126	63	49	2	12	50.9
CONTISEED	RUSTLER	125	63	48	2	15	51.0
ASGROW	OSAGE	125	62	48	3	24	51.1
CARGILL	5572	124	63	47	2	13	51.5
ASGROW	TOPAZ	123	61	47	4	7	51.9
DEKALB-PFIZER	DK-48	123	60	45	3	5	51.9
FONTANELLE	5590	120	62	47	3	15	51.2
GOLDEN ACRES	T-E DINERO	120	62	45	3	6	50.4
MCCURDY	M737	120	61	44	4	3	51.1
GOLDEN ACRES	T-E Y-75	119	61	48	3	24	50.9
TRIUMPH	TR 74CR	119	61	50	4	37	52.5
GOLDEN ACRES	T-E Y-60	118	57	50	4	29	51.6
PIONEER	8358	118	62	47	4	19	50.5
FONTANELLE	W5000	118	62	48	5	13	51.1
WARNER SEED	W-844-E	117	61	47	3	32	50.9
AGRIPRO	TEK 1094R	117	60	43	4	9	51.3
MCCURDY	M745	117	62	47	3	24	51.1
MCCURDY	M689	117	61	44	3	3	51.0
AGRIPRO	AP965G	116	63	47	2	5	50.3
GOLDEN ACRES	T-E Y101-G	116	60	42	3	11	51.2
CARGILL	70	113	61	42	3	2	51.9
AGRIPRO	AP940G	113	56	48	5	24	50.8
-----	RS626	91	56	44	4	19	49.1
-----	MARTIN	74	60	43	5	16	46.5
AVERAGE ALL ENTRIES		117	61	47	3	16	50.9
DIF. REQ. FOR SIG. 5%		3.3	0.8	0.7	0.3	NS	NS
25%		1.9	0.5	0.4	0.2	NS	NS
4-YEAR AVERAGE							
WARNER SEED	W-876DR	136	63	52	3	18	53.5
ORO	G XTRA	136	65	50	2	8	52.9
TRIUMPH	TWO 80-D	135	65	49	3	12	53.0
GOLDEN ACRES	T-E Y-77	135	65	50	2	9	52.9
CARGILL	5572	134	64	48	2	10	53.2
ASGROW	OSAGE	133	64	49	3	17	53.2
ASGROW	TOPAZ	132	63	48	4	6	53.9
GOLDEN ACRES	T-E DINERO	128	64	46	3	4	52.0
TRIUMPH	TR 74CR	127	63	50	4	25	54.2
FONTANELLE	W5000	127	64	49	5	9	52.9
GOLDEN ACRES	T-E Y-75	126	63	49	3	18	53.0
AGRIPRO	AP965G	125	64	48	3	3	51.9
WARNER SEED	W-844-E	125	64	48	3	22	52.9

(CONTINUED)

TABLE 4 ZONE A 1985 - 1989 (CONCLUDED).

BRAND	HYBRID	GRAIN YIELD BU/A	PLANT BLOOM DAYS	PLANT HEIGHT INCHES	HEAD EXSERT INCHES	STALK LODGE %	TEST WEIGHT LB/BU
GOLDEN ACRES	T-E Y-60	125	60	51	4	20	53.3
MCCURDY	M737	125	63	44	4	2	52.7
AGRIPRO	TEK 1094R	124	63	44	4	6	53.1
MCCURDY	M689	124	64	46	3	4	53.0
GOLDEN ACRES	T-E Y101-G	122	62	43	3	7	52.8
CARGILL	70	121	63	43	3	1	53.5
AGRIPRO	AP940G	120	58	49	5	19	52.8
-----	RS626	95	58	45	4	19	50.7
-----	MARTIN	81	62	43	5	15	49.3
AVERAGE ALL ENTRIES		124	63	47	4	12	52.7
DIF. REQ. FOR SIG. 5%		2.7	0.6	0.5	0.3	NS	NS
25%		1.5	0.3	0.3	0.2	NS	0.4
5-YEAR AVERAGE							
GOLDEN ACRES	T-E Y-77	133	68	50	3	17	53.3
ORO	G XTRA	133	68	50	2	14	53.3
WARNER SEED	W-876DR	132	66	51	3	31	53.9
TRIUMPH	TWO 80-D	132	68	50	3	22	53.2
ASGROW	OSAGE	131	66	49	4	17	53.7
CARGILL	5572	130	67	49	3	11	53.3
ASGROW	TOPAZ	127	66	48	4	7	54.3
GOLDEN ACRES	T-E DINERO	124	66	46	3	5	52.4
GOLDEN ACRES	T-E Y-75	124	66	49	3	20	53.4
AGRIPRO	AP965G	123	67	48	3	4	52.3
AGRIPRO	TEK 1094R	120	66	44	4	5	53.2
MCCURDY	M737	120	66	45	4	2	52.9
GOLDEN ACRES	T-E Y101-G	118	65	44	4	6	52.9
AGRIPRO	AP940G	118	60	49	5	19	53.4
CARGILL	70	118	66	44	4	1	53.6
-----	RS626	95	60	45	4	22	51.5
-----	MARTIN	81	64	43	6	19	50.5
AVERAGE ALL ENTRIES		121	65	47	4	13	53.0
DIF. REQ. FOR SIG. 5%		2.4	0.5	0.4	0.2	3.8	NS
25%		1.4	0.3	0.2	0.1	2.2	NS

TABLE 5. ZONE B SORGHUM TEST. LINCOLN COUNTY. 1989

BRAND	HYBRID	GRAIN YIELD BU/A	PLANT BLOOM DAYS	STALK LODGE %	TEST WEIGHT LB/BU
PIONEER	8500	100	77	0	56.7
MCCURDY	M410	98	73	1	55.8
CIBA-GEIGY SEED	G-1460A	97	78	0	57.8
-----	NB505	95	71	0	58.3
-----	RS626	92	76	4	53.3
MCCURDY	M550	91	76	1	54.9
FONTANELLE	4455	90	78	2	52.7
WARNER SEED	WX89030	88	77	0	57.4
GOLDEN ACRES	T-E Y-50	86	77	0	52.3
JACQUES	377-W	85	77	0	54.2
CARGILL	X41218	85	78	0	54.3
CARGILL	40	85	78	0	54.9
TRIUMPH	TR 56YG	84	77	0	54.2
WARNER SEED	W-695-E	84	79	0	55.9
CIBA-GEIGY SEED	G-550E	83	79	0	53.4
NORTHRUP KING	2030	83	76	0	58.2
CARGILL	630	83	78	0	53.4
WARNER SEED	WX89018	79	78	0	52.2
CIBA-GEIGY SEED	G-1492	79	80	0	50.4
DEKALB-PFIZER	DK-37	78	77	3	55.0
FONTANELLE	GE-4457	76	79	0	51.0
PIONEER	8695	74	76	0	54.9
CARGILL	X31010C	73	76	0	54.5
DEKALB-PFIZER	X-832	73	79	0	51.2
DEKALB-PFIZER	DK-40	71	79	0	53.0
TRIUMPH	TR 74CR	70	80	0	51.7
GOLDEN ACRES	T-E EMPIRE	69	79	0	56.3
GOLDEN ACRES	T-E Y-60	68	79	0	53.7
ASGROW	Seneca	67	78	0	53.9
JACQUES	411	66	83	0	50.9
GOLDEN ACRES	T-E 35	61	79	0	50.5
DEKALB-PFIZER	DK-41Y	58	80	0	45.6
MCCURDY	M737	50	82	0	46.5
-----	MARTIN	47	79	0	57.3
HORIZON	76G	32	86	0	44.3
TRIUMPH	TWO 70-D	32	84	0	52.4
ASGROW	XP5128	25	86	0	N/A
WARNER SEED	W-632-W	13	84	0	N/A
AVERAGE ALL ENTRIES		53.4	79	0.3	74.4
DIF. REQ. FOR SIG. 5%		3.6	2	2	18.1
25%		2.1	1	1	10.6

TABLE 6. ZONE B SORGHUM TEST. CHASE COUNTY. 1989.

BRAND	HYBRID	GRAIN YIELD BU/A	PLANT BLOOM DAYS	STALK LODGE %	TEST WEIGHT LB/BU
CARGILL	630	59	47	0	52.9
PIONEER	8695	56	40	0	53.5
PIONEER	8500	50	48	0	51.6
DEKALB-PFIZER	DK-37	50	49	0	50.6
NORTHRUP KING	2030	46	39	0	50.2
WARNER SEED	WX89030	45	42	0	49.9
-----	RS626	45	43	5	52.4
WARNER SEED	WX89018	43	48	0	47.8
CIBA-GEIGY SEED	G-1460A	42	51	0	51.0
MCCURDY	M550	42	47	5	48.1
FONTANELLE	4455	40	48	0	49.8
CIBA-GEIGY SEED	G-550E	40	49	2	47.8
JACQUES	377-W	37	48	0	49.5
GOLDEN ACRES	T-E Y-50	36	43	0	46.7
GOLDEN ACRES	T-E Y-60	36	47	0	48.1
-----	NB505	36	45	13	56.2
MCCURDY	M410	35	44	10	53.4
DEKALB-PFIZER	DK-40	35	47	0	43.9
CARGILL	X41218	34	46	0	46.3
TRIUMPH	TR 56YG	34	48	0	46.8
DEKALB-PFIZER	X-832	32	47	0	47.2
ASGROW	Seneca	32	45	0	48.5
GOLDEN ACRES	T-E EMPIRE	31	44	0	45.6
CARGILL	X31010C	31	43	0	46.0
CARGILL	40	30	46	0	45.4
WARNER SEED	W-695-E	27	51	4	49.6
-----	MARTIN	20	48	8	50.2
GOLDEN ACRES	T-E 35	19	46	0	45.2
CIBA-GEIGY SEED	G-1492	18	46	0	45.6
DEKALB-PFIZER	DK-41Y	15	47	0	48.1
TRIUMPH	TR 74CR	14	53	5	44.4
FONTANELLE	GE-4457	13	53	10	46.9
JACQUES	411	7	46	0	46.0
ASGROW	XP5128	4	46	0	49.3
TRIUMPH	TWO 70-D	4	47	0	46.4
WARNER SEED	W-632-W	3	49	0	52.0
MCCURDY	M737	3	45	0	47.1
HORIZON	76G	3	45	0	47.3
AVERAGE ALL ENTRIES		30.3	46.2	1.6	48.6
DIF. REQ. FOR SIG. 5%		13.2	2.9	NS	2.9
25%		7.7	1.7	3.3	1.7

TABLE 7. ZONE B SORGHUM TEST. HITCHCOCK COUNTY.
1989.

BRAND	HYBRID	GRAIN YIELD BU/A	PLANT BLOOM DAYS	STALK LODGE %	TEST WEIGHT LB/BU
CARGILL	X41218	27	45	0	46.7
GOLDEN ACRES	T-E Y-50	24	41	8	42.7
CIBA-GEIGY SEED	G-1460A	23	45	13	48.4
CARGILL	630	22	44	10	45.7
DEKALB-PFIZER	X-832	22	44	1	42.6
PIONEER	8500	21	46	3	46.1
WARNER SEED	WX89030	21	39	15	47.0
MCCURDY	M410	20	46	20	48.7
NORTHRUP KING	2030	19	44	3	42.8
MCCURDY	M550	18	47	8	43.8
ASGROW	Seneca	17	42	0	45.4
WARNER SEED	WX89018	16	48	13	44.3
PIONEER	8695	16	42	0	44.8
TRIUMPH	TR 56YG	15	46	8	43.8
FONTANELLE	GE-4457	14	49	13	45.0
DEKALB-PFIZER	DK-40	14	44	0	41.1
GOLDEN ACRES	T-E EMPIRE	13	42	1	44.2
GOLDEN ACRES	T-E Y-60	13	47	10	44.6
CARGILL	40	13	44	0	40.8
FONTANELLE	4455	12	47	8	44.7
DEKALB-PFIZER	DK-37	11	47	11	43.4
CIBA-GEIGY SEED	G-550E	10	46	30	42.1
CARGILL	X31010C	10	43	15	45.3
DEKALB-PFIZER	DK-41Y	8	46	0	41.3
CIBA-GEIGY SEED	G-1492	8	40	0	39.9
JACQUES	377-W	8	48	39	43.6
WARNER SEED	W-695-E	8	51	45	47.5
-----	NB505	7	46	88	48.7
JACQUES	411	6	44	0	41.7
GOLDEN ACRES	T-E 35	5	42	10	43.0
ASGROW	XP5128	5	47	3	27.6
-----	MARTIN	4	47	3	45.4
-----	RS626	4	43	33	41.7
TRIUMPH	TR 74CR	4	49	16	44.8
MCCURDY	M737	4	45	0	40.8
HORIZON	76G	3	48	8	39.6
TRIUMPH	TWO 70-D	2	45	6	N/A
WARNER SEED	W-632-W	1	45	0	N/A
AVERAGE ALL ENTRIES		13	45	11	43.9
DIF. REQ. FOR SIG. 5%		11	3	22	5.4
25%		7	2	13	8.1
ALL YIELDS ARE REGROWTH AFTER JUNE 28 HAIL STORM.					

TABLE 8. ZONE B SORGHUM TEST. THREE TESTS.
LINCOLN, CHASE, AND HITCHCOCK. 1989.

BRAND	HYBRID	GRAIN YIELD BU/A	PLANT HEIGHT INCHES	STALK LODGE %	TEST WEIGHT LB/BU
PIONEER	8500	57	47	1	51.5
CARGILL	630	55	46	3	50.7
CIBA-GEIGY SEED	G-1460A	54	48	4	52.4
WARNER SEED	WX89030	51	41	5	51.4
MCCURDY	M410	51	45	10	52.6
MCCURDY	M550	50	47	5	48.9
PIONEER	8695	49	41	0	51.1
NORTHRUP KING	2030	49	42	1	50.4
GOLDEN ACRES	T-E Y-50	49	42	3	47.2
CARGILL	X41218	49	46	0	49.1
-----	RS626	47	43	14	49.1
FONTANELLE	4455	47	48	3	49.1
WARNER SEED	WX89018	46	48	4	48.1
-----	NB505	46	46	34	54.4
DEKALB-PFIZER	DK-37	46	48	5	49.7
CIBA-GEIGY SEED	G-550E	44	48	11	47.8
TRIUMPH	TR 56YG	44	47	3	48.3
CARGILL	40	43	45	0	47.0
JACQUES	377-W	43	48	13	49.1
DEKALB-PFIZER	X-832	42	46	0	47.0
WARNER SEED	W-695-E	40	51	16	51.0
DEKALB-PFIZER	DK-40	40	46	0	46.0
ASGROW	Seneca	39	44	0	49.3
GOLDEN ACRES	T-E Y-60	39	47	3	48.8
GOLDEN ACRES	T-E EMPIRE	38	43	0	48.7
CARGILL	X31010C	38	43	5	48.6
CIBA-GEIGY SEED	G-1492	35	43	0	45.3
FONTANELLE	GE-4457	34	51	8	47.6
TRIUMPH	TR 74CR	29	51	7	47.0
GOLDEN ACRES	T-E 35	28	44	3	46.2
DEKALB-PFIZER	DK-41Y	27	47	0	45.0
JACQUES	411	26	45	0	46.2
-----	MARTIN	24	48	4	51.0
MCCURDY	M737	19	45	0	44.8
TRIUMPH	TWO 70-D	13	46	2	49.4
HORIZON	76G	13	47	3	43.7
ASGROW	XP5128	11	47	1	38.5
WARNER SEED	W-632-W	6	47	0	52.0
AVERAGE ALL ENTRIES		38	46	4	48.3
DIF. REQ. FOR SIG. 5%		13	3	NS	3.6
25%		8	2	8	2.1

TABLE 9. ZONE B SORGHUM TESTS. 1985 - 1989.

BRAND	HYBRID	GRAIN YIELD BU/A	PLANT BLOOM DAYS	PLANT HEIGHT INCHES	STALK LODGE %	TEST WEIGHT LB/BU
2-YEAR AVERAGE						
MCCURDY	M410	109	40	45	10	56.3
CIBA-GEIGY SEED	G-1460A	107	45	46	4	56.7
NORTHRUP KING	2030	105	43	41	1	55.5
CARGILL	630	101	45	44	3	55.7
JACQUES	377-W	101	44	47	13	54.9
DEKALB-PFIZER	DK-40	101	47	44	0	53.2
-----	RS626	100	44	43	14	54.5
FONTANELLE	4455	99	45	47	3	54.8
CARGILL	40	99	47	44	0	54.0
PIONEER	8500	99	44	46	1	56.3
PIONEER	8695	99	43	40	0	55.9
GOLDEN ACRES	T-E Y-50	98	44	41	3	53.5
TRIUMPH	TR 56YG	98	45	46	3	54.3
ASGROW	Seneca	96	45	43	0	55.7
WARNER SEED	W-695-E	96	47	49	16	55.9
DEKALB-PFIZER	X-832	95	47	45	0	54.0
FONTANELLE	GE-4457	93	47	49	8	54.3
CIBA-GEIGY SEED	G-1492	92	47	41	0	52.8
GOLDEN ACRES	T-E Y-60	92	46	46	3	55.0
JACQUES	411	90	50	44	0	52.0
GOLDEN ACRES	T-E 35	89	46	43	3	53.6
TRIUMPH	TR 74CR	88	48	49	7	53.5
-----	NB505	85	38	43	34	57.4
DEKALB-PFIZER	DK-41Y	84	47	46	0	53.4
WARNER SEED	W-632-W	81	48	46	0	56.0
MCCURDY	M737	81	49	43	0	52.3
TRIUMPH	TWO 70-D	76	51	45	2	52.8
-----	MARTIN	64	47	45	4	55.1
AVERAGE ALL ENTRIES		93	45	44	4.7	54.6
DIF. REQ. FOR SIG. 5%		NS	0.8	0.7	—	NS
25%		4.4	0.5	0.4	—	NS
3-YEAR						
DEKALB-PFIZER	DK-40	95	54	44	1	54.2
WARNER SEED	W-695-E	94	54	49	10	56.4
JACQUES	377-W	91	51	47	19	55.5
MCCURDY	M410	91	47	45	17	55.2
GOLDEN ACRES	T-E Y-50	90	53	41	1	54.4
-----	RS626	89	50	43	11	53.6
CARGILL	40	88	54	44	1	54.8

(CONTINUED)

TABLE 9. ZONE B 1985 - 1989 (CONCLUDED).

BRAND	HYBRID	GRAIN YIELD BU/A	PLANT BLOOM DAYS	PLANT HEIGHT INCHES	STALK LODGE %	TEST WEIGHT LB/BU
DEKALB-PFIZER	DK-41Y	87	54	46	0	54.2
FONTANELLE	4455	86	51	47	4	55.1
TRIUMPH	TR 56YG	86	52	46	4	54.5
JACQUES	411	84	58	44	1	52.9
GOLDEN ACRES	T-E Y-60	83	52	46	11	55.7
TRIUMPH	TR 74CR	82	55	49	6	54.7
TRIUMPH	TWO 70-D	77	59	45	1	53.8
MCCURDY	M737	72	58	43	0	52.9
-----	NB505	71	45	43	30	56.5
-----	MARTIN	58	54	45	2	55.5
AVERAGE ALL ENTRIES		83	53	45	6.9	54.7
DIF. REQ. FOR SIG. 5%		7.4	1	0.8	3.3	NS
25%		4.2	0.5	0.4	1.4	NS
4-YEAR						
WARNER SEED	W-695-E	101	58	47	7	56.4
JACQUES	377-W	99	55	47	12	55.6
DEKALB-PFIZER	DK-40	98	58	44	0	54.4
CARGILL	40	94	58	44	1	55.5
-----	RS626	93	55	43	7	54.2
TRIUMPH	TR 56YG	92	56	45	3	55.2
FONTANELLE	4455	91	55	47	3	55.6
DEKALB-PFIZER	DK-41Y	90	58	45	0	53.9
GOLDEN ACRES	T-E Y-60	89	56	46	7	56.0
TRIUMPH	TR 74CR	88	59	48	4	54.3
TRIUMPH	TWO 70-D	87	62	45	1	52.8
-----	NB505	75	49	43	20	56.8
-----	MARTIN	64	58	44	2	56.0
AVERAGE ALL ENTRIES		89	57	45	5.1	55.1
DIF. REQ. FOR SIG. 5%		6.1	0.6	0.7	3.6	NS
25%		3.5	0.3	0.4	2.1	0.6
5-YEAR						
CARGILL	40	91	63	44	1	54.7
-----	RS626	88	59	43	8	54.0
FONTANELLE	4455	88	60	47	2	55.5
DEKALB-PFIZER	DK-41Y	85	63	45	0	52.9
TRIUMPH	TR 74CR	85	64	48	6	53.6
TRIUMPH	TWO 70-D	81	67	45	1	52.0
-----	MARTIN	62	62	44	2	55.9
AVERAGE ALL ENTRIES		83	63	45	2.7	54.1
DIF. REQ. FOR SIG. 5%		5.7	0.8	0.8	1.4	NS
25%		3.3	0.5	0.4	0.8	0.6

**TABLE 10. ZONE C SORGHUM TEST.
CHEYENNE COUNTY BLACK FALLOW. 1989.**

BRAND	HYBRID	GRAIN YIELD BU/A	PLANT BLOOM DAYS	PLANT HEIGHT INCHES	TEST WEIGHT LB/BU
MCCURDY	M410	25	78	44	38.5
GOLDEN ACRES	T-E 20	25	68	39	42.1
-----	NB505	24	68	44	47.8
TRIUMPH	TWO 48yG	22	72	36	45.0
PIONEER	8855	22	73	42	40.9
PIONEER	8790	22	72	42	45.0
CARGILL	577	22	76	42	39.3
TRIUMPH	TR 46	21	82	42	37.9
ASGROW	Madera	19	76	41	40.8
TRIUMPH	TR 50YG	17	79	39	43.3
WARNER SEED	WX88103	14	79	39	41.5
CONTISEED	BANDIT	11	77	42	34.5
CARGILL	X41218	10	83	44	27.3
CONTISEED	HONCHO	9	79	46	35.0
CARGILL	630	8	80	43	39.1
CONTISEED	PRONTO	7	85	47	38.7
CARGILL	X31010C	4	86	42	37.1
WARNER SEED	WX89018	3	86	44	36.1
ASGROW	Seneca	2	90	42	35.1
CARGILL	40	1	91	41	N/A
WARNER SEED	WX89028	1	91	42	33.2
CARGILL	575	1	95	41	20.3
AVERAGE ALL ENTRIES		14	80	42	39.0
DIF. REQ. FOR SIG. 5%		5	3	2	5.9
25%		3	2	1	3.5

**TABLE 11. ZONE C SORGHUM TEST.
CHEYENNE COUNTY ECOFALLOW. 1989.**

BRAND	HYBRID	GRAIN YIELD BU/A	PLANT BLOOM DAYS	PLANT HEIGHT INCHES	TEST WEIGHT LB/BU
-----	NB505	11	77	43	40.1
TRIUMPH	TWO 48yG	9	76	34	39.3
GOLDEN ACRES	T-E 20	7	77	35	35.4
CARGILL	577	6	83	40	28.2
PIONEER	8790	6	80	39	36.5
WARNER SEED	WX88103	5	85	36	32.9
TRIUMPH	TR 50YG	3	85	35	38.8
CONTISEED	BANDIT	3	81	38	38.5
PIONEER	8855	3	84	39	40.1
TRIUMPH	TR 46	2	86	39	33.1
MCCURDY	M410	2	84	42	29.2
ASGROW	Madera	1	89	37	28.3
CONTISEED	HONCHO	0	89	39	N/A
WARNER SEED	WX89018	0	94	41	N/A
CARGILL	40	0	**	34	N/A
CARGILL	X41218	0	92	40	N/A
WARNER SEED	WX89028	0	**	36	N/A
CONTISEED	PRONTO	0	92	39	N/A
CARGILL	X31010C	0	91	39	N/A
CARGILL	630	0	90	39	N/A
ASGROW	Seneca	0	94	38	N/A
CARGILL	575	0	**	35	N/A
AVERAGE ALL ENTRIES		3	85	38	35.2
DIF. REQ. FOR SIG. 5%		3	3	4	4.9
25%		2	2	3	2.7
** NOT FLOWERED BY FROST.					

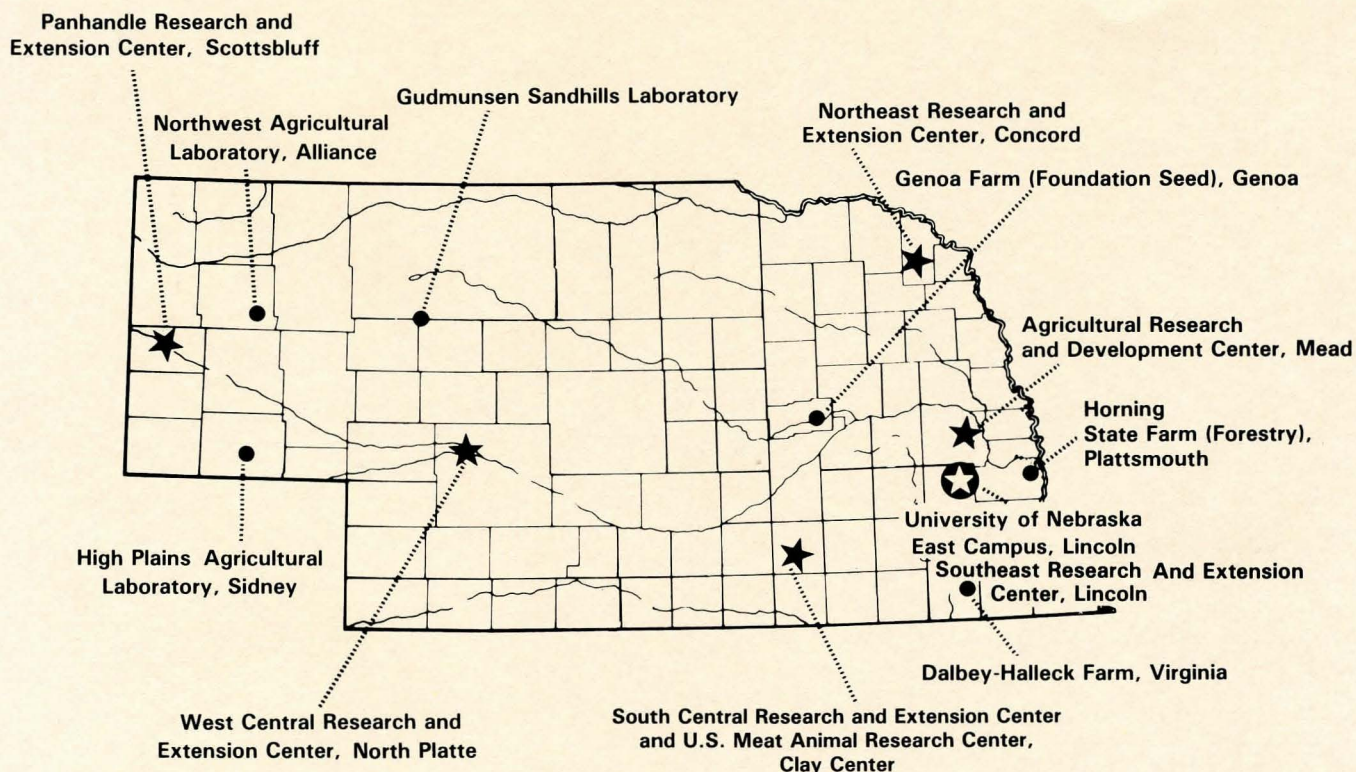
**TABLE 12. ZONE C SORGHUM TESTS. TWO TESTS.
CHEYENNE COUNTY BLACK AND ECOFALLOW. 1989.**

BRAND	HYBRID	GRAIN YIELD BU/A	PLANT BLOOM DAYS	PLANT HEIGHT INCHES	TEST WEIGHT LB/BU
-----	NB505	18	73	44	44.0
GOLDEN ACRES	T-E 20	16	73	37	38.8
TRIUMPH	TWO 48yG	16	74	35	42.2
CARGILL	577	14	80	41	33.8
MCCURDY	M410	14	81	43	33.9
PIONEER	8790	14	76	41	40.8
PIONEER	8855	13	79	41	40.5
TRIUMPH	TR 46	12	84	41	35.5
TRIUMPH	TR 50YG	10	82	37	41.1
WARNER SEED	WX88103	10	82	38	37.2
ASGROW	Madera	10	83	39	34.6
CONTISEED	BANDIT	7	79	40	36.5
CONTISEED	HONCHO	5	84	43	35.0
CARGILL	X41218	5	88	42	27.3
CONTISEED	PRONTO	4	89	43	38.7
CARGILL	630	4	85	41	39.1
WARNER SEED	WX89018	2	90	43	36.1
CARGILL	X31010C	2	89	41	37.1
WARNER SEED	WX89028	1	91	39	33.2
CARGILL	40	1	91	38	N/A
ASGROW	Seneca	1	92	40	35.1
CARGILL	575	1	95	38	20.3
AVERAGE ALL ENTRIES		8	82	40	37.9
DIF. REQ. FOR SIG. 5%		9	8	2	NS
25%		5	4	1	5.0

TABLE 13. ZONE C SORGHUM TESTS. 1985 - 1989.

BRAND	HYBRID	GRAIN YIELD BU/A	PLANT BLOOM DAYS	PLANT HEIGHT INCHES	TEST WEIGHT LB/BU
2-YEAR AVERAGE					
MCCURDY	M410	42	48	42	43.9
CONTISEED	PRONTO	36	54	43	45.5
-----	NB505	36	42	43	50.8
ASGROW	Madera	35	49	38	45.9
TRIUMPH	TWO 48yG	35	43	35	48.9
TRIUMPH	TR 50YG	33	50	37	48.7
GOLDEN ACRES	T-E 20	33	43	37	47.5
TRIUMPH	TR 46	32	50	39	44.7
CARGILL	577	31	47	40	43.8
CARGILL	630	31	52	39	46.9
WARNER SEED	WX88103	30	50	37	45.7
PIONEER	8855	30	45	39	48.8
CARGILL	40	27	58	39	49.8
AVERAGE ALL ENTRIES		33	48	39	46.8
DIF. REQ. FOR SIG. 5%		NS	1.7	1	NS
25%		NS	0.9	0.6	0.9
3-YEAR AVERAGE					
TRIUMPH	TR 50YG	46	62	36	50.5
-----	NB505	46	52	41	53.1
TRIUMPH	TWO 48yG	44	55	34	50.7
TRIUMPH	TR 46	43	61	37	47.1
CARGILL	40	29	69	38	45.3
AVERAGE ALL ENTRIES		41	60	37	49.6
DIF. REQ. FOR SIG. 5%		NS	1.5	1.1	1.6
25%		3.1	0.8	0.6	0.9
4-YEAR AVERAGE					
TRIUMPH	TR 50YG	51	67	37	51.2
TRIUMPH	TR 46	50	65	39	48.4
-----	NB505	46	58	41	53.1
TRIUMPH	TWO 48yG	43	61	34	51.3
CARGILL	40	37	74	39	47.2
AVERAGE ALL ENTRIES		46	65	38	50.4
DIF. REQ. FOR SIG. 5%		NS	1.2	0.9	NS
25%		NS	0.7	0.5	0.9
5-YEAR AVERAGE					
TRIUMPH	TR 50YG	46	72	36	50.6
TRIUMPH	TWO 48yG	39	67	34	50.2
CARGILL	40	31	79	37	43.3
AVERAGE ALL ENTRIES		39	73	36	48.4
DIF. REQ. FOR SIG. 5%		NS	0.9	0.8	1.9
25%		3.2	0.5	0.4	1.0

AGRICULTURAL RESEARCH AND EXTENSION FOR ALL OF NEBRASKA



The Agricultural Research Division of the Institute of Agriculture and Natural Resources is responsible for studies to broaden our basis of knowledge for agricultural production. Research centers and field laboratories provide applied information for development of Nebraska's largest industry — agriculture.

The Cooperative Extension Service transmits data and provides interpretation to users through Extension Agents and Specialists. Extension Agents may be contacted through 85 local Extension offices for additional information 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 less than 15 to more than 35 inches per year, and the soil types vary from sands to heavy clays. The research and extension programs thus are broad in subject matter and geography, resulting in the need for various centers, satellite locations, and local offices.