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EC95-107-A Nebraska Proso, Sunflower, Amaranth, Oat and Spring Wheat Variety Tests 1995

David D. Baltensperger

University of Nebraska-Lincoln, dbaltensperger@tamu.edu

Glen Frickel

Robert Klein

University of Nebraska-Lincoln, robert.klein@unl.edu

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NEBRASKA PROSO, SUNFLOWER, MARANTH, OAT AND SPRING WHEAT VARIETY TESTS

1995

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EXTENSION CIRCULAR 95-107

MARCH 1996

AUTHORS	LOCATION
David Baltensperger	Panhandle Research and Extension Center, Scottsbluff, NE
Glen Frickel	High Plains Agricultural Laboratory, Sidney, NE
Robert Klein	West Central Research and Extension Center, North Platte, NE
James Krall	University of Wyoming Research Center, Torrington, WY
Randy Anderson	USDA Central Great Plains Research Center, Akron, CO
Clair Stymiest	South Dakota State U. Research Center, Rapid City, SD
Jerry Nachtman	University of Wyoming Research Center, Torrington, WY
Lenis Nelson	University of Nebraska Department of Agronomy
David Holshouser	Northeast Research and Extension Center, Concord, NE

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of the Agricultural Research Division and the Cooperative Extension Service.

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METRIC EQUIVALENTS

1 centimeter = 0.394 inches

1 hectare = 2.471 acres

1 kilogram = 2.205 pounds

1 hectoliter = 2.838 bushels

kg/hl = lb/bu x 1.287

cm = inches x 2.541

ha = acres x 0.405

kg = pounds x 0.454

hl = bushels x 0.352

kg/ha = bu/A x 62.71 (56# bu)

DEFINITIONS

CWT = hundred weight

LSD = A statistic (calculated at the 5% probability level in this book) used to compare the difference between two entries for significance. If the difference between two entries is larger than the LSD value at the bottom of each table, it is assumed significant.

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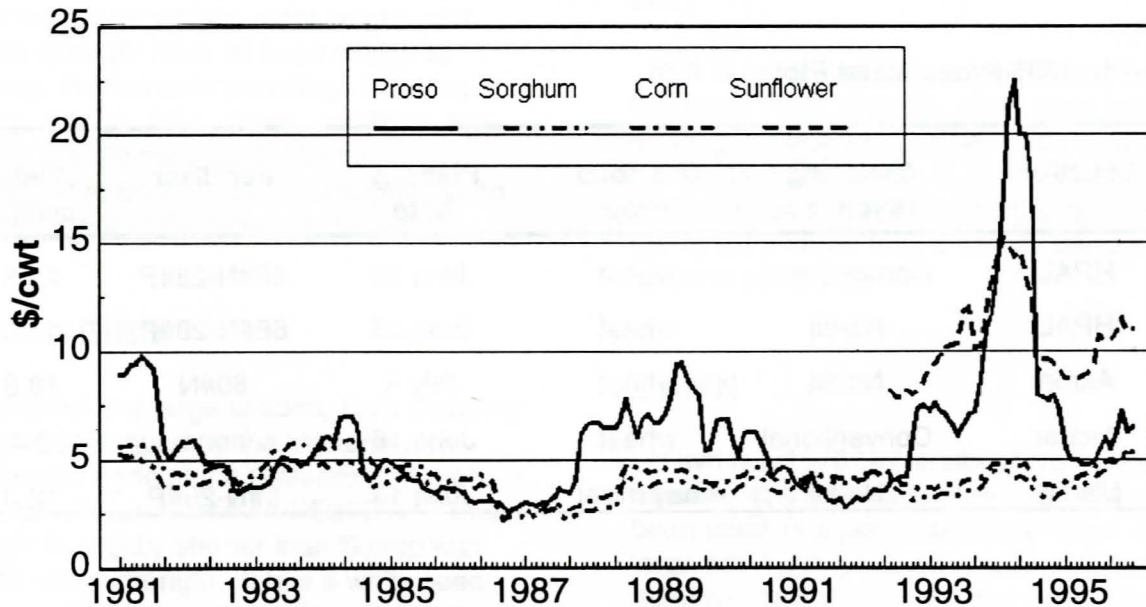
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HISTORIC PRICES OF PROSO MILLET AND SUNFLOWERS COMPARED WITH CORN AND SORGHUM

Price prediction of crops at harvest is less than an exact science at planting with any crop and more so with those not heavily traded in the futures market. Historic price ranges can be a helpful tool in the process. The figure below includes historic proso millet, sunflower, corn and sorghum prices. The corn and sorghum prices are state averages from *EC95-883-G Crop and Livestock Prices for Nebraska Producers*. The proso millet and sunflower prices are from local panhandle elevator posted prices. Sunflower markets in the region became established in the early 1990's so they are only included from 1992 to the present. Proso prices are the most variable of the four crops ranging from a monthly average of less than \$3.00/cwt following a large harvest in 1986 to more than \$22.00/cwt following short harvests back to back in 1992 and 1993. Sunflower prices are less volatile and are tied to the world oil prices. Currently world oil prices are depressed by a strong soybean crush driven by high meal prices. Since 1992 proso millet prices have averaged \$8.60 compared with corn and sorghum prices of \$4.22/cwt and \$3.80/cwt, respectively, and sunflower prices of \$10.50/cwt. Proso millet prices have exceeded sunflowers only for a brief period during the record high proso prices of 1994. Historically, the upward price movement potential for proso millet has been much greater than price increases for corn and sorghum. Often proso millet prices rise rapidly, sometimes more than \$2.00/cwt over a two month time period. Profit opportunities from storing proso appear to be much greater than for storing corn, sorghum, or wheat, especially when proso millet prices are below corn and sorghum prices.

Historic Prices



PROSO VARIETY TRIALS

1995

The 1995 proso test contained 14 white seeded entries. Huntsman, Sunrise, and Earlybird are new releases from the proso breeding program at the Panhandle Research and Extension Center. These

varieties have demonstrated improved yield over other varieties and are larger seeded than Rise. Foundation and certified seed are now available.

DESCRIPTION OF PLOT TECHNIQUES

Five proso variety trials were conducted in 1995. Two were located at the High Plains Agricultural Laboratory (HPAL) near Sidney, Nebraska; one was at the USDA Central Great Plains Research Center at Akron, CO; one was at the University of Wyoming Research and Extension Center at Archer, WY; and one was located on the Kenny Claussen farm near Martin, South Dakota.

The Martin plots were 6' wide and 30' long, and were seeded with a no-till drill with

10" row spacing. The Archer plots were 5' wide and 25' long, planted with a double-disc drill with 9" spacing. The HPAL and Akron plots were seeded with a 6-row drill with 12" spacing. Each plot was 24 feet long and six feet wide. The plots were harvested with a self-propelled plot combine when the variety was mature. Four replications of each variety were planted and harvested.

Table 1. 1995 Proso Millet Plots

Location	Cropping system	Previous crop	Planting date	Fertilizer	Yield cwt/ac
HPAL	Conventional	wheat	June 30	68#N-28#P	12.8
HPAL	No-till	wheat	June 26	68#N-28#P	13.8
Akron	No-till	wheat	July 6	60#N	18.6
Archer	Conventional	wheat	June 16	none	9.4
Martin	No-till	hay millet	June 14	6#N-25#P	12.0

DESCRIPTION OF VARIETIES

SUNRISE

Sunrise is a high yielding, large seeded, mid-maturing line developed cooperatively by the University of Nebraska Agricultural Research Division and the USDA/ARS. It was previously tested as NE860053. It has good straw strength, short plant height, and good test weight. The parentage of Sunrise includes Sunup, Rise, Dawn, Panhandle, Minco, and Minnesota 402. It has a white seed coat. It is expected to be a replacement for Rise and Sunup where they have been grown successfully.

HUNTSMAN

Huntsman is a large seeded, moderately late variety developed cooperatively by the University of Nebraska Agricultural Research Division and the USDA/ARS. It was tested as NE870063. Yield performance, test weight, plant height, and straw strength have all been similar to Sunup. Huntsman's parentage includes Cope, Sunup, Rise, Dawn, and Minn.402. It has a white seed coat. Huntsman is expected to be best adapted to production systems where Cope has done well.

EARLYBIRD

Earlybird is a large seeded, early maturing variety developed by the University of Nebraska Agricultural Research Division. It was previously tested as NE870041. Plant height is slightly shorter than Sunup with good straw strength. It has a white seed coat and larger seed size than most other varieties. Earlybird's parentage includes Rise, Dawn, Panhandle, and Minco. Earlybird is not as early maturing as Dawn, but should be early enough to replace it in most systems.

SUNUP

Sunup is a 1989 release from the University of Nebraska. It is a white seeded variety with good yield potential. Its height is greater than Rise but not as tall as Panhandle. Sunup has good stem strength. Maturity is similar to Rise and Sunrise. Sunup's parentage includes Rise and Dawn. Sunup is currently the most widely grown proso variety in Nebraska.

RISE

Rise is a 1983 University of Nebraska release. It is the result of a Dawn X Minn 402 cross made in 1975. It has had a good yield record. It does not have the large seed size of Sunrise or Earlybird.

NE1

NE1 is a high yielding, mid maturing line. It has good straw strength, short plant height and a good test weight. NE1 was tested as NE 860203. It includes Sunup and Rise in its parentage. It was released as a germplasm rather than a variety because of its small seed size.

DAWN

Dawn is a 1976 University of Nebraska release. It is very early maturing. It has been used as a parent because it has a large seed with good white color that has been well accepted in the bird seed trade.

COPE

Cope is a 1978 Colorado release. It is a late maturing variety. It has yielded well in Nebraska, especially when planted early, but has severe lodging problems.

MINCO

Minco is a joint Colorado-Minnesota release. It is taller and later than Panhandle. It has white seed and produces fair yields.

PANHANDLE

Panhandle is a 1968 University of Nebraska release. It is the first variety selected from the common white proso grown in western Nebraska. It has fair yield compared with newer varieties. It is white seeded.

MINSUM

Minsum is a 1980 release from Minnesota. It is quite early and medium in height. It's most noticeable characteristic is an extremely loose panicle. It has a good yield potential and may have some utility in Nebraska.

ABARR

Abarr is a 1974 release from Colorado. It is a white seeded variety with good yield potential. It is similar to Panhandle, with improved seed type.

SNOWBIRD

Snowbird is a Minnesota release. It is a white seeded variety with an open panicle and early maturity. Yields have been poor in Nebraska.

Table 2. Agronomic characteristics of white-seeded proso millet varieties.

VARIETY	Seed Size	Maturity	Straw Strength	Panicle Type	Height	Test Weight
DAWN	Large	V. Early	Good	Compact	V. Short	Good
NE1	Average	Mid	Good	Compact	Short	Good
EARLYBIRD	Large	Early	Good	Compact	Short	Fair
SUNRISE	Large	Mid	Good	Compact	Short	Good
RISE	Small	Mid	Good	Compact	Average	Fair
HUNTSMAN	Large	Late	Good	Compact	Average	Good
SUNUP	Average	Mid	Good	Compact	Average	Good
SNOWBIRD	Large	Early	Good	Open	Tall	Good
PANHANDLE	Average	Early	Poor	Open	Tall	Good
MINCO	Average	Early	Poor	Open	Tall	Good
COPE	Average	Late	Fair	Compact	V. Tall	Good
MINSUM	Large	Early	Poor	Loose	Average	Fair
ABARR	Large	Mid	Poor	Open	Tall	Fair

Table 3. Proso yields for 1995 variety trials at five locations.

ENTRY	HPAL NO-TILL	HPAL CONV.	AKRON NO-TILL	ARCHER CONV.	MARTIN NO-TILL	AVERAGE
	-----CWT/ACRE-----					
HUNTSMAN	17.1	16.9	21.3	10.2	13.7	15.9
RISE	15.6	15.4	22.1	11.2	14.0	15.7
SUNUP	16.9	18.2	20.4	9.6	13.0	15.6
SUNRISE	15.4	15.3	22.1	6.4	16.8	15.2
NE 1	15.9	13.0	19.8	9.2	15.9	14.8
EARLYBIRD	13.4	13.5	19.5	10.9	15.0	14.5
860214	17.0	10.9	21.6	10.3	11.7	14.3
MINCO	13.5	12.7	16.7	9.9	11.9	12.9
COPE	11.9	14.7	18.1	9.3	10.4	12.9
MINSUM	14.1	9.0	19.6	9.6	9.9	12.5
PANHANDLE	12.2	12.0	16.3	9.5	9.5	11.9
SNOWBIRD	11.5	10.0	15.5	8.0	10.0	11.0
ABARR	8.0	9.4	15.3	8.5	10.1	10.3
DAWN	10.5	7.4	12.3	8.8	6.1	9.0
MEAN	13.8	12.8	18.6	9.4	12.0	13.0
LSD 0.05	2.7	3.6	3.5	2.4	3.4	1.6

Table 4. Agronomic characteristics of entries in 1995 proso trials averaged over five locations.

ENTRY	TEST WT Lbs/Bu	SEEDS /5g	HEIGHT Inches	LODGE %	HEADING days after Aug 1
EARLYBIRD	56.0	833	27	21	18
HUNTSMAN	56.9	885	28	20	20
SUNRISE	56.5	858	27	19	18
SUNUP	56.9	905	29	13	18
ABARR	57.7	823	32	89	15
COPE	56.1	920	35	28	19
DAWN	57.5	845	25	54	14
MINCO	57.6	864	30	44	15
MINSUM	58.2	801	29	83	16
NE 1	57.3	912	27	23	17
PANHANDLE	58.1	879	32	49	14
RISE	56.7	898	28	24	17
SNOWBIRD	57.5	880	30	53	16
860214	56.9	898	27	29	20
MEAN	57.1	871	29	39	17
LSD 0.05	0.4	23	2	14	1

Table 5. Five year yield summary of proso varieties included in test.

VARIETY	5 yr Avg	1995	1994	1993	1992	1991
	-----cwt/acre-----					
860214	22	14	23	22	24	25
RISE	22	16	21	22	24	25
SUNUP	22	16	22	21	24	26
EARLYBIRD	22	14	23	22	21	28
HUNTSMAN	22	16	22	21	24	27
NE 1	22	15	21	25	22	28
SUNRISE	22	15	23	25	22	27
MINCO	18	13	18	21	17	22
COPE	18	13	19	18	21	18
SNOWBIRD	18	11	18	20	17	22
PANHANDLE	17	12	17	17	17	21
DAWN	14	9	14	16	15	15
MINSUM	-	12	14	16	-	-
ABARR	-	10	15	-	-	-
AVERAGE	20	13	19	20	21	24

SUNFLOWER TRIALS - 1995

The 1995 dryland sunflower tests were conducted in Cheyenne County, NE; Hitchcock County, NE; Perkins County, NE; and Laramie County, WY. An irrigated sunflower trial was also conducted in Cheyenne County. Planting was delayed at all locations by wet weather. The Nebraska plots were planted with 30 inch rows, and the Wyoming plot with 14 inch rows. Plots were planted approximately 30 feet long. Each hybrid was replicated four times.

Due to the exceptionally wet weather in June and the unavailability of a suitable fallow field, the Cheyenne County wheat-fallow-sunflower trial was planted into land previously in proso millet, instead of fallow. The plot was located at the High Plains Agriculture Laboratory (HPAL) near Sidney, Nebraska. 2.4 pints/acre Prowl 3.3 and 60 lbs. N were applied preplant. 7 lbs. N and 24 lbs. P starter was applied at planting. Harvest stand was approximately 15,000 plants/acre.

The Cheyenne County wheat-sunflower-fallow trial was also planted at HPAL. 60 lbs. N and 2.4 pints/acre Prowl were applied preplant. 7 lbs. N and 24 lbs. P starter was applied at planting. A July hailstorm reduced the harvest stand to approximately 12,500 plants/acre. Severe October winds and snow caused a large amount of lodging throughout the plot, so it was hand harvested, and the downed plants were picked up and included in the yields.

The Cheyenne County irrigated sunflower trial was planted at HPAL. 60 lbs. N and 2.4 pints/acre Prowl were applied preplant. 7 lbs. N and 24 lbs. P starter was applied at planting. This plot had a harvest stand of approximately 20,500 plants/acre. There was considerable bird damage to some varieties, and they were not harvested.

The Hitchcock County sunflower trial was planted on Kevin Janicek's farm near Wauneta, Nebraska. 50 lbs. N and 1.75 pints/acre Treflan were applied preplant. 19,200 seeds/acre were planted, and a hard rain after planting reduced the harvest stand somewhat.

The Perkins County sunflower trial was planted on Jim Cooper's farm near Grant, Nebraska. A midsummer storm damaged this plot severely, and it was abandoned.

The Laramie County sunflower trial was planted on Stan Butler's farm at Carpenter, Wyoming. 20 lbs. N and 20 lbs. P were applied. After a wet spring, the summer was very dry.

EXPLANATION OF TABLES

In the following tables, "FLWR" refers to the days after Aug 1 that the variety was judged to have half of the flowers open. "HT" is the height of the neck or the head, whichever is greatest, at harvest time. "% over size 20/64" refers to confections, and is the percentage of seed that passes over a 20/64 sieve.

Oil percentage is based on 10% moisture. Analysis was provided by Dr. J.F. Miller, USDA-ARS in Fargo, North Dakota. Thanks to Dr. Miller and all of his assistants for their contributions to these tests.

Companies entering the 1995 Sunflower Test

Agway Royal Hybrid	Grandin, ND 58038
Cargill Hybrid Seeds	Fargo, ND 58102
DeKalb Plant Genetics	Dekalb, IL 60115
Interstate Payco Seed	West Fargo, ND 58078
Kaystar Seed	Huron, SD 57350
Mycogen Plant Sciences	Prescott, WI 54021
Pioneer Hi-Bred Int., Inc.	Lincoln, NE 68505
Proseed	Harvey, ND 58341
Red River Commodities, Inc.	Colby, KS 67701
Triumph Seed Co., Inc.	Ralls, TX 79357

Table 6. 1995 Sunflower Plot Summary.

Location	Rotation	Plant Date	Harvest Date	Yield Lbs/A	Oil %
Cheyenne County, NE	Wheat-Sunflower-Fallow	6-28	11-8	1210	38.9
Cheyenne County, NE	Wheat-Proso Sunflower-Fallow	6-30	11-6	1070	38.3
Cheyenne County, NE	Irrigated Wheat-Sunflower	6-30	10-27	1670	38.1
Hitchcock County, NE	Wheat-Sunflower-Fallow	6-21	11-9	1520	44.4
Perkins County, NE	Wheat-Sunflower-Fallow	6-16	Hailed out		
Laramie County, WY	Wheat-Sunflower-Fallow	6-22	11-9	500	40.7

Table 7. 1995 Cheyenne Co NE Sunflower Hybrids -wheat stubble

BRAND	HYBRID	YIELD Lbs/Ac	TEST WT Lbs/Bu	FLOWER Days after Aug 1	HT In	LODGE %	OIL %
PROSEED	143	1420	22.2	31	56	29	36.0
PROSEED	9310	1390	23.1	32	53	19	39.3
PROSEED	141	1380	21.8	30	52	14	39.7
PROSEED	140	1300	21.0	31	54	6	38.5
DEKALB	DK3790	1300	24.6	31	48	13	41.4
CARGILL	SF128	1290	25.3	30	51	5	39.8
MYCOGEN	658	1290	24.4	31	49	9	42.8
DEKALB	DK3868	1230	24.5	31	45	11	41.0
DEKALB	Exp5801	1230	23.6	30	48	14	41.0
CARGILL	SF187	1230	20.2	35	49	8	36.0
MYCOGEN	Exp5521	1180	19.6	36	55	11	35.7
CARGILL	SF270	1140	22.5	31	48	4	39.5
CARGILL	SF177	1120	20.9	36	59	23	36.9
PROSEED	107	1090	21.3	31	56	11	35.9
DEKALB	DK3881	1040	22.4	32	49	13	40.6
MYCOGEN	CAVALRY	1020	23.8	33	60	30	41.9
DEKALB	DK3904	1010	21.7	32	51	5	36.0
MEAN		1215	22.5	32	52	13	38.9
L.S.D. .05		296	0.9	1	3	15	1.3

Table 8. 1995 Cheyenne Co NE Sunflower Hybrids -proso millet stubble

BRAND	HYBRID	YIELD Lbs/Ac	TEST WT Lbs/Bu	FLOWER Days after Aug 1	HT In	LODGE %	OIL %
DEKALB	DK3790	1480	26.3	30	52	20	41.4
CARGILL	SF128	1470	27.3	29	57	0	36.1
PROSEED	141	1410	23.0	29	60	3	38.2
CARGILL	SF187	1330	24.8	33	54	3	36.2
CARGILL	SF270	1270	26.2	29	54	3	38.5
DEKALB	Exp5801	1270	26.6	28	57	2	41.2
INTPAYCO	IS3311	1210	27.7	31	59	2	39.3
PROSEED	140	1200	22.7	30	57	2	37.2
DEKALB	DK3881	1180	27.2	31	53	18	40.1
KAYSTAR	X1836	1160	24.6	32	55	3	36.4
INTPAYCO	IS6767	1130	26.5	30	59	23	39.5
PROSEED	107	1110	23.8	31	60	0	37.0
DEKALB	DK3868	1080	27.6	31	48	18	40.6
INTPAYCO	IS5757	1050	25.7	30	59	8	39.2
INTPAYCO	IS6363	990	26.0	34	60	28	36.2
DEKALB	DK3904	940	27.9	31	50	13	38.2
KAYSTAR	8806	910	27.2	32	65	5	38.6
CARGILL	SF177	900	25.7	34	64	2	38.0
INTPAYCO	ISEx03147	890	25.9	31	61	3	37.0
INTPAYCO	ISEx93285	870	26.6	32	52	2	40.2
PROSEED	9310	860	25.9	31	52	20	38.4
INTPAYCO	ISEx01480	770	26.7	34	63	18	37.1
PROSEED	143	770	24.8	31	61	5	35.4
INTPAYCO	ISEx01475	660	25.4	34	68	45	36.0
MEAN		1080	25.9	31	58	10	38.2
L.S.D. .05		403	1.5	1	6	15	1.6

Table 9. 1995 Cheyenne Co NE Sunflower Hybrids -irrigated

(Some varieties were discarded because of bird damage and are not reported)

BRAND	HYBRID	YIELD Lbs/Ac	TEST WT Lbs/Bu	FLOWER Days after Aug 1	HT In	OIL %
OIL TYPES						
PROSEED	143	2020	27.2	30	62	35.7
MYCOGEN	658	1930	29.9	30	59	40.3
CARGILL	SF270	1780	28.7	28	47	37.3
CARGILL	SF187	1600	27.0	32	56	35.7
PROSEED	141	1600	27.9	27	61	38.6
TRIUMPH	565	1520	29.8	31	64	40.3
MYCOGEN	Cavalry	1510	28.3	31	63	39.9
TRIUMPH	546	1500	30.2	30	64	40.0
PROSEED	140	1440	26.7	28	57	38.3
TRIUMPH	571	1350	28.6	32	67	40.2
CONFECTION TYPES						% Over Size 20/64
TRIUMPH	520C	1990	19.9	29	66	65
AGWAY	RH3733	1870	20.8	29	65	55
AGWAY	RH4033	1680	20.0	29	65	65
AGWAY	RH4343	1680	19.6	29	61	61
AGWAY	RH3703	1620	22.4	29	62	70
MEAN of all entries		1670	25.8	30	61	38.1/63
L.S.D. .05		464	1.2	2	6	1.1/N.S.

Table 10. 1995 Hitchcock Co NE Sunflower Hybrids

BRAND	HYBRID	YIELD Lbs/Ac	TEST WT Lbs/Bu	HT In	OIL %
OIL TYPES					
DEKALB	DK3881	2180	30.2	57	45.5
CARGILL	SF187	2120	32.1	54	42.4
PIONEER	XF443	1980	32.2	63	43.7
PIONEER	XF4526	1980	30.6	63	43.4
DEKALB	Exp5801	1900	32.9	58	46.9
CARGILL	SF270	1840	30.9	54	43.6
PIONEER	6451	1830	32.0	56	45.7
DEKALB	DK3904	1830	31.2	56	43.4
PROSEED	107	1790	29.4	59	43.4
INTERSTATE PAYCO	ISEx93285	1790	29.5	59	45.4
INTERSTATE PAYCO	IS6767	1740	32.6	57	45.7
INTERSTATE PAYCO	IS6363	1720	31.7	61	41.9
DEKALB	DK3868	1700	31.8	52	45.0
CARGILL	SF177	1650	32.3	60	44.3
INTERSTATE PAYCO	ISEx01480	1620	31.6	60	42.1
MYCOGEN	658	1600	32.5	56	47.8
KAYSTAR	8806	1570	31.2	59	43.9
PIONEER	6340	1570	32.6	61	45.4
INTERSTATE PAYCO	IS3311	1570	31.1	59	44.3
KELTGEN	940	1570	32.1	55	43.8
DEKALB	DK3790	1560	32.8	58	45.3
PROSEED	141	1480	28.7	62	45.0
PROSEED	9310	1470	31.9	58	44.5
MYCOGEN	Exp5521	1450	30.4	60	43.8
CARGILL	SF128	1410	32.6	57	41.2
MYCOGEN	Cavalry	1360	32.8	66	46.8
TRIUMPH	546	1350	30.9	59	47.1

Table 10. 1995 Hitchcock Co NE Sunflower Hybrids (continued)

BRAND	HYBRID	YIELD Lbs/Ac	TEST WT Lbs/Bu	HT In	OIL %
PROSEED	140	1320	30.5	62	44.6
INTERSTATE PAYCO	ISEx03147	1310	28.5	61	41.8
TRIUMPH	571	1300	33.9	59	47.4
INTERSTATE PAYCO	IS6111	1260	31.2	52	43.3
INTERSTATE PAYCO	IS5757	1150	30.5	58	44.7
TRIUMPH	565	1070	33.0	61	45.3
PROSEED	143	970	30.6	62	41.8
INTERSTATE PAYCO	ISEx01475	680	29.9	64	43.1
CONFECTION TYPES					% Over Size 20/64
PIONEER	XF953	2480	25.6	52	67
PIONEER	DE-1998	2100	26.5	59	62
PIONEER	6946	1870	26.2	56	65
AGWAY	RH3703	1590	27.2	60	79
RED RIVER	RH3703	1470	27.9	59	75
AGWAY	RH4033	1370	24.3	61	67
RED RIVER	954	1270	24.6	57	49
AGWAY	RH4343	1140	25.2	63	68
RED RIVER	2331	1130	25.8	60	54
RED RIVER	RH3733	1110	25.2	63	72
RED RIVER	4231	1040	24.9	64	70
AGWAY	RH3733	1030	25.6	59	65
TRIUMPH	520C	900	24.4	61	73
RED RIVER	2211	660	22.6	63	56
MEAN of all entries		1520	29.8	59	44.4/66
L.S.D. .05		600	2.6	4	1.3/17

Table 11. 1995 Laramie Co Wyoming Sunflower Hybrids

BRAND	HYBRID	YIELD Lbs/Ac	TEST WT Lbs/Bu	OIL %
PROSEED	141	650	26.9	40.8
CARGILL	SF187	590	27.9	38.6
PROSEED	143	580	28.2	39.2
CARGILL	SF270	560	30.8	40.5
PROSEED	9310	510	29.8	41.2
PROSEED	140	500	27.9	41.4
MYCOGEN	452	480	31.9	43.2
PROSEED	107	450	28.7	39.8
MYCOGEN	634	440	32.3	42.3
KAYSTAR	8806	230	31.3	40.1
MEAN		500	29.5	40.7
L.S.D. .05		257	2.1	1.4

Table 12. Laramie County Wyoming sunflower trial yields and oils averaged over two years, 1993 and 1995 (Plot was not harvested in 1994).

BRAND	HYBRID	1993 YIELD Lbs/Acre	1995 YIELD Lbs/Acre	AVG Lbs/Acre	1993 OIL %	1995 OIL %	AVG OIL %
CARGILL	SF-187	750	590	670	40.4	38.6	39.5
CARGILL	SF-270	670	560	620	42.0	40.5	41.3
	MEAN	710	580	640	41.2	39.6	40.4

Table 13. Cheyenne County Sunflower Hybrids Averaged Over Two Years

WHEAT-SUNFLOWER-FALLOW ROTATION							
BRAND	HYBRID	YIELD LBS/ACRE			OIL %		
		1994	1995	94-95 AVE	1994	1995	94-95 AVE
PROSEED	141	510	1380	945	34.9	39.7	37.3
PROSEED	143	370	1420	895	32.5	36.0	34.3
DEKALB	DK3790	410	1300	855	36.2	41.4	38.8
MYCOGEN	658	290	1290	790	38.8	42.8	40.8
DEKALB	DK3868	310	1230	770	35.3	41.0	38.2
PROSEED	107	410	1090	750	34.8	35.9	35.4
MYCOGEN	Cavalry	380	1020	700	37.8	41.9	39.9
DEKALB	DK3881	260	1040	650	35.3	40.6	38.0
DEKALB	DK3904	230	1010	620	35.1	36.0	35.6
	MEAN	350	1200	780	35.6	39.4	37.6
WHEAT-FALLOW-SUNFLOWER-FALLOW ROTATION							
BRAND	HYBRID	YIELD LBS/ACRE			OIL %		
		1994	1995	94-95 AVE	1994	1995	94-95 AVE
PROSEED	141	1710	1410	1560	34.6	38.2	36.4
PROSEED	140	1760	1200	1480	36.6	37.2	36.9
INTPAYCO	IS6363	1700	990	1345	35.1	36.2	35.7
INTPAYCO	IS6767	1520	1130	1325	37.1	39.5	38.3
INTPAYCO	IS3311	1430	1210	1320	36.0	39.3	37.7
PROSEED	107	1350	1110	1230	32.6	37.0	34.8
INTPAYCO	IS5757	1050	1050	1050	34.5	39.2	36.9
INTPAYCO	Ex01480	1060	770	915	34.1	37.1	35.6
	MEAN	1450	1110	1280	35.1	38.0	36.5
IRRIGATED							
BRAND	HYBRID	YIELD LBS/ACRE			OIL %		
		1994	1995	94-95 AVE	1994	1995	94-95 AVE
CARGILL	SF270	1350	1780	1565	37.3	37.3	37.3
CARGILL	SF187	1000	1600	1300	33.8	35.7	34.8
PROSEED	141	1000	1600	1300	38.2	38.6	38.4
	MEAN	1120	1660	1390	36.4	37.2	36.8

Table 14. Hitchcock County sunflower trial yields and oils, averaged over two years.

BRAND	HYBRID	YIELD LBS/ACRE			OIL %		
		1994	1995	AVE	1994	1995	AVE
Cargill	SF187	2220	2120	2170	43.1	42.4	42.8
Dekalb	DK3881	2140	2180	2160	44.9	45.5	45.2
Pioneer	XF443	2240	1980	2110	44.6	43.7	44.2
Interstate	IS6363	2220	1720	1970	44.3	41.9	43.1
Pioneer	6451	2100	1830	1970	46.2	45.7	46.0
Dekalb	DK3904	2020	1830	1930	44.1	43.4	43.8
Cargill	SF128	2340	1410	1880	43.3	41.2	42.3
Cargill	SF177	2040	1650	1850	44.3	44.3	44.3
Cargill	SF270	1830	1840	1840	43.5	43.6	43.6
Interstate	ISExp04180	2040	1620	1830	44.8	42.1	43.5
Interstate	IS6767	1870	1740	1810	47.7	45.7	46.7
Proseed	107	1770	1790	1780	44.1	43.4	43.8
Dekalb	DK3868	1800	1700	1750	44.3	45.0	44.7
Kaystar	8806	1890	1570	1730	45.0	43.9	44.5
Proseed	141	1960	1480	1720	44.9	45.0	45.0
Interstate	IS3311	1810	1570	1690	45.5	44.3	44.9
Dekalb	DK3790	1780	1560	1670	44.9	45.3	45.1
Interstate	IS5757	1950	1150	1550	45.0	44.7	44.9
Triumph	546	1750	1350	1550	46.6	47.1	46.9
Triumph	571	1740	1300	1520	47.1	47.4	47.3
Interstate	IS6111	1740	1260	1500	42.5	43.3	42.9
Triumph	565	1820	1070	1450	48.0	45.3	46.7
CONFECTIONS					% OVER 20/64		
Pioneer	6946	2070	1870	1970	75	65	70
Red River	954	1600	1270	1440	52	49	50
Red River	2331Ex	1700	1130	1420	68	54	61
Red River	2211	2060	660	1360	71	56	63
Averages		1940	1560	1760	44.9/67	44.3/56	44.6/61

Table 15. Average Yields of Sunflower Hybrids Grown In Trials for Three Years

BRAND	HYBRID	1993	1994	1995	93-95 AVE	1993	1994	1995	93-95 AVE	
		----- YIELD LBS/ACRE -----				----- OIL % -----				
Cheyenne Co wheat-sunflower										
	MYCOGEN	658	1910	290	1290	1160	41.7	38.8	42.8	41.1
	DEKALB	3790	1710	410	1300	1140	41.3	36.2	41.4	39.6
	DEKALB	3904	1960	230	1010	1070	38.6	35.1	36.0	36.6
Cheyenne Co irrigated										
	CARGILL	SF270	1220	1350	1780	1450	40.3	37.3	37.3	38.3
	CARGILL	SF187	1350	1000	1600	1320	39.8	33.8	35.7	36.4
Hitchcock Co Oil Types										
	CARGILL	SF187	1550	2220	2120	1960	44.4	43.1	42.4	43.3
	INTERSTATE	IS6363	1460	2220	1720	1800	46.0	44.3	41.9	44.1
	DEKALB	3904	1520	2020	1830	1790	45.1	44.1	43.4	44.2
	PONEER	6451	1120	2100	1830	1680	49.2	46.2	45.7	47.0
	CARGILL	SF270	1340	1830	1840	1670	46.0	43.5	43.6	44.4
	KAYSTAR	8806	1500	1890	1570	1650	45.2	45.0	43.9	44.7
	INTERSTATE	IS3311	980	1810	1570	1450	46.5	45.5	44.3	45.4
	INTERSTATE	IS6111	1310	1740	1260	1440	45.3	42.5	43.3	43.7
	TRIUMPH	546	1230	1750	1350	1440	48.3	46.6	47.1	47.3
	DEKALB	3790	890	1780	1560	1410	47.2	44.9	45.3	45.8
							% over 20/64			
	Confections									
	RED RIVER	2211	1420	2060	660	1380	-	71	56	64
	RED RIVER	954	1050	1600	1270	1310	-	52	49	51
	RED RIVER	2331	1030	1700	1130	1290	-	64	54	59

Spring Wheat and Oat Variety Trials

1995

Oat and spring wheat tests were conducted at four locations in 1995. One test was at the Northeast Research and Extension Center at Concord, Nebraska. A second test was at the Agricultural Research and Development Center near Mead, Nebraska. The other two tests were conducted at the High Plains Agricultural Lab near Sidney with one being irrigated and the other dryland. Four spring wheat tests were conducted at the same four locations.

The yields in 1995 were quite good at all locations because of the heavy early spring rains. Planting at most locations was delayed considerably because of the spring rains. Data from the past five years are also summarized in tables following the 1995 data from each location.

The authors wish to acknowledge the assistance of Jill Petrisko with the ARDC location and Lisa Lunz at the Northeast Research and Extension Center.

Conduct of trials

These test were planted in 6 row plots 20 feet long. Plots were end trimmed prior to harvest. Center rows were harvested from each plot. Plot weight of grain, bushel weight, plant height, lodging and other agronomic

information was recorded where appropriate. Data are recorded in bushels per acre based on 32 lb/bu in oats and 60 lb/bu in wheat.

Dixon Co. Oat Variety Test – 1995

Variety	Grain yield bu/a	Bushel weight lb/bu	Plant height inches	Plant lodging pct	Flower Days after June 1
Whitestone	67	28.2	31	9	31
Troy	56	29	33	8	28
Prairie	56	29.6	31	8	27
Don	52	30.8	27	8	26
Settler	49	29.3	31	7	28
Jerry	47	27.8	35	9	26
O-41 OH	43	29	31	8	28
Russell	43	28.6	33	9	31
Belle	43	30.2	32	8	19
O-37 MN	42	28.2	32	9	26
Sheldon	42	25.2	35	8	26
O-40 OH	39	27.4	31	9	21
Continued					

Variety	Grain yield bu/a	Bushel weight lb/bu	Plant height inches	Plant lodging pct	Flower Days after June 1
Ogle	39	26.2	32	10	26
O-44 SD	39	32.6	33	7	26
Premier	38	31.5	31	8	26
O-31 IL	38	28.8	30	10	26
O-42 WI	33	27.8	32	9	26
O-30 IL	32	27	32	9	27
O-43 SD	28	25.8	32	8	27
Milton	25	21.4	30	9	23
Average all entries					
Dif. req. for sig. 5%					
25%					
4					

Saunders Co. Oat Variety Test – 1995

Variety	Grain yield bu/a	Bushel weight lb/bu	Plant height inches
Don	88	35.5	35
Whitestone	86	33.0	29
Sheldon	83	34.4	41
Jerry	79	36.5	38
O-31 IL	79	32.9	35
O-30 IL	71	32.0	33
Troy	69	33.8	37
O-41 OH	69	33.5	35
Ogle	68	33.6	32
Premier	68	35.8	36
Settler	66	35.1	37
O-37 MN	63	33.8	34
Continued			

Variety	Grain yield bu/a	Bushel weight lb/bu	Plant height inches
Prairie	63	32.0	30
O-40 OH	60	32.4	34
Milton	59	32.3	31
O-43 SD	50	32.5	35
Belle	43	32.8	31
O-44 SD	42	32.4	41
O-42 WI	41	30.9	33
Russell	29	31.8	32
Average all entries			
Dif. req. for sig. 5%			
25%			
2			

Northeast Oat Variety Tests – 1991 – 1995

Variety	Grain Yield Bu/a	Plant Lodging Pct	Bushel Weight Lb/bu	Plant Height inches
2 YEAR AVERAGE				
Whitestone	65	9	28.2	28
Troy	62	8	29.4	32
Jerry	57	9	27.8	32
Sheldon	56	8	24.8	32
Settler	56	7	29.3	30
O-37 MN	55	9	28.2	30
Prairie	54	8	29.6	29
Don	54	8	30.8	26
Ogle	51	10	26.2	30
O-40 OH	50	9	27.4	30
Milton	47	9	21.4	29
O-30 IL	47	9	27.0	30
Premier	46	8	31.5	29
O-31 IL	45	10	28.8	29
Russell	43	9	28.6	32
Average all entries	52	9	27.9	30
Dif. req. for sig. 5%	NS	--	--	1
25%	NS	--	--	1
3 YEAR AVERAGE				
Whitestone	63	9	28.1	28
Troy	60	8	28.3	32
Settler	55	7	27.4	30
Prairie	52	8	27.7	29
O-30 IL	51	9	26.8	30
Sheldon	51	8	24.6	32
O-31 IL	50	10	29.2	29
Ogle	50	10	26.6	30
Continued				

Variety	Grain Yield Bu/a	Plant Lodging Pct	Bushel Weight Lb/bu	Plant Height inches
3 YEAR AVERAGE (Continued)				
Don	48	8	30.4	26
Russell	40	9	27.0	32
Premier	39	8	28.2	29
Average all entries	51			30
Dif. req. for sig. 5%	NS	--	NS	1
25%	4	--	1.4	1
4 YEAR AVERAGE				
Troy	65	8	29.5	32
Prairie	64	8	29.1	29
Settler	62	7	28.9	30
Ogle	61	10	28.4	30
Don	52	8	30.9	26
Premier	49	8	29.4	29
Average all entries	59	9	29.4	29
Dif. req. for sig. 5%	NS	--	NS	1
25%	4	--	NS	1
5 YEAR AVERAGE				
Prairie	66	8	29.9	29
Ogle	64	10	29.3	30
Settler	60	7	29.7	30
Don	54	8	31.2	26
Premier	49	8	30.1	29
Average all entries	58	8	30.2	29
Dif. req. for sig. 5%	NS	--	NS	1
25%	3	--	NS	1

Saunders County Oat Variety Tests – 1991 – 1995

Variety	Grain Yield Bu/a	Plant Lodging Pct	Bushel Weight Lb/bu	Plant Height inches
2 YEAR AVERAGE				
Jerry	71	0	33.7	37
Whitestone	67	6	30.8	32
O-31 IL	62	2	30.9	35
O-30 IL	61	2	29.6	35
Ogle	61	2	29.6	33
Troy	61	2	30.5	38
Sheldon	60	9	30.5	38
Don	59	6	31.0	33
O-37 MN	58	1	31.2	34
Settler	56	3	32.4	36
Prairie	55	8	29.1	33
Premier	52	6	31.8	36
O-45 WI	52	1	30.3	33
O-40 OH	49	2	29.2	34
Russell	32	2	30.2	36
Average all entries	57	3	30.7	35
Dif. req. for sig. 5%	NS	--	NS	NS
25%	NS	--	0.7	NS
3 YEAR AVERAGE				
Whitestone	66	22	29.1	32
O-31 IL	63	20	30.0	34
O-30 IL	60	15	28.2	34
Settler	58	40	31.1	34
Ogle	53	47	28.0	32
Don	52	34	29.6	32
Prairie	50	51	26.2	32
Sheldon	49	54	28.3	35

Variety	Grain Yield Bu/a	Plant Lodging Pct	Bushel Weight Lb/bu	Plant Height inches
3 YEAR AVERAGE (Continued)				
Premier	45	49	29.9	34
Russell	27	7	28.6	35
Average all entries	52	34	28.9	33
Dif. req. for sig. 5%	10	NS	1.2	NS
25%	6	NS	0.7	NS
4 YEAR AVERAGE				
Ogle	76	47	29.0	32
Settler	73	40	32.2	34
Prairie	73	51	27.6	32
Don	67	34	30.7	32
Premier	63	49	31.6	34
Average all entries	70	44	30.2	33
Dif. req. for sig. 5%	NS	NS	1.0	NS
25%	NS	NS	0.6	NS
5 YEAR AVERAGE				
Ogle	82	47	28.0	32
Prairie	79	51	27.2	32
Settler	77	40	30.8	34
Don	75	34	30.1	32
Premier	70	49	31.1	34
Average all entries	76	44	29.4	33
Dif. req. for sig. 5%	NS	NS	1.0	NS
25%	NS	NS	0.5	NS

Continued

Panhandle Oat Variety Tests – 1995

Irrigated Test

Variety	Grain yield bu/a	Bushel weight lb/bu	Plant height inches	Flower Days after June 1
O-40 OH	121	31.6	44	34
O-30 IL	107	30.8	41	35
Whitestone	100	29.1	44	39
Prairie	97	30.6	41	36
O-31 IL	94	28.7	42	34
O-37 MN	89	31.5	45	33
O-42 WI	87	30.5	41	34
Ogle	82	29.9	40	35
O-45 WI	82	30.4	41	34
Monida	80	26.4	44	42
Sheldon	77	34.1	46	31
O-41 OH	75	30.7	43	35
Border	70	30.6	40	40
Continued				

Variety	Grain yield bu/a	Bushel weight lb/bu	Plant height inches	Flower Days after June 1
Belle	67	28.6	45	40
Troy	62	28.9	46	36
Jerry	61	28.5	47	34
Don	57	30.6	41	30
Premier	52	31.2	40	35
Milton	51	27.3	40	37
O-43 SD	49	29.3	41	35
Settler	48	30.1	41	35
O-44 SD	44	32.8	44	30
Russell	37	25.5	42	39
Average all entries	73	29.9	43	35
Dif. req. for sig. 5%	4	2.2	3	2
25%	2	1.2	2	1

Dryland Test

Variety	Grain yield bu/a	Bushel weight lb/bu	Plant height inches	Flower Days after June 1
O-30 IL	81	30.3	35	34
Ogle	80	30.4	35	33
O-37 MN	73	31.3	36	32
O-31 IL	72	29.8	36	32
O-40 OH	71	29.8	36	32
Whitestone	70	32.4	31	38
O-45 WI	66	31.0	34	35
Prairie	64	27.9	34	34
Border	63	28.7	31	39
Jerry	61	33.3	37	33
Monida	59	27.2	33	41
O-41 OH	58	32.3	35	35
Settler	58	31.7	36	35
Continued				

Variety	Grain yield bu/a	Bushel weight lb/bu	Plant height inches	Flower Days after June 1
O-42 WI	56	26.3	34	33
Don	56	33.0	33	27
Premier	56	33.9	35	33
Sheldon	55	31.8	36	32
O-44 SD	53	35.8	35	27
Belle	52	29.0	33	37
O-43 SD	51	31.0	34	34
Troy	51	28.7	37	33
Milton	51	28.6	33	36
Russell	49	29.1	36	38
Average all entries	61	30.6	35	34
Dif. req. for sig. 5%	11	3.0	2	1
25%	6	1.7	1	1

Panhandle Irrigated Oat Tests – 1991 – 1995

Variety	Grain Yield Bu/a	Plant Lodging Pct	Bushel Weight Lb/bu	Plant Height inches
2 YEAR AVERAGE				
O-40 OH	94	0	31.4	36
Whitestone	85	0	30.2	36
Prairie	77	0	30.9	33
O-37 MN	75	0	32.3	37
O-30 IL	75	0	30.6	32
Ogle	73	0	30.0	34
O-31 IL	72	0	29.8	34
Monida	65	0	28.7	36
Border	64	0	30.6	33
Sheldon	62	0	32.8	37
O-45 WI	58	0	29.7	33
Don	57	0	31.8	33
Troy	56	0	30.9	36
Jerry	53	0	31.0	37
Premier	47	0	32.3	33
Russell	47	0	28.7	36
Settler	45	0	31.8	34
Average all entries	65	0	30.8	34
Dif. req. for sig. 5%	NS	--	NS	NS
25%	9	--	NS	1
3 YEAR AVERAGE				
Prairie	74	0	32.0	33
Ogle	69	0	31.6	34
Troy	54	0	32.4	36
Don	54	0	32.7	33
Continued				

Variety	Grain Yield Bu/a	Plant Lodging Pct	Bushel Weight Lb/bu	Plant Height inches
3 YEAR AVERAGE (Continued)				
Russell	49	0	30.9	36
Premier	44	0	33.8	33
Settler	44	0	33.3	34
Average all entries	55	0	32.4	34
Dif. req. for sig. 5%	9	--	NS	NS
25%	5	--	1	NS
4 YEAR AVERAGE				
Prairie	88	0	32.5	33
Ogle	80	0	32.6	34
Don	73	0	34.1	33
Premier	61	0	35.2	33
Settler	55	0	33.9	34
Russell	54	0	31.4	36
Average all entries	69	0	33.3	34
Dif. req. for sig. 5%	10	--	1.1	NS
25%	6	--	0.6	1
5 YEAR AVERAGE				
Ogle	76	0	32.0	34
Don	69	0	33.3	33
Premier	60	0	34.1	33
Average all entries	68	0	33.2	33
Dif. req. for sig. 5%	NS	--	0.7	NS
25%	4	--	0.4	NS

Panhandle Dryland Oat Variety Tests – 1991 – 1995

Variety	Grain Yield Bu/a	Plant Lodging Pct	Bushel Weight Lb/bu	Plant Height inches
2 YEAR AVERAGE				
O-30 IL	64	0	30.5	29
Ogle	61	0	30.4	28
O-37 MN	60	0	32.0	30
O-40 OH	59	0	29.5	30
O-31 IL	58	3	30.4	30
Whitestone	55	0	31.8	25
Prairie	54	0	28.8	29
Border	51	0	29.1	29
Jerry	51	0	33.9	32
Monida	50	0	27.3	29
Russell	48	0	30.7	31
Settler	47	0	33.1	30
O-45 WI	46	1	29.1	28
Troy	45	0	29.9	30
Premier	44	0	33.2	29
Sheldon	43	5	32.3	29
Don	42	0	33.4	28
Average all entries	51	1	30.9	29
Dif. req. for sig. 5%	6	--	1.0	NS
25%	3	--	0.6	1
3 YEAR AVERAGE				
Ogle	59	0	31.3	28
Prairie	56	0	30.3	29
Troy	49	0	31.9	30
Russell	49	0	31.8	31
Settler	44	0	34.1	30
Continued				

Variety	Grain Yield Bu/a	Plant Lodging Pct	Bushel Weight Lb/bu	Plant Height inches
3 YEAR AVERAGE (Continued)				
Premier	42	0	33.6	29
Don	39	0	33.4	28
Average all entries	48	0	32.4	29
Dif. req. for sig. 5%	NS	--	NS	NS
25%	4	--	0.7	1
4 YEAR AVERAGE				
Ogle	73	0	31.3	28
Prairie	66	0	29.7	29
Premier	55	0	33.8	29
Don	54	0	33.4	28
Settler	52	0	33.8	30
Russell	51	0	30.9	31
Average all entries	59	0	32.1	29
Dif. req. for sig. 5%	NS	--	1.0	NS
25%	5	--	0.6	1
5 YEAR AVERAGE				
Ogle	65	0	29.6	28
Premier	49	0	32.9	29
Don	46	0	31.8	28
Average all entries	53	0	31.5	28
Dif. req. for sig. 5%	3	--	0.9	NS
25%	2	--	0.5	NS

Dixon Co. Spring Wheat Variety Test – 1995

Variety	Grain yield bu/a	Bushel weight lb/bu	Plant height in	Flower days after June 1
W-03 SD	31	52.2	28	26
Kulm	29	51.6	33	26
Russ	29	50.8	33	26
Sharp	28	51.4	33	26
W-02 ND	27	50.2	36	26
2375	26	52.8	27	26
Butte 86	26	51.8	32	26
W-01 ND	23	51	37	27
AVERAGE ALL ENTRIES	27	51.5	32	26
DIF. REQ. FOR SIG. 5%	3	NS	2	1
25%	2	NS	2	1

Saunders Co. Spring Wheat Variety Test – 1995

Variety	Grain yield bu/a	Bushel weight lb/bu	Plant height in
Russ	41	59.6	37
W-03 SD	39	60	33
Kulm	38	62	39
Sharp	37	61.4	40
W-02 ND	34	59.8	39
Butte 86	33	59.8	36
2375	28	60.6	35
W-01 ND	26	59.5	38
AVERAGE ALL ENTRIES	35	60.3	37
DIF. REQ. FOR SIG. 5%	5	0.7	3
25%	3	0.4	1

Spring Wheat Variety Tests – 1990 – 1995

Dixon County

Variety	Grain Yield Bu/a	Bushel Weight lb/bu	Plant Height Inches
2 YEAR AVERAGE			
Kulm	26	51.6	32
Sharp	24	51.4	31
2375	24	52.8	28
Butte 86	22	51.8	30
W-01 ND	20	51.0	30
Average all entries	23	51.7	30
Dif req for sig 5%	NS	--	NS
25%	1	--	NS
3 YEAR AVERAGE			
Sharp	20	51.5	31
Butte 86	18	51.2	30
W-01 ND	16	50.0	30
Average all entries	18	50.9	30
Dif req for sig 5%	1	NS	NS
25%	1	NS	NS
4 YEAR AVERAGE			
Sharp	22	52.6	31
Butte 86	21	52.4	30
Average all entries	21	52.5	30
Dif req for sig 5%	NS	NS	NS
25%	NS	NS	NS
5 YEAR AVERAGE			
Sharp	19	53.2	31
Butte 86	18	53.1	30
Average all entries	19	53.2	30
Dif req for sig 5%	NS	NS	NS
25%	NS	NS	NS

Saunders County

Variety	Grain Yield Bu/a	Bushel Weight lb/bu	Plant Height Inches
2 YEAR AVERAGE			
Sharp	32	55.6	37
Butte 86	26	52.8	35
W-01 ND	21	52.6	37
Average all entries	26	53.6	36
Dif req for sig 5%	NS	NS	NS
25%	1	0.8	NS
3 YEAR AVERAGE			
Sharp	39	50.6	37
Butte 86	33	47.9	35
Average all entries	36	49.3	36
Dif req for sig 5%	NS	NS	NS
25%	1	0.6	NS
4 YEAR AVERAGE			
Sharp	37	50.5	37
Butte 86	33	48.4	35
Average all entries	35	49.5	36
Dif req for sig 5%	NS	NS	NS
25%	1	0.6	NS

Panhandle Irrigated Spring Wheat Variety Test 1995

Variety	Grain Yield bu/a	Bushel weight lb/bu	Plant height in
W-03 SD	48	54.3	37
2375	46	57.1	36
Kulm	42	58.3	42
Sharp	42	57.6	40
Butte 86	34	54.2	38
Russ	33	53.6	40
W-02 ND	30	54.5	43
W-01 ND	24	52.2	42
AVERAGE ALL ENTRIES	37	55.2	40
DIF. REQ. FOR SIG. 5%	8	2.1	2
25%	4	1.2	1

Panhandle Dryland Spring Wheat Variety Test 1995

Variety	Grain yield bu/a	Bushel weight lb/bu	Plant height in	Flower days after June 1
W-03 SD	37	56.8	31	30
2375	35	59.6	32	28
Kulm	34	60.6	38	31
Sharp	34	60.1	36	27
Russ	31	57.8	38	32
Butte 86	29	57.6	37	32
W-01 ND	28	57.6	36	35
W-02 ND	28	56.6	39	34
AVERAGE ALL ENTRIES	32	58.3	36	31
DIF. REQ. FOR SIG. 5%	3	1	2	1
25%	1	0.6	1	1

Panhandle Spring Wheat Variety Tests – 1990 – 1995

Irrigated

Variety	Grain Yield Bu/a	Bushel Weight lb/bu	Plant Height Inches
2 YEAR AVERAGE			
2375	36	56.3	30
Sharp	31	57.2	33
Kulm	31	57.8	33
Butte 86	26	53.9	33
W-01 ND	21	53.3	35
Average all entries	29	55.7	33
Dif req for sig 5%	NS	1.5	NS
25%	3	0.7	NS
3 YEAR AVERAGE			
Sharp	37	58.8	33
Butte 86	32	56.0	33
Average all entries	35	57.4	33
Dif req for sig 5%	NS	1.0	NS
25%	1	0.4	NS
4 YEAR AVERAGE			
Sharp	42	59.4	33
Butte 86	36	56.8	33
Average all entries	39	58.1	33
Dif req for sig 5%	2	0.7	NS
25%	1	0.3	NS

Dryland

Variety	Grain Yield Bu/a	Bushel Weight lb/bu	Plant Height Inches
2 YEAR AVERAGE			
2375	32	58.9	27
Sharp	31	59.7	31
Kulm	31	59.9	31
Butte 86	28	57.2	32
W-01 ND	26	56.8	31
Average all entries	29	58.5	30
Dif req for sig 5%	2	0.3	NS
25%	1	0.2	1
3 YEAR AVERAGE			
Sharp	33	60.1	31
Butte 86	29	57.5	32
Average all entries	31	58.8	31
Dif req for sig 5%	NS	0.3	NS
25%	2	0.1	NS
4 YEAR AVERAGE			
Sharp	36	60.1	31
Butte 86	31	57.3	32
Average all entries	34	58.7	31
Dif req for sig 5%	2	0.4	NS
25%	1	0.2	NS



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