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### EC98-103 Nebraska Fall-Sown Small Grain Variety Tests, 1998

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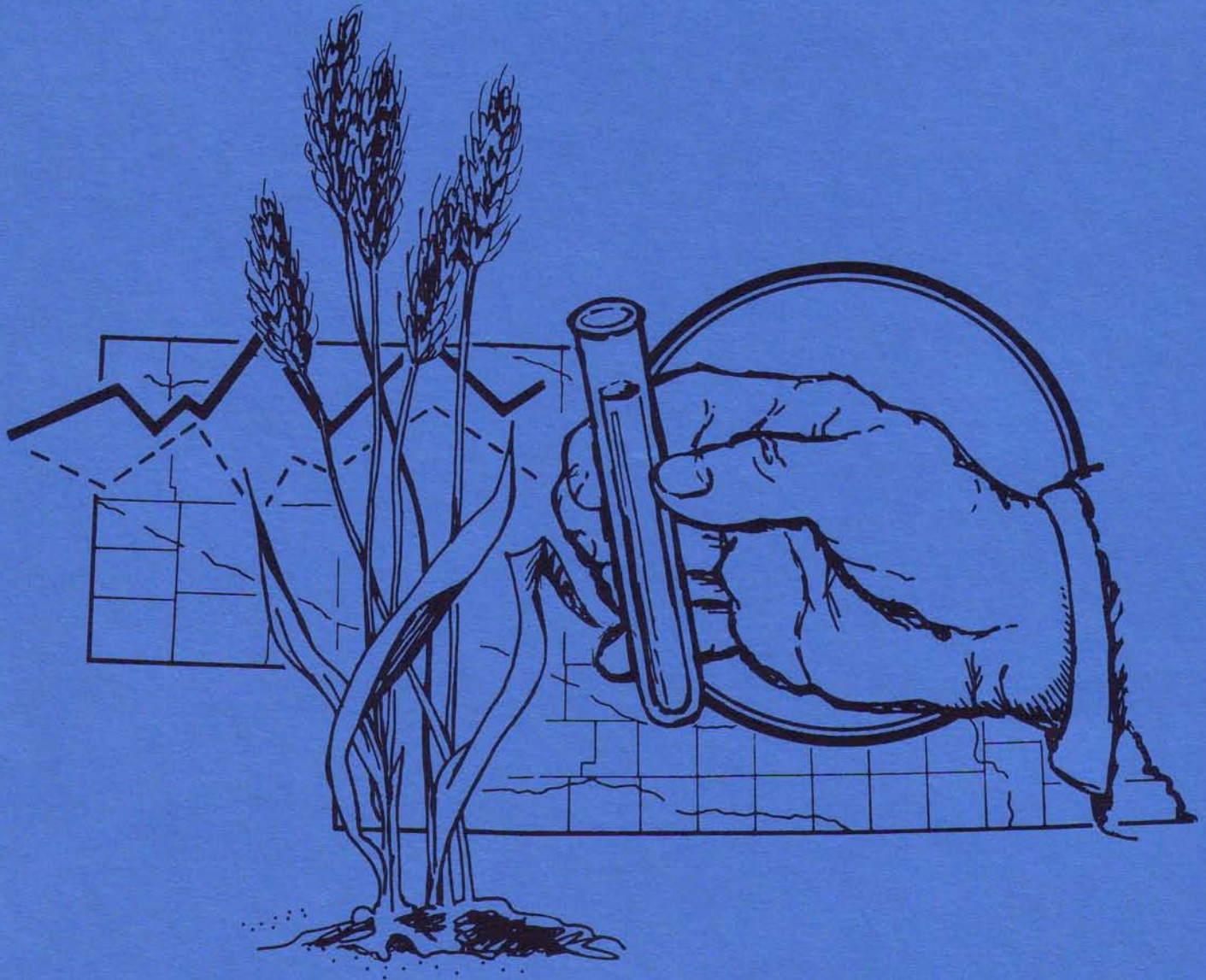
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# NEBRASKA FALL-SOWN SMALL GRAIN VARIETY TESTS 1998



University of Nebraska—Lincoln  
Institute of Agriculture and Natural Resources  
Agricultural Research Division  
Cooperative Extension



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# EXTENSION CIRCULAR 98-103

## NEBRASKA FALL-SOWN SMALL GRAIN VARIETY TESTS

August 1998

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### METRIC EQUIVALENTS

1 centimeter =	0.394 inches	cm =	inches x 2.54
1 hectare =	2.471 acres	ha =	acres x 0.405
1 kilogram =	2.205 pounds	kg =	pounds x 0.454
1 hectoliter =	2.838 bushels	hl =	bushels x 0.35
Kilogram/hectoliter =	.....lb/bu x 1.287		
Kilogram/hectare =	.....bu/A x 53.81 (48# bushel)		
Kilogram/hectare =	.....bu/A x 67.26 (60# bushel)		



EXTENSION CIRCULAR 98-103  
CONTENTS

## Introduction

Discussion . . . . .	4
Cooperators . . . . .	8
Soil series and soil test data . . . . .	9
Variety characteristics . . . . .	10
Map location of tests . . . . .	12
Southeast - Saline and Saunders Co. 1998 . . . . .	13
Southeast 1994-1998 . . . . .	14
South Central - Clay and Harlan Co. 1998 . . . . .	16
South Central 1994-1998 . . . . .	17
West Central - Keith, Perkins, Dundy, Red Willow, Custer and Lincoln Co. 1998 . . . . .	19
West Central 1994-1998 . . . . .	20
Panhandle - Cheyenne, Deuel, Banner, Dawes and Box Butte Co. 1998 . . . . .	22
Panhandle - 1994-1998 . . . . .	23
Panhandle Irrigated - Cheyenne Co. 1998 . . . . .	25
Panhandle Irrigated 1994-1998 . . . . .	26
February wheat planting in Cheyenne Co. 1998 . . . . .	28
Winter Barley - Lancaster, Cheyenne Co and Colby KS . . . . .	29
Wheat Yields at all locations - 1998 . . . . .	30
Wheat Yields as % of checks 1998 . . . . .	31
Wheat Bushel Weights at all locations 1998 . . . . .	32
Protein content at all locations 1998 . . . . .	33
Winter Wheat Planting Date Recommendations . . . . .	34
Weather data from 1998 . . . . .	35

**NEBRASKA WINTER WHEAT PRODUCTION**

Year	<u>Planted</u>	<u>Harvested</u>	<u>Average</u>
	000 acres (hectares)	000 acres (hectares)	yield bu/a (kg/ha)
1977	3300 (1337)	2950 (1195)	35.0 (2354)
1978	2900 (1175)	2550 (1033)	32.0 (2152)
1979	3000 (1215)	2550 (1033)	34.0 (2287)
1980	3000 (1215)	2850 (1154)	38.0 (2556)
1981	3000 (1215)	2900 (1175)	36.0 (2421)
1982	3050 (1235)	2900 (1175)	35.0 (2354)
1983	2800 (1134)	2300 (932)	43.0 (2892)
1984	3200 (1296)	2250 (911)	36.0 (2421)
1985	2600 (1053)	2300 (932)	39.0 (2623)
1986	2300 (932)	2000 (810)	39.0 (2623)
1987	2200 (891)	1950 (790)	44.0 (2959)
1988	2300 (932)	2000 (810)	36.0 (2421)
1989	2300 (932)	2050 (830)	27.0 (1816)
1990	2400 (975)	2250 (911)	38.0 (2556)
1991	2350 (952)	2000 (810)	32.0 (2152)
1992	2350 (952)	1950 (790)	31.0 (2085)
1993	2350 (952)	2100 (851)	35.0 (2354)
1994	2200 (891)	2100 (851)	34.0 (2287)
1995	2150 (870)	2100 (851)	41.0 (2758)
1996	2300 (932)	2100 (851)	35.0 (2354)
1997	2000 (809)	1900 (769)	37.0 (2489)
1998*	1900 (769)	1830 (741)	46.0 (3093)

\* August 1 estimate.



## NEBRASKA FALL-SOWN SMALL GRAIN VARIETY TESTS 1998

The 1998 estimated winter wheat yield for Nebraska was a record 46 bushels per acre from 1,830,000 harvested acres. The total production of winter wheat for the state was 84,180,000 bushels.

This circular reports data from winter wheat trials conducted throughout Nebraska. Entries included varieties or hybrids and promising experimental strains from Nebraska and surrounding states and private breeders. This was the seventeenth year for privately developed varieties. The state has been divided into four districts for purposes of variety

testing. Locations of the 1998 variety tests are shown on the map on page 12.

Trials were located on Research Centers and private farms. Names of cooperators and dates of planting and harvest are shown in Table A. Soil type, soil test data, and fertilizer applications are shown in Table B. Plot sizes varied with location. Nursery-type plots six rows wide and 15 to 35 feet long were planted at other locations. All tests were direct combined. Entries were replicated 4 to 6 times.

### Winter Wheat Varieties

'**Ike**' is an early maturing, medium height variety with fair to good winterhardiness. It has good drought tolerance, very good test weight patterns and is well suited for ecofallow wheat. Ike was developed by Kansas from the cross Dular/Eagle//2\*Larned/Cheney/3/Colt.

'**Nekota**' is a moderately early maturing, medium height variety. It appears best adapted to southern and west central Nebraska. It has good winterhardiness and tillering ability. This variety was developed by Nebraska and the USDA-ARS from the cross Bennett/Tam 107.

'**Niobrara**' is a moderately early maturing, medium height variety. It appears best adapted to west central and western Nebraska. It has good winter hardiness and tillering ability. Niobrara was developed by

Nebraska and the USDA-ARS from the cross TAM 105\*4/Amigo//Brule selection.

'**Pronghorn**' is a tall variety of moderately early maturity with good tillering ability and moderately strong straw. It has good yield stability in the Nebraska panhandle and dryland production in adjacent states. Yield is comparable to Buckskin with superior stem rust resistance. It has a long coleoptile and good early spring regrowth along with good winter hardiness. It was developed by Nebraska and the USDA-ARS from the cross Centura/Dawn/Colt sib. It was tested under the designation NE88584.

'**Jagger**' is a very early maturing, moderately short variety with good straw strength. It has poor winterhardiness similar to TAM 200 and Newton. Jagger has good protection to many of the important wheat



diseases in Kansas. It is susceptible to Hessian fly and powdery mildew. Grain has average test weight patterns with acceptable milling and baking qualities. Jagger was developed by Kansas and the USDA-ARS from the cross KS82W418/Stephens. U.S. Protected Variety (PVP 1994) — Unauthorized Sale of Seed is Illegal. Certificate No. 9500324.

'Windstar' is a medium maturity variety, has shown consistent yield performance under dryland production systems across the state, especially in the west central and west and the central to north HRW wheat region. It is a genetically complementary variety to Alliance, Arapahoe, Niobrara, and most other varieties. Windstar is medium to medium tall in height with good straw strength and a moderately open and upright canopy. It has fair to good winterhardness. Coleoptile length is short, similar to Alliance. The grain has average test weight patterns and acceptable end-use quality characteristics. Windstar was developed by Nebraska and the USDA-ARS from the cross TX79A729//Caldwell/Brule field sel. #6/3/Siouxland. U.S. Plant Variety

Protection Applied For (PVPA - 1994) — Unauthorized Sale of Seed is Illegal.

'2137' is an early maturing variety of moderately short height, slightly taller than TAM 107 and Karl 92. It can be grown statewide and is best adapted to more productive soils and sites. Straw strength is very good to excellent. 2137 is well suited to irrigated production. Its above average resistance to residue-borne foliar diseases makes it a useful choice for reduced tillage/continuous wheat systems. It has a moderately short coleoptile, good tillering ability, and fair to good winterhardness. Grain has average test weight patterns with acceptable milling and baking qualities. 2137 was selected by Kansas State and USDA-ARS from lines resulting from the cross W2440/W9488//2163 made by Pioneer HiBred Int'l. U.S. Plant Variety Protection Applied For (PVPA 1994) — Unauthorized Sale of Seed is Illegal. Certificate No. 9600304.

### Winter Wheat Performance

Yield, bushel weight, and other agronomic data from each district are listed on pages 13 - 29. Each district is listed on separate tables with yields of individual locations, average agronomic data, and a summary of the last five years. Page 30 summarizes the yield of each variety at each of the locations where it was entered and page 31 shows the yields as a percentage of three check varieties (Arapahoe, Alliance, and Windstar). Page 32 lists the bushel weights for the varieties at each of the locations where it was tested. Page 33 sum-

marizes the protein data for each location.

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% and 25% levels, meaning that differences as large or larger could be expected through chance alone in 1 of 20 trials (5%) or 1 of 4 trials (25%). Even though two varieties are not statistically different, there may be other factors which influence the choice of one over the other. Such factors as their ability to complement other varieties, disease resistance, or availability of seed may influence that decision.

There were two trials conducted in the Southeast district, one in Saline County and one in Saunders County. The Saline County test was planted October 1st at a seeding rate of 60 lbs/acre. The previous crop was soybeans which was disked prior to planting. The plot suffered no winter kill and had good moisture throughout the spring. The plot was harvested July 1st and averaged 55 bushels per acre. The Saunders County test was planted October 3rd and harvested July 14th. Good moisture throughout the growing season helped this test to average 52 bushels per acre..

The two trials in South Central Nebraska were in Clay and Harlan Counties. The Clay County plot was located at the South Central Research & Extension Center, Clay Center. The soil type was a Hastings silt loam that was fallow in 1997. The 33 varieties were planted on October 1st at a rate of 75 lbs/acre in a 30 foot plot. Wheat was harvested on July 14th and averaged 68 bushels per acre. The Harlan County trial was planted September 30th at a rate of 75 lbs/acre. The soil type was a Holdrege silt loam that was disked and then field cultivated before planting. The plot was harvested June 29th with an average of 69 bushels per acre.

Six trials were conducted in the west central district. These were located in Keith, Perkins, Dundy, Red Willow, Custer, and Lincoln County. The Keith County test was planted 1 3/4 inches deep to get to moisture on September 15th. The plot was harvested July 13<sup>th</sup> and averaged 65 bushels per acre. The Perkins County test was planted September 16th and harvested July 15th. This test averaged 43 bushels per acre. The Dundy County test was planted September 18th in dry topsoil. This test averaged 72 bushels per acre and was harvested July 3. The Red Willow County test was planted September 27th in good moisture. No starter fertilizer was used. This test averaged 65 bushels per acre. The Custer County test was planted September 17th with no starter fertilizer being applied. This test was harvested July 17th and averaged 81 bushels per acre. The Lincoln County test was planted September 26th and harvested July 7th. This test averaged 89 bushels per acre and had little or no lodging.

Seven dryland trials were conducted in the west district. They were Cheyenne black, Deuel, Banner, Dawes, Box Butte, Cheyenne ecofallow and the Cheyenne February planted. The Cheyenne black test was planted September 12 and had good fall moisture. But the spring was very warm and dry and caused some stress. Hail in May also caused some damage. This test was harvested July 13th and averaged 39 bushels per acre. The Deuel County test was planted September 15th and harvested July 14th. After good spring rains this test averaged 59 bushels per acre. The Banner County test had good moisture at planting time but had a dry spring. A cool and wet June helped the plot to average 74 bushels per acre. The Dawes County test was planted September



11<sup>th</sup> with good moisture in fall and winter. The spring was dry but a wet and cool June led to a 72 bushel average. The Box Butte County test was located 3 miles NW of Alliance and averaged 70 bushels per acre. The Cheyenne County ecofallow test had good fall moisture which led to good stands. The yields were adversely affected by a very dry spring and hail damage in May. The Cheyenne February planted plot got off to a poor start due to the dry spring. Cool, wet weather in June helped but hot and dry weather in July caused the wheat to dry up and yields were poor. This test was planted February 24<sup>th</sup> and harvested August 7<sup>th</sup>.

The Cheyenne County irrigated test was planted September 29<sup>th</sup> into bean stubble. A hard rain right after planting caused some crusting and reduced stands.

The wet and cool weather in June was very beneficial and this test was harvested July 29<sup>th</sup> and averaged 96 bushels per acre.

Protein and seed size data were collected from two replicates of each location. The seed size data are reported as thousands of seeds per pound. Thus, a larger number represents smaller seed size. The protein data were combined within each district and reported in the district tables. They are also summarized on page 33. Protein was determined from whole grain using a Near Infrared Spectrometer. The protein analysis was done by the Soil and Plant Analysis Lab at the University of Nebraska.



**Table A. Nebraska winter wheat variety tests 1998.**

County	Cooperator	Planted	Harvested
Saline	Kenny Ripa, Wilber	Oct. 1	July 1
Saunders	Agricultural Res & Dev Center	Oct. 3	July 14
Clay	South Central Res & Ext Center	Oct. 1	July 14
Harlan	Terry Woollen, Alma	Sept. 30	June 29
Keith	Jim Welsh & Larry Chandler, Brule	Sept. 15	July 13
Perkins	John Culver, Elsie	Sept. 16	July 15
Dundy	Dean Pursley	Sept. 18	July 3
Red Willow	John Palic, Culbertson	Sept. 27	July 1
Custer	Dean & Bruce Spangler, Oconto	Sept. 17	July 17
Lincoln Ns	West Central Res & Ext Center	Sept. 26	July 7
Cheyenne	High Plains Ag Lab	Sept. 12	July 13
Deuel	Milt Peterson	Sept. 15	July 14
Banner	Huffman Farms	Sept. 10	July 17
Dawes	Ralph Rhoads	Sept. 11	July 22
Box Butte	Diamond Hill Farms	Sept. 11	July 24
Cheyenne Eco	High Plains Ag Lab	Sept. 18	July 18
Cheyenne Irr	Tim Maas, Potter	Sept. 29	July 29
Cheyenne Feb. Planted	High Plains Ag Lab	Feb. 24	Aug. 7

Privately developed winter wheats were included in these trials. Entries were on a voluntary basis. A fee was charged to pay a portion of the testing costs. Entries and areas were selected by the seed producer.

### The following made entries as indicated:

AgriPro Seeds Inc.                      Laredo, Ogallala, Coronado  
806 N. 2, P.O. Box 30                  Tomahawk, Big Dawg, Platte  
Berthoud, CO 80513                      W95-210

HybriTech Seed Internationa AP7510, H1881, 7406  
5912 N. Meridan  
Wichita, KS 67204

Novartis Seed Treatment              Arapahoe Div. Apron XL, Arapahoe Div. Maxim/ApronXL  
#29 Rolling Hills Rd                  Alliance Div. Apron XL, Alliance Div. Maxim/Apron XL  
Kearney, NE 68847

Polansky Seed                              Dominator  
P.O. Box 306  
Belleville, KS 66935

Terra Industries Inc.                      Exp 217  
600 4th St., PO Box 6000  
Sioux City, IA 51102

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



**Table B. Soil series, previous crop, and fertilizers applied.  
Nebraska Winter Wheat Variety Tests - 1998.**

County	Soil Type	1997 Crop	pH	Nitrate lbs/a	P ppm	Organic matter %	N+P2O5+K lbs/a
Saline	Crete silt loam	Soybeans	5.3	15.0	11.0	2.8	95-40-0
Saunders	Sharpsburg silty clay loam	Fallow	---	---	---	---	40-0-0
Clay	Hastings silt loam	Fallow	---	---	---	---	50-40-0
Harlan	Holdrege silt loam	Fallow	---	---	---	---	110-50-0
Keith	Kuma silt loam	Fallow	6.1	59.0	22.0	1.9	39-33-0
Perkins	Keith silt loam	Fallow	6.1	47.0	27.0	1.4	40-33-0
Dundy	Keith silt loam	Fallow	6.6	77.0	19.0	1.4	38-62-0
Red Willow	Holdrege & Keith silt loam	Fallow	6.0	79.0	30.0	2.0	60-0-0
Custer	Hall silt loam	Fallow	5.5	100.0	36.0	3.3	20-0-0
Lincoln Nursery	Hall silt loam	Fallow	5.8	74.0	26.0	1.4	70-33-0
Cheyenne	Alliance loam	Fallow	5.8	199.0	53.0	1.6	53-28-0
Deuel	Keith silt loam	Fallow	5.6	103.0	38.0	1.6	50-20-0
Banner	Keith silt loam	Fallow	5.8	152	50	2.6	58-28-0
Dawes	Keith silt loam	Fallow	6.2	79	23	1.4	48-28-0
Box Butte	Keith silt loam	Fallow	6.7	48.0	35.0	0.8	----
Cheyenne Eco.	Duroc loam	Millet	6.8	19.0	12.0	1.7	53-28-0
Cheyenne Feb.	Duroc loam	Millet	6.8	19.0	12.0	1.7	53-28-0
Cheyenne Irr.	Kuma loam	Beans	6.5	81.0	53.0	2.2	80-68-0



**Table C. Hard Red Winter Wheat Characteristics.**

Variety	Origin	Year of Release	PVP <sup>1</sup>	Agronomic Characteristics <sup>2</sup>				
				Maturity	Winter Hardiness	Straw Strength	Plant Height <sup>4</sup>	Col-coptile Length <sup>3</sup>
Abilene	ASI	1986	yes	med early	good	very strong	short	short
Akron	CO	1994	no	med early	fair	med strong	medium	medium
Alliance	NE	1993	yes	med early	fair	med strong	medium	short
Arapahoe	NE	1988	yes	medium	good	med strong	medium	medium
Big Dawg	ASI	1996	yes	medium	fair	strong	medium	long
Buckskin	NE	1973	no	med early	fair	med strong	tall	long
Centura	NE	1983	yes	med early	fair	med strong	tall	long
Coronado	ASI	1996	yes	very early	fair	strong	short	short
Dominator	Polansky	1995	no	medium	good	med strong	short	medium
Halt	CO	1994	yes	early	fair-good	med strong	short	short
Hondo	ASI	1998	yes	med early	good	strong	short	medium
Ike	KS	1993	yes	early	fair	med strong	medium	medium
Jagger	KS	1994	yes	very early	poor	med strong	short	medium
Jules	CO	1992	yes	medium	fair	very strong	medium	medium
Karl 92	KS	1992	yes	very early	fair	strong	short	short
Lamar	CO	1988	no	medium	good	medium	tall	long
Laredo	ASI	1992	yes	early	fair	strong	short	medium
Nekota	NE	1994	no	med early	good	med strong	medium	medium
Niobrara	NE	1994	yes	medium	good	med strong	medium	medium
Ogallala	ASI	1993	yes	med early	fair	strong	short	medium
Pronghorn	NE	1996	no	med early	good	med strong	tall	long
Prowers	CO	1997	yes	medium	fair-good	medium	tall	long
Scout 66	NE	1966	no	med early	fair	medium	tall	long
TAM 107	TX	1984	yes	very early	fair	strong	short	long
Thunderbird	ASI	1985	yes	med early	fair	strong	medium	long
Tomahawk	ASI	1991	yes	early	fair	strong	short	medium
Vista	NE	1992	yes	med early	fair	med strong	short	short
Windstar	NE	1996	yes	medium	fair	med strong	medium	short
Yuma	CO	1991	yes	early	fair	med strong	short	short
Yumar	CO	1997	yes	early	fair	strong	short	short
2137	KS	1995	yes	early	good	strong	short	short
<b>Hybrid Wheat</b>								
Quantum AP7501	HSI	1995	no	med early	good	very strong	medium	medium
Qunatum AP7510	HSI	1995	no	med early	good	very strong	short	medium
Quantum 566	HSI	1994	no	medium	very good	medium	med tall	medium
Quantum 7406	HSI	1996	no	med early	very good	med strong	medium	medium

<sup>1</sup> If "yes" the Plant Variety Protection Act prohibits unauthorized seed production. The seed may be sold for planting purposes only when properly grown and labeled as Certified Quality seed.

<sup>2</sup> These ratings are based on each variety's performance within its area of adaptation under normal Nebraska growing conditions and cultural practices updated annually. Plant appearance may be influenced by soil, weather, pests, and production conditions.

<sup>3</sup> Short will cause stand uniformity and establishment to be reduced by sowing seed more than 2 inches deep. Deep seeding may also reduce stand of medium and long coleoptile varieties.

<sup>4</sup> Height and bushel weight will vary widely with season, location, and production conditions. General bushel weight ratings: Very Good=62 lb/bu, Good=60 lb/bu, Fair=56 lb/bu. Height in optimum moisture: short=30-35", medium=35-40", tall=40-45".



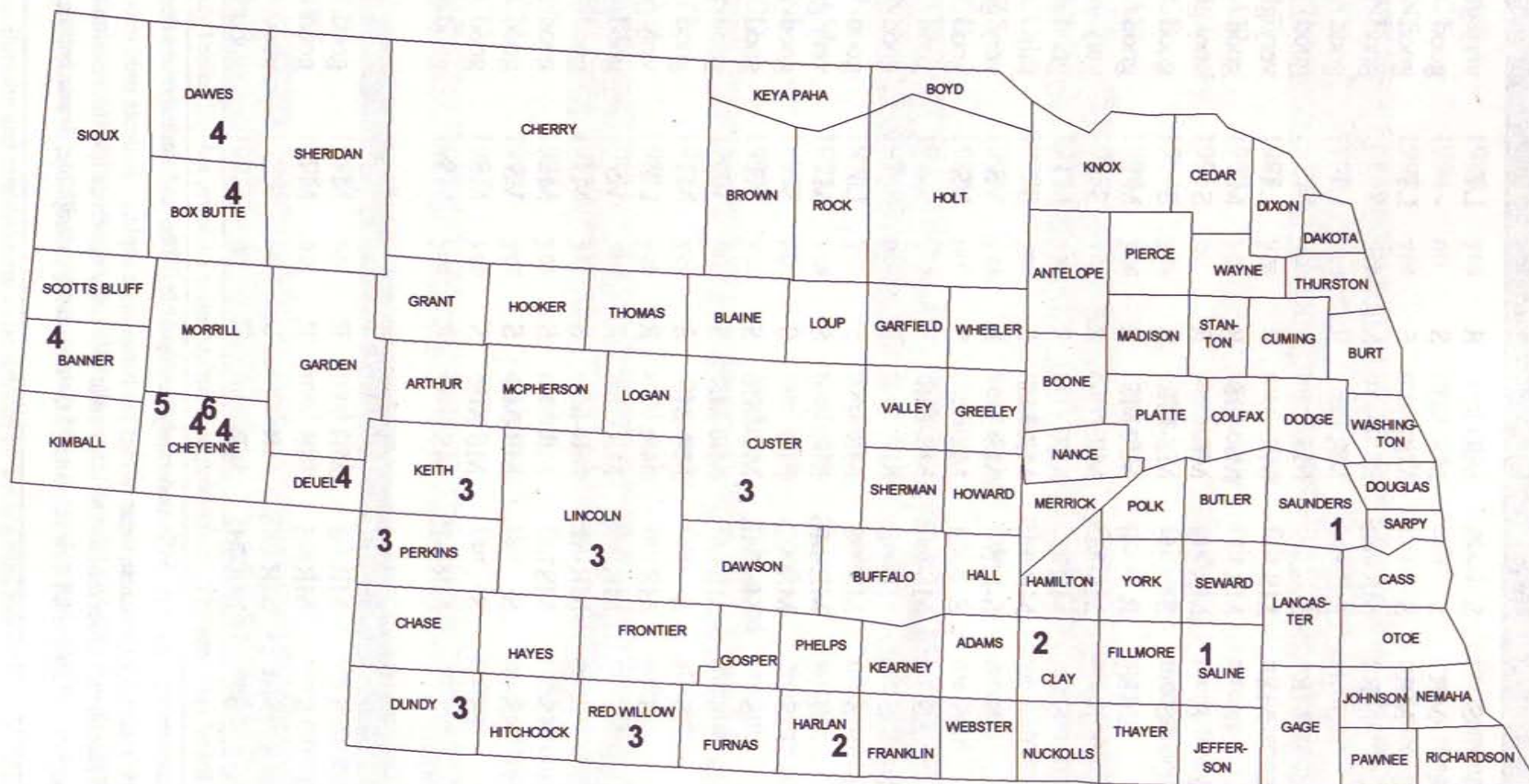
Table C. Hard Red Winter Wheat Characteristics.

Variety	Origin	Reactions <sup>5</sup>					Grain Quality	
		Hes- sian Fly	Leaf Rust	Stem Rust	Soil Borne Mosaic	Wheat Streak Mosaic	Bushel Weight <sup>4</sup>	Protein Content
Abilene	ASI	S	S	MR	R	LT	very good	very good
Akron	CO	MR	S	MR-MS	S	-	good	good
Alliance	NE	MR	S	MR	S	LT	good	good
Arapahoe	NE	MR	MR-MS	R	MR-MS	S	good	very good
Big Dawg	ASI	S	R	MR	R	LT	good	good
Buckskin	NE	MR	S	MS	MR	MS	good	good
Centura	NE	MS	MS	MR	S	LT	very good	good
Coronado	ASI	S	MR	MR-MS	R	MT	good	good
Dominator	Polansky	R	MR	MR	R	S	very good	good
Halt	CO	S	S	MS-MR	S	S	good	good
Hondo	ASI	MR	R	MR-MS	R	MT	good	good
Ike	KS	R	MS-MR	MR	R	S	very good	very good
Jagger	KS	S	MR	MR	R	MT	good	very good
Jules	CO	-	MR-MS	MR-MS	S	S	fair	good
Karl 92	KS	S	S-MS	MS	R	VS	very good	very good
Lamar	CO	S	S	MS	S	VS	good	good
Laredo	ASI	S	MS-MR	MR-MS	MS-MR	S	good	good
Nekota	NE	S	MS	MR	S	S	good	good
Niobrara	NE	S	MS	MR	S	LT	good	good
Ogallala	ASI	S	MR-MS	MR	S	MT	very good	very good
Pronghorn	NE	S	MS	MR	S	S	good	good
Prowers	CO	S	MS-MR	MS-MR	S	VS	good	good
Scout 66	NE	S	MS	MR-MS	S	VS	good	good
TAM 107	TX	S	S	MR-MS	S	MT	good	good
Thunderbird	ASI	S	MS	MR	R	LT	very good	very good
Tomahawk	ASI	S	MR-MS	MR	R	VS	good	good
Vista	NE	R	MR-MS	MR-MS	S	MT	good	good
Windstar	NE	S	MS	MR	S	MS	good	good
Yuma	CO	S	S	MR-MS	S	VS	good	fair
Yumar	CO	S	S	MS-MR	S	MS	good	fair
2137	KS	R	MR-MS	MS	R	MS	good	good
Hybrid Wheat								
Quantum AP7501	HSI	S	MR	MR	R	MT	good	good
Qunatum AP7510	HSI	S	MR	MR	R	MT	good	good
Quantum 566	HSI	MR	MR-MS	MR	S	S	good	good
Quantum 7406	HSI	S	MR-MS	MR	R	S	good	good

<sup>5</sup> R=resistant; S=susceptible, MR=moderately resistant; MS=moderately susceptible. The reaction may vary depending on how conditions favor the disease. Genetic resistance can cause these ratings to change quite rapidly. Sources used to complete this information include: field and greenhouse observations and other state university materials and information from companies. Wheat Streak ratings are: MT=moderate tolerance, LT=low tolerance, MS=moderately susceptible, S=susceptible.



# Location of 1998 Winter Wheat Tests in Nebraska



Numbers refer to zone



## SOUTHEAST WHEAT VARIETY TESTS - 1998



## SALINE AND SAUNDERS COUNTIES

BRAND	VARIETY	Average Yield Bu/A	Saline Yield Bu/A	Saunders Yield Bu/A	Bushel Weight lb/bu	Plant Height inches	Kernel Weight 000/lb	Plant Lodging pct	Grain Protein pct
----	2137	62	62	62	57.7	29	14.06	2	10.8
----	N95L158	61	59	62	57.1	29	14.67	2	11.2
----	NE94482	59	56	61	58.0	34	14.69	3	11.1
----	NE93496	58	61	54	59.2	34	13.31	1	11.9
----	NE94479	57	56	58	58.5	33	14.45	3	11.2
----	Culver	56	60	52	57.3	30	15.30	6	11.1
----	Nekota	56	56	56	59.0	30	14.03	2	11.6
----	N96L1229	56	58	54	58.0	33	15.76	3	11.0
----	Alliance	55	59	50	56.6	30	15.48	6	10.7
----	NE94653	55	56	54	57.6	33	14.83	8	11.3
----	Niobrara	55	58	52	57.0	33	14.48	5	10.9
Terra	Exp217	55	51	58	57.6	27	15.82	1	11.4
AgriPro	W95-210	55	56	53	59.2	29	14.35	2	11.4
----	NE92652	54	55	52	60.2	31	15.14	2	11.3
----	Jagger	54	56	52	57.5	31	14.39	4	11.3
----	NE93613	54	53	55	58.3	33	17.08	4	11.5
----	Arapahoe	54	55	52	57.4	33	15.78	7	11.2
----	Windstar	54	58	49	57.4	31	16.33	2	11.2
----	Ike	53	55	51	58.6	31	14.53	6	11.6
----	NE93427	53	55	50	59.1	29	16.19	7	10.9
----	N94L205	53	59	46	59.1	28	16.32	2	11.3
----	Karl 92	52	56	48	58.0	30	13.83	6	11.5
----	N95L189	52	58	46	56.5	31	16.44	3	11.4
----	NE93405	51	48	54	58.6	33	13.63	2	11.3
----	Vista	51	62	39	57.2	28	15.12	3	11.6
----	NE94632	51	51	51	56.7	30	16.64	4	11.2
----	Scout66	49	49	48	58.5	36	13.79	39	11.2
----	NE94655	48	45	51	57.5	31	16.62	4	11.4
----	Pronghorn	47	47	47	58.2	35	14.72	27	10.9
----	Turkey	46	48	43	59.0	38	15.28	21	11.4
Average all entries		54	55	52	58.3	31	15.09	5	11.2
Dif Req for Sig 5%		NS	9	4	1.1	3	1.37	NS	0.4
25%		NS	5	3	0.7	2	0.52	NS	0.2



# SOUTHEAST DISTRICT WHEAT VARIETY TESTS 1994 - 1998



BRAND	VARIETY	Average Yield Bu/A	Plant Lodging pct	Kernel Weight 000/lb	Grain Protein pct	Bushel Weight lb/bu	Plant Height inches
<b>Two Year Averages</b>							
-----	2137	57	5	15.15	12.0	58.0	29
-----	Nekota	54	7	14.55	12.7	59.1	30
-----	Niobrara	52	19	15.15	12.1	57.3	33
-----	Culver	52	12	15.45	12.5	57.7	30
-----	NE93427	52	11	16.40	12.3	59.7	29
-----	Jagger	51	8	15.60	12.8	57.3	30
-----	Windstar	51	18	18.00	12.3	56.8	31
-----	Arapahoe	51	13	16.55	12.7	57.7	33
-----	Alliance	51	15	16.80	12.0	56.7	30
-----	Ike	51	13	15.00	12.8	58.9	31
-----	NE93405	50	5	13.80	12.7	59.2	34
-----	Vista	50	6	15.45	12.8	57.4	28
-----	Karl 92	49	13	14.85	12.9	58.1	29
-----	Pronghorn	47	51	15.85	12.3	58.5	35
-----	Scout66	45	58	14.60	12.7	58.9	37
-----	Turkey	41	46	16.55	12.8	58.3	39
Average all entries		50	19	15.61	12.5	58.1	32
Dif req for sig. 5%		2	8	0.49	0.1	0.4	1
25%		1	4	0.28	0.1	0.2	0

<b>Three Year Averages</b>							
-----	2137	53	4	14.97	12.2	58.2	30
-----	Nekota	50	5	14.67	12.7	58.9	31
-----	Alliance	49	11	16.83	11.9	56.7	31
-----	Niobrara	48	14	16.20	12.3	56.7	34
-----	Ike	48	9	15.47	12.9	58.9	32
-----	Windstar	48	12	18.03	12.3	57.0	32
-----	Arapahoe	48	10	17.30	12.6	57.5	33
-----	Karl 92	47	9	14.97	12.9	58.3	29
-----	Pronghorn	46	39	15.73	12.2	58.8	35
-----	Vista	46	4	16.70	12.6	56.8	29
-----	Scout66	42	60	15.17	12.7	58.6	37
-----	Turkey	40	38	16.83	12.6	58.3	40
Average all entries		47	18	16.07	12.5	57.9	33
Dif req for sig. 5%		1	6	0.53	0.1	0.4	0
25%		1	3	0.30	0.1	0.2	0

Continued on Page 2



# SOUTHEAST DISTRICT WHEAT VARIETY TESTS 1994 - 1998 Page 2



BRAND	VARIETY	Average Yield Bu/A	Plant Lodging pct	Kernel Weight 000/lb	Grain Protein pct	Bushel Weight lb/bu	Plant Height inches
<b>Four Year Averages</b>							
----	Alliance	47	12	18.00	12.5	56.6	34
----	Nekota	47	5	14.67	12.7	58.9	33
----	Windstar	46	10	18.65	12.8	57.5	34
----	Arapahoe	46	9	18.13	13.1	57.7	35
----	Niobrara	46	11	17.55	12.9	56.1	36
----	Ike	45	10	16.90	13.7	58.5	34
----	Vista	45	4	17.55	13.1	56.7	31
----	Karl 92	44	8	16.18	13.6	58.3	31
----	Pronghorn	43	40	16.65	13.3	58.8	37
----	Scout66	38	63	16.05	13.4	58.4	39
----	Turkey	37	34	17.18	13.4	57.7	41
Average all entries		44	35	17.10	13.1	57.7	35
Dif req for sig. 5%		1	0	0.50	0.2	0.4	0
25%		1	0	0.29	0.1	0.2	0
<b>Five Year Averages</b>							
----	Nekota	48	5	14.65	12.8	58.9	33
----	Alliance	48	11	17.70	12.5	56.4	33
----	Niobrara	47	11	17.14	12.8	56.0	35
----	Ike	47	10	16.54	13.5	58.5	34
----	Karl 92	47	7	15.92	13.5	58.3	31
----	Windstar	47	9	18.50	12.9	57.0	33
----	Arapahoe	46	8	18.00	13.3	57.5	35
----	Vista	46	5	17.30	13.2	56.6	31
----	Pronghorn	44	34	16.52	13.4	58.7	37
----	Turkey	39	30	17.00	13.5	57.8	41
----	Scout66	38	55	15.86	13.5	58.3	38
Average all entries		45	17	16.87	13.2	57.6	35
Dif req for sig. 5%		1	5	0.39	0.2	0.4	0
25%		1	3	0.23	0.1	0.2	0



# SOUTH CENTRAL WHEAT VARIETY TESTS

## CLAY AND HARLAN COUNTIES - 1998



BRAND	VARIETY	Average Yield Bu/A	Clay Yield Bu/A	Harlan Yield Bu/A	Bushel Weight lb/bu	Plant Height inches	Kernel Weight 000/lb	Plant Lodging pct	Grain Protein pct
-----	2137	80	77	83	59.5	35	14.85	2	10.3
-----	NE94653	80	74	85	59.2	38	15.74	2	10.9
-----	N95L158	77	75	78	58.8	34	14.99	2	10.3
-----	NE93613	76	72	79	59.7	40	17.69	2	10.9
-----	Culver	75	77	72	57.5	37	15.37	2	11.5
-----	Alliance	74	67	81	58.1	37	16.69	2	10.4
-----	N95L189	74	69	78	58.2	37	15.99	2	10.8
-----	NE92652	73	73	73	60.7	38	15.31	2	11
-----	Jagger	73	64	82	58.7	35	15.12	2	10.9
-----	N96L1229	73	72	73	59	36	16.28	2	11
Polansky	Dominator	72	67	76	60.1	32	16.76	2	11.3
-----	NE94655	71	72	70	59.2	37	16.85	3	11.3
-----	Arapahoe	71	67	74	58.7	39	17.37	2	11.5
-----	Windstar	70	61	78	58.2	38	17.05	2	11.2
Terra	Exp217	70	80	60	59.3	34	16.03	2	11.1
-----	N94L205	70	70	69	60.2	33	16.53	2	11.1
-----	Karl 92	69	67	70	59.8	33	15.08	2	11.4
-----	NE94482	69	68	70	59.5	40	15.83	2	10.8
-----	Niobrara	68	67	68	58.4	39	15.37	2	11.2
-----	Ike	68	67	69	59.7	36	14.85	2	11.2
AgriPro	W95-210	66	69	62	60.5	34	15.47	2	11.3
-----	NE94479	65	67	62	59.7	39	15.15	2	10.8
-----	NE94632	65	67	62	59	36	16.91	2	11.1
-----	NE93427	65	64	66	60.8	35	16.53	2	10.8
-----	Nekota	64	72	56	59.5	34	14.03	2	11.2
-----	NE93405	64	64	64	60.6	39	13.69	2	11.8
-----	Pronghorn	63	64	61	60	43	16.24	3	11.3
-----	NE93496	62	64	59	60.2	41	14.28	2	11.7
-----	Vista	61	62	59	58.4	32	15.26	2	11.5
-----	Scout66	55	56	53	59.9	44	15.33	3	11.8
-----	Turkey	50	57	43	60.1	46	16.49	3	11.8
Average all entries		68	68	69	59.3	37	15.83	2	11.1
Dif Req for Sig 5%		11	9	13	0.9	2	1.63	1	1
25%		7	5	7	0.5	1	0.94	0	0.6



# SOUTH CENTRAL DISTRICT WHEAT VARIETY TESTS 1994 - 1998



BRAND	VARIETY	Average Yield Bu/A	Plant Lodging pct	Kernel Weight 000/lb	Grain Protein pct	Bushel Weight lb/bu	Plant Height inches
<b>Two Year Averages</b>							
-----	Culver	69.8	2	14.70	12.6	58.4	34
-----	2137	69.3	1	14.80	11.7	59.9	33
-----	Jagger	68.5	2	15.05	12.6	59.5	33
-----	Alliance	67.0	1	15.95	11.2	58.1	34
Polansky	Dominator	64.3	1	15.95	12.7	60.9	31
-----	Arapahoe	64.0	2	16.45	12.8	59.3	36
-----	Windstar	63.3	2	16.55	12.1	58.9	35
-----	NE93427	63.0	1	16.15	11.9	61.6	33
-----	Karl 92	62.0	2	15.15	12.3	60.4	32
-----	Nekota	62.0	1	13.90	12.5	60.0	32
-----	NE93405	61.0	2	13.60	13.0	61.0	36
-----	Niobrara	59.5	2	15.25	11.9	58.7	36
-----	Ike	59.5	1	14.80	12.5	60.3	35
-----	Vista	57.8	1	14.90	12.7	58.7	31
-----	Pronghorn	57.0	3	15.80	12.2	60.6	38
-----	Scout66	50.8	3	15.05	12.7	60.6	39
-----	Turkey	44.5	3	16.55	13.0	59.9	41
Average all entries		61.4	2	15.33	12.3	59.8	35
Dif req for sig. 5%		2.6	0	0.34	0.3	0.3	1
25%		1.5	0	0.19	0.2	0.2	1
<b>Three Year Averages</b>							
-----	2137	61.7	2	15.17	12.1	58.4	33
-----	Alliance	59.2	2	17.30	11.9	56.3	35
-----	Arapahoe	58.8	3	17.40	13.0	57.6	37
-----	Karl 92	57.3	2	15.73	12.7	59.1	31
-----	Nekota	56.5	2	14.97	12.7	58.2	34
-----	Windstar	56.2	2	17.10	12.4	56.9	36
-----	Jagger	56.0	2	16.60	13.1	57.3	33
-----	Vista	53.2	2	16.07	12.9	57.1	33
-----	Ike	53.0	2	15.90	13.0	58.6	35
-----	Niobrara	53.0	2	16.43	12.4	56.4	38
-----	Pronghorn	52.3	3	16.03	12.6	59.3	39
-----	Scout66	45.7	4	15.70	13.1	58.7	42
-----	Turkey	40.3	4	17.40	13.0	57.7	43
Average all entries		54.1	2	16.29	12.7	57.8	36
Dif req for sig. 5%		2.7	0	0.45	0.3	0.4	1
25%		1.5	0	0.26	0.1	0.2	1

Continued on page 2



# SOUTH CENTRAL DISTRICT WHEAT VARIETY TESTS 1994 - 1998



BRAND	VARIETY	Average Yield Bu/A	Plant Lodging pct	Kernel Weight 000/lb	Grain Protein pct	Bushel Weight lb/bu	Plant Height inches
<b>Four Year Averages</b>							
-----	Jagger	55.3	9	16.73	13.1	57.8	33
-----	Karl 92	55.1	11	16.25	12.8	59.4	32
-----	Arapahoe	54.6	13	17.40	12.8	57.9	37
-----	Alliance	54.5	13	17.73	11.8	56.7	36
-----	Windstar	53.1	11	17.05	12.3	57.2	37
-----	Vista	52.9	9	16.40	12.7	57.3	33
-----	Ike	49.5	15	16.58	12.9	58.9	36
-----	Pronghorn	49.4	19	16.28	12.6	59.6	40
-----	Niobrara	47.0	15	16.80	12.3	56.2	38
-----	Scout66	41.6	22	16.30	13.4	58.7	41
-----	Turkey	37.6	20	17.35	13.1	58.3	43
Average all entries		50.1	14	16.80	12.7	58.0	37
Dif req for sig. 5%		2.5	NS	NS	0.2	0.4	1
25%		1.4	NS	0.24	0.1	0.2	1
<b>Five Year Averages</b>							
-----	Karl 92	54.9	11	16.48	12.8	59.8	30
-----	Alliance	53.2	13	18.36	11.9	57.3	33
-----	Arapahoe	52.7	13	17.78	12.9	58.2	35
-----	Vista	52.1	9	16.84	12.6	57.9	31
-----	Windstar	51.7	11	17.46	12.5	57.6	34
-----	Ike	49.6	15	16.60	12.9	59.3	33
-----	Pronghorn	48.9	19	16.84	12.6	59.9	37
-----	Niobrara	47.6	15	17.06	12.3	56.9	36
-----	Scout66	41.7	22	16.38	13.3	59.3	39
-----	Turkey	37.5	20	17.54	13.2	58.4	40
Average all entries		49.0	15	17.13	12.7	58.5	35
Dif req for sig. 5%		1.7	NS	0.37	0.2	0.3	1
25%		1.0	NS	0.21	0.1	0.2	0



# WEST CENTRAL WHEAT VARIETY TESTS - 1998



BRAND	VARIETY	Average Yield Bu/A	Keith Yield Bu/A	Perkins Yield Bu/A	Dundy Red Willow Yield Bu/A	Willow Yield Bu/A	Custer Yield Bu/A	Lincoln Yield Bu/A	Bushel Weight lb/bu	PLANT Height inches	Thousand Seeds /lb	Plant Lodging pct	Grain Protein pct
Quantum	H1881	81	77	57	77	76	95	105	60.1	32	14.66	15	11.1
Quantum	7406	79	66	51	82	73	97	104	60.3	32	14.75	17	10.7
----	N95L189	75	73	48	75	65	87	99	59.8	32	14.06	16	11
----	N95L158	75	69	31	75	73	102	101	60.5	29	14.18	10	11.7
----	Jagger	74	62	34	83	75	94	94	59.7	31	15.15	17	12
----	Akron	74	67	45	76	70	97	88	60.5	33	14.29	14	10.9
----	2137	74	71	40	76	64	93	97	60.7	31	14.58	15	11.3
----	Jules	73	77	40	74	66	85	95	59.4	30	15.18	13	10.5
----	NE93613	73	70	46	71	67	87	94	60.7	33	15.92	18	11.6
AgriPro	Laredo	73	63	39	78	64	105	89	60.3	30	14.08	12	11.9
----	Culver	73	66	43	76	71	87	97	59.7	33	13.99	14	11.6
Quantum	AP 7510	73	59	45	74	74	94	93	61.0	29	14.78	6	11.9
Alliance Div	Apron XL	72	71	45	75	71	71	99	59.8	32	15.41	19	11
----	NE94653	72	68	39	72	71	84	95	60.7	33	14.93	15	12
Alliance Div	Maxim/Apron XL	72	70	45	79	70	69	99	60.3	31	14.88	20	11
----	NE92652	71	69	39	71	66	93	86	61.5	33	13.93	14	11.7
----	N96L1229	71	74	37	76	64	79	94	60.3	32	14.75	10	11.8
----	NE94479	71	56	45	75	73	85	93	60.0	34	14.72	13	11.7
----	Halt	71	70	49	80	64	71	92	61.0	29	15.15	17	12.3
----	Arapahoe	71	63	49	74	69	78	90	60.8	33	15.6	20	11.8
----	Windstar	71	68	52	70	65	77	92	60.0	33	14.76	14	11.5
AgriPro	Tomahawk	71	56	37	76	67	101	89	60.0	31	14.19	18	11.8
----	Niobrara	71	71	46	72	68	73	94	59.4	33	14.45	19	11.6
----	NE94482	70	63	41	75	66	88	87	60.3	34	14.91	10	11.5
----	N94L205	70	66	37	71	70	80	94	61.1	30	14.34	15	11.7
----	NE93427	70	61	46	71	64	80	95	61.1	31	15.28	19	12.2
----	Vista	70	64	47	70	57	101	83	59.6	29	14.05	19	11.9
----	Alliance	70	69	48	75	68	58	99	59.8	31	14.34	20	11
----	N95S004	69	66	41	69	60	90	87	60.2	35	14.72	8	11.8
AgriPro	Ogallala	69	54	32	72	62	105	87	61.1	28	16.19	13	13.1
Terra	Exp217	68	68	37	65	62	91	84	59.9	30	15.99	17	11.8
----	Nekota	67	63	44	71	63	80	81	60.3	31	13.77	14	11.7
----	N96S031	67	66	38	65	56	87	87	59.4	30	15.49	10	11.7
Arapahoe Div	Apron XL	67	62	49	72	63	70	87	60.2	33	15.27	13	11.6
Arapahoe Div	Maxim/Apron XL	65	61	47	77	64	51	87	60.8	33	15.28	19	11.9
----	NE94655	65	68	46	64	60	63	90	60.2	32	15.71	18	11.7
----	Ike	65	57	30	74	65	80	84	59.4	32	15.01	18	12.5
----	NE93496	64	59	42	68	57	80	78	61.4	34	13.61	7	12.3
----	Karl 92	64	55	36	64	60	87	84	59.8	29	15.11	19	12.6
----	NE93405	63	58	42	67	58	76	75	61.0	34	13.64	6	12
----	Pronghorn	60	61	55	67	63	40	76	61.2	35	14.14	30	11.5
----	Scout66	53	51	44	63	55	45	61	60.2	37	14.18	57	12
----	Turkey	48	52	43	52	52	35	55	60.2	37	14.91	52	11.9
Average all entries		69	65	43	72	65	81	89	60.3	32	14.75	14	11.7
Dif Req for Sig 5%		8	8	8	7	8	13	6	1.5	1	0.90	12	0.8
25%		5	4	5	4	5	8	3	0.9	1	0.50	7	0.4



# WEST CENTRAL WHEAT VARIETY TESTS

## 1994 - 1998



BRAND	VARIETY	Grain Yield Bu/A	Plant Lodging pct	Seed Weight 000/lb	Grain Protein pct	Bushel Weight lb/bu	Plant Height inches
<b>Two year averages</b>							
Quantum	7406	70.3	8	14.15	11.3	60.5	31
-----	Jules	65.3	7	14.95	10.7	59.5	30
-----	NE93554	64.1	7	13.50	12.1	59.4	31
-----	2137	63.9	8	14.00	11.7	60.5	30
Quantum	AP 7510	63.7	3	14.50	12.5	61.1	28
-----	Jagger	63.3	8	14.25	12.6	60.1	30
-----	Windstar	63.1	7	14.35	11.8	59.9	33
-----	Akron	62.3	7	14.05	11.5	60.6	31
-----	Alliance	61.9	10	14.45	11.3	59.0	31
-----	Niobrara	61.9	10	14.20	11.8	59.2	32
AgriPro	Laredo	61.8	6	13.65	12.4	60.2	28
-----	Arapahoe	61.3	10	15.15	12.2	60.0	33
-----	Halt	60.1	9	14.95	12.3	59.4	28
-----	Vista	59.8	10	14.00	12.2	59.3	28
AgriPro	Tomahawk	59.6	9	13.85	12.3	59.7	29
-----	NE93427	58.9	10	14.55	12.3	61.1	30
-----	Nekota	58.9	7	13.50	12.2	60.1	29
AgriPro	Ogallala	58.3	7	15.65	13.2	61.1	27
-----	Pronghorn	57.8	15	13.95	11.8	60.9	34
-----	NE93496	57.8	3	13.25	12.6	61.2	34
-----	Ike	55.6	9	14.55	12.7	59.4	31
-----	NE93405	55.5	3	13.20	12.5	60.5	33
-----	Karl 92	53.7	9	14.50	12.8	59.8	28
-----	Scout66	49.8	40	13.85	12.3	60.4	36
-----	Turkey	46.3	42	14.85	12.3	60.0	37
Average all entries		59.8	10	14.23	12.1	60.1	31
Dif req for sig 5%		1.3	2	0.11	0.1	0.2	0
25%		0.7	1	0.06	0.0	0.1	0
<b>Three year averages</b>							
-----	2137	65.3	5	13.67	11.9	60.9	30
-----	Alliance	63.6	9	14.33	11.7	59.6	31
-----	Windstar	62.5	5	14.63	12.1	59.9	32
-----	Jules	62.3	9	15.03	11.0	59.3	30
-----	Arapahoe	61.3	7	15.17	12.6	60.2	33
Quantum	AP 7510	61.1	2	14.93	12.7	61.1	28
-----	Niobrara	61.0	7	14.13	12.0	59.4	32
-----	Halt	59.6	6	14.90	12.8	59.4	28
-----	Vista	59.5	6	13.83	12.5	59.7	28
-----	Jagger	59.3	6	14.10	13.0	60.1	30
AgriPro	Laredo	59.2	5	13.53	12.6	60.3	28
-----	Akron	58.5	8	14.13	11.8	60.4	31
-----	Nekota	58.5	5	13.33	12.4	60.5	30
AgriPro	Tomahawk	57.9	6	13.80	12.6	59.7	29
-----	Pronghorn	57.4	21	13.83	12.3	61.1	34
AgriPro	Ogallala	56.8	4	15.93	13.4	61.5	27
-----	Karl 92	55.3	6	14.03	13.2	60.2	28
-----	Ike	54.9	6	14.13	13.0	60.1	31
-----	Scout66	50.7	49	13.60	12.5	60.8	36
-----	Turkey	47.5	50	14.80	12.7	60.1	37
Average all entries		58.6	11	14.29	12.4	60.2	31
Dif req for sig 5%		1.3	2	0.14	0.1	0.2	0
25%		0.8	1	0.08	0.0	0.1	0

Continued on page 2



# WEST CENTRAL WHEAT VARIETY TESTS

## 1994 - 1998 Page 2



BRAND	VARIETY	Grain Yield Bu/A	Plant Lodging pct	Seed Weight 000/lb	Grain Protein pct	Bushel Weight lb/bu	Plant Height inches
<b>Four year averages</b>							
----	Alliance	61.9	18	14.88	11.9	58.7	33
----	Jagger	61.1	14	14.75	13.1	59.5	32
----	Niobrara	60.4	18	14.48	12.3	58.6	35
----	Windstar	59.8	12	15.68	12.4	58.8	35
----	Vista	59.6	15	14.30	12.7	58.8	30
----	Arapahoe	59.2	16	15.55	12.9	59.3	35
----	Jules	58.8	13	15.70	11.5	58.2	33
AgriPro	Ogallala	58.7	11	16.20	13.5	61.0	30
----	Halt	58.2	15	16.10	13.1	58.4	31
AgriPro	Laredo	58.1	14	14.25	12.9	59.7	30
AgriPro	Tomahawk	57.8	11	14.63	12.9	59.0	31
----	Akron	57.4	10	14.98	12.1	59.5	34
----	Karl 92	56.1	12	14.43	13.4	59.8	30
----	Ike	54.4	16	14.70	13.3	59.2	33
----	Pronghorn	53.8	31	14.53	12.7	59.9	36
----	Scout66	46.3	56	14.55	12.9	59.4	38
----	Turkey	43.2	55	15.60	13.1	58.9	39
Average all entries		56.7	20	15.02	12.7	59.2	33
Dif req for sig 5%		1.3	2	0.15	0.1	0.2	0
25%		0.7	1	0.09	0.0	0.1	0
<b>Five year averages</b>							
----	Alliance	60.3	14	15.66	12.1	58.4	32
----	Arapahoe	57.0	13	16.08	13.1	59.1	34
----	Ike	54.5	13	15.00	13.3	59.3	33
----	Jules	56.6	10	16.28	11.7	58.0	32
----	Karl 92	55.7	10	14.86	13.4	60.0	29
----	Niobrara	59.3	14	14.98	12.5	58.5	34
----	Pronghorn	53.7	25	15.00	12.9	59.9	35
----	Scout66	46.7	47	14.94	12.9	59.6	37
----	Turkey	43.6	45	15.96	13.3	59.2	38
----	Vista	58.2	12	15.06	12.9	58.5	30
----	Windstar	58.2	10	16.14	12.6	58.6	34
AgriPro	Laredo	57.2	11	14.66	13.0	59.6	30
AgriPro	Ogallala	57.5	9	16.82	13.6	61.1	29
AgriPro	Tomahawk	56.7	9	15.14	13.0	58.8	31
Average all entries		55.4	17	15.47	12.9	59.2	33
Dif req for sig 5%		1.2	2	0.14	0.1	0.2	0
25%		0.7	1	0.08	0.0	0.1	0



# PANHANDLE WHEAT VARIETY TESTS - 1998



BRAND	VARIETY	Average Yield Bu/A	Chey Blk Yield Bu/A	Deuel Yield Bu/A	Banner Yield Bu/A	Dawes Yield Bu/A	Box Butte Yield Bu/A	Chey Eco Yield Bu/A	Bushel Weight lb/bu	PLANT Height inches	Plant Lodging pct
Quantum	H1881	67	47	74	86	81	80	33	58.70	29	0
----	Alliance	65	39	65	85	78	88	33	59.80	28	0
Alliance Div	Maxim/Apron XL	63	41	61	83	81	81	33	60.00	29	0
Alliance Div	Apron XL	63	41	66	83	78	77	33	60.10	29	0
----	NE93613	62	40	64	72	85	80	31	59.30	30	0
Quantum	7406	61	42	66	75	71	77	37	60.00	29	0
----	Windstar	61	37	61	80	78	78	29	58.50	30	0
----	Niobrara	60	42	57	82	76	72	33	59.30	30	0
----	Akron	60	37	62	79	74	73	35	60.00	30	0
----	Culver	60	41	67	77	76	67	32	59.60	30	0
----	NE94479	60	40	62	79	78	72	31	59.70	31	0
----	Yumar	59	41	58	76	74	70	36	60.80	28	0
----	Halt	59	36	61	77	80	74	28	59.40	27	0
----	Pronghorn	59	38	58	71	73	79	34	59.80	33	5
----	Arapahoe	58	35	61	71	77	72	32	59.20	31	0
----	NE94653	58	38	60	75	77	73	27	59.50	31	0
----	2137	58	41	63	77	72	69	28	60.20	28	0
----	NE94482	58	38	59	80	73	68	31	59.80	31	0
----	NE93427	57	37	59	73	72	73	27	61.20	29	0
----	Buckskin	57	41	56	71	67	76	31	60.30	34	2
----	N94L205	57	38	58	73	77	65	30	62.10	27	0
----	TAM 107R3	57	41	59	78	69	59	34	59.20	27	0
----	Jules	57	40	63	75	69	67	30	58.90	28	0
----	SD93380	57	37	59	75	73	70	30	58.90	29	0
----	N95L158	56	37	56	76	75	66	26	59.20	26	0
----	N95S004	56	36	60	70	75	58	36	58.90	33	0
----	Prowers	56	41	58	63	67	77	32	61.20	33	7
----	TAM 107	56	35	53	76	67	73	30	59.10	27	0
----	N96S031	56	40	59	73	71	58	32	58.20	28	0
Quantum	AP 7510	56	41	56	77	66	69	27	60.60	27	0
----	SD93267	56	40	55	70	70	74	28	60.60	34	1
----	NE94655	55	40	60	69	75	61	27	60.00	29	0
----	Vista	55	42	51	77	66	65	31	58.80	26	0
Arapahoe Div	Maxim/Apron XL	55	33	55	72	68	69	33	59.20	30	0
Arapahoe Div	Apron XL	54	32	55	70	73	65	28	59.20	30	0
----	NE93496	53	39	54	70	61	65	29	60.50	31	0
----	NE93405	52	39	55	69	63	55	30	60.90	31	0
----	SD92107	51	36	53	65	65	56	29	58.50	32	0
----	Scout66	50	33	50	64	64	64	27	60.00	33	28
----	Turkey	46	33	48	56	57	51	32	59.60	35	18
Terra	Exp217	43	41	56	NA	NA	NA	31	58.80	27	0
Average all entries		56	39	59	74	72	70	31	59.99	30	1
Dif Req for Sig 5%		4	4	8	5	8	10	6	0.59	1	2
25%		3	2	4	3	5	6	3	0.35	1	1



# PANHANDLE WHEAT VARIETY TESTS

## 1994 - 1998



BRAND	VARIETY	Grain Yield Bu/A	Plant Lodging pct	Seed Weight 000/lb	Grain Protein pct	Bushel Weight lb/bu	Plant Height inches
<b>Two year averages</b>							
----	Alliance	51.8	0	15.20	12.0	59.3	28
----	Akron	49.2	1	15.25	11.7	59.3	28
----	2137	49.2	0	14.80	11.6	59.7	28
Quantum	7406	48.9	0	16.30	12.0	59.1	28
----	Niobrara	48.8	0	14.90	12.1	58.8	30
----	Windstar	48.8	0	15.80	12.0	58.2	30
----	Arapahoe	47.7	0	16.00	12.4	59.1	30
----	Buckskin	47.7	3	15.35	12.6	60.0	34
----	Culver	47.5	0	14.85	12.3	58.6	29
----	NE93613	47.4	0	17.60	12.4	58.6	30
----	Pronghorn	47.4	6	15.05	12.4	59.8	32
----	Jules	46.9	0	15.80	11.4	58.4	28
----	Halt	46.7	0	16.10	12.2	58.6	26
----	TAM 107	46.6	0	13.80	12.7	58.6	26
----	Vista	45.9	0	15.05	12.3	58.6	25
----	Prowers	45.6	5	14.25	12.3	60.7	32
Quantum	AP 7510	45.4	0	16.30	12.6	60.1	26
----	NE93427	44.8	0	15.65	12.2	60.8	27
----	SD92107	43.1	0	16.25	12.4	58.6	31
----	Scout66	42.7	28	14.20	12.5	60.1	34
----	NE93405	42.6	0	14.15	12.8	60.4	31
----	Turkey	38.6	23	15.80	12.6	59.4	35
Average all entries		46.5	3	15.38	12.2	59.3	29
Dif req for sig 5%		0.9	1	0.27	0.2	0.1	0
25%		0.5	0	0.15	0.1	0.1	0
<b>Three year averages</b>							
----	Alliance	52.8	0	14.77	12.2	59.6	28
----	Akron	50.2	1	15.03	12.1	59.4	29
----	Niobrara	50.0	0	14.60	12.3	59.1	30
----	2137	49.6	0	14.23	12.1	60.1	28
----	Windstar	49.4	0	15.73	12.2	58.5	30
----	Arapahoe	48.8	0	15.73	12.7	59.4	31
----	Jules	48.7	0	15.57	11.5	58.9	28
----	Buckskin	48.6	3	14.83	12.8	60.4	35
----	Pronghorn	48.4	6	14.73	12.6	60.1	32
----	Vista	48.2	0	14.53	12.6	59.1	26
----	Halt	47.9	0	15.83	12.8	58.9	26
----	TAM 107	47.6	0	13.23	12.8	58.9	27
----	Scout66	44.4	28	13.93	12.9	60.4	34
----	Turkey	40.6	23	15.47	13.1	59.7	35
Average all entries		48.2	4	14.87	12.5	59.5	30
Dif req for sig 5%		0.6	1	0.20	0.1	0.1	0
25%		0.3	0	0.11	0.1	0.1	0

Continued on page 2



# PANHANDLE WHEAT VARIETY TESTS

## 1994 - 1998 Page 2



BRAND	VARIETY	Grain Yield Bu/A	Plant Lodging pct	Seed Weight 000/lb	Grain Protein pct	Bushel Weight lb/bu	Plant Height inches
<b>Four year averages</b>							
----	Alliance	54.8	6	13.35	11.6	59.8	30
----	Akron	53.8	2	13.73	11.5	59.7	31
----	Windstar	52.9	3	14.25	11.6	58.9	32
----	Niobrara	52.5	3	13.08	11.9	59.3	32
----	Halt	51.9	3	14.33	12.2	59.1	28
----	Jules	51.3	3	14.23	11.0	59.0	30
----	Vista	51.0	3	13.05	12.2	59.4	27
----	Arapahoe	50.8	6	14.30	12.3	59.5	32
----	Buckskin	50.6	6	13.35	12.4	60.6	37
----	Pronghorn	50.2	14	13.25	12.1	60.2	34
----	TAM 107	49.3	1	11.75	12.5	59.3	28
----	Scout66	43.4	31	12.45	12.5	60.4	35
----	Turkey	40.4	26	14.00	12.6	60.0	37
Average all entries		50.2	8	13.47	12.0	59.6	32
Dif req for sig 5%		0.8	1	0.16	0.2	0.1	0
25%		0.4	1	0.09	0.1	0.0	0
<b>Five year averages</b>							
----	Alliance	53.1	6	13.78	11.8	59.6	29
----	Windstar	51.1	3	14.40	12.0	58.9	31
----	Niobrara	51.1	3	13.34	12.1	59.3	31
----	Vista	49.8	3	13.38	12.5	59.2	27
----	Jules	49.3	3	14.60	11.2	58.9	29
----	Halt	49.3	3	14.46	12.6	59.1	27
----	Buckskin	49.1	6	13.54	12.7	60.6	36
----	Pronghorn	48.2	14	13.48	12.4	60.1	33
----	Arapahoe	48.0	6	14.46	12.7	59.4	31
----	TAM 107	47.4	1	12.24	12.6	59.2	27
----	Scout66	42.6	31	12.76	12.7	60.4	34
----	Turkey	39.4	26	14.16	13.0	59.9	35
Average all entries		48.2	9	13.72	12.4	59.6	31
Dif req for sig 5%		0.7	1	0.16	0.1	0.1	0
25%		0.4	1	0.09	0.1	0.0	0



# Panhandle Irrigated Wheat Variety Test - 1998



BRAND	VARIETY	Grain Yield Bu/A	Bushel Weight lb/bu	Seeds per pound	Plant Lodging pct	Grain Protein pct	Plant height inches	Plant Stand Rating
Quantum	AP 7510	125	58.2	14.89	3	12.4	37	7
AgriPro	Laredo	114	58.0	13.40	7	12.6	36	8
AgriPro	Ogallala	108	59.3	16.39	3	13.2	35	7
----	N96L1229	107	57.2	15.12	8	12.5	43	8
Quantum	H1881	106	54.2	14.98	22	12.8	42	8
----	NE94482	106	57.0	15.58	27	12.2	45	8
----	Jagger	103	55.1	15.94	25	12.9	38	7
----	N95L189	103	56.1	16.34	10	12.6	40	8
----	N96S031	102	56.4	15.26	13	11.7	42	8
AgriPro	Coronado	102	58.0	12.99	0	12.9	35	7
Quantum	7406	100	56.6	15.35	20	11.8	40	8
----	NE94479	100	57.3	14.85	28	12.1	44	8
----	NE94653	100	57.1	14.67	42	12.5	43	8
----	NE94655	98	57.6	15.17	10	12.4	42	8
----	NE93405	98	60.1	11.62	3	13.2	44	8
----	N95L158	97	56.6	14.35	3	12.3	38	7
Terra	Exp217	97	56.4	15.44	5	12.8	38	7
----	2137	96	56.8	14.58	12	10.9	39	8
AgriPro	Platte	96	58.2	15.85	5	13.5	35	6
----	Karl 92	96	57.1	14.94	28	12.5	36	7
----	NE93496	95	60.5	11.99	0	13.1	42	8
----	Yumar	95	57.3	14.08	14	12.0	39	7
AgriPro	Big Dawg	94	60.2	12.12	7	13.3	43	7
----	Halt	93	53.0	17.75	35	13.0	39	7
----	NE93613	93	57.5	17.12	33	13.3	45	8
----	Vista	87	57.5	13.89	10	12.4	38	2
----	Culver	87	57.0	13.89	45	12.5	41	8
----	Rawhide	86	56.0	16.89	52	13.1	43	7
----	N94L205	86	57.5	17.53	27	13.4	39	7
----	NE93427	83	56.9	16.16	54	13.0	41	7
----	Akron	81	55.1	15.39	35	12.5	41	8
----	Arapahoe	80	55.7	15.62	55	13.0	43	7
----	Jules	76	54.4	17.94	18	12.0	40	6
----	Alliance	72	54.8	15.94	50	11.7	41	7
Average all entries		96	57.0	15.12	21	12.6	40	7
Dif Req for Sig 5%		13	1.4	0.92	20	0.5	2	1
25%		7	0.8	0.52	12	0.3	1	1



# PANHANDLE IRRIGATED WHEAT VARIETY TESTS 1994 - 1998



BRAND	VARIETY	Grain Yield Bu/A	Plant Lodging pct	Grain Moisture pct	Grain Protein pct	Bushel Weight lb/bu	Plant Height inches
<b>Two Year Average</b>							
Quantum	AP 7510	111.5	3	16.75	12.5	58.6	38
AgriPro	Laredo	101.0	5	14.80	12.7	58.4	37
-----	Jagger	98.5	18	16.50	13.0	56.0	39
AgriPro	Ogallala	95.5	2	17.85	13.0	59.5	35
AgriPro	Coronado	95.5	1	13.75	13.0	58.3	36
-----	2137	92.0	6	15.45	11.3	57.8	39
Quantum	7406	91.0	14	17.25	12.0	56.2	40
-----	Karl 92	90.0	16	15.90	12.6	57.9	36
-----	NE93405	85.0	2	13.10	13.1	59.8	43
-----	Halt	81.5	35	19.45	13.2	53.2	38
-----	Vista	79.0	18	15.55	12.4	57.7	39
-----	Culver	78.5	36	15.45	12.3	56.4	40
-----	Rawhide	78.0	43	18.10	12.8	56.2	43
-----	NE93427	76.5	37	18.20	12.5	56.4	41
-----	Akron	74.0	29	17.25	12.3	54.8	40
-----	Arapahoe	72.0	57	17.85	12.8	56.1	42
-----	Jules	70.0	29	16.35	11.9	54.8	39
-----	Alliance	67.5	44	17.30	11.7	55.4	40
Average all entries		85.4	22	16.49	12.5	56.8	39
Dif req for sig 5%		9.3	20	2.50	0.6	1.5	2
25%		5.3	11	1.41	0.3	0.8	1
<b>Three Year Average</b>							
Quantum	AP 7510	98.3	3	17.17	12.5	58.2	36
AgriPro	Laredo	92.0	5	14.83	12.6	58.3	36
-----	2137	88.7	6	15.40	11.4	57.6	38
-----	Karl 92	87.7	16	15.50	12.5	58.3	35
AgriPro	Ogallala	84.7	2	18.67	13.2	58.8	34
-----	Halt	78.7	35	18.83	13.1	53.8	37
-----	Rawhide	77.0	43	18.30	12.7	56.3	42
-----	Vista	77.0	18	15.83	12.4	57.3	38
-----	Akron	73.3	29	17.67	12.2	55.3	39
-----	Arapahoe	69.0	57	18.47	12.8	55.6	41
-----	Alliance	67.3	44	17.70	12.0	55.7	39
-----	Jules	64.0	29	17.60	12.0	53.6	39
Average all entries		79.8	24	17.16	12.5	56.6	38
Dif req for sig 5%		5.5	7	0.89	0.2	0.7	1
25%		3.2	4	0.51	0.1	0.4	0

Continued on page 2



# PANHANDLE IRRIGATED WHEAT VARIETY TESTS 1994 - 1998 Page 2



BRAND	VARIETY	Grain Yield Bu/A	Plant Lodging pct	Grain Moisture pct	Grain Protein pct	Bushel Weight lb/bu	Plant Height inches
<b>Four Year Average</b>							
AgriPro	Laredo	94.3	14	14.23	12.6	59.4	36
-----	Karl 92	92.0	13	14.85	12.5	59.4	35
AgriPro	Ogallala	90.0	1	17.98	12.9	60.1	34
-----	Rawhide	84.5	28	17.83	12.5	57.3	42
-----	Halt	83.5	37	18.28	12.9	55.2	37
-----	Vista	82.3	17	15.25	12.4	58.0	37
-----	Akron	79.3	26	17.05	12.1	56.5	39
-----	Alliance	73.8	44	17.05	11.7	57.0	39
-----	Arapahoe	72.0	59	17.90	12.7	56.8	41
-----	Jules	70.8	29	17.13	11.7	54.7	39
Average all entries		82.2	27	16.75	12.4	57.4	38
Dif req for sig 5%		3.9	7	0.68	0.2	0.6	1
25%		2.2	4	0.39	0.1	0.3	0
<b>Five Year Average</b>							
AgriPro	Laredo	92.4	12	14.48	12.8	59.3	35
-----	Karl 92	90.8	10	15.12	13.0	59.3	34
-----	Rawhide	84.6	22	17.72	12.8	57.7	40
-----	Halt	83.0	28	17.52	13.2	55.5	36
-----	Vista	81.2	14	15.34	12.6	57.8	36
-----	Arapahoe	73.8	44	17.50	13.0	57.2	39
-----	Alliance	73.6	35	17.34	12.1	56.9	37
Average all entries		82.8	24	16.43	12.8	57.7	37
Dif req for sig 5%		3.1	8	0.58	0.2	0.5	0
25%		1.8	4	0.33	0.1	0.3	0



# Cheyenne County February planted Wheat Variety Test 1998



BRAND	VARIETY	Grain Yield Bu/A	Bushel Weight lb/bu	Plant height inches
----	Akron	31	52.6	25
----	Jagger	30	52.8	28
----	Pronghorn	30	53.3	29
----	Ike	30	52.9	27
----	Halt	30	50.9	26
----	Alliance	29	50.2	25
----	Karl 92	29	54.5	27
----	Yuma	29	50.1	24
Terra	Exp217	28	51.1	25
----	Niobrara	28	49.9	27
----	Buckskin	28	53.0	27
----	Arapahoe	26	51.0	23
----	Vista	21	49.6	20
----	Windstar	20	48.4	21
----	2137	20	50.1	22
Average all entries		27	51.4	25
Dif Req for Sig 5%		3	1.0	2
25%		2	0.6	1

Continued on page 2



# 1997-98 Winter Barley Variety Tests



Line	Lincoln					Sidney	Colby, KS			
	Winter Survival (%)	Heading Date (May)	Height (inches)	Yield (bu/A)	Bushel Weight	Yield (bu/A)	Heading Date (May)	Height (inches)	Yield (bu/A)	Bushel Weight
Karl 92	100	14	33	68.6	61.5	55.7	21	23	34.5	57.3
Hitchcock	95	14	31	63.2	47.0	39.7	27	25	47.5	39.6
Perkins	95	14	31	74.6	50.5	46.0	25	25	61.1	43.9
Weskan	100	12	31	54.5	50.0	23.2	21	27	68.2	32.3
Kanby	100	12	34	69.4	49.0	24.2	22	29	61.0	35.7
Dundy	98	12	34	74.2	51.5	22.3	23	26	51.3	41.5
NE86954	100	12	30	79.2	49.0	39.3	22	26	68.8	42.6
NE90721	100	12	30	70.6	49.0	33.1	20	27	74.7	40.5
NE92711	98	12	31	80.5	48.0	27.3	23	26	77.2	42.3
NE92714	98	13	30	75.0	51.0	15.7	24	27	70.1	37.4
NE92716	100	12	32	63.2	50.0	20.5	23	29	77.9	41.0
NE93753	100	12	37	74.5	50.5	23.7	20	35	56.0	44.4
NE95760	100	12	35	94.5	50.0	15.6	20	27	69.2	41.6
NE94708	98	12	34	52.7	50.0	20.5	19	27	63.6	34.7
NE94725	95	12	31	80.2	51.0	47.4	25	25	60.3	45.2
NE94737	98	13	32	77.9	51.0	35.4	23	24	69.9	44.8
NE94738	100	12	34	75.7	50.5	20.4	22	28	60.7	44.2
NE94752	98	12	36	68.1	50.0	11.7	24	28	61.1	40.9
NE94753	100	12	35	78.7	48.0	19.5	19	26	62.9	44.2
NE96711	98	12	34	99.7	52.0	42.1	23	26	55.3	38.4
NE95713	100	12	35	107.1	51.0	46.6	23	27	71.4	42.8
NE95714	100	12	36	104.6	52.5	37.3	24	27	47.8	39.5
NE95716	100	12	35	88.1	53.0	28.6	24	27	44.4	40.4
NE95724	100	12	33	54.7	50.0	3.2	19	25	52.9	36.3
NE95735	95	12	32	69.8	50.5	10.8	24	24	48.0	42.0
NE95936	95	12	32	63.0	49.5	19.2	23	24	52.5	41.9
NE97829	100	12	34	79.4	52.0	18.5	18	27	62.9	43.1
NE97891	98	12	32	101.4	51.0	19.5	25	26	79.3	42.5
NE97896	98	12	33	94.2	51.5	21.4	22	27	73.1	42.8
NE97942	98	12	33	76.1	49.0	25.2	20	29	53.4	36.3
NE97956	100	12	36	87.5	51.0	8.2	20	29	50.8	38.5
NE97971	98	12	36	91.9	53.0	10.9	19	29	60.5	43.6
NE97988	100	12	34	85.2	51.0	19.7	18	27	70.7	43.6
NE97989	98	12	33	61.7	51.0	27.4	20	28	72.9	41.9
Average	98.4	12	33	77.3	50.8	25.9	22	27	61.5	41.4
L.S.D. (.05)	4.6456	1	2	16.5		11.7	3	2	11.8	5.4











# Bushel weight of wheat varieties at all locations in Nebraska

Brand	Variety	Sal	Sau	Cla	Har	Kei	Per	Dun	RdW	Cus	Lnc	hyBI	Deu	Ban	Daw	BxB	hyE	Avg
---	2137	59.3	56.1	57.1	61.9	61.0	58.7	62.3	61.0	59.7	61.7	60.8	61.6	61.6	59.0	58.8	59.4	59.8
---	Akron					60.8	60.1	60.8	59.2	60.3	62.0	60.1	61.0	62.1	58.7	57.9	59.9	59.8
---	Alliance	58.4	54.8	55.0	61.1	59.1	59.8	60.1	59.3	58.3	62.2	60.7	60.1	62.6	58.5	57.5	59.1	58.9
---	Arapahoe	58.9	55.9	56.3	61.1	61.3	59.8	61.2	59.2	60.0	63.0	59.3	59.9	61.4	58.6	57.2	59.0	59.3
---	Buckskin											59.5	61.0	62.8	59.3	59.3	59.8	60.3
---	Culver	59.4	55.2	55.3	59.6	60.7	58.2	60.4	59.8	59.9	59.0	59.5	61.0	61.4	58.7	58.1	59.0	59.0
---	Halt					62.7	57.9	60.3	61.2	60.2	63.6	59.3	60.4	60.9	58.8	58.4	58.6	59.6
---	Ike	60.4	56.8	57.8	61.6	58.5	56.9	60.7	58.4	60.0	61.6							59.3
---	Jagger	59.8	55.1	56.5	60.9	59.1	55.6	62.4	58.0	60.5	62.4							58.7
---	Jules					60.7	58.8	59.6	58.4	58.8	60.2	57.0	60.9	61.3	58.0	58.2	57.9	58.8
---	Karl 92	60.2	55.8	57.2	62.3	58.7	58.2	60.7	58.3	60.5	62.2							59.2
---	N94L205	61.9	56.2	57.5	62.8	59.6	58.3	63.3	61.7	61.0	62.9	61.0	62.9	63.8	61.2	61.5	62.4	60.9
---	N95L158	58.8	55.3	56.2	61.4	59.6	59.0	63.1	59.0	61.1	61.4	59.7	60.3	61.9	58.5	56.2	58.4	59.2
---	N95L189	59.3	53.6	55.9	60.4	61.0	61.9	61.1	58.4	56.9	59.7							58.6
---	N95S004					57.5	63.2	62.1	58.9	59.4	60.1	59.0	60.4	61.1	58.2	55.1	59.6	59.6
---	N96L1229	60.5	55.5	57.3	60.7	61.4	61.5	60.9	57.8	58.8	61.1							59.3
---	N96S031					61.2	58.5	57.8	57.5	59.6	61.5	56.5	60.0	60.8	57.5	57.5	57.0	58.6
---	NE92652	62.3	58.1	59.3	62.1	64.2	60.4	62.9	60.7	62.2	58.3							61.1
---	NE93405	60.7	56.5	58.8	62.4	60.5	60.9	61.7	59.6	60.5	62.8	61.1	62.1	62.7	60.1	59.3	60.0	60.6
---	NE93427	61.1	57.1	58.3	63.3	62.5	57.2	61.9	62.2	59.7	62.9	61.7	62.1	63.7	59.7	59.3	60.6	60.6
---	NE93496	61.2	57.1	59.1	61.2	62.0	61.0	63.5	60.4	61.3	60.4	60.8	61.5	62.3	59.5	58.8	60.1	60.6
---	NE93613	60.1	56.5	57.6	61.7	62.3	60.7	61.5	59.3	58.6	61.7	58.1	60.6	61.5	58.8	57.8	58.8	59.6
---	NE94479	60.2	56.7	57.6	61.8	60.6	57.9	60.5	60.5	59.8	60.8	60.1	60.3	62.1	59.4	56.9	59.4	59.5
---	NE94482	59.6	56.4	57.3	61.6	61.3	60.6	62.6	59.2	59.1	59.1	59.8	60.2	62.1	58.4	58.3	59.8	59.6
---	NE94632	58.9	54.4	56.8	61.1													57.8
---	NE94653	58.6	56.5	56.6	61.8	63.5	59.6	60.5	58.9	59.7	62.0	59.8	60.6	61.8	58.1	57.3	59.3	59.5
---	NE94655	58.9	56.1	57.0	61.3	62.8	61.4	59.3	59.1	59.3	59.3	60.4	61.0	62.2	59.6	57.5	59.3	59.5
---	Nekota	60.6	57.3	56.9	62.0	61.2	58.5	62.0	59.5	59.4	61.2							59.9
---	Niobrara	59.3	54.6	55.1	61.6	60.2	58.2	61.5	58.4	58.1	59.7	60.2	60.3	61.3	58.7	57.0	58.5	58.9
---	Pronghorn	59.8	56.5	57.6	62.4	60.4	61.0	61.6	61.0	60.8	62.6	60.2	60.6	62.4	58.6	56.8	60.1	60.2
---	Prowers											60.8	62.3	63.5	60.6	59.7	60.3	61.2
---	Rawhide																	56.0
---	SD92107											57.2	59.9	60.7	57.9	57.5	57.9	58.5
---	SD93267											60.3	61.5	62.6	59.6	59.7	59.9	60.6
---	SD93380											59.4	59.5	61.1	57.6	57.1	58.9	58.9
---	Scout86	60.5	56.4	57.6	62.2	60.7	59.6	61.0	59.0	59.1	61.5	60.9	60.3	62.6	59.7	56.7	59.9	59.9
---	TAM 107											59.5	59.7	60.4	58.5	58.5	58.2	59.1
---	TAM 107R3											59.9	59.8	60.6	58.2	57.9	58.9	59.2
---	Turkey	60.8	57.1	58.4	61.8	61.6	60.7	61.2	59.1	58.2	60.4	58.8	60.2	61.6	58.2	59.1	59.7	59.8
---	Vista	59.2	55.2	56.3	60.5	59.8	57.7	59.7	58.0	60.4	62.0	59.7	59.3	60.6	58.0	58.2	57.2	58.8
---	Windstar	59.1	55.6	56.1	60.3	60.6	60.0	59.9	59.0	58.7	61.5	58.6	60.6	61.7	58.3	53.3	58.6	58.9
---	Yuma											61.2	61.6	62.9	59.5	58.8	60.5	60.3
---	Yumar																	60.2
AgriPro	Big Dawg																	58.0
AgriPro	Coronado																	59.9
AgriPro	Laredo					60.3	56.6	61.8	59.6	61.0	62.2							60.8
AgriPro	Ogallala					63.8	56.0	62.8	60.2	62.0	61.8							58.2
AgriPro	Platte																	60.0
AgriPro	Tomahawk					58.8	55.4	62.3	60.5	60.5	62.6							59.9
AgriPro	W95-210	60.8	57.6	58.4	62.6													60.1
Alliance Div	Apron XL					58.8	58.3	60.6	60.7	59.0	61.4	61.0	60.4	62.7	58.9	58.1	59.4	59.9
Alliance Div	Maxim/Apron XL					58.4	59.6	62.4	59.9	59.5	61.7	60.8	59.6	62.8	59.7	57.9	59.4	60.1
Arapahoe Div	Apron XL					59.0	60.0	62.0	58.8	59.3	62.3	59.2	59.5	61.4	58.5	57.7	58.9	59.7
Arapahoe Div	Maxim/Apron XL					61.6	60.1	63.2	60.1	57.7	62.1	59.2	59.6	61.6	58.2	57.7	59.0	60.0
Polansky	Dominator			57.4	62.7													60.1
Quantum	7406					61.8	57.7	60.8	59.5	60.4	61.5	60.7	61.3	61.8	58.1	57.7	60.2	59.9
Quantum	AP 7510					59.6	60.4	61.0	59.2	61.7	64.1	60.5	60.8	62.8	59.5	59.4	60.5	60.6
Quantum	H1881					61.6	61.1	58.5	59.1	59.3	61.2	58.1	60.6	60.9	58.3	56.0	58.3	59.0
Terra	Exp217	59.4	55.7	57.0	61.6	61.5	59.6	60.5	57.4	58.3	62.3	58.1	60.1				58.3	59.0







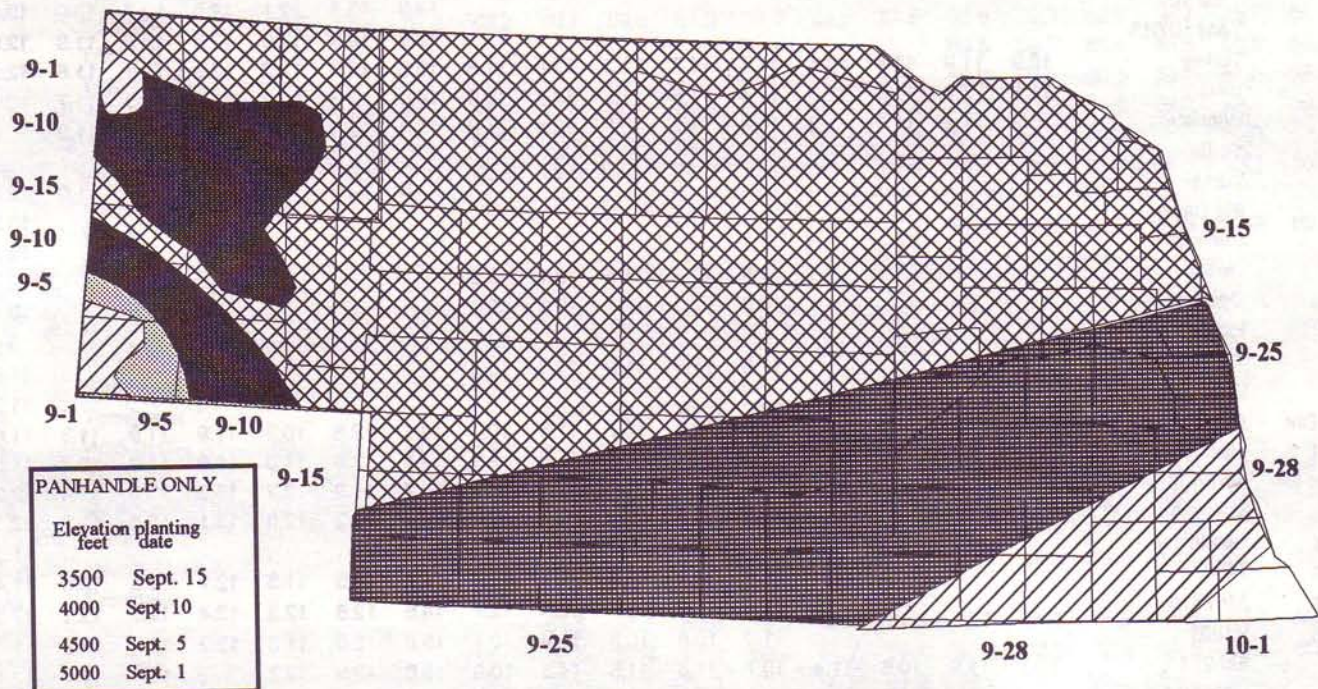
## Suggested seeding dates for winter wheat in Nebraska

The planting date of winter wheat varies substantially as we move across the state. Research to show the best planting date began many years ago. Each year producers verify these dates through observation of fields planted earlier or later than the ideal date. Some years an earlier planting may have an advantage and some years a later date may have an advantage. In the long term, however, the suggested seeding dates will give the highest average yield.

We also recognize that as the number of acres increase, the length of time to plant increases. More of the wheat planting is both before and after the suggested seeding date because of increased planting time. As a starting point, you should try to have half the wheat seeded by the ideal date. You can improve on the average by planting the higher elevation fields and those containing sandy soil first. Leave the lower fields and those with higher clay content until last.

The dates listed on the map below weigh several factors. In the Panhandle, the dates depend on elevation. Using this method, producers can find the ideal date for each field by knowing the elevation. Using a starting point of September 15 for 3500 feet, add one day for each 100 feet lower and subtract one day for each 100 feet higher in elevation. For the rest of the state, the dates September 25 and later are set to avoid Hessian fly infestation. The date is after flies lay their eggs. Other reasons for delaying planting include avoidance of wheat streak mosaic virus, Russian Wheat Aphid, crown and root rot, and too much fall growth. Excessive fall growth causes excessive moisture use and stress. There are several other reasons for planting early. One is to get adequate ground cover to avoid erosion from wind or water. Another is to get adequate plant growth to assure winter hardiness. A third reason is to quicken maturity the following summer and avoid excessive heat stress.

The following map is a guide rather than an absolute deadline. Each producer should make changes to ensure the planting dates fit the conditions of his or her farm.





### Actual precipitation, temperature, and % of normal at fourteen wheat sites in Nebraska in 1998

Month	Precipitation								Temperature							
	Oct		Nov		Dec		Jan/Feb		Oct		Nov		Dec		Jan/Feb	
	ACT	%	ACT	%	ACT	%	ACT	%	ACT	Dep	ACT	Dep	ACT	Dep	ACT	Dep
Location	ACT	%	ACT	%	ACT	%	ACT	%	ACT	Dep	ACT	Dep	ACT	Dep	ACT	Dep
Box Butte	2.91	388	0.00	0	0.04	10	1.05	152	48.1	-0.3	33.7	-1.7	27.9	2.0	30.2	4.4
Deuel	1.00	130	0.00	0	0.84	168	0.31	42	50.0	-0.3	35.6	-1.7	29.2	2.4	32.8	5.7
Dawes	2.16	257	0.17	36	0.54	138	0.58	77	51.0	1.7	36.0	0.6	30.1	5.4	32.8	7.9
Clay	3.62	201	2.25	210	0.98	127	1.03	97	52.9	-0.9	36.2	-3.2	29.2	2.9	30.7	5.4
Saline	2.97	139	2.88	225	0.75	80	2.85	216	55.4	1.1	37.7	-2.1	30.3	3.7	32.3	7.1
Custer	3.28	295	0.17	24	0.12	21	0.77	86	51.9	0.6	36.0	-1.1	30.5	4.5	30.2	4.3
Harlan	7.76	571	2.57	352	1.11	271	0.67	94	53.0	-0.1	37.2	-1.5	29.8	2.3	31.4	5.4
Banner	1.79	208	0.21	37	0.87	202	1.02	138	48.0	-0.1	34.3	-2.0	28.6	1.0	32.0	4.1
Perkins	4.31	546	0.01	1	0.63	140	0.54	64	50.6	-0.8	34.8	-1.7	28.9	2.7	32.1	5.4
Red Willow	4.88	444	0.75	87	0.53	100	0.95	104	52.2	-1.2	37.8	-1.6	31.1	2.2	33.6	5.0
Saunders	3.46	142	2.44	178	0.42	42	2.00	168	52.2	-1.3	35.0	-4.4	29.0	3.4	28.9	5.2
Lincoln	2.77	292	0.04	6	0.20	42	0.73	95	50.5	0.7	33.9	-2.0	28.2	5.7	30.1	5.6
Keith	3.02	431	0.00	0	0.35	64	0.63	82	50.7	0.3	35.4	-1.6	30.2	3.8	32.1	5.6
Dundy	1.62	176	0.14	20	0.56	133	0.85	120	52.7	-0.3	37.5	-1.6	30.2	1.1	33.6	4.4
Month	Mar		Apr		May		June		Mar		Apr		May		June	
Location	ACT	%	ACT	%	ACT	%	ACT	%	ACT	Dep	ACT	Dep	ACT	Dep	ACT	Dep
Box Butte	1.62	208	0.63	37	2.01	61	2.45	81	31.8	-3.4	44.8	-0.3	58.2	2.8	60.6	-5.1
Deuel	0.41	34	0.75	41	3.32	99	3.86	130	35.3	-2.6	46.6	-1.6	60.4	2.5	63.8	-3.6
Dawes	2.21	266	0.48	29	1.97	71	2.53	92	31.0	-4.3	46.3	0.4	59.3	3.1	61.5	-5.1
Clay	2.83	144	2.22	87	2.47	60	4.78	120	31.9	-6.5	48.8	-1.7	65.2	4.4	69.3	-1.2
Saline	4.27	192	3.31	124	2.07	50	5.77	135	33.6	-5.2	50.8	-0.4	67.2	5.0	70.6	-1.3
Custer	1.15	82	0.47	22	2.20	62	4.01	95	30.1	-7.2	46.4	-2.7	63.6	3.9	66.3	-3.4
Harlan	4.72	297	2.40	128	1.72	46	2.24	62	32.9	-5.5	48.3	-2.0	64.3	4.4	69.4	-0.7
Banner	1.06	92	1.65	101	2.61	90	0.90	31	34.4	-1.2	44.7	-0.1	58.6	4.2	61.5	-3.0
Perkins	0.47	36	0.44	24	5.69	176	3.81	109	34.0	-3.1	46.1	-2.1	61.7	2.7	65.0	-4.5
Red Willow	0.49	37	0.65	33	1.12	34	1.12	34	35.3	-4.4	48.8	-2.0	64.0	3.9	68.9	-1.5
Saunders	2.34	109	3.01	102	5.25	118	7.65	174	30.7	-7.2	49.6	-1.4	65.2	3.5	69.0	-2.5
Lincoln	1.85	157	0.88	45	2.93	87	4.84	143	32.9	-3.3	46.3	-1.5	59.6	1.7	64.1	-3.5
Keith	0.50	39	1.40	78	3.60	107	3.48	114	34.2	-3.1	46.8	-1.3	61.5	3.4	64.3	-3.9
Dundy	0.48	36	0.22	13	1.90	59	2.33	65	36.6	-3.2	48.3	-2.4	63.7	3.8	68.2	-2.0





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