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

Historical Materials from University of Nebraska-Lincoln Extension

Extension

1981

EC81-103 Nebraska Varietal Tests of Fall-Sown Small Grains 1981

A. F. Dreier

J. W. Schmidt
USDA-ARS, john.w.schmidt@ars.usda.gov

Lenis Alton Nelson
University of Nebraska-Lincoln, lnelson1@unl.edu

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

Dreier, A. F.; Schmidt, J. W.; and Nelson, Lenis Alton, "EC81-103 Nebraska Varietal Tests of Fall-Sown Small Grains 1981" (1981). *Historical Materials from University of Nebraska-Lincoln Extension*. 4352.
https://digitalcommons.unl.edu/extensionhist/4352

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.

AGRI
S
85
E7

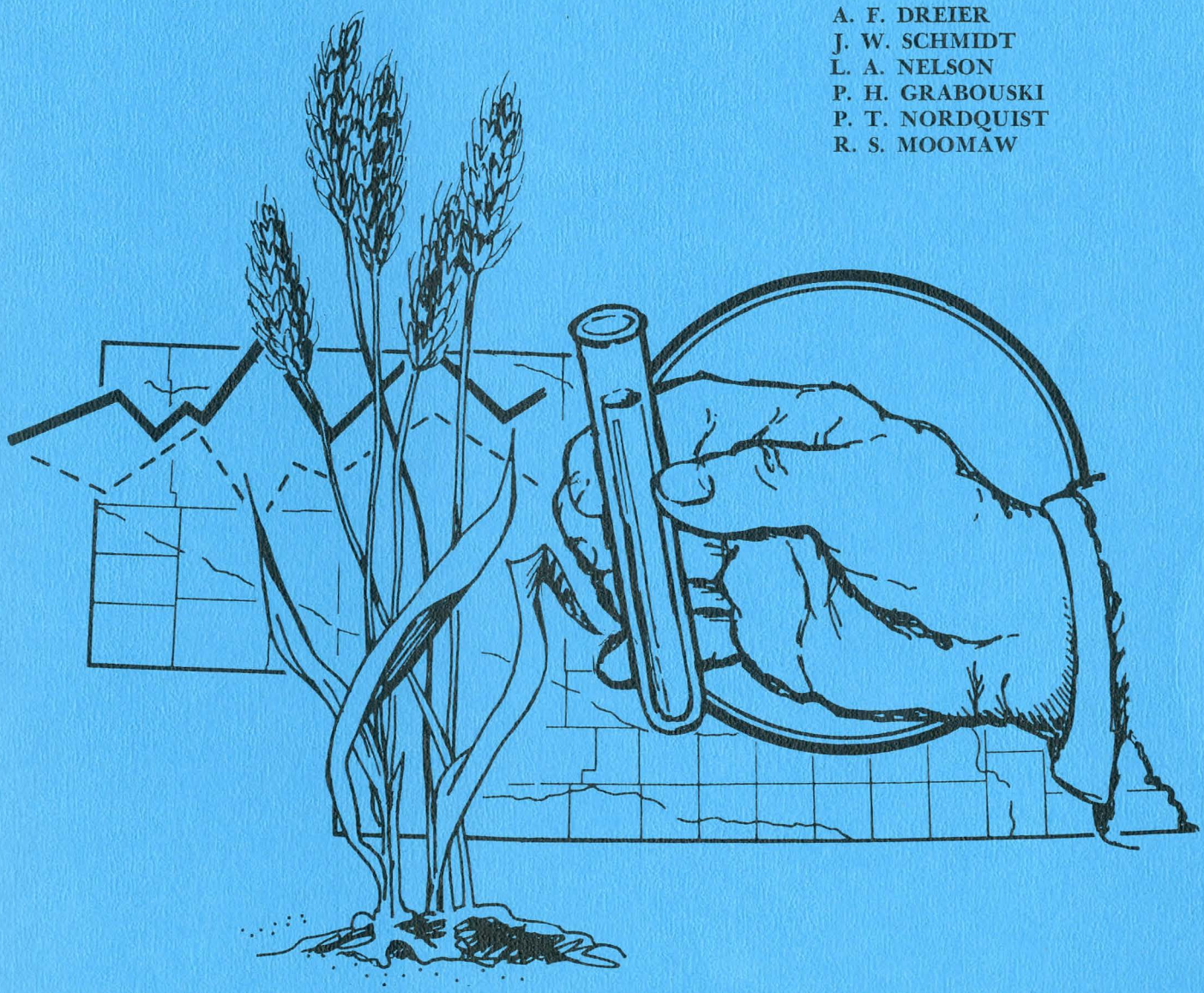
11/10/3

DECEMBER 1981 NEBRASKA COOPERATIVE EXTENSION SERVICE—E.C. 81-103

#81-103
c.1

NEBRASKA VARIETAL TESTS OF FALL-SOWN SMALL GRAINS 1981

A. F. DREIER
J. W. SCHMIDT
L. A. NELSON
P. H. GRABOUSKI
P. T. NORDQUIST
R. S. MOOMAW



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.

NEBRASKA WHEAT PRODUCTION

The following data were obtained from Nebraska Agricultural Statistics. Acreages and yield averages include both spring and winter wheat. Separate reports series for spring and winter wheats began in 1909 and were discontinued in 1962.

Year	Planted 000 acres (hectares)	Harvested 000 acres (hectares)	Average yield bu/A (kg/ha)
1866	---- ----	43 (17)	14.0 (942)
1870	---- ----	170 (69)	11.5 (773)
1880	---- ----	1520 (616)	8.5 (572)
1890	---- ----	1775 (719)	12.0 (807)
1900	---- ----	2750 (1114)	14.7 (921)
1910	---- ----	2885 (1168)	15.8 (1063)
1920	3883 (1573)	3593 (1455)	16.8 (1130)
1930	4077 (1651)	3974 (1609)	18.8 (1264)
1940	3278 (1328)	2643 (1070)	13.1 (881)
1950	4346 (1760)	4051 (1641)	21.8 (1466)
1955	3484 (1411)	3141 (1272)	24.9 (1675)
1956	3549 (1437)	3324 (1346)	19.5 (1312)
1957	3294 (1334)	2920 (1183)	27.0 (1816)
1958	3620 (1466)	3442 (1394)	33.0 (2220)
1959	3408 (1380)	3104 (1257)	22.0 (1480)
1960	3306 (1339)	3011 (1219)	28.5 (1917)
1961	3339 (1352)	3220 (1304)	24.5 (1648)
1962	3060 (1239)	2760 (1118)	19.5 (1312)
1963	3244 (1314)	2815 (1140)	21.5 (1446)
1964	3147 (1275)	3871 (1163)	24.5 (1648)
1965	3273 (1326)	2727 (1104)	20.0 (1345)
1966	2980 (1207)	2860 (1158)	35.0 (2354)
1967	3520 (1426)	3265 (1322)	26.5 (1782)
1968	3240 (1312)	3070 (1243)	32.0 (2152)
1969	2910 (1179)	2650 (1073)	31.5 (2119)
1970	2565 (1039)	2410 (976)	38.0 (2556)
1971	2539 (1028)	2434 (986)	42.0 (2825)
1972	2742 (1111)	2509 (1016)	37.0 (2489)
1973	2800 (1134)	2680 (1085)	35.0 (2354)
1974	3000 (1215)	2900 (1175)	34.0 (2287)
1975	3200 (1296)	3070 (1243)	32.0 (2152)
1976	3400 (1377)	2950 (1195)	32.0 (2152)
1977	3300 (1337)	2950 (1195)	35.0 (2354)
1978	2900 (1174)	2550 (1032)	32.0 (2152)
1979	3000 (1215)	2550 (1032)	34.0 (2220)
1980	3200 (1279)	3100 (1255)	37.0 (2489)
1981 1/	3200 (1279)	3050 (1235)	34.0 (2220)

1/ November 1 estimate.

EXTENSION CIRCULAR 81-103

December 1981

CONTENTS

Introduction
- Discussion 2
- Map location of tests 3
- Cooperators 4
- Wheat yields by districts 4
- Varieties percent by districts 5
- Variety characteristics 6

Wheat Performance Data Tables
- Northeast 1981 10
- Northeast 1976-1981 11
- Southeast 1981 12
- Southeast 1976-1981 13
- South Central 1981 14
- South Central 1976-1981 15
- Central 1981 16
- Central 1976-1980 17
- Southwest 1981 18
- Southwest 1976-1981 19
- West 1981 20
- West 1976-1981 21
- Protein 1981 22
- Protein 1972-1981 23
- Kernel weight 1981 24
- Plant height 1981 25
- Flower date, lodging and straw yields 1981 26

Winter Barley Performance Data
- 1980 27
- 1979-1980 28

ACKNOWLEDGMENT

This circular is a progress report of variety trials conducted by the Agricultural Experiment Station. Trials were conducted by personnel of the Agronomy Department and the Northeast, South Central, North Platte and Panhandle Stations and their associated field and agricultural laboratories. Tests were supported in part by fees paid by entrants of private varieties or hybrids. Conduct of experiments and publication of results is a joint effort of the Agricultural Experiment Station and the Cooperative Extension Service. Special acknowledgment is made to farmer cooperators who furnished land for experiments; also to County Agents and others who assisted in conduct of tests.

NEBRASKA VARIETAL TESTS OF
FALL-SOWN SMALL GRAINS
1981

This circular is a progress report of winter wheat and winter barley variety trials conducted throughout Nebraska. Entries included varieties and promising experimental strains from breeding programs of the Nebraska and other Experiment Stations and private breeders. This was the second year for privately developed entries. The state has been divided into 8 districts for purposes of variety testing. Locations of these districts and the 1981 variety tests are shown on the map (Page 3).

Trials were located on Experiment Stations and private farms. Names of cooperators and dates of planting and harvest are shown in Table 1.

Tests on Experiment Stations were drill strips 50 to 100 feet (14 to 30 meters) long. Other plots were of the nursery type consisting of 6 rows 10 to 15 feet (3 to 5 meters) in length. Plots were replicated 4 to 6 times.

Soil moisture at seeding generally was adequate for good germination and emergence. An exception was eastern and southeast Nebraska. Here many fields were dry with no emergence until after late October rains.

Fall rainfall in the Panhandle was light. Fall and early winter temperatures were warmer than normal. The winter was generally open with little snowfall. Dry weather continued in early spring. Eastern Nebraska and the northern Panhandle were especially dry.

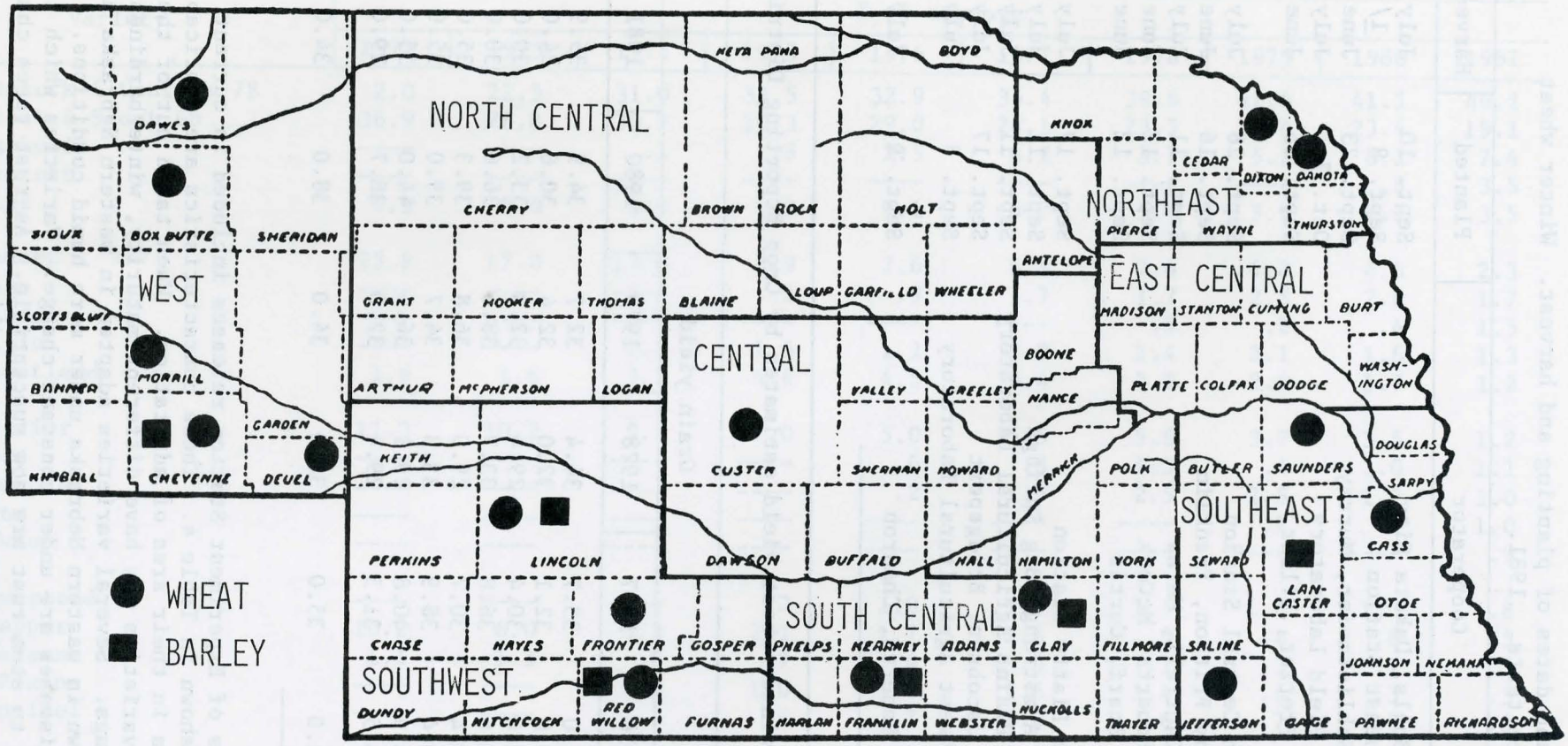
Warm dry spring conditions produced early growth. The crop made rapid progress in April and some fields were flowering by May 10. This is at least two weeks ahead of normal. A severe freeze on May 10 and 11 severely damaged fields in central Nebraska and the southern two tiers of counties. Fields in the flowering stage were damaged most. These often were early fields. Drouthy conditions favored multiplication of chinch bugs in many southern areas.

Late May and early June rains were favorable for kernel fill and yields were better than expected. Kernel size was much larger than normal. Excellent yields in the Panhandle offset reduced yields in eastern Nebraska.

Average yields by Crop Reporting Districts are shown in Table 2.

Winter Wheat Varieties

The State-Federal division of Agricultural Stations makes an annual survey of wheat varieties planted. The ten-year summary of Nebraska data is shown in Table 3. This gives an indication of changes in popularity of varieties over years. Acreages of some varieties are concentrated in specific areas while others such as Centurk and Scout 66 are widely distributed.



NEBRASKA CROP TESTING DISTRICTS AND LOCATIONS OF 1981 WINTER WHEAT & WINTER BARLEY VARIETY TESTS.

Table 1. Location and dates of planting and harvest. Winter wheat performance tests. 1981.

County	Cooperator	Planted	Harvested
Dakota	Bob Boals, Dakota City	Sept. 10	July 1
Dixon	Northeast Station	Sept. 8	1/
Cass	Don Schlictmeier, Murray	Sept. 23	June 24
Saunders	Mead Field Laboratory	Oct. 7	July 6
Jefferson	Dean Pretzer, Diller	Sept. 25	June 16
Clay	South Central Station	Sept. 28	July 7
Franklin	Johnny Fritson, Franklin	Sept. 16	June 18
Custer	Don Cantrell, Merna	Sept. 11	July 13
Red Willow	Don Roberts, McCook	Sept. 12	June 25
Frontier	John Scarf, Curtis	Sept. 12	June 26
Lincoln	North Platte Station	Sept. 17	July 7
Deuel	Mike Armstrong, Big Springs	Sept. 11	July 10
Cheyenne	High Plains Agricultural Laboratory	Sept. 11	July 15
Morrill	Carl Jacobsen, Bridgeport	Sept. 17	July 8
Box Butte	Northwest Agricultural Laboratory	Sept. 9	July 8
Dawes	Rick Roberts, Chadron	Sept. 9	July 15

1/ Hailed

Table 2. Nebraska winter wheat yield estimates by Crop Reporting Districts. 1976-1981.

District	Grain yield					
	1976	1977	1978	1979	1980	1981
Northwest	31.0	33.7	34.4	32.7	34.9	35.9
North	25.8	32.1	32.0	32.4	30.6	24.0
Northeast	30.0	30.4	29.4	32.8	33.2	30.0
Central	33.6	36.8	33.7	38.6	36.6	30.0
East	30.4	30.7	29.0	36.8	39.3	35.0
Southwest	29.4	38.9	33.3	34.7	39.0	35.0
South	33.3	40.8	29.1	36.6	44.0	35.0
Southeast	36.5	31.5	29.4	32.0	38.7	29.0
State	32.0	35.0	32.0	34.0	38.0	34.0

Characteristics of Experiment Station releases included in current Nebraska tests are shown in Table 4. These characteristics are applicable to varieties when grown in their area of adaptation. When taken out of their area of adaptation varieties may have different maturity, winterhardiness, or straw strength ratings. Several varieties adapted in western Nebraska have poor straw when grown in eastern Nebraska under more humid conditions. Races of rust and other diseases are under constant change. Varieties which in the past were resistant to stem rust are now susceptible. As rust races change, presently resistant varieties may become susceptible.

Table 3. Estimated percentage of Nebraska winter wheat acreage planted to each variety. 1972-1981.

Variety	% of acreage									
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Centurk & Centurk 78	2.0	22.5	31.0	33.5	32.9	35.4	39.6	41.4	41.1	46.2
Scout & Scout 66	36.9	28.8	30.2	30.3	29.0	24.1	23.3	25.4	23.4	19.1
Buckskin	----	----	.1	.8	2.5	4.2	3.7	5.1	8.1	7.4
Bennett	----	----	----	----	----	----	----	----	.8	3.5
Gage	6.3	5.4	4.9	6.2	7.1	5.7	3.3	3.7	2.7	3.5
Lancer	23.6	17.0	13.0	8.9	7.6	6.4	7.4	4.8	4.5	2.3
Sage	----	----	----	.2	.9	1.7	1.7	2.5	2.0	1.7
Lindon	----	----	----	----	----	----	.2	.2	.4	1.5
Eagle	----	----	1.2	1.5	1.3	2.0	1.4	2.1	1.6	1.3
Scoutland	1.6	1.6	3.2	4.6	4.5	3.4	2.2	2.0	1.7	1.2
Warrior	11.3	10.2	9.5	7.0	5.0	5.5	5.8	3.7	3.5	1.2
Baca	----	----	----	----	.6	.8	1.5	.4	1.0	1.1
Lancota	----	----	----	----	.2	1.5	2.5	2.5	1.7	1.0
Vona	----	----	----	----	----	----	----	.2	.3	1.0
Newton	----	----	----	----	----	----	----	----	----	.9
Homestead	----	----	----	.2	1.0	1.7	1.5	1.6	1.0	.8
Trapper	10.2	6.0	3.3	2.1	1.7	1.6	.9	.4	.8	.5
Cheyenne	1.1	1.1	.8	.7	.4	.4	.7	.3	.7	.3
HiPlains	----	----	.1	1.0	1.6	1.6	1.4	.4	.3	.3
Sentinel	----	----	.1	.6	.7	1.0	.6	.7	.5	.3
Agate	----	----	----	----	----	----	.1	.7	1.1	.2
Larned	----	----	----	----	----	----	----	----	----	.2
Others 1/	7.0	7.4	2.6	2.4	3.0	2.2	1.9	1.7	2.0	.6
Private varieties	----	----	----	----	----	.8	.3	.2	.8	3.9

1/ Other varieties planted for 1981 include Bison, Chanute, Guide, Omaha, Ottawa, Pawnee, Rocky, Sturdy, Trader and Triumph.

Table 4. Characteristics of winter wheat varieties included in Nebraska tests. 1/

Variety	Relative				Resistance to 2/			
	Maturity	Winter-hardiness	Straw strength	Milling & baking qualities	Hessian fly	Leaf rust	Stem rust	Soil borne mosaic 3/
Agate	Medium	Good	Medium	Good	MR	S	R	MS
Bennett	Early	Good	Strong	Excellent	MR 4/	S	R	MR
Buckskin	Med. early	Fair	Strong	Excellent	MR	S	R	MR
Centurk	Med. early	Fair	Strong	Excellent	MS	S	R	MS
Centurk 78	Med. early	Fair	Strong	Excellent	MS	S	R	MS
Dawn	Med. early	Fair	Medium	Excellent	R	MR-S	R	MS
Eagle	Early	Fair	Medium	Excellent	MS	S	R	S
Gage	Med. early	Fair	Med. strong	Good	MR	MR	R	MS
Homestead	Early	Fair	Strong	Excellent	S	S	R	R
Lancer	Medium	Good	Strong	Excellent	S	S	R	S
Lancota	Med. early	Fair	Med. strong	Excellent	S	MR	R	MS
Larned	Early	Fair	Medium	Good	R	S	R	S
Roughrider	Med. late	Excellent	Medium	Good	S	S	R	--
Sage	Med. early	Fair	Medium	Good	MS	MS	R	S
Scout 66	Early	Fair	Medium	Excellent	MS	S	R	S
Scoutland	Early	Fair	Medium	Excellent	MS	S	R	S
Sentinel	Early	Fair	Strong	Excellent	S	S	R	MS
TAM 105	Early	Fair	Strong	Excellent	S	MR-MS	S	MS
Turkey	Med. late	Good	Poor	Excellent	S	S	S	S
Vona	Early	Poor	Medium	Excellent	MR	S	MR	S

1/ Experiment Station varieties. Contact the originator for information on Agripro, DeKalb, Migro, Northrup King, Rohm & Haas and Seed Research entries. When varieties are taken out of their adapted area, relative maturities, straw strength and other characteristics are subject to variations. Abnormal disease or insect infestations also cause differences in expression of plant characteristics.

2/ R = resistant, S = susceptible, MR = moderately resistant, MS = moderately susceptible.

3/ Based on limited observation and yield data.

4/ Carries high level of fly infestation without characteristic straw breakage found in other varieties.

Privately developed winter wheats were included in the 1981 trials. Developers and entries were as follows:

North American Plant Breeders P.O. Box 30 Berthoud, CO 80513	Agripro Hawk, Rocky, Wings Migro Archer
DeKalb Hybrid Wheat, Inc. 1831 Woodrow Wichita, KS 67203	DeKalb H85b, H104, DK554, DK567
Northrup King Company P.O. Box 418 York, NE 68467	NK Pro Brand 817, 835
Rohm & Haas Independence Mall West Philadelphia, PA 19105	Rohm & Haas HW1001, HW1003
Seed Research Inc. Route 2, Box 48 Scott City, KS 67871	SRI 81 Exp., 4685, 5210, 5221

Some of these are varieties, others are hybrids. The entrant should be contacted for information on seed availability, adaptation and agronomic characteristics.

Winter Wheat Performance

Yield and bushel weight data by districts are shown in Tables 6 through 16. Results of 1981 trials are given along with period-of-years data. Data on other characteristics are summarized in tables as follows:

Table 17	Protein, 1981
Table 18	Protein, 1972-1981
Table 19	Plant height
Table 20	Kernel weight
Table 21	Flower, lodging, and straw yields

Protein, plant height and kernel weight were determined at all locations. Flowering date and straw yields were determined for selected locations. Differential lodging was observed in three tests.

Yielding ability of different varieties cannot be measured with absolute accuracy because of variations in soil fertility, moisture and other factors. For this reason, small differences in yield have no significance. Unless the difference in yield of two varieties is greater than the difference required for significance shown in the tables, little confidence can be placed in the superiority of the one over the other in that particular test. These differences are shown at the 5% level, meaning that differences as large or larger could be expected through chance alone in 1 of 20 trials.

Two trials were seeded in northeast Nebraska. Hail preceding harvest damaged the Dixon County test and no data were obtained. Yields in Dakota County were high (Table 5). The two- and five-year average yields from this area also were high (Table 6).

Three trials were seeded in the Southeast District. These represent a wide range of conditions which were reflected in final yields (Table 7). The Cass County test was planted in dry soil and emergence did not take place until rains later in October. The earliest entries were damaged by the May freeze. Summer rains were adequate and high yields were produced. The Saunders County trial was seeded late because of problems with the earlier planting. Progress and yields were normal. The Jefferson County trial was planted in dry soil. Emergence was good after later rains. Spring conditions were very dry. Chinch bug infestation was heavy. Final yields were reduced by drouth, insect damage and in the case of early entries probable frost damage. Period-of-years data for Southeast Nebraska are shown in Table 8.

Two trials were conducted in the South Central District (Table 9). Yields were especially high in Clay County. Even though moisture stress was observed in Franklin County, an average yield of 51 bushels per acre was produced. Data for the 1976-1981 period are shown in Table 10.

The 1981 trial in Custer County was badly damaged by the May freeze. Earlier varieties were most affected (Table 11). These data are not included in the period-of-years data shown in Table 12. This area of Nebraska has a wide range of conditions over years.

Three tests were harvested in the Southwest District (Table 13). Conditions were favorable in Red Willow County and yields were high. Good yields also were produced in Frontier County. A heavy frost damage was expected in Lincoln County but this does not appear to be a factor in final grain yields from that location. Two-and five-year average yield and test weight data from the Southwest District are shown in Table 14.

Five trials were harvested in the West District. Yields ranged from very high in Cheyenne County to low in Dawes County (Table 15). The Deuel County test was planted into dry soil and moisture appeared borderline all season. Rains were timely and final yields were in the 38-53 bushel range. Conditions all season were favorable in Cheyenne County. Five varieties produced yields of 90 bushels or more. The Morrill County Trial was under moisture stress in early spring. Later rains resulted in yields in the 46-65 plus bushel range. In Box Butte County, yields were reduced by wheat streak mosaic infection and drouth stress. The Dawes County test was under severe drouth stress all year. The plot also was N deficient. Final grain yields ranged from 14 to 24 bushels per acre. Wheat in the Nebraska Panhandle had not reached the flowering stage on May 10 and was not damaged by low temperatures. Period-of-years data from the West District are shown in Table 16.

Statewide averages give an indication of whether a variety has broad adaptation. Many varieties have wide adaptation and do well on extended range of conditions. Others are more specific in their requirements. Often, factors other than yield determine specific areas of adaptation. Performance of varieties in Nebraska was summarized on the basis of three broad areas: the entire state, the eastern one-half and the western one-half. The Northeast District represents a set of special conditions and results were not included in statewide summaries. Data from Custer County were not included because of excessive freeze damage.

A total of 23 entries were included at 13 test locations in 1981. Average yields were as follows: TAM 105, 57; Vona, Dawn, NE75414, NE76706 and NE78697 56; Migro Archer and Rohm & Haas HW1001 55; NE78696 54; NE77682 NE78698 and Centurk 78 53, Agripro Rocky, NE77465 and Centurk 52; Buckskin 50, Bennett, Scout 66 and NE75424 48; Rohm & Haas HW1003 and Lancota 47; Lancer 45 and Turkey 37 bushels per acre. Previous high ranking statewide average yields were as follows: 1980 TAM 105 58, 1979 Buckskin 49, 1978 Centurk 78 and Centurk 43, 1977 Buckskin, Sage, Larned and Bennett 43, 1976 Bennett 50, 1975 Lindon 50, 1974 Centurk, Sage and Lancota 49, 1973 Sage 47, 1972 Centurk and Buckskin 48, 1971 Centurk 57, 1970 Centurk 52 and 1969 Centurk 42 bushels per acre.

In 5 tests in eastern Nebraska, TAM 105, Vona and Dawn also were high in average yield. Yields were as follows: TAM 105 64; Vona 63; Dawn, NE75414, NE78696 and NK Pro Brand 817 62; Migro Archer and Agripro Hawk 61; NE78697, and Rohm & Haas HW1001 60; Sage 59; NE76706 and NE78698 58; Larned, NE77465 and NE77682 57; Centurk and NK Pro Brand 835 56; Centurk 78 55; Agripro Rocky, Bennett and Homestead 54, Scout 66 53; Buckskin, NE75424, Scoutland and Buckskin 52; Lancota 51; Lancer 50; and Turkey 38 bushels per acre.

These same varieties, with the exception of Sage were included in eight tests in the western one-half of Nebraska. Average grain yields were as follows: NE76706 54; NE78697 and TAM 105 53; Rohm & Haas HW1001, Vona, Dawn, NE75414 and Migro Archer 52; Agripro Rocky, Centurk 78 and NE77682 51; DeKalb DK554 and NE78698 50; Buckskin, Centurk and NE78696 49; Agripro Wings and NE77465 48; Scout 66, Bennett and NE75424 45; Agate, Lancota and Rohm & Haas HW1003 44; Lancer 42; Seed Research SRI 4685 and Seed Research SRI 5221 40; Seed Research SRI 5210 37 and Turkey 36 bushels per acre.

TAM 105 was outstanding in yield in all sections of Nebraska in 1980 and 1981. This variety is very susceptible to stem rust and large scale production in Kansas and Nebraska would greatly increase possibilities of heavy stem rust infection. Neither 1980 nor 1981 favored earlier varieties such as Bennett. Winterkilling was not a factor in 1980 or 1981 and tender varieties such as Vona had good yield records. The Centurk types along with Buckskin had good yield records in 1980 but were only average in performance in 1981.

Protein data for 1981 trials are shown in Table 17. The Saunders and Clay locations were highest in protein. This is a reflection of high soil N levels at these locations. Low protein levels in Franklin, Frontier and Deuel Counties reflect relatively high yield levels resulting from favorable conditions late in the grain-fill period. Two-year protein data are shown in Table 18. Turkey and Lancota were consistently highest in protein.

Kernel weights are shown in Table 19. The weight of 1000 kernels was much heavier than normal in 1981. Seeds of Centurk and Centurk 78 were 25% heavier in 1981 than in 1980. Other varieties showed a similar trend. This resulted from favorable weather during later stages of the grain-fill period. It is a plant mechanism which compensates for unfavorable conditions earlier which reduced the number of kernels formed.

Flowering, lodging and straw yield data for selected locations are shown in Table 21.

Winter Barley

Winter barley yield data were obtained from five of the six planted trials (Table 22). Survival generally was good. Five year performance data are shown in Table 23. Several experimental strains show a yield advantage over Kearney and Nebar with comparable survival. Lodging was not a problem in 1981 but all experimental strains show superior straw strength to Kearney and Nebar.

Table 5. Northeast District winter wheat variety test. Dakota County. 1981.

Entry	Yield bu/A	Weight lb/bu	Protein %	Gms/1000 seeds	Height in.
Agate	65	60.8	10.7	42.7	35
Agripro Rocky	76	60.2	11.0	36.2	34
Bennett	64	59.5	12.7	39.6	30
Centurk	66	59.4	11.2	35.8	31
Centurk 78	66	59.4	10.0	35.8	32
Lancer	63	60.5	11.7	36.7	36
Migro Archer	63	58.6	11.5	35.8	27
Rohm & Haas HW1003	60	60.6	11.6	39.7	34
Roughrider	53	60.3	11.3	36.2	36
Scout 66	71	60.2	11.1	41.9	35
Rymin Rye 1/	72	55.6	10.4	39.9	47
Dif. req. for sig.	9.8	----	1.0	1.2	3.2

1/ 56# bushel.

THE METRIC SYSTEM

1 centimeter	=	0.394 inches	mm = inches x 25.4
1 meter	=	39.37 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 pounds	hl = bushels x 0.352

kilograms/hectoliter (kg/hl) = lb/bu x 1.287
kilograms/hectare (kg/ha) = bu/A x 53.81 (48# bushel)
Kilograms/hectare (kg/ha) = bu/A x 67.26 (60# bushel)

Table 6. Northeast District winter wheat vareity tests. 1976-1981. No 1978 data.

Entry	Yield, bu/A (kg/ha)							Weight, lb/bu (kg/hl)		
	1976 Knox County	1977 average (2 tests)	1979 Dakota County	1980 average (2 tests)	1981 Dakota County	1980-81 average (3 tests)	1976-81 average (7 tests)	1981 Dakota County	1980-81 average (3 tests)	1976-81 average (7 tests)
Agate	38 (2560)	46 (3090)	50 (3360)	70 (4710)	65 (4370)	68 (4570)	54 (3630)	60.8 (78.2)	61.4 (79.0)	60.8 (78.2)
Agripro Rocky	--	--	--	71 (4780)	76 (5110)	74 (4980)	--	60.2 (77.5)	61.2 (78.8)	----
Bennett	--	--	--	64 (4300)	64 (4300)	64 (4300)	--	59.5 (76.6)	60.7 (78.1)	----
Centurk	42 (2820)	42 (2820)	54 (3630)	68 (4570)	66 (4440)	67 (4510)	54 (3630)	59.4 (76.4)	60.6 (78.0)	59.8 (77.0)
Centurk 78	--	--	--	67 (4510)	66 (4440)	67 (4510)	--	59.4 (76.4)	60.7 (78.1)	----
Lancer	35 (2350)	39 (2620)	47 (3160)	63 (4240)	63 (4240)	63 (4240)	49 (3300)	60.5 (65.0)	61.5 (79.2)	60.5 (77.9)
Migro Archer	--	--	--	--	63 (4240)	--	--	58.6 (75.4)	----	----
Rohm & Haas HW1003	--	--	--	--	60 (4040)	--	--	60.6 (78.0)	----	----
Roughrider	--	40 (2690)	49 (3300)	64 (4300)	53 (3560)	59 (3970)	--	60.3 (77.6)	61.1 (78.6)	----
Scout 66	46 (3090)	43 (2890)	48 (3230)	65 (4370)	71 (4780)	68 (4570)	55 (3700)	60.2 (77.5)	61.5 (79.2)	60.8 (78.2)
Rymin Rye 1/	--	--	--	80 (5020)	72 (4520)	76 (4770)	--	55.6 (71.6)	56.5 (72.7)	----
Dif. req. sig.	9.6 (646)	10.8 (726)	N.S.	8.0 (538)	9.8 (660)	N.S.	3.9 (262)	----	0.7 (0.9)	0.7 (0.9)

1/ 56# bushel

Location of tests (Counties): 1976 Knox; 1977 Dixon, Knox; 1979 Dakota; 1980 Dixon, Dakota; 1981 Dakota.

Table 7. Southeast District winter wheat variety tests. 1981.

Entry	Cass County 1981		Saunders County 1981		Jefferson County 1981		1981 average 3 tests	
	Yield bu/A (kg/ha)	Weight lb/bu (kg/hl)	Yield bu/A (kg/ha)	Weight lb/bu (kg/hl)	Yield bu/A (kg/ha)	Weight lb/bu (kg/hl)	Yield bu/A (kg/ha)	Weight lb/bu (kg/hl)
Agripro Hawk	86 (5780)	61.7 (79.4)	41 (2760)	58.7 (75.5)	32 (2150)	61.6 (79.3)	53 (3560)	60.7 (78.1)
Agripro Rocky	71 (4780)	61.8 (79.5)	39 (2620)	58.7 (75.5)	36 (2420)	62.4 (80.3)	49 (3300)	61.0 (78.5)
Bennett	67 (4510)	61.7 (79.4)	54 (3630)	59.2 (76.2)	28 (1880)	61.2 (78.8)	50 (3360)	60.7 (78.1)
Buckskin	63 (4240)	61.9 (79.7)	40 (2690)	57.9 (74.5)	34 (2290)	61.5 (79.2)	46 (3090)	60.4 (77.7)
Centurk	70 (4710)	61.8 (79.5)	46 (3090)	58.2 (74.9)	37 (2490)	61.7 (79.4)	51 (3430)	60.6 (78.0)
Centurk 78	76 (5110)	62.3 (80.2)	43 (2890)	58.5 (75.3)	36 (2420)	62.1 (79.9)	52 (3500)	61.0 (78.5)
Dawn	75 (5040)	62.2 (80.1)	56 (3770)	59.5 (76.6)	30 (2020)	61.5 (79.2)	54 (3630)	61.1 (78.6)
DeKalb DK567	72 (4840)	62.5 (80.4)	44 (2960)	57.9 (74.5)	30 (2020)	62.0 (79.8)	49 (3300)	60.7 (78.1)
Gage	68 (4570)	61.7 (79.4)	43 (2890)	57.2 (73.6)	34 (2290)	61.9 (79.7)	48 (3230)	60.3 (77.6)
Homestead	68 (4570)	61.9 (79.7)	49 (3300)	57.8 (74.4)	29 (1950)	61.2 (78.8)	49 (3300)	60.3 (77.6)
Lancer	64 (4300)	62.4 (80.3)	43 (2890)	59.2 (76.2)	32 (2150)	61.9 (79.7)	46 (3090)	61.2 (78.8)
Lancota	61 (4100)	62.4 (80.3)	46 (3090)	58.9 (75.8)	28 (1880)	61.7 (79.4)	45 (3030)	61.0 (78.5)
Larned	72 (4840)	62.6 (80.6)	48 (3230)	58.4 (75.2)	34 (2290)	61.9 (79.7)	51 (3430)	61.0 (78.5)
Migro Archer	78 (5250)	60.3 (77.6)	43 (2890)	56.8 (73.1)	31 (2090)	61.3 (78.9)	51 (3430)	59.5 (76.6)
NE75414	81 (5450)	59.8 (77.0)	46 (3090)	56.5 (72.7)	34 (2290)	60.9 (78.4)	54 (3630)	59.1 (76.1)
NE75424	72 (4840)	64.2 (82.6)	43 (2890)	60.7 (78.1)	26 (1750)	63.5 (81.7)	47 (3160)	62.8 (80.8)
NE76706	77 (5180)	62.5 (80.4)	43 (2890)	58.1 (74.8)	35 (2350)	61.0 (78.5)	52 (3500)	60.5 (77.9)
NE77465	71 (4780)	61.8 (79.5)	40 (2690)	59.0 (75.9)	39 (2620)	62.2 (80.1)	50 (3360)	61.0 (78.5)
NE77682	76 (5110)	63.2 (81.3)	47 (3160)	58.4 (75.2)	38 (2560)	62.5 (80.4)	54 (3630)	61.4 (79.0)
NE78696	85 (5720)	62.1 (79.9)	49 (3300)	58.6 (75.4)	31 (2090)	61.5 (79.2)	55 (3700)	60.7 (78.1)
NE78697	83 (5580)	62.2 (80.1)	49 (3300)	58.4 (75.2)	31 (2090)	61.4 (79.0)	54 (3630)	60.7 (78.1)
NE78698	77 (5180)	62.4 (80.3)	49 (3300)	59.0 (75.9)	26 (1750)	61.5 (79.2)	51 (3430)	61.0 (78.5)
NK Pro Brand 817	77 (5180)	63.4 (81.6)	59 (3970)	60.1 (77.3)	34 (2290)	62.3 (80.2)	57 (3830)	61.9 (79.7)
NK Pro Brand 835	80 (5380)	63.4 (81.6)	41 (2760)	61.4 (79.0)	25 (1680)	63.1 (81.2)	49 (3300)	62.6 (80.6)
Rohm & Haas HW1001	81 (5450)	63.4 (81.6)	43 (2890)	60.2 (77.5)	29 (1950)	62.9 (81.0)	51 (3430)	62.2 (80.1)
Rohm & Haas HW1003	71 (4780)	63.0 (81.1)	44 (2960)	58.6 (75.4)	33 (2220)	61.8 (79.5)	49 (3300)	61.1 (78.6)
Sage	70 (4710)	63.3 (81.5)	52 (3500)	59.6 (76.7)	41 (2760)	62.4 (80.3)	54 (3630)	61.8 (79.5)
Scout 66	65 (4370)	62.5 (80.4)	45 (3030)	58.8 (75.7)	33 (2220)	61.7 (79.4)	48 (3230)	61.0 (78.5)
Scoutland	60 (4040)	63.5 (81.7)	46 (3090)	59.2 (76.2)	32 (2150)	62.2 (80.1)	46 (3090)	61.6 (79.3)
SRI 81 Exp.	58 (3900)	62.5 (80.4)	40 (2690)	58.8 (75.7)	22 (1480)	61.6 (79.3)	40 (2690)	61.0 (78.5)
SRI 4685	65 (4370)	62.3 (80.2)	24 (1610)	57.5 (74.0)	9 (605)	59.1 (76.1)	33 (2220)	59.6 (76.7)
SRI 5221	79 (5310)	62.5 (80.4)	33 (2220)	58.4 (75.2)	20 (1350)	61.0 (78.5)	44 (2960)	60.6 (78.0)
TAM 105	82 (5520)	61.5 (79.2)	52 (3500)	58.5 (75.7)	32 (2150)	61.5 (79.2)	55 (3700)	60.5 (77.9)
Turkey	52 (3500)	62.0 (79.8)	31 (2090)	57.7 (74.3)	28 (1880)	60.9 (78.4)	37 (2490)	60.2 (77.5)
Vona	85 (5720)	63.3 (81.5)	50 (3360)	61.2 (78.8)	31 (2090)	63.1 (81.2)	55 (3700)	62.5 (80.4)
Dif. req. sig.	9.9 (666)	---- ----	6.6 (444)	0.4 (0.5)	7.7 (518)	---- ----	11.9 (800)	0.8 (1.0)

Table 8. Southeast District winter wheat variety tests. 1976-1981.

Entry	Grain yield, bu/A (kg/ha)								Weight, lb/bu (kg/hl)		
	1976 average (2 tests)	1977 average (3 tests)	1978 average (2 tests)	1979 Pawnee County	1980 Gage County	1981 average (3 tests)	1980-81 average (4 tests)	1976-81 average (12 tests)	1981 average (3 tests)	1980-81 average (4 tests)	1976-81 average (12 tests)
Agripro Hawk	-- ----	-- ----	-- ----	-- ----	-- ----	53 (3560)	-- ----	-- ----	60.7 (78.1)	---- ----	---- ----
Agripro Rocky	-- ----	-- ----	-- ----	-- ----	61 (4100)	49 (3300)	55 (3700)	-- ----	61.0 (79.0)	62.8 (81.0)	---- ----
Bennett	60 (4040)	53 (3560)	50 (3360)	43 (2890)	53 (3560)	50 (3360)	52 (3500)	52 (3500)	60.7 (78.1)	62.0 (80.0)	60.2 (77.5)
Buckskin	52 (3500)	50 (3360)	47 (3160)	51 (3430)	57 (3830)	46 (3090)	52 (3500)	51 (3430)	60.4 (78.0)	61.9 (80.0)	59.8 (77.0)
Centurk	56 (3770)	52 (3500)	47 (3160)	45 (3030)	60 (4040)	51 (3430)	56 (3770)	52 (3500)	60.6 (78.0)	62.6 (81.0)	59.8 (77.0)
Centurk 78	53 (3560)	51 (3430)	50 (3360)	44 (2960)	62 (4170)	52 (3500)	57 (3830)	52 (3500)	61.0 (79.0)	62.9 (81.0)	59.9 (77.1)
Dawn	-- ----	-- ----	-- ----	-- ----		54 (3630)	-- ----	-- ----	61.1 (79.0)	---- ----	---- ----
DeKalb DK567	-- ----	-- ----	-- ----	-- ----	48 (3230)	49 (3300)	49 (3300)	-- ----	60.8 (78.2)	61.7 (79.4)	---- ----
Gage	48 (3230)	46 (3090)	42 (2820)	43 (2890)	53 (3560)	48 (3230)	51 (3430)	47 (3160)	60.3 (77.6)	61.8 (79.5)	59.3 (76.3)
Homestead	56 (3770)	47 (3160)	49 (3300)	42 (2820)	50 (3360)	49 (3300)	50 (3360)	49 (3300)	60.3 (77.6)	61.6 (79.3)	59.5 (76.6)
Lancer	48 (3230)	45 (3030)	49 (3300)	47 (3160)	58 (3900)	46 (3090)	52 (3500)	49 (3300)	61.2 (79.0)	62.7 (81.0)	60.4 (78.0)
Lancota	51 (3430)	49 (3300)	47 (3160)	43 (2890)	48 (3230)	45 (3030)	47 (3160)	47 (3160)	61.0 (79.0)	61.9 (80.0)	60.0 (77.2)
Larned	53 (3560)	51 (3430)	53 (3560)	50 (3360)	58 (3900)	51 (3430)	55 (3700)	53 (3560)	61.0 (79.0)	62.5 (80.4)	60.2 (77.5)
Migro Archer	-- ----	-- ----	-- ----	-- ----	-- ----	51 (3430)	-- ----	-- ----	59.5 (77.0)	---- ----	---- ----
NE75414	-- ----	-- ----	-- ----	-- ----	-- ----	54 (3630)	-- ----	-- ----	59.1 (76.1)	---- ----	---- ----
NE75424	-- ----	-- ----	-- ----	-- ----	-- ----	47 (3160)	-- ----	-- ----	62.8 (81.0)	---- ----	---- ----
NE76706	-- ----	-- ----	-- ----	-- ----	-- ----	52 (3500)	-- ----	-- ----	60.5 (78.0)	---- ----	---- ----
NE77465	-- ----	-- ----	-- ----	-- ----	-- ----	50 (3360)	-- ----	-- ----	61.0 (79.0)	---- ----	---- ----
NE77682	-- ----	-- ----	-- ----	-- ----	-- ----	54 (3630)	-- ----	-- ----	61.4 (79.0)	---- ----	---- ----
NE78696	-- ----	-- ----	-- ----	-- ----	-- ----	55 (3700)	-- ----	-- ----	60.7 (78.1)	---- ----	---- ----
NE78697	-- ----	-- ----	-- ----	-- ----	-- ----	54 (3630)	-- ----	-- ----	60.7 (78.1)	---- ----	---- ----
NE78698	-- ----	-- ----	-- ----	-- ----	-- ----	51 (3430)	-- ----	-- ----	61.0 (79.0)	---- ----	---- ----
NK Pro Brand 817	-- ----	-- ----	-- ----	-- ----	52 (3500)	57 (3830)	55 (3700)	-- ----	61.9 (80.0)	62.5 (80.4)	---- ----
NK Pro Brand 835	-- ----	-- ----	-- ----	-- ----	48 (3230)	49 (3300)	49 (3300)	-- ----	62.6 (81.0)	63.5 (82.0)	---- ----
Rohm & Haas HW1001	-- ----	-- ----	-- ----	-- ----	-- ----	51 (3430)	-- ----	-- ----	62.2 (80.1)	---- ----	---- ----
Rohm & Haas HW1003	-- ----	-- ----	-- ----	-- ----	-- ----	49 (3300)	-- ----	-- ----	61.1 (78.6)	---- ----	---- ----
Sage	55 (3700)	54 (3630)	49 (3300)	47 (3160)	50 (3360)	54 (3630)	52 (3500)	52 (3500)	61.8 (80.0)	62.7 (81.0)	60.8 (78.2)
Scout 66	51 (3430)	49 (3300)	48 (3230)	47 (3160)	54 (3630)	48 (3230)	51 (3430)	50 (3360)	61.0 (79.0)	62.4 (80.3)	60.3 (78.0)
Scoutland	51 (3430)	48 (3230)	47 (3160)	44 (2960)	51 (3430)	46 (3090)	49 (3300)	49 (3300)	61.6 (79.3)	62.7 (81.0)	60.8 (78.2)
SRI 81 Exp.	-- ----	-- ----	-- ----	-- ----	-- ----	40 (2690)	-- ----	-- ----	61.0 (79.0)	---- ----	---- ----
SRI 4685	-- ----	-- ----	-- ----	-- ----	-- ----	33 (2220)	-- ----	-- ----	59.6 (77.0)	---- ----	---- ----
SRI 5221	-- ----	-- ----	-- ----	-- ----	-- ----	44 (2960)	-- ----	-- ----	60.6 (78.0)	---- ----	---- ----
TAM 105	-- ----	-- ----	-- ----	-- ----	62 (4170)	55 (3700)	59 (3970)	-- ----	60.5 (78.0)	62.0 (80.0)	---- ----
Turkey	35 (2350)	36 (2420)	39 (2620)	38 (2560)	55 (3700)	37 (2490)	46 (3090)	40 (2690)	60.2 (77.5)	61.4 (79.0)	59.1 (76.1)
Vona	-- ----	48 (3230)	44 (2960)	-- ----	-- ----	55 (3700)	-- ----	-- ----	62.5 (80.4)	---- ----	---- ----
Dif. req. sig.	9.3 (626)	5.1 (343)	6.0 (404)	5.1 (343)	5.0 (336)	11.9 (800)	N.S.	3.6 (242)	3.6 (0.8)	N.S.	0.6 (0.8)

Location of tests (counties): 1976 Gage, Saunders; 1977 Nemaha, Saunders, Jefferson; 1978 Johnson, Seward; 1979 Pawnee; 1980 Gage; 1981 Cass, Saunders, Jefferson.

Table 9. South Central District winter wheat variety tests. 1981.

Entry	Clay County 1981		Franklin County 1981		1981 average 2 tests	
	Yield bu/A (kg/ha)	Weight lb/bu (kg/hl)	Yield bu/A (kg/ha)	Weight lb/bu (kg/hl)	Yield bu/A (kg/ha)	Weight lb/bu (kg/hl)
Agripro Hawk	90 (6050)	59.2 (76.2)	57 (3830)	60.6 (78.0)	74 (4980)	59.9 (77.1)
Agripro Rocky	73 (4910)	59.9 (77.1)	51 (3430)	61.0 (78.5)	62 (4170)	60.5 (77.9)
Bennett	82 (5520)	59.1 (76.1)	41 (2760)	60.3 (77.6)	62 (4170)	59.7 (76.8)
Buckskin	76 (5110)	58.1 (74.8)	49 (3300)	60.6 (78.0)	63 (4240)	59.4 (76.4)
Centurk	73 (4910)	59.0 (75.9)	54 (3630)	60.6 (78.0)	64 (4300)	59.8 (77.0)
Centurk 78	73 (4910)	59.0 (75.9)	49 (3300)	60.9 (78.4)	61 (4100)	60.0 (77.2)
Dawn	93 (6260)	60.2 (77.5)	58 (3900)	61.8 (79.5)	76 (5110)	61.0 (78.5)
DeKalb H104	92 (6190)	59.7 (76.8)	49 (3300)	59.9 (77.1)	71 (4780)	59.8 (77.0)
Eagle	77 (5180)	59.3 (76.3)	52 (3500)	61.2 (78.8)	65 (4370)	60.3 (77.6)
Homestead	80 (5380)	58.8 (75.7)	43 (2890)	59.0 (75.9)	62 (4170)	58.9 (75.8)
Lancer	62 (4170)	58.4 (75.2)	48 (3230)	60.8 (78.2)	55 (3700)	59.6 (76.7)
Lancota	71 (4780)	58.9 (75.8)	49 (3300)	60.6 (78.0)	60 (4040)	59.8 (77.0)
Larned	76 (5110)	59.7 (76.8)	57 (3830)	61.2 (78.8)	67 (4510)	60.5 (77.9)
Migro Archer	94 (6320)	57.5 (74.0)	60 (4040)	59.6 (76.7)	77 (5180)	58.6 (75.4)
NE75414	91 (6120)	56.6 (72.8)	57 (3830)	59.5 (76.6)	74 (4980)	58.1 (74.8)
NE75424	77 (5180)	60.7 (78.1)	44 (2960)	60.3 (77.6)	61 (4100)	60.5 (77.9)
NE76706	77 (5180)	57.7 (74.3)	59 (3970)	61.2 (78.8)	68 (4570)	59.5 (76.6)
NE77465	84 (5650)	59.2 (76.2)	50 (3360)	60.1 (77.3)	67 (4510)	59.7 (76.8)
NE77682	75 (5040)	59.6 (76.7)	51 (3430)	61.7 (79.4)	63 (4240)	60.7 (78.1)
NE78696	92 (6190)	59.1 (76.1)	51 (3430)	60.9 (78.4)	72 (4840)	60.0 (77.2)
NE78697	84 (5650)	59.3 (76.3)	53 (3560)	60.5 (77.9)	69 (4640)	59.9 (77.1)
NE78698	92 (6190)	60.1 (77.3)	46 (3090)	59.7 (76.8)	69 (4640)	59.9 (77.1)
NK Pro Brand 817	94 (6320)	60.3 (77.6)	45 (3030)	60.3 (77.6)	70 (4710)	60.3 (77.6)
NK Pro Brand 835	81 (5450)	61.2 (78.8)	52 (3500)	61.8 (79.5)	67 (4510)	61.5 (79.2)
Rohm & Haas HW1001	93 (6260)	59.9 (77.1)	53 (3560)	61.1 (78.6)	73 (4910)	60.5 (77.9)
Rohm & Haas HW1003	76 (5110)	58.7 (75.5)	44 (2960)	60.3 (77.6)	60 (4040)	59.5 (76.6)
Sage	84 (5650)	59.9 (77.1)	50 (3360)	61.1 (78.6)	67 (4510)	60.5 (77.9)
Scout 66	69 (4640)	59.4 (76.4)	54 (3630)	61.2 (78.8)	62 (4170)	60.3 (77.6)
Scoutland	72 (4840)	60.0 (77.2)	52 (3500)	60.5 (77.9)	62 (4170)	60.3 (77.6)
Sentinel	80 (5380)	57.7 (74.3)	46 (3090)	59.3 (76.3)	63 (4240)	58.5 (75.3)
TAM 105	91 (6120)	59.0 (75.9)	64 (4300)	60.4 (77.7)	78 (5250)	59.7 (76.8)
Turkey	43 (2890)	56.3 (72.5)	36 (2420)	59.6 (76.7)	40 (2690)	58.0 (74.6)
Vona	96 (6460)	59.0 (75.9)	53 (3560)	60.3 (77.6)	75 (5040)	59.7 (76.8)
Dif. req. sig.	6.9 (464)	0.6 (0.8)	8.7 (585)	---- ----	14.5 (975)	1.3 (1.7)

Table 10. South Central District winter wheat variety tests. 1976-1981.

Entry	Grain yield, bu/A (kg/ha)								Weight lb/bu (kg/hl)		
	1976 average (2 tests)	1977 average (3 tests)	1978 average (2 tests)	1979 average (3 tests)	1980 average (2 tests)	1981 average (2 tests)	1980-81 average (4 tests)	1976-81 average (14 tests)	1981 average (2 tests)	1980-81 average (4 tests)	1976-81 average (14 tests)
Agripro Hawk	-- ----	-- ----	-- ----	-- ----	-- ----	74 (4980)	-- ----	-- ----	59.9 (77.1)	---- ----	---- ----
Agripro Rocky	-- ----	-- ----	-- ----	-- ----	73 (4910)	62 (4170)	68 (4570)	-- ----	60.5 (77.9)	60.5 (77.9)	---- ----
Bennett	54 (3630)	38 (2560)	40 (2690)	43 (2890)	67 (4510)	62 (4170)	65 (4370)	51 (3430)	59.7 (76.8)	59.9 (77.1)	58.6 (75.4)
Buckskin	42 (2820)	35 (2350)	32 (2150)	46 (3090)	67 (4510)	63 (4240)	65 (4370)	48 (3230)	59.4 (76.4)	59.8 (77.0)	57.8 (74.4)
Centurk	44 (2960)	37 (2490)	33 (2220)	43 (2890)	71 (4780)	64 (4300)	68 (4570)	49 (3300)	59.8 (77.0)	60.0 (77.2)	57.9 (74.5)
Centurk 78	49 (3300)	38 (2560)	35 (2350)	43 (2890)	71 (4780)	61 (4100)	66 (4440)	50 (3360)	60.0 (77.2)	60.3 (77.6)	58.1 (74.8)
Dawn	-- ----	-- ----	-- ----	-- ----	-- ----	76 (5110)	-- ----	-- ----	61.0 (78.5)	---- ----	---- ----
DeKalb H104	-- ----	-- ----	-- ----	-- ----	73 (4910)	71 (4780)	72 (4840)	-- ----	59.8 (77.0)	60.3 (77.6)	---- ----
Eagle	48 (3230)	33 (2220)	33 (2220)	41 (2760)	59 (3970)	65 (4370)	62 (4170)	47 (3160)	60.3 (77.6)	60.5 (77.9)	58.9 (75.8)
Homestead	48 (3230)	32 (2150)	36 (2420)	42 (2820)	65 (4370)	62 (4170)	64 (4300)	48 (3230)	58.9 (75.8)	59.5 (76.6)	58.1 (74.8)
Lancer	38 (2560)	35 (2350)	30 (2020)	45 (3030)	64 (4300)	55 (3700)	60 (4040)	45 (3030)	59.6 (76.7)	60.0 (77.2)	58.7 (75.5)
Lancota	46 (3090)	29 (1950)	32 (2150)	42 (2820)	61 (4100)	60 (4040)	61 (4100)	45 (3030)	59.8 (77.0)	60.2 (77.5)	58.5 (75.7)
Larned	43 (2890)	39 (2620)	35 (2350)	44 (2960)	64 (4300)	67 (4510)	66 (4440)	49 (3300)	60.5 (77.9)	60.8 (78.2)	58.8 (75.7)
Migro Archer	-- ----	-- ----	-- ----	-- ----	-- ----	77 (5180)	-- ----	-- ----	58.6 (75.4)	---- ----	---- ----
NE75414	-- ----	-- ----	-- ----	-- ----	-- ----	74 (4980)	-- ----	-- ----	58.1 (74.8)	---- ----	---- ----
NE75424	-- ----	-- ----	-- ----	-- ----	-- ----	61 (4100)	-- ----	-- ----	60.5 (77.9)	---- ----	---- ----
NE76706	-- ----	-- ----	-- ----	-- ----	-- ----	68 (4570)	-- ----	-- ----	59.5 (76.6)	---- ----	---- ----
NE77465	-- ----	-- ----	-- ----	-- ----	-- ----	67 (4510)	-- ----	-- ----	59.7 (76.8)	---- ----	---- ----
NE77682	-- ----	-- ----	-- ----	-- ----	-- ----	63 (4240)	-- ----	-- ----	60.7 (78.1)	---- ----	---- ----
NE78696	-- ----	-- ----	-- ----	-- ----	-- ----	72 (4840)	-- ----	-- ----	60.0 (77.2)	---- ----	---- ----
NE78697	-- ----	-- ----	-- ----	-- ----	-- ----	69 (4640)	-- ----	-- ----	59.9 (77.1)	---- ----	---- ----
NE78698	-- ----	-- ----	-- ----	-- ----	-- ----	69 (4640)	-- ----	-- ----	59.9 (77.1)	---- ----	---- ----
NK Pro Brand 817	-- ----	-- ----	-- ----	-- ----	69 (4640)	70 (4710)	70 (4710)	-- ----	60.3 (77.6)	60.8 (78.2)	---- ----
NK Pro Brank 835	-- ----	-- ----	-- ----	-- ----	68 (4570)	67 (4510)	68 (4570)	-- ----	61.5 (79.2)	60.9 (78.4)	---- ----
Rohm & Haas HW1001	-- ----	-- ----	-- ----	-- ----	-- ----	73 (4910)	-- ----	-- ----	60.5 (77.9)	---- ----	---- ----
Rohm & Haas HW1003	-- ----	-- ----	-- ----	-- ----	-- ----	60 (4040)	-- ----	-- ----	59.5 (76.6)	---- ----	---- ----
Sage	44 (2960)	39 (2620)	39 (2620)	42 (2820)	65 (4370)	67 (4510)	66 (4440)	49 (3300)	60.5 (77.9)	60.6 (78.0)	59.3 (76.3)
Scout 66	44 (2960)	40 (2690)	34 (2290)	42 (2820)	60 (4040)	62 (4170)	61 (4100)	47 (3160)	60.3 (77.6)	60.5 (77.9)	58.8 (75.7)
Scoutland	51 (3430)	36 (2420)	35 (2350)	42 (2820)	59 (3970)	62 (4170)	61 (4100)	48 (3230)	60.3 (77.6)	60.8 (78.2)	59.6 (76.7)
Sentinel	49 (3300)	31 (2090)	35 (2350)	42 (2820)	66 (4440)	63 (4240)	65 (4370)	48 (3230)	58.5 (75.3)	58.6 (75.4)	57.2 (73.6)
TAM 105	-- ----	-- ----	-- ----	-- ----	73 (4910)	78 (5250)	76 (5110)	-- ----	59.7 (76.8)	59.9 (77.1)	---- ----
Turkey	28 (1880)	26 (1750)	23 (1550)	36 (2420)	50 (3360)	40 (2690)	45 (3030)	34 (2290)	58.0 (74.6)	59.0 (75.9)	57.1 (73.5)
Vona	-- ----	26 (1750)	38 (2560)	45 (3030)	76 (5110)	75 (5040)	76 (5110)	-- ----	59.7 (76.8)	60.0 (77.2)	---- ----
Dif. req. sig.	9.4 (632)	5.3 (356)	6.4 (430)	N.S.	N.S.	14.5 (975)	7.6 (511)	3.8 (256)	1.3 (1.7)	0.7 (0.9)	1.0 (1.3)

Location of tests (Counties): 1976 Thayer, Clay; 1977 York, Clay, Phelps; 1978 Clay, Harlan; 1979 Polk, Clay, Webster; 1980 Clay, Kearney; 1981 Clay, Franklin.

Table 11. Central District winter wheat variety test. Custer County. 1981.

Entry	Yield bu/A	Weight lb/bu	Protein %	Gms/1000 seeds	Frost damage
Agate	53	60.0	13.8	40.2	1
Agripro Hawk	33	55.6	14.5	36.1	3
Agripro Rocky	33	56.6	14.5	35.3	3
Bennett	28	56.5	14.9	36.5	3+
Buckskin	42	59.0	13.8	36.3	1-
Centurk	38	57.3	14.6	35.1	3
Centurk 78	34	56.3	14.3	34.3	3
Dawn	48	59.4	14.2	36.7	2
Lancer	47	59.6	13.3	35.6	1
Lancota	34	57.8	14.9	36.5	3
Larned	22	60.0	15.1	37.3	4
Migro Archer	33	54.6	14.3	33.0	2
NE75414	46	58.3	13.0	40.1	1-
NE75424	18	55.0	15.6	37.7	4
NE76706	52	58.3	13.8	38.9	1-
NE77465	37	58.0	13.8	39.1	2
NE77682	41	58.8	14.2	40.3	2
NE78696	43	58.2	14.9	39.7	1-
NE78697	51	59.1	13.8	40.2	1-
NE78698	47	58.5	14.3	38.0	1-
NK Pro Brand 817	42	59.2	14.1	41.1	1+
NK Pro Brand 835	24	57.5	14.1	37.4	2+
Rohm & Haas HW1001	25	54.7	13.3	37.6	5
Rohm & Haas HW1003	38	57.8	14.3	40.1	2
Scout 66	33	59.8	14.3	39.7	3
SRI 81 Exp.	9	52.0	17.4	34.6	5+
SRI 4685	19	52.0	15.2	36.3	5+
SRI 5221	23	50.8	14.3	34.5	5
TAM 105	31	56.0	14.4	38.4	4
Turkey	46	57.8	14.1	36.6	1
Vona	26	53.3	13.0	38.1	4
Dif. req. for sig.	5.0	----	1.0	1.7	--

Frost damage is visual estimate of damage from May 10-11 freeze. Rated 1 (least) to 5 (most). Turkey used as base for 1. Higher yields indicate escape from freeze or production on secondary tillers which escaped freezing. These data are not being included in statewide or long-time averages.

Table 12. Central District winter wheat variety tests. 1976-1980.

Entry	Grain yield, bu/A (kg/ha)						Weight, lb/bu (kg/hl)	
	1976 Custer County	1977 Custer County	1978 average (2 tests)	1979 average (2 tests)	1980 Nance County	1976-80 average (7 tests)	1980 Nance County	1976-80 average (7 tests)
Agate	31 (2090)	41 (2760)	35 (2350)	47 (3160)	65 (4370)	44 (2960)	60.2 (77.5)	59.1 (76.1)
Agripro Rocky	-- ----	-- ----	-- ----	-- ----	70 (4710)	-- ----	60.5 (77.9)	---- ----
Agripro Wings	-- ----	-- ----	-- ----	-- ----	81 (5450)	-- ----	61.8 (79.5)	---- ----
Bennett	49 (3300)	40 (2690)	37 (2490)	45 (3030)	72 (4840)	49 (3300)	61.5 (79.2)	59.7 (76.8)
Buckskin	44 (2960)	37 (2490)	37 (2490)	49 (3300)	64 (4300)	46 (3090)	61.1 (78.6)	59.2 (76.2)
Centurk	46 (3090)	45 (3030)	40 (2690)	48 (3230)	72 (4840)	50 (3360)	61.2 (78.8)	59.9 (77.1)
Centurk 78	47 (3160)	40 (2690)	40 (2690)	50 (3360)	77 (5180)	51 (3430)	61.9 (79.7)	59.7 (76.8)
Dawn	-- ----	-- ----	-- ----	-- ----	73 (4910)	-- ----	59.4 (76.4)	---- ----
Eagle	45 (3030)	33 (2220)	34 (2290)	48 (3230)	66 (4440)	45 (3030)	61.4 (79.0)	59.9 (77.1)
Lancer	36 (2420)	44 (2960)	32 (2150)	47 (3160)	64 (4300)	45 (3030)	61.2 (78.8)	59.4 (76.4)
Lancota	40 (2690)	31 (2090)	35 (2350)	45 (3030)	63 (4240)	43 (2890)	61.0 (78.5)	59.4 (76.4)
Larned	52 (3500)	36 (2420)	39 (2620)	50 (3360)	62 (4170)	48 (3230)	61.3 (78.9)	59.9 (77.1)
Lindon	48 (3230)	26 (1750)	37 (2490)	48 (3230)	76 (5110)	47 (3160)	61.0 (78.5)	60.0 (77.2)
Roughrider	-- ----	40 (2690)	34 (2290)	-- ----	-- ----	-- ----	---- ----	---- ----
Sage	43 (2890)	37 (2490)	36 (2420)	47 (3160)	68 (4570)	46 (3090)	61.2 (78.8)	60.0 (77.2)
Scout 66	50 (3360)	37 (2490)	38 (2560)	46 (3090)	57 (3830)	46 (3090)	59.7 (76.8)	59.7 (76.8)
Sentinel	48 (3230)	31 (2090)	37 (2490)	46 (3090)	67 (4510)	46 (3090)	60.1 (77.3)	58.4 (75.2)
TAM 105	-- ----	-- ----	-- ----	-- ----	79 (5310)	-- ----	60.5 (77.9)	---- ----
Turkey	28 (1880)	32 (2150)	31 (2090)	39 (2620)	40 (2690)	34 (2290)	55.4 (71.3)	57.6 (74.1)
Vona	-- ----	24 (1610)	38 (2560)	51 (3430)	78 (5250)	-- ----	61.0 (78.5)	---- ----
Dif. req. sig.	9.2 (619)	8.0 (538)	4.2 (282)	N.S.	6.4 (430)	6.3 (424)	---- ----	1.4 (1.8)

Location of tests (Counties): 1976-1977 Custer; 1978 Sherman, Logan; 1979 Howard, Custer; 1980 Nance.

Table 13. Southwest District winter wheat variety tests. 1981.

Entry	Red Willow County 1981		Frontier County 1981		Lincoln County 1981		1981 average 3 tests	
	Yield bu/A (kg/ha)	Weight lb/bu (kg/hl)	Yield bu/A (kg/ha)	Weight lb/bu (kg/hl)	Yield bu/A (kg/ha)	Weight lb/bu (kg/hl)	Yield bu/A (kg/ha)	Weight lb/bu (kg/hl)
Agate	57 (3830)	59.7 (76.8)	47 (3160)	60.0 (77.2)	36 (2420)	62.1 (79.9)	47 (3160)	60.6 (78.0)
Agripro Rocky	74 (4980)	60.7 (78.1)	61 (4100)	60.2 (77.5)	45 (3030)	63.1 (81.2)	60 (4040)	61.3 (78.9)
Agripro Wings	55 (3700)	60.0 (77.2)	58 (3900)	60.0 (77.2)	43 (2890)	63.4 (81.6)	52 (3500)	61.1 (78.6)
Bennett	53 (3560)	58.8 (75.7)	47 (3160)	59.8 (77.0)	33 (2220)	62.0 (79.8)	44 (2960)	60.2 (77.5)
Buckskin	63 (4240)	59.6 (76.7)	50 (3360)	59.6 (76.7)	46 (3090)	62.8 (80.8)	53 (3560)	60.7 (78.1)
Centurk	70 (4710)	60.2 (77.5)	56 (3770)	60.1 (77.3)	39 (2620)	62.9 (81.0)	55 (3700)	61.1 (78.6)
Centurk 78	72 (4840)	60.1 (77.3)	61 (4100)	60.1 (77.3)	44 (2960)	63.1 (81.2)	59 (3970)	61.1 (78.6)
Dawn	69 (4640)	60.3 (77.6)	56 (3770)	60.2 (77.5)	51 (3430)	63.3 (81.5)	59 (3970)	61.3 (78.9)
DeKalb DK554	64 (4300)	57.8 (74.4)	57 (3830)	58.5 (75.3)	45 (3030)	62.7 (80.7)	55 (3700)	59.7 (76.8)
DeKalb H104	54 (3630)	59.1 (76.1)	53 (3560)	59.8 (77.0)	37 (2490)	62.8 (80.8)	48 (3230)	60.6 (78.0)
Lancer	58 (3900)	59.6 (76.7)	41 (2760)	60.4 (77.7)	33 (2220)	62.8 (80.8)	44 (2960)	60.9 (78.4)
Lancota	55 (3700)	59.4 (76.4)	49 (3300)	60.5 (77.9)	36 (2420)	62.5 (80.4)	47 (3160)	60.8 (78.2)
Larned	62 (4170)	60.5 (77.9)	55 (3700)	60.9 (78.4)	37 (2490)	62.8 (80.8)	51 (3430)	61.4 (79.0)
Migro Archer	61 (4100)	58.5 (75.3)	61 (4100)	58.4 (75.2)	49 (3300)	61.7 (79.4)	57 (3830)	59.5 (76.6)
NE75414	66 (4440)	58.1 (74.8)	50 (3360)	58.2 (74.9)	49 (3300)	61.8 (79.5)	55 (3700)	59.4 (76.4)
NE75424	57 (3830)	60.6 (78.0)	49 (3300)	61.7 (79.4)	43 (2890)	63.8 (82.1)	50 (3360)	62.0 (79.8)
NE76706	71 (4780)	58.9 (75.8)	66 (4440)	60.0 (77.2)	52 (3500)	62.9 (81.0)	63 (4240)	60.6 (78.0)
NE77465	66 (4440)	59.0 (75.9)	55 (3700)	58.9 (75.8)	41 (2760)	61.5 (79.2)	54 (3630)	59.8 (77.0)
NE77682	69 (4640)	61.0 (78.5)	57 (3830)	60.9 (78.4)	45 (3030)	62.9 (81.0)	57 (3830)	61.6 (79.3)
NE78696	58 (3900)	59.3 (76.3)	47 (3160)	59.2 (76.2)	43 (2890)	62.5 (80.4)	49 (3300)	60.3 (77.6)
NE78697	66 (4440)	59.7 (76.8)	58 (3900)	60.2 (77.5)	55 (3700)	62.7 (80.7)	60 (4040)	60.9 (78.4)
NE78698	57 (3830)	58.8 (75.7)	48 (3230)	58.9 (75.8)	50 (3360)	62.6 (80.6)	52 (3500)	60.1 (77.3)
NK Pro Brand 817	61 (4100)	59.8 (77.0)	45 (3030)	60.3 (77.6)	42 (2820)	63.3 (81.5)	49 (3300)	61.1 (78.6)
NK Pro Brand 835	58 (3900)	60.0 (77.2)	38 (2560)	60.4 (77.7)	43 (2890)	63.6 (81.9)	46 (3090)	61.3 (78.9)
Rohm & Haas HW1001	66 (4440)	61.3 (78.9)	54 (3630)	60.8 (78.2)	52 (3500)	63.4 (81.6)	57 (3830)	61.8 (79.5)
Rohm & Haas HW1003	55 (3700)	59.6 (76.7)	42 (2820)	59.3 (76.3)	43 (2890)	62.4 (80.3)	47 (3160)	60.4 (77.7)
Scout 66	62 (4170)	59.1 (76.1)	53 (3560)	61.4 (79.0)	31 (2090)	63.4 (81.6)	49 (3300)	61.3 (78.9)
SRI 4685	50 (3360)	58.0 (74.6)	41 (2760)	60.0 (77.2)	21 (1410)	61.7 (79.4)	37 (2490)	59.9 (77.1)
SRI 5210	44 (2960)	57.6 (74.1)	36 (2421)	58.7 (75.5)	30 (2020)	61.2 (78.8)	37 (2490)	59.2 (76.2)
SRI 5221	39 (2620)	56.3 (72.5)	40 (2690)	59.0 (75.9)	33 (2220)	61.8 (79.5)	37 (2490)	59.0 (75.9)
TAM 105	71 (4780)	60.3 (77.6)	57 (3830)	60.3 (77.6)	41 (2760)	62.8 (80.8)	56 (3770)	61.1 (78.6)
Turkey	44 (2960)	58.7 (75.5)	38 (2560)	58.7 (75.5)	32 (2150)	61.3 (78.7)	38 (2560)	60.3 (77.6)
Vona	62 (4170)	60.0 (77.2)	63 (4240)	60.0 (77.2)	54 (3630)	63.5 (81.7)	60 (4040)	60.4 (77.7)
Dif. req. sig.	7.8 (524)	---- ----	6.5 (437)	---- ----	9.5 (639)	0.5 (0.6)	7.5 (504)	0.9 (1.2)

Table 14. Southwest District winter wheat variety tests. 1976-1981.

Entry	Grain yield, bu/A (kg/ha)								Weight, lb/bu (kg/hl)		
	1976 average (2 tests)	1977 average (3 tests)	1978 average (3 tests)	1979 average (3 tests)	1980 average (3 tests)	1981 average (3 tests)	1980-81 average (6 tests)	1976-81 average (17 tests)	1981 average (3 tests)	1980-81 average (6 tests)	1976-81 average (17 tests)
Agate	34 (2290)	49 (3300)	39 (2620)	49 (3300)	46 (3090)	47 (3160)	47 (3160)	44 (2960)	60.6 (78.0)	60.0 (77.2)	59.6 (76.7)
Agripro Rocky	-- ----	-- ----	-- ----	-- ----	51 (3430)	60 (4040)	56 (3770)	-- ----	61.3 (78.9)	60.8 (78.2)	---- ----
Agripro Wings	-- ----	-- ----	-- ----	-- ----	50 (3360)	52 (3500)	51 (3430)	-- ----	61.1 (78.6)	60.7 (78.1)	---- ----
Bennett	43 (2890)	51 (3430)	38 (2560)	45 (3030)	44 (2960)	44 (2960)	44 (2960)	44 (2960)	60.2 (77.5)	59.4 (76.4)	59.7 (76.8)
Buckskin	34 (2290)	52 (3500)	38 (2560)	52 (3500)	50 (3360)	53 (3560)	52 (3500)	47 (3160)	60.7 (78.1)	59.9 (77.1)	59.6 (76.7)
Centurk	39 (2620)	49 (3300)	43 (2890)	48 (3230)	49 (3300)	55 (3700)	52 (3500)	47 (3160)	61.1 (78.6)	60.2 (77.5)	59.9 (77.1)
Centurk 78	42 (2820)	53 (3560)	41 (2760)	50 (3360)	50 (3360)	59 (3970)	55 (3700)	49 (3300)	61.1 (78.6)	60.2 (77.5)	60.2 (77.5)
Dawn	-- ----	-- ----	-- ----	-- ----	50 (3360)	59 (3970)	55 (3700)	-- ----	61.3 (78.9)	60.1 (77.3)	---- ----
DeKalb DK554	-- ----	-- ----	-- ----	-- ----	54 (3630)	55 (3700)	55 (3700)	-- ----	59.7 (76.8)	58.4 (75.2)	---- ----
DeKalb H104	-- ----	-- ----	-- ----	-- ----	-- ----	48 (3230)	-- ----	-- ----	60.6 (78.0)	---- ----	---- ----
Lancer	29 (1950)	47 (3160)	36 (2420)	48 (3230)	44 (2960)	44 (2960)	44 (2960)	41 (2760)	60.9 (78.4)	60.2 (77.5)	59.8 (77.0)
Lancota	35 (2350)	50 (3360)	34 (2290)	42 (2820)	40 (2690)	47 (3160)	44 (2960)	41 (2760)	60.8 (78.2)	59.6 (76.7)	59.8 (77.0)
Larned	37 (2490)	53 (3560)	39 (2620)	47 (3160)	50 (3360)	51 (3430)	51 (3430)	46 (3090)	61.4 (79.0)	60.9 (78.4)	60.3 (77.6)
Migro Archer	-- ----	-- ----	-- ----	-- ----	-- ----	57 (3830)	-- ----	-- ----	59.5 (76.6)	---- ----	---- ----
NE75414	-- ----	-- ----	-- ----	-- ----	-- ----	55 (3700)	-- ----	-- ----	59.4 (76.4)	---- ----	---- ----
NE75424	-- ----	-- ----	-- ----	-- ----	-- ----	50 (3360)	-- ----	-- ----	62.0 (79.8)	---- ----	---- ----
NE76706	-- ----	-- ----	-- ----	-- ----	-- ----	63 (4240)	-- ----	-- ----	60.6 (78.0)	---- ----	---- ----
NE77465	-- ----	-- ----	-- ----	-- ----	-- ----	54 (3630)	-- ----	-- ----	59.8 (77.0)	---- ----	---- ----
NE77682	-- ----	-- ----	-- ----	-- ----	-- ----	57 (3830)	-- ----	-- ----	61.6 (79.3)	---- ----	---- ----
NE77696	-- ----	-- ----	-- ----	-- ----	-- ----	49 (3300)	-- ----	-- ----	60.3 (77.6)	---- ----	---- ----
NE78697	-- ----	-- ----	-- ----	-- ----	-- ----	60 (4040)	-- ----	-- ----	60.9 (78.4)	---- ----	---- ----
NE78698	-- ----	-- ----	-- ----	-- ----	-- ----	52 (3500)	-- ----	-- ----	60.1 (77.3)	---- ----	---- ----
NK Pro Brand 817	-- ----	-- ----	-- ----	-- ----	48 (3230)	49 (3300)	49 (3300)	-- ----	61.1 (78.6)	60.5 (77.9)	---- ----
NK Pro Brand 835	-- ----	-- ----	-- ----	-- ----	45 (3030)	46 (3090)	46 (3090)	-- ----	61.3 (78.9)	60.2 (77.5)	---- ----
Rohm & Haas HW1001	-- ----	-- ----	-- ----	-- ----	-- ----	57 (3830)	-- ----	-- ----	61.8 (79.5)	---- ----	---- ----
Rohm & Haas HW1003	-- ----	-- ----	-- ----	-- ----	-- ----	47 (3160)	-- ----	-- ----	60.4 (77.7)	---- ----	---- ----
Scout 66	38 (2560)	48 (3230)	39 (2620)	47 (3160)	48 (3230)	49 (3300)	49 (3300)	45 (3030)	61.3 (78.9)	60.7 (78.1)	60.6 (78.0)
SRI 4685	-- ----	-- ----	-- ----	-- ----	-- ----	37 (2490)	-- ----	-- ----	59.9 (77.1)	---- ----	---- ----
SRI 5210	-- ----	-- ----	-- ----	-- ----	-- ----	37 (2490)	-- ----	-- ----	59.2 (76.2)	---- ----	---- ----
SRI 5221	-- ----	-- ----	-- ----	-- ----	-- ----	37 (2490)	-- ----	-- ----	59.0 (75.9)	---- ----	---- ----
TAM 105	-- ----	-- ----	-- ----	-- ----	53 (3560)	56 (3770)	55 (3700)	-- ----	61.1 (78.6)	60.1 (77.3)	---- ----
Turkey	24 (1610)	37 (2490)	32 (2150)	43 (2890)	40 (2690)	38 (2560)	39 (2620)	36 (2420)	60.3 (77.6)	59.6 (76.7)	58.8 (75.7)
Vona	-- ----	58 (3900)	39 (2620)	48 (3230)	51 (3430)	60 (4040)	56 (3770)	-- ----	60.4 (77.7)	59.2 (76.2)	---- ----
Dif. req. sig.	5.4 (363)	7.1 (478)	5.0 (336)	5.4 (363)	N.S.	7.5 (504)	5.5 (373)	3.6 (242)	0.9 (1.2)	0.8 (1.0)	0.7 (0.9)

Location of tests (Counties): 1976 Frontier, Lincoln; 1977 Lincoln, Dundy, Keith; 1978 Furnas, Lincoln, Chase; 1979 Hitchcock, Lincoln, Perkins; 1980 Lincoln, Hayes, Keith; 1981 Red Willow, Frontier, Lincoln.

Table 15. West District winter wheat variety tests. 1981.

Entry	Deuel County 1981		Cheyenne County 1981		Morrill County 1981		Box Butte Co. 1981	Dawes County 1981		1981 average 5 tests 1/	
	Yield bu/A (kg/ha)	Weight lb/bu (kg/hl)	Yield bu/A (kg/ha)	Weight lb/bu (kg/hl)	Yield bu/A (kg/ha)	Weight lb/bu (kg/hl)	Yield bu/A (kg/ha)	Yield bu/A (kg/ha)	Weight lb/bu (kg/hl)	Yield bu/A (kg/ha)	Weight lb/bu (kg/hl)
Agate	46 (3090)	59.2 (76.2)	68 (4570)	61.0 (78.5)	51 (3430)	61.1 (78.6)	27 (1820)	19 (1280)	60.8 (78.2)	42 (2820)	60.5 (77.9)
Agripro Rocky	47 (3160)	60.2 (77.5)	72 (4840)	60.6 (78.0)	61 (4100)	61.6 (79.3)	29 (1950)	21 (1410)	62.0 (79.8)	46 (3090)	61.1 (78.6)
Agripro Wings	50 (3360)	60.2 (77.5)	86 (5780)	61.1 (78.6)	57 (3830)	61.6 (79.3)	20 (1350)	18 (1210)	62.5 (80.4)	46 (3090)	61.4 (79.0)
Bennett	40 (2690)	62.1 (79.9)	79 (5310)	61.3 (78.9)	59 (3970)	61.8 (79.5)	27 (1820)	19 (1280)	61.3 (78.9)	45 (3030)	61.6 (79.3)
Buckskin	47 (3160)	61.6 (79.3)	74 (4980)	61.4 (79.0)	59 (3970)	62.0 (79.8)	32 (2150)	19 (1280)	60.7 (78.1)	46 (3090)	61.4 (79.0)
Centurk	47 (3160)	60.3 (77.6)	75 (5040)	61.1 (78.6)	55 (3700)	60.7 (78.1)	28 (1880)	19 (1280)	61.3 (78.9)	45 (3030)	60.9 (78.4)
Centurk 78	49 (3300)	60.2 (77.5)	76 (5110)	60.3 (77.6)	56 (3770)	61.5 (79.2)	27 (1816)	23 (1550)	61.3 (78.9)	46 (3090)	60.8 (78.2)
Dawn	49 (3300)	61.2 (78.8)	83 (5580)	60.5 (77.9)	58 (3900)	61.5 (79.2)	30 (2020)	20 (1350)	62.2 (80.1)	48 (3230)	61.4 (79.0)
DeKalb DK554	49 (3300)	60.6 (78.0)	87 (5850)	61.2 (78.8)	59 (3970)	60.6 (78.0)	20 (1350)	19 (1280)	61.7 (79.4)	47 (3160)	61.0 (78.5)
DeKalb H85b	46 (3090)	60.7 (78.1)	85 (5720)	61.4 (79.0)	56 (3770)	60.0 (77.2)	18 (1210)	17 (1140)	61.8 (79.5)	44 (2960)	61.0 (78.5)
Lancer	45 (3030)	61.5 (79.2)	65 (4370)	62.0 (79.8)	53 (3560)	62.2 (80.1)	25 (1680)	17 (1140)	61.7 (79.4)	41 (2760)	61.9 (79.7)
Lancota	43 (2890)	59.7 (76.8)	72 (4840)	61.6 (79.3)	54 (3630)	60.6 (78.0)	24 (1610)	18 (1210)	62.8 (80.8)	42 (2820)	61.2 (78.8)
Migro Archer	51 (3430)	60.5 (77.9)	90 (6050)	59.3 (76.3)	58 (3900)	61.1 (78.6)	21 (1410)	22 (1480)	62.0 (79.8)	48 (3230)	60.7 (78.1)
NE75414	52 (3500)	57.5 (74.0)	88 (5920)	59.7 (76.8)	61 (4100)	60.1 (77.3)	34 (2290)	16 (1080)	61.0 (78.5)	50 (3360)	59.6 (76.7)
NE75424	48 (3230)	62.8 (80.8)	76 (5110)	62.3 (80.2)	54 (3630)	62.6 (80.6)	16 (1080)	14 (940)	62.5 (80.4)	42 (2820)	62.6 (80.6)
NE76667	45 (3030)	60.2 (77.5)	79 (5310)	61.5 (79.2)	57 (3830)	60.9 (78.4)	25 (1680)	17 (1140)	62.0 (79.8)	45 (3030)	61.2 (78.8)
NE76706	53 (3560)	59.3 (76.3)	83 (5580)	60.7 (78.1)	65 (4370)	60.8 (78.2)	21 (1410)	24 (1610)	61.8 (79.5)	49 (3300)	60.7 (78.1)
NE77465	53 (3560)	60.0 (77.2)	76 (5110)	59.6 (76.7)	58 (3900)	59.6 (76.7)	22 (1480)	16 (1080)	61.8 (79.5)	45 (3030)	60.3 (77.6)
NE77682	50 (3360)	62.6 (80.6)	69 (4640)	60.7 (78.1)	57 (3830)	61.1 (78.6)	34 (2290)	23 (1550)	62.3 (80.2)	47 (3160)	61.7 (79.4)
NE78696	50 (3360)	62.4 (80.3)	91 (6120)	61.6 (79.3)	56 (3770)	62.0 (79.8)	26 (1750)	18 (1210)	62.2 (80.1)	48 (3230)	62.1 (79.9)
NE78697	52 (3500)	58.8 (75.7)	88 (5920)	60.8 (78.2)	60 (4040)	60.7 (78.1)	27 (1820)	19 (1280)	62.2 (80.1)	49 (3300)	60.6 (78.0)
NE78698	51 (3430)	61.4 (79.0)	92 (6190)	61.1 (78.6)	62 (4170)	59.9 (77.1)	22 (1480)	17 (1140)	62.5 (80.4)	49 (3300)	61.2 (78.8)
NE78702	49 (3300)	62.1 (79.9)	89 (5990)	61.5 (79.2)	59 (3970)	61.6 (79.3)	23 (1550)	17 (1140)	63.3 (81.5)	47 (3160)	62.1 (79.9)
Rohm & Haas HW1001	50 (3360)	62.2 (80.1)	87 (5850)	61.0 (78.5)	65 (4370)	62.6 (80.6)	22 (1480)	21 (1410)	62.2 (80.1)	49 (3300)	62.0 (79.8)
Rohm & Haas HW1003	43 (2890)	59.2 (76.2)	72 (4840)	61.2 (78.8)	52 (3500)	60.7 (78.1)	21 (1410)	20 (1350)	62.3 (80.2)	42 (2820)	60.9 (78.4)
Scout 66	45 (3030)	62.6 (80.6)	62 (4170)	62.0 (79.8)	53 (3560)	62.0 (79.8)	32 (2150)	21 (1410)	62.0 (79.8)	43 (2890)	62.2 (80.1)
SRI 4685	40 (2690)	61.6 (79.3)	79 (5310)	61.7 (79.4)	50 (3360)	60.7 (78.1)	21 (1410)	19 (1280)	61.7 (79.4)	42 (2820)	61.4 (79.0)
SRI 5210	38 (2560)	60.3 (77.6)	69 (4640)	59.6 (76.7)	50 (3360)	60.9 (78.4)	16 (1080)	15 (1010)	59.8 (77.0)	38 (2560)	60.2 (77.5)
SRI 5221	45 (3030)	61.7 (79.4)	79 (5310)	60.8 (78.2)	51 (3430)	60.5 (77.9)	16 (1080)	15 (1010)	62.0 (79.8)	41 (2760)	61.3 (78.9)
TAM 105	47 (3160)	60.7 (78.1)	96 (6460)	61.6 (79.3)	60 (4040)	61.3 (77.6)	29 (1950)	21 (1410)	61.8 (79.5)	51 (3430)	61.4 (79.0)
Turkey	43 (2820)	58.3 (75.0)	48 (3230)	60.7 (78.1)	46 (3090)	58.9 (75.8)	17 (1140)	18 (1210)	62.3 (80.2)	34 (2290)	60.1 (77.3)
Vona	48 (3230)	61.2 (78.8)	91 (6120)	60.8 (78.2)	63 (4240)	60.3 (77.6)	18 (1210)	18 (1210)	63.2 (81.3)	48 (3230)	61.4 (79.0)
Dif. req. sig.	5.1 (343)	1.8 (2.3)	6.8 (457)	1.1 (1.4)	8.4 (565)	1.5 (1.9)	4.2 (282)	4.2 (282)	1.4 (1.8)	6.5 (437)	1.1 (1.4)

1/ Test weight from 4 tests.

Table 16. West District winter wheat variety tests. 1976-1981.

Entry	Grain yield, bu/A (kg/ha)								Weight, lb/bu (kg/hl)		
	1976 average (6 tests)	1977 average (5 tests)	1978 average (5 tests)	1979 average (4 tests)	1980 average (3 tests)	1981 average (5 tests)	1980-81 average (8 tests)	1976-81 average (28 tests)	1981 average (3 tests)	1980-81 average (8 tests)	1976-81 average (28 tests)
Agate	40 (2690)	37 (2490)	43 (2890)	48 (3230)	40 (2690)	42 (2820)	41 (2760)	42 (2820)	60.5 (77.9)	60.3 (77.6)	59.8 (77.0)
Agripro Rocky	-- ----	-- ----	-- ----	-- ----	42 (2820)	46 (3090)	44 (2960)	-- ----	61.1 (78.6)	60.5 (77.9)	---- ----
Agripro Wings	-- ----	-- ----	-- ----	-- ----	42 (2820)	46 (3090)	44 (2960)	-- ----	61.4 (79.0)	60.9 (78.4)	---- ----
Bennett	43 (2890)	35 (2350)	45 (3030)	48 (3230)	38 (2560)	45 (3030)	42 (2820)	42 (2820)	61.6 (79.3)	60.9 (78.4)	59.9 (77.1)
Buckskin	43 (2890)	38 (2560)	44 (2960)	48 (3230)	43 (2890)	46 (3090)	45 (3030)	44 (2960)	61.4 (79.0)	60.8 (78.2)	60.1 (77.3)
Centurk	45 (3030)	35 (2350)	47 (3160)	52 (3500)	43 (2890)	45 (3030)	44 (2960)	45 (3030)	60.9 (78.4)	60.5 (77.9)	59.9 (77.1)
Centurk 78	47 (3160)	34 (2290)	46 (3090)	53 (3560)	41 (2760)	46 (3090)	44 (2960)	45 (3030)	60.8 (78.2)	60.2 (77.5)	60.1 (77.3)
Dawn	-- ----	-- ----	-- ----	-- ----	-- ----	48 (3230)	-- ----	-- ----	61.4 (79.0)	---- ----	---- ----
DeKalb DK554	-- ----	-- ----	-- ----	-- ----	43 (2890)	47 (3160)	45 (3030)	-- ----	61.0 (78.5)	60.1 (77.3)	---- ----
DeKalb H85b	-- ----	-- ----	-- ----	-- ----	-- ----	44 (2960)	-- ----	-- ----	61.0 (78.5)	---- ----	---- ----
Lancer	41 (2760)	35 (2350)	42 (2820)	47 (3160)	-- ----	41 (2760)	-- ----	-- ----	61.9 (79.7)	---- ----	---- ----
Lancota	41 (2760)	33 (2220)	43 (2890)	42 (2820)	39 (2620)	42 (2820)	41 (2760)	40 (2690)	61.2 (78.8)	60.8 (78.2)	59.7 (76.8)
Migro Archer	-- ----	-- ----	-- ----	-- ----	-- ----	48 (3230)	-- ----	-- ----	60.7 (78.1)	---- ----	---- ----
NE75414	-- ----	-- ----	-- ----	-- ----	-- ----	50 (3360)	-- ----	-- ----	59.6 (76.7)	---- ----	---- ----
NE75424	-- ----	-- ----	-- ----	-- ----	-- ----	42 (2820)	-- ----	-- ----	62.6 (80.6)	---- ----	---- ----
NE76667	-- ----	-- ----	-- ----	-- ----	-- ----	45 (3030)	-- ----	-- ----	61.2 (78.8)	---- ----	---- ----
NE76706	-- ----	-- ----	-- ----	-- ----	-- ----	49 (3300)	-- ----	-- ----	60.7 (78.1)	---- ----	---- ----
NE77465	-- ----	-- ----	-- ----	-- ----	-- ----	45 (3030)	-- ----	-- ----	60.3 (77.6)	---- ----	---- ----
NE77682	-- ----	-- ----	-- ----	-- ----	-- ----	47 (3160)	-- ----	-- ----	61.7 (79.4)	---- ----	---- ----
NE78696	-- ----	-- ----	-- ----	-- ----	-- ----	48 (3230)	-- ----	-- ----	62.1 (79.9)	---- ----	---- ----
NE78697	-- ----	-- ----	-- ----	-- ----	-- ----	49 (3300)	-- ----	-- ----	60.6 (78.0)	---- ----	---- ----
NE78698	-- ----	-- ----	-- ----	-- ----	-- ----	49 (3300)	-- ----	-- ----	61.2 (78.8)	---- ----	---- ----
NE78702	-- ----	-- ----	-- ----	-- ----	-- ----	47 (3160)	-- ----	-- ----	62.1 (79.9)	---- ----	---- ----
Rohm & Haas HW1001	-- ----	-- ----	-- ----	-- ----	-- ----	49 (3300)	-- ----	-- ----	62.0 (79.8)	---- ----	---- ----
Rohm & Haas HW1003	-- ----	-- ----	-- ----	-- ----	-- ----	42 (2820)	-- ----	-- ----	60.9 (78.4)	---- ----	---- ----
Scout 66	39 (2620)	36 (2420)	42 (2820)	46 (3090)	43 (2890)	43 (2890)	43 (2890)	42 (2820)	62.2 (80.1)	61.5 (79.2)	60.4 (77.7)
SRI 4685	-- ----	-- ----	-- ----	-- ----	-- ----	42 (2820)	-- ----	-- ----	61.4 (79.0)	---- ----	---- ----
SRI 5210	-- ----	-- ----	-- ----	-- ----	-- ----	38 (2560)	-- ----	-- ----	60.2 (77.5)	---- ----	---- ----
SRI 5221	-- ----	-- ----	-- ----	-- ----	-- ----	41 (2760)	-- ----	-- ----	61.3 (78.9)	---- ----	---- ----
TAM 105	-- ----	-- ----	-- ----	-- ----	43 (2890)	51 (3430)	47 (3160)	-- ----	61.4 (79.0)	60.4 (77.7)	---- ----
Turkey	37 (2490)	29 (1950)	35 (2350)	41 (2760)	36 (2420)	34 (2290)	35 (2350)	35 (2350)	60.1 (77.3)	60.4 (77.7)	59.4 (76.4)
Vona	-- ----	36 (2420)	47 (3100)	56 (3770)	42 (2820)	48 (3230)	45 (3030)	-- ----	61.4 (79.0)	60.7 (78.1)	---- ----
Dif. req. sig.	3.7 (249)	3.8 (256)	5.4 (363)	5.3 (356)	N.S.	6.5 (437)	4.2 (282)	2.2 (148)	1.1 (1.4)	N.S.	N.S.

Location of tests (Counties): 1976 Deuel, Cheyenne (2), Scotts Bluff, Box Butte, Sheridan; 1977 Cheyenne, Kimball, Morrill, Box Butte, Dawes; 1978 Garden, Cheyenne, Box Butte (2); 1979 Deuel, Cheyenne, Box Butte, Dawes; 1980 Kimball, Scotts Bluff, Box Butte; 1981 Deuel, Cheyenne, Morrill, Box Butte, Dawes.

Table 17. Protein content of winter wheat varieties in Nebraska tests. 1981.

Entry	Cass County	Saunders County	Jefferson County	Clay County	Franklin County	Red Willow County	Frontier County	Lincoln County	Deuel County	Cheyenne County	Morrill County	Box Butte County	Dawes County	Average 13 tests
Agate	----	----	----	----	----	11.0	10.1	12.6	8.7	12.0	11.0	13.2	10.2	----
Agripro Hawk	11.5	15.6	12.0	13.2	9.8	----	----	----	----	----	----	----	----	----
Agripro Rocky	10.7	15.8	11.3	13.5	10.4	10.8	9.1	12.6	8.7	11.9	10.9	13.5	9.9	11.5
Agripro Wings	----	----	----	----	----	11.4	9.3	12.1	9.2	11.3	9.9	13.6	10.2	----
Bennett	12.8	14.6	12.3	14.0	12.7	12.5	10.9	13.4	11.3	12.8	12.1	14.6	11.4	12.7
Buckskin	11.4	14.9	11.3	13.6	10.2	10.4	9.6	12.5	9.2	11.5	10.7	14.1	10.0	11.5
Centurk	11.1	15.7	11.2	13.6	10.3	10.8	9.3	12.4	9.2	10.0	11.4	13.8	9.6	11.4
Centurk 78	10.1	15.4	11.3	13.4	10.2	11.0	9.0	12.5	8.9	12.8	10.6	13.7	9.6	11.4
Dawn	10.6	14.5	12.2	12.6	10.0	10.2	9.0	12.1	8.9	10.3	10.4	13.6	10.3	11.1
DeKalb DK554	----	----	----	----	----	10.9	9.1	12.5	9.3	11.7	9.8	14.3	10.0	----
DeKalb DK567	11.5	16.4	12.8	----	----	----	----	----	----	----	----	----	----	----
DeKalb H85b	----	----	----	----	----	----	----	----	9.1	10.2	9.5	14.6	10.3	----
DeKalb H104	----	----	----	14.1	10.8	12.1	9.8	13.1	----	----	----	----	----	----
Eagle	----	----	----	13.8	11.2	----	----	----	----	----	----	----	----	----
Gage	12.1	15.9	11.8	----	----	----	----	----	----	----	----	----	----	----
Homestead	12.8	15.1	13.1	14.4	12.6	----	----	----	----	----	----	----	----	----
Lancer	12.4	14.1	10.8	13.7	10.6	10.6	10.1	13.1	8.5	10.4	10.0	14.0	10.3	11.4
Lancota	13.7	15.8	12.0	13.9	11.1	11.8	10.5	13.6	10.5	12.2	11.5	14.9	10.7	12.5
Larned	11.6	14.1	11.7	13.2	10.3	10.7	9.4	13.0	----	----	----	----	----	----
Migro Archer	11.7	14.9	12.3	13.1	9.9	11.0	9.7	12.2	9.1	10.0	9.6	13.9	10.3	11.4
NE75414	10.3	14.3	11.2	12.4	9.9	9.6	9.4	11.6	8.7	10.5	10.0	14.5	10.1	11.0
NE75424	12.8	15.9	13.4	14.2	11.2	11.7	11.1	13.5	10.4	11.5	10.3	15.3	11.7	12.5
NE76667	----	----	----	----	----	----	----	----	9.2	12.0	10.6	15.4	10.8	----
NE76706	11.4	15.2	11.5	13.9	10.5	10.9	9.6	12.6	9.0	12.3	10.2	14.4	10.0	11.7
NE77465	11.0	15.1	11.7	13.2	9.9	10.8	9.1	12.4	8.9	12.8	10.2	14.0	10.5	11.5
NE77682	11.3	15.2	11.3	13.8	11.2	11.4	9.8	12.9	9.4	12.7	10.3	13.8	10.1	11.8
NE78696	11.5	15.4	12.4	14.0	11.0	11.7	10.7	12.8	9.4	10.8	9.8	14.4	11.7	12.0
NE78697	11.2	15.5	11.7	13.0	10.3	11.2	9.9	12.1	8.8	10.4	9.7	14.1	10.2	11.4
NE78698	11.8	15.2	12.3	14.1	11.2	11.1	10.8	12.7	9.3	10.4	10.6	13.5	10.8	11.8
NE78702	----	----	----	----	----	----	----	----	9.5	10.7	11.1	14.2	11.2	----
NK Pro Brand 817	11.0	15.4	12.3	13.7	11.2	11.5	10.5	13.9	----	----	----	----	----	----
NK Pro Brand 835	12.7	16.2	13.0	14.0	10.7	11.2	10.8	12.5	----	----	----	----	----	----
Rohm & Haas HW1001	12.1	15.1	12.2	12.9	10.2	11.2	9.5	12.5	10.1	12.2	10.0	13.3	9.9	11.6
Rohm & Haas HW1003	11.8	16.1	11.7	14.1	11.7	11.7	10.5	14.2	10.4	14.1	11.0	14.9	10.8	12.5
Sage	12.2	15.1	11.6	14.2	10.8	----	----	----	----	----	----	----	----	----
Scout 66	12.4	14.8	11.5	13.9	10.5	11.0	9.6	13.4	9.9	13.6	11.1	13.8	10.2	12.0
Scoutland	13.4	15.0	12.7	14.3	11.4	----	----	----	----	----	----	----	----	----
Sentinel	----	----	----	14.5	11.2	----	----	----	----	----	----	----	----	----
SRI 81 Exp.	12.0	17.5	14.2	----	----	----	----	----	----	----	----	----	----	----
SRI 4685	13.4	17.7	15.9	----	----	12.1	11.5	13.6	11.0	13.9	12.4	14.7	11.7	----
SRI 5210	----	----	----	----	----	13.8	12.0	14.4	11.1	13.7	12.1	15.4	13.1	----
SRI 5221	11.6	16.9	13.4	----	----	12.8	11.0	13.8	10.5	12.7	11.5	14.7	11.9	----
TAM 105	11.3	14.9	11.3	13.0	10.1	10.8	9.7	12.5	10.0	13.4	11.5	13.6	10.6	11.7
Turkey	13.4	16.1	11.5	13.7	10.8	11.9	10.5	13.1	9.6	12.2	10.5	13.2	10.3	12.1
Vona	11.0	14.4	11.7	12.6	10.4	11.0	9.1	12.0	8.9	10.9	10.3	12.8	9.6	11.1
Dif. req. for sig.	1.6	0.7	1.0	0.5	0.8	0.6	0.3	N.S.	0.9	2.2	1.5	1.1	0.8	

Table 18. Protein content of winter wheat varieties in Nebraska tests. 1972-1981.

Entry	1972 13 tests	1973 12 tests	1974 13 tests	1975 13 tests	1976 12 tests	1977 15 tests	1978 11 tests	1979 12 tests	1980 9 tests	1981 13 tests	1976-81 average
Agate	----	12.4	11.8	12.9	13.2	12.9	13.4	11.2	10.3	----	----
Agripro Rocky	----	----	----	----	----	----	----	----	10.3	11.5	----
Agripro Wings	----	----	----	----	----	----	----	----	10.4	----	----
Bennett	----	----	----	----	12.8	13.1	13.4	11.5	11.1	12.7	12.4
Buckskin	11.7	12.4	11.6	12.7	12.8	12.7	13.5	11.3	10.5	11.5	12.1
Centurk	11.7	12.0	11.8	12.9	12.8	12.5	13.1	11.1	10.4	11.4	11.9
Centurk 78	----	----	----	----	12.6	12.5	13.1	11.0	10.4	11.4	11.8
Dawn	----	----	----	----	----	----	----	----	----	11.1	----
Lancer	11.5	12.2	11.6	12.9	12.9	12.7	13.2	11.0	10.6	11.4	12.0
Lancota	12.6	13.3	12.9	13.7	13.5	13.4	14.1	11.9	11.0	12.5	12.7
Larned	----	----	----	----	12.6	12.4	12.8	11.1	10.7	----	----
Migro Archer	----	----	----	----	----	----	----	----	----	11.4	----
NE75414	----	----	----	----	----	----	----	----	----	11.0	----
NE75424	----	----	----	----	----	----	----	----	----	12.5	----
NE76706	----	----	----	----	----	----	----	----	----	11.7	----
NE77465	----	----	----	----	----	----	----	----	----	11.5	----
NE77682	----	----	----	----	----	----	----	----	----	11.8	----
NE77696	----	----	----	----	----	----	----	----	----	12.0	----
NE77697	----	----	----	----	----	----	----	----	----	11.4	----
NE77698	----	----	----	----	----	----	----	----	----	11.8	----
Rohm & Haas HW1001	----	----	----	----	----	----	----	----	----	11.6	----
Rohm & Haas HW1003	----	----	----	----	----	----	----	----	----	12.5	----
Sage	----	12.7	12.3	13.3	12.8	12.9	13.1	11.4	10.8	----	----
Scout 66	11.8	12.1	11.8	13.0	12.7	12.6	13.1	11.3	10.6	12.0	12.1
TAM 105	----	----	----	----	----	----	----	----	10.3	11.7	----
Turkey	12.0	13.1	12.1	12.9	14.1	13.4	13.9	12.0	11.1	12.1	12.8
Vona	----	----	---	---	---	---	12.7	----	----	11.1	----
Average	12.0	12.6	12.1	13.1	12.9	12.9	13.3	11.3	10.6	11.7	12.1
Dif. req. sig.	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	1.0	0.4	0.2

Protein on 14% moisture basis.

Table 19. Kernel weight of winter wheat varieties in Nebraska tests. 1981.

Entry	Weight of 1000 kernels, grams													Average 13 tests	
	Cass County	Saunders County	Jefferson County	Clay County	Franklin County	Red Willow County	Frontier County	Lincoln County	Deuel County	Cheyenne County	Morrill County	Box Butte County	Dawes County	Gms/ 1000	Seeds/ lb.
Agate	----	----	----	----	----	41.9	39.5	42.1	51.1	41.6	41.8	40.8	42.2	----	------
Agripro Hawk	41.6	34.5	41.9	38.3	39.0	----	----	----	----	----	----	----	----	----	------
Agripro Rocky	37.7	28.7	37.0	32.5	34.3	35.4	34.0	40.1	44.4	42.7	35.9	36.9	33.9	36.4	12,460
Agripro Wings	----	----	----	----	----	37.3	34.8	40.5	45.8	41.3	38.6	39.6	35.3	----	------
Bennett	39.5	33.9	38.4	34.8	37.3	37.1	36.0	41.9	46.0	41.0	41.5	39.3	39.8	39.0	11,630
Buckskin	38.6	31.4	36.0	33.9	35.1	37.4	34.2	39.8	42.2	38.2	38.5	37.7	39.3	37.1	12,230
Centurk	35.1	30.5	35.2	31.6	33.4	36.5	34.0	39.9	42.0	36.0	37.1	36.3	37.5	35.8	12,670
Centurk 78	36.0	29.9	39.5	30.5	32.9	37.2	34.4	39.3	42.8	38.9	35.6	36.1	37.1	36.2	12,530
Dawn	37.4	31.3	41.7	35.6	35.7	39.5	34.9	40.7	43.6	40.4	38.2	38.9	40.1	38.3	11,840
DeKalb DK554	----	----	----	----	----	39.7	36.3	41.7	43.6	39.9	39.0	37.4	40.0	----	------
DeKalb DK567	37.6	34.5	38.6	----	----	----	----	----	----	----	----	----	----	----	------
DeKalb H85b	----	----	----	----	----	----	----	----	42.2	38.9	37.5	37.6	38.6	----	------
DeKalb H104	----	----	----	37.7	35.0	39.0	36.4	41.7	----	----	----	----	----	----	------
Eagle	----	----	----	35.9	37.3	----	----	----	----	----	----	----	----	----	------
Gage	39.3	33.6	37.6	----	----	----	----	----	----	----	----	----	----	----	------
Homestead	39.4	33.4	40.0	34.8	34.1	----	----	----	----	----	----	----	----	----	------
Lancer	38.4	30.9	37.8	33.9	31.9	40.1	34.7	40.2	41.1	38.8	36.8	36.8	37.7	36.9	12,290
Lancota	41.0	33.2	40.7	36.5	35.7	41.8	37.3	40.3	45.9	41.9	40.2	37.2	41.0	39.4	11,510
Larned	41.1	35.2	39.8	34.9	37.4	41.1	38.4	42.4	----	----	----	----	----	----	------
Migro Archer	35.6	29.5	37.1	32.8	32.4	36.8	34.5	37.4	40.7	36.6	34.4	34.1	37.4	35.3	12,850
NE75414	38.3	33.1	41.0	35.2	34.8	39.8	35.5	41.4	44.2	41.0	38.8	36.8	39.5	38.4	11,810
NE75424	38.9	33.2	38.6	34.9	33.5	39.5	36.6	39.6	43.7	39.7	38.5	35.9	38.4	37.8	12,000
NE76667	----	----	----	----	----	----	----	----	41.4	42.8	39.5	39.4	39.3	----	------
NE76706	39.3	33.5	42.7	32.0	35.6	40.1	35.6	40.9	44.2	47.1	40.8	38.3	38.8	39.1	11,600
NE77465	38.1	30.2	38.9	33.7	34.8	39.1	34.1	39.2	41.0	42.0	37.3	36.8	35.7	37.0	12,260
NE77682	38.7	30.6	37.9	34.1	37.2	39.2	36.8	39.7	43.9	41.5	36.1	38.5	37.4	37.8	12,000
NE78696	38.5	32.4	39.0	36.2	34.9	39.7	36.6	40.3	43.0	42.5	36.0	40.5	38.3	38.3	11,840
NE78697	36.7	32.7	40.3	35.8	35.4	41.7	37.0	41.3	44.6	43.9	36.7	42.4	38.9	39.0	11,630
NE78698	39.9	34.3	40.0	38.6	34.8	39.9	36.5	40.8	42.3	41.4	36.3	39.1	39.9	38.8	11,690
NE78702	----	----	----	----	----	----	----	----	40.0	41.0	36.5	36.1	38.7	----	------
NK Pro Brand 817	39.0	35.3	40.4	37.9	35.3	40.9	37.7	41.8	----	----	----	----	----	----	------
NK Pro Brand 835	37.8	36.8	38.7	38.7	35.3	36.5	36.1	39.0	----	----	----	----	----	----	------
Rohm & Haas HW1001	38.9	34.5	38.7	37.8	35.9	38.4	37.4	41.0	39.8	42.0	37.5	37.7	37.8	38.3	11,840
Rohm & Haas HW1003	39.6	33.1	39.0	37.7	35.8	39.2	38.3	39.6	41.8	41.9	39.5	40.1	39.9	39.0	11,630
Sage	38.7	35.2	39.7	36.7	36.7	----	----	----	----	----	----	----	----	----	------
Scout 66	38.4	35.5	39.3	35.8	38.6	40.3	39.0	40.8	40.5	41.6	38.2	39.1	40.6	39.1	11,600
Scoutland	39.4	34.1	37.3	34.1	34.9	----	----	----	----	----	----	----	----	----	------
Sentinel	----	----	----	34.2	34.0	----	----	----	----	----	----	----	----	----	------
SRI 81 Exp.	40.1	37.1	36.2	----	----	----	----	----	----	----	----	----	----	----	------
SRI 4685	38.2	37.9	36.5	----	----	38.5	39.5	40.9	43.2	42.2	40.3	38.1	41.4	----	------
SRI 5210	----	----	----	----	----	36.2	36.9	39.3	38.8	37.7	36.2	33.8	37.3	----	------
SRI 5221	39.3	37.2	37.6	----	----	36.3	38.8	41.6	40.9	39.8	37.9	36.5	40.2	----	------
TAM 105	36.2	32.2	35.3	36.2	37.4	37.6	39.3	41.3	40.3	38.8	36.7	39.0	40.3	37.7	12,030
Turkey	34.7	32.0	36.4	34.1	34.8	38.2	38.3	41.0	39.5	40.6	36.0	39.1	37.5	37.1	12,030
Vona	36.1	34.7	35.8	35.5	35.7	37.8	37.1	39.8	40.4	39.0	36.7	38.4	37.7	37.3	12,160
Dif. req. for sig.	2.0	0.9	2.3	1.8	1.3	1.8	1.4	1.8	2.2	2.4	1.5	2.0	N.S.	1.1	------

Seeds per pound = $\frac{453.6 \times 1000}{\text{grams/1000 seeds}}$

Table 20. Height of winter wheat varieties in Nebraska tests. 1981.

Entry	Plant height, inches												
	Cass County	Saunders County	Jefferson County	Clay County	Franklin County	Red Willow County	Frontier County	Deuel County	Cheyenne County	Morrill County	Box Butte County	Dawes County	Average (12 tests)
Agate	--	--	--	--	--	41	48	43	51	41	27	29	--
Agripro Hawk	39	35	23	40	36	--	--	--	--	--	--	--	--
Agripro Rocky	43	41	25	43	40	41	42	42	49	39	27	26	38
Agripro Wings	--	--	--	--	--	37	36	35	44	33	25	25	--
Bennett	40	40	24	39	35	36	37	36	45	33	25	24	35
Buckskin	48	47	29	49	44	46	47	44	52	42	26	30	42
Centurk	44	41	27	42	40	42	41	41	49	38	26	28	38
Centurk 78	44	38	25	42	39	40	41	41	48	37	25	28	37
Dawn	39	38	24	41	38	39	38	36	42	34	25	26	35
DeKalb DK554	--	--	--	--	--	42	43	42	48	41	29	30	--
DeKalb DK567	42	36	26	--	--	--	--	--	--	--	--	--	--
DeKalb H85B	--	--	--	--	--	--	--	41	48	39	28	29	--
DeKalb H104	--	--	--	42	39	38	39	--	--	--	--	--	--
Eagle	--	--	--	42	39	--	--	--	--	--	--	--	--
Gage	47	45	29	--	--	--	--	--	--	--	--	--	--
Homestead	40	41	24	39	34	--	--	--	--	--	--	--	--
Lancer	49	46	29	47	42	45	46	43	50	41	29	29	41
Lancota	46	45	27	47	44	41	46	43	49	40	27	29	40
Larned	43	45	28	43	40	40	41	--	--	--	--	--	--
Migro Archer	38	33	23	38	34	35	34	33	39	31	21	25	32
NE75414	44	40	28	41	38	42	39	37	44	35	27	26	37
NE75424	42	37	23	40	37	37	39	40	46	37	25	25	36
NE76667	--	--	--	--	--	--	--	40	49	39	25	29	--
NE76706	44	41	26	43	41	42	43	41	48	38	27	27	38
NE77465	43	40	28	42	37	41	41	41	48	39	24	27	38
NE77682	43	39	26	42	40	41	41	41	47	37	27	28	38
NE78696	36	33	26	37	35	35	34	31	37	29	19	24	31
NE78697	40	38	26	41	36	41	38	35	41	31	22	27	35
NE78698	41	38	25	39	36	39	36	33	41	32	24	26	34
NE78702	--	--	--	--	--	--	--	33	39	29	21	25	--
NK Pro Brand 817	41	37	26	40	36	40	37	--	--	--	--	--	--
NK Pro Brand 835	36	33	22	37	35	36	34	--	--	--	--	--	--
Rohm & Haas HW1001	40	37	24	41	37	39	37	37	48	35	25	25	35
Rohm & Haas HW1003	46	44	26	46	40	44	43	42	50	40	26	29	40
Sage	46	45	28	43	40	--	--	--	--	--	--	--	--
Scout 66	48	46	28	45	42	42	44	43	51	39	29	28	40
Scoutland	44	45	26	44	40	--	--	--	--	--	--	--	--
Sentinel	--	--	--	41	37	--	--	--	--	--	--	--	--
SRI 81 Exp	39	35	27	--	--	--	--	--	--	--	--	--	--
SRI 4685	36	32	24	--	--	35	33	31	38	29	24	24	--
SRI 5210	--	--	--	--	--	34	34	31	37	31	21	25	--
SRI 5221	36	34	25	--	--	35	35	33	39	32	21	27	--
TAM 105	37	35	25	38	36	36	37	31	40	29	24	23	33
Turkey	52	49	35	50	46	48	49	46	54	44	29	32	45
Vona	36	34	22	37	33	34	35	33	41	32	25	25	32
Dif. req. for sig.	3.0	1.8	3.3	1.5	2.9	1.9	2.1	--	1.8	1.9	3.5	2.3	1.3

Table 21. Flower date, lodging and straw yields of winter wheat varieties in Nebraska tests. 1981.

Entry	Flower date			Lodging %			Straw yield, cwt/A	
	Saunders County	Clay County	Box Butte County	Saunders County	Clay County	Cheyenne County	Red Willow County	Frontier County
Agate	----	----	6-2	--	--	32	76.1	77.6
Agripro Hawk	5-24	5-23	---	T	0	--	----	----
Agripro Rocky	5-25	5-25	6-2	2	11	23	72.1	74.2
Agripro Wings	----	----	6-2	--	--	8	71.1	68.9
Bennett	5-25	5-23	6-1	1	1	3	61.2	67.7
Buckskin	5-28	5-27	6-2	9	20	17	71.4	78.5
Centurk	5-25	5-25	6-2	4	11	26	67.8	70.4
Centurk 78	5-25	5-25	6-2	1	3	24	62.0	73.9
Dawn	5-25	5-26	6-4	7	0	15	61.4	67.5
DeKalb DK554	----	----	6-4	--	--	5	59.8	66.3
DeKalb DK567	5-23	----	---	T	--	--	----	----
DeKalb H85b	----	----	6-3	--	--	3	----	----
DeKalb H104	----	5-21	---	--	0	--	64.8	69.3
Eagle	----	5-24	---	--	5	--	----	----
Gage	5-26	----	---	9	--	--	----	----
Homestead	5-26	5-23	---	1	0	--	----	----
Lancer	5-28	5-27	6-2	13	16	11	74.9	87.2
Lancota	5-28	5-26	6-2	10	3	3	78.4	80.1
Larned	5-25	5-24	---	13	16	--	63.5	75.9
Migro Archer	5-24	5-23	6-2	0	0	0	58.8	65.9
NE75414	5-27	5-25	6-2	2	0	3	68.8	72.4
NE75424	5-24	5-22	6-3	1	4	3	67.1	75.3
NE76667	----	----	6-3	--	--	15	----	----
NE76706	5-27	5-26	6-4	2	3	15	74.8	79.8
NE77465	5-25	5-25	6-3	1	3	12	65.7	73.8
NE77682	5-24	5-24	6-1	1	8	15	65.4	63.1
NE78696	5-25	5-25	6-2	0	0	0	67.6	73.2
NE78697	5-29	5-28	6-3	T	0	1	74.5	73.8
NE78698	5-27	5-27	6-3	1	0	3	72.8	74.7
NE78702	----	----	6-2	--	--	0	----	----
NK Pro Brand 817	5-26	5-27	---	0	0	--	62.1	67.3
NK Pro Brand 835	5-22	5-21	---	0	0	--	64.6	69.4
Rohm & Haas HW1001	5-23	5-21	6-1	0	3	3	65.9	67.6
Rohm & Haas HW1003	5-28	5-27	6-3	3	16	8	74.0	73.4
Sage	5-26	5-24	---	6	10	--	----	----
Scout 66	5-25	5-23	6-1	53	30	30	67.4	67.1
Scoutland	5-25	5-23	---	21	10	--	----	----
Sentinel	----	5-25	---	--	0	--	----	----
SRI 81 Exp	5-21	----	---	0	--	--	----	----
SRI 4685	5-19	----	6-1	0	--	1	51.0	62.3
SRI 5210	----	----	6-4	--	--	0	63.6	65.7
SRI 5221	5-23	----	6-3	0	--	0	61.8	64.3
TAM 105	5-25	5-23	6-1	T	0	1	65.7	75.5
Turkey	6-1	5-29	6-4	70	50	42	79.6	79.9
Vona	5-22	5-21	6-2	0	0	0	67.4	70.0
Dif. req. for sig.	1.2	0.9	1.6	6.9	8.4	13.1	9.0	11.7

Table 22. Winter barley variety tests. 1981.

Entry	Grain yield, bu/A						1981 average 1/			
	Lancaster County	Clay County	Franklin County	Red Willow County	Cheyenne County	Average 5 tests	Survival %	Flower May	Height inches	Weight lb/bu
Kearney	17	32	40	78	40	41	92	22	35	49.8
Nebar	34	43	57	70	32	47	92	23	36	48.6
NE76129 2/	41	52	66	104	70	67	87	22	28	48.0
NE76138 3/	52	72	59	97	69	70	88	24	30	50.7
NE76147 4/	32	44	55	94	53	56	86	26	33	46.9
NE76148 5/	25	54	70	85	59	59	86	25	33	49.9
Herb	31	36	52	73	35	45	92	24	35	48.7
NE80715 6/	40	55	58	80	67	60	89	21	30	49.3
NE80718 7/	21	49	55	72	74	54	83	23	30	48.9
NE80719 7/	35	68	67	97	74	68	85	24	32	49.6
NE80725 8/	46	61	62	89	57	63	93	22	33	49.1
NE80730 9/	41	67	59	90	87	67	88	22	30	50.2
Centurk (w.w.)	36	62	49	74	55	55	95	26	37	60.5
Dif. req. sig.	12.3	6.9	9.7	12.8	11.9	10.6	4.9	N.S.	2.4	1.9

1/ Survival - 3 locations. Flower - 3 locations. Height - 4 locations. Test weight - 3 locations.

2/ Sabbaton/Meimi//Decatur/3/Paoli

3/ Dicktoo/Reno//Shonan/Randolph/3/OAC 2-11/Decatur

4/ Decatur/Chase//OAC 2-11/Decatur

5/ Sabbaton/Meimi//Will/3/Sabbaton/Meimi//Decatur

6/ Nebar Sel./NE76129

7/ NE76129/VA 70-44-213

8/ NE73264/NE76129//Nebar Sel./NE76129

9/ NE73264/NE76129

Table 23. Winter barley variety tests. 1977-1981.

Entry	1977 3 tests		1978 6 tests		1979 3 tests		1980 5 tests		1981 5 tests		1977-1981 (22 tests)	
	Surv. %	Yield bu/A	Surv. %	Yield bu/A	Surv. %	Yield bu/A	Surv. %	Yield bu/A	Surv. %	Yield bu/A	Surv. %	Yield bu/A
Kearney	85	37	55	24	36	42	80	49	92	41	70	39
Nebar	71	53	50	30	30	38	55	61	92	47	60	46
NE76129 1/	65	44	63	41	36	48	61	55	87	67	62	51
NE76138 2/	83	62	72	42	35	45	56	56	88	70	67	55
NE76147 3/	80	59	78	43	34	49	58	64	86	56	67	54
NE76148 4/	82	64	66	38	39	55	53	50	86	59	65	53
Herb	--	--	--	--	--	--	79	56	92	45	--	--
NE80715 5/	--	--	--	--	--	--	--	--	89	60	--	--
NE80718 6/	--	--	--	--	--	--	--	--	83	54	--	--
NE80719 6/	--	--	--	--	--	--	--	--	85	68	--	--
NE80725 7/	--	--	--	--	--	--	--	--	93	63	--	--
NE80730 8/	--	--	--	--	--	--	--	--	88	67	--	--
Centurk (w.w.)	98	61	97	39	91	55	100	58	95	55	96	54
Dif. req. sig.	15	11.5	15.3	8.9	N.S.	N.S.	9.2	N.S.	4.9	10.6	12.8	8.0

1/ Sabbaton/Meimi//Decatur/3/Paoli

2/ Dicktoo/Reno//Shonan/Randolph/3/OAC 2-11/Decatur

3/ Decatur/Chase//OAC 2-11/Decatur

4/ Sabbaton/Meimi//Will/3/Sabbaton/Meimi//Decatur

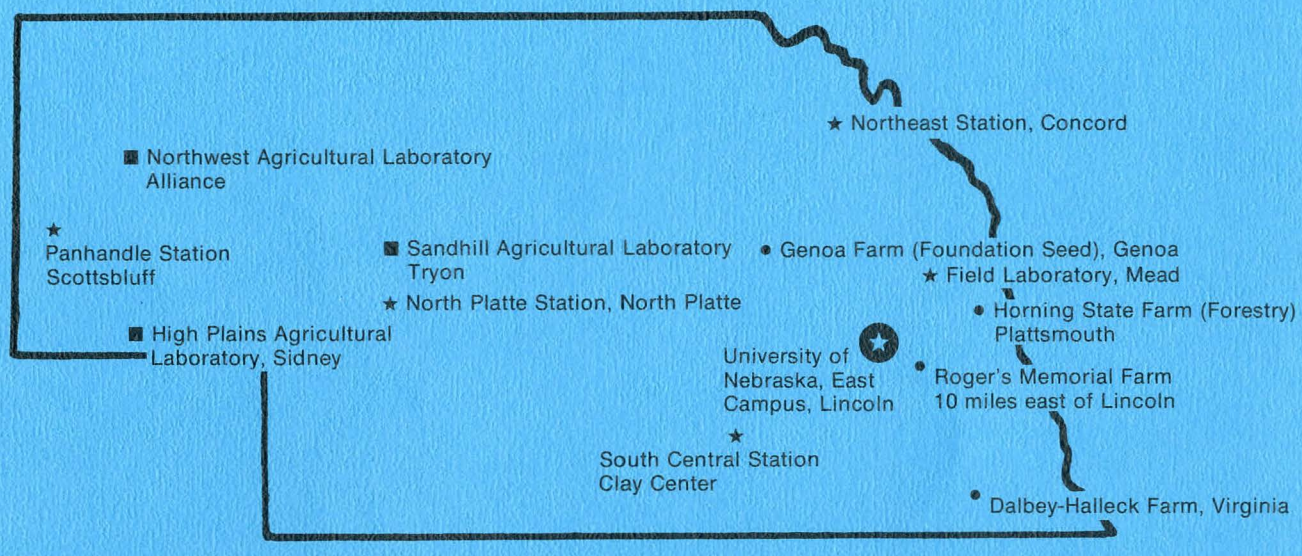
5/ Nebar Sel./NE76129

6/ NE76129/VA 70-44-213

7/ NE73264/NE76129//Nebar Sel./NE76129

8/ NE73264/NE76129

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 or national origin.