

University of Nebraska - Lincoln

## DigitalCommons@University of Nebraska - Lincoln

---

Historical Materials from University of  
Nebraska-Lincoln Extension

Extension

---

2002

### EC02-103 Nebraska Fall-Sown Small Grain Variety Tests, 2002

Lenis Alton Nelson

*University of Nebraska-Lincoln*, lnelson1@unl.edu

David P. Baltensperger

*University of Nebraska-Lincoln*, dbaltensperger@tamu.edu

Robert N. Klein

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

Roger Wesley Elmore

*University of Nebraska-Lincoln*, roger.elmore@unl.edu

P. Stephen Baenziger

*University of Nebraska-Lincoln*, pbaenziger1@unl.edu

*See next page for additional authors*

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



Part of the [Agriculture Commons](#), and the [Curriculum and Instruction Commons](#)

---

Nelson, Lenis Alton; Baltensperger, David P.; Klein, Robert N.; Elmore, Roger Wesley; Baenziger, P. Stephen; and Campbell, Todd, "EC02-103 Nebraska Fall-Sown Small Grain Variety Tests, 2002" (2002). *Historical Materials from University of Nebraska-Lincoln Extension*. 1531.

<https://digitalcommons.unl.edu/extensionhist/1531>

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.



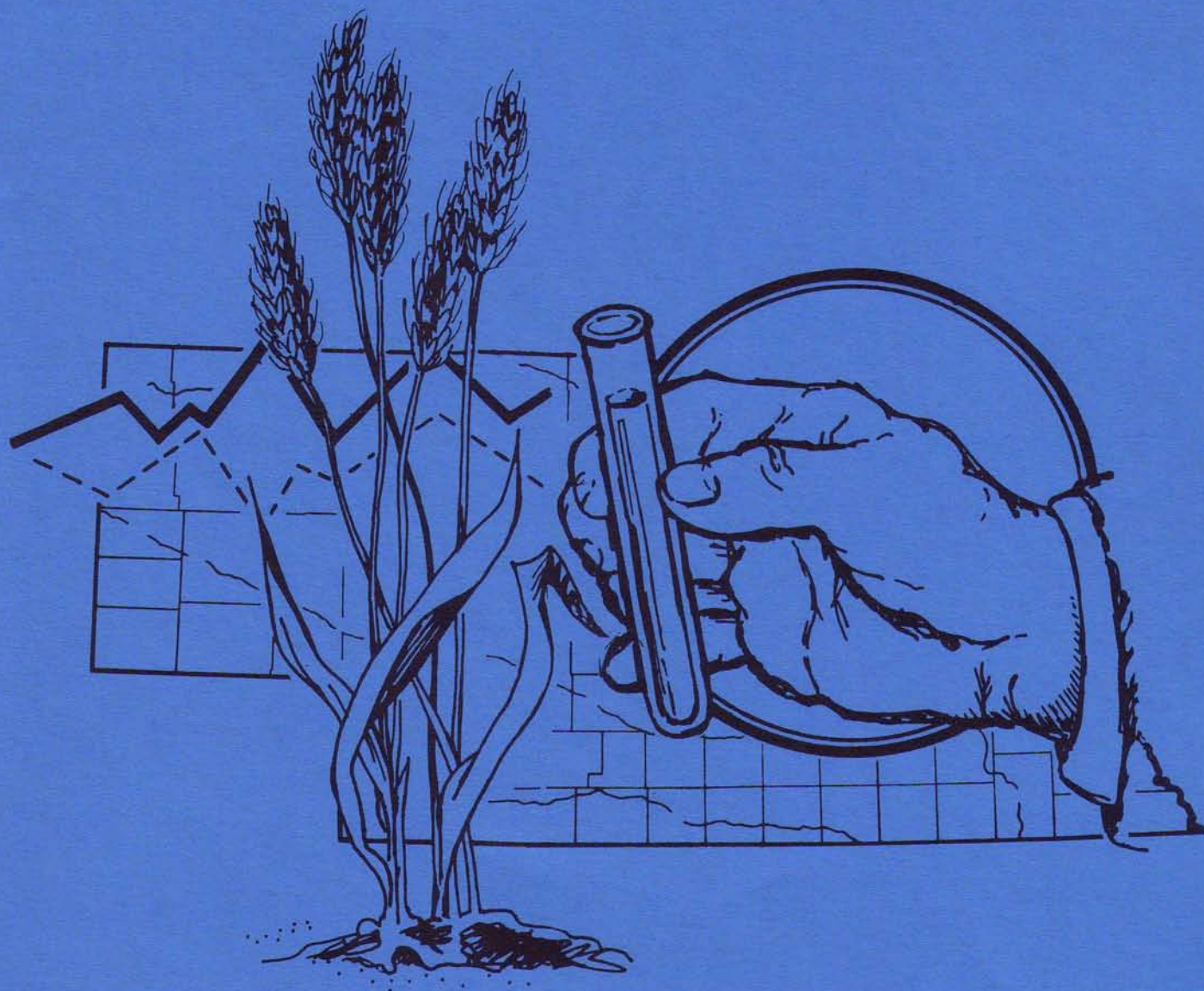
---

## Authors

Lenis Alton Nelson, David P. Baltensperger, Robert N. Klein, Roger Wesley Elmore, P. Stephen Baenziger, and Todd Campbell



# NEBRASKA FALL—SOWN SMALL GRAIN VARIETY TESTS 2002



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



Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Elbert C. Dickey, Dean and Director of Cooperative Extension, University of Nebraska, Institute of Agriculture and Natural Resources.

It is the policy of the University of Nebraska—Lincoln not to discriminate on the basis of gender, age, disability, race, color, religion, marital status, veteran's status, national or ethnic origin or sexual orientation.



# EXTENSION CIRCULAR 02-103

## NEBRASKA FALL-SOWN SMALL GRAIN

### VARIETY TESTS

August 2002

#### AUTHORS

Lenis A. Nelson .....Department of Agronomy, Lincoln  
 David D. Baltensperger ...Panhandle Research and Extension Center, Scotts Bluff  
 Robert N. Klein .....West Central Research and Extension Center, North Platte  
 Roger W. Elmore ..... South Central Research and Extension Center, Clay Center  
 P. Stephen Baenziger .....Department of Agronomy, Lincoln  
 Todd Campbell . . . . . Department of Agronomy, Lincoln

#### ACKNOWLEDGMENTS

This circular is a progress report of variety trials conducted by personnel of the Agronomy Department and the South Central, West Central and Panhandle Research and Extension Centers and their associated agricultural laboratories. Conduct of experiments and publication of results is a joint effort of the Agricultural Research Division and the Cooperative Extension Service. Tests were supported in part by fees paid by commercial seed companies and the Nebraska Wheat Board.

Special acknowledgment is made to farmer cooperators who furnished land for experiments; also to Extension Educators and others who assisted with the tests.

The authors wish to acknowledge the assistance of the technical support staff: Greg Dora, Bekele Abeyo, Glen Frickel, John Eis, Ralph Klein, Jeff Golous, Mitch Montgomery and Chris Hoagland. Their help is vital to this research.

We would like to thank the Nebraska Wheat Board for contributing wheat check-off money and the Nebraska Agricultural Statistics Service for compiling data on varieties and production of wheat. We acknowledge the High Plains Climate Center at the University of Nebraska-Lincoln for assistance in preparing the climate data and providing climate information for this study.

#### 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 02-103

## CONTENTS

## Introduction

Discussion . . . . .	4
Cooperators . . . . .	7
Soil series and soil test data . . . . .	8
Wheat variety selection and complementation . . . . .	9
Variety characteristics . . . . .	10
Map location of tests . . . . .	12
Southeast - Saline and Saunders Co. 2002 . . . . .	13
Southeast 1998-2002 . . . . .	14
South Central - Clay and Nuckolls Co. 2002 . . . . .	16
South Central 1998-2002 . . . . .	17
West Central - Keith, Red Willow and Lincoln Co. 2002 . . . . .	19
West Central 1998-2002 . . . . .	20
West Central - Perkins, and Furnas no-till 2002 . . . . .	23
West Central no-till 2000-2002 . . . . .	24
Panhandle - Cheyenne, Garden, Goshen (WY), Dawes, Morrill, 2002 . . . . .	26
Panhandle - 1998-2002 . . . . .	28
West Irrigated - Cheyenne Co. and Albin WY 2002 . . . . .	31
West Irrigated 1998-2002 . . . . .	32
Wheat Yields at all locations - 2002 . . . . .	34
Protein content at all locations 2002 . . . . .	36
Weather data from 2002 . . . . .	38
Winter Barley - Lincoln & McCook NE and Colby KS . . . . .	40
Winter Wheat Planting Date Recommendations . . . . .	41

## NEBRASKA WINTER WHEAT PRODUCTION

Year	<u>Planted</u> 000 acres (hectares)	<u>Harvested</u> 000 acres (hectares)	<u>Average</u> yield bu/a (kg/ha)
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)	1800 (729)	46.0 (3093)
1999	2000 (809)	1800 (729)	48.0 (3228)
2000	1750 (709)	1650 (668)	36.0 (2421)
2001	1800 (728)	1700 (688)	39.0 (2623)
2002*	1650 (668)	1450 (587)	32.0 (2152)

\*August 1 estimate.



## NEBRASKA FALL-SOWN SMALL GRAIN VARIETY TESTS 2002

The 2002 estimated winter wheat yield for Nebraska was a 32 bushels per acre from 1,450,000 harvested acres. The total production of winter wheat for the state was 46,400,000 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 twenty first year for privately developed varieties. The state has been divided into four districts for purposes of variety

testing. Locations of the 2002 variety tests are shown on the map on page 12.

Trials were located on Research Centers and private farms. Names of cooperators, 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

**'Wahoo' (new for 2001)** is an medium maturing, medium height variety with good to very good winterhardiness and moderate straw strength. It is best adapted to rainfed wheat production in eastern Nebraska as well as broad production in Nebraska and Wyoming. This variety was developed by Nebraska and the USDA-ARS from the cross of Arapahoe/Abilene/Arapahoe and was tested under the designation NE94654.

**'Wesley'** is a moderately early maturing, moderately short height variety with excellent straw strength. Compared to 2137, it has similar adaptation and yield on optimum production

**'Millennium (new for 2000)** is a medium maturing, medium height variety that is well adapted to most of Nebraska's dryland wheat production areas. It has fair to good winterhardiness, medium length coleoptile, very good tillering ability, and moderately strong straw. Millennium was developed by Nebraska and the USDA-ARS from the cross Arapahoe/Abilene//NE86488. It was tested under the designation NE94479.

sites. It has good winterhardiness and tillering ability. This variety was developed by USDA-ARS in cooperation with Nebraska and co-released with South Dakota. Wesley was derived from the cross Sumner sib (Plainsman V/Odesskaya 51)//Colt/Cody.

**'Cougar' (new for 2000)** is a medium maturing, medium height variety that is well adapted to both dryland and irrigated production conditions. Yield performance and protein content are similar to Arapahoe but with much superior standability and test weight patterns. Cougar was developed by Nebraska and the USDA-ARS from the cross NE85707/Thunderbird. It was tested under the designation NE93496.

**'Nuplains (new for 2000)** is a moderately early maturing variety that was targeted for dryland production in south central and west central Nebraska and irrigated production in the panhandle and south west areas of Nebraska. It is moderately short with good straw strength. Test weight patterns are good to very good with above average protein. Nuplains was developed cooperatively by the USDA-ARS



and the Nebraska Agriculture Experiment Station. Nuplains was derived from the cross Abilene/KS831872.

'Trego' (new for 2000) is a moderately early maturing, moderately short variety that is

well adapted to the central and western production areas of Nebraska. It has fair to good standability and test weight patterns. It is moderately resistant to stem rust, leaf rust, and soilborne mosaic virus.

## Winter Wheat Performance

Yield, bushel weight, and other agronomic data from each district are listed on pages 13-33. Each district is listed on separate tables with yields of individual locations, average agronomic data, and a summary of the last five years. Pages 34-35 summarizes the yield of each variety at each of the locations where it was entered. Pages 36-37 summarizes 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% level, meaning that differences as large or larger could be expected through chance alone in 1 of 20 trials (5%). 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. Complementary varieties are important when selecting additional varieties to grow on your farm. One definition of complementary varieties is that they come from diverse parentages. A more in depth discussion of variety complementation is found on page 9. In order to help select varieties with diverse parentages, the related families of many varieties are included in the characteristics chart

(table C) on page 10-11.

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 3<sup>rd</sup> at a seeding rate of 60 lbs/acre. This test was planted no-till into soybean stubble. Residue and hard ground conditions at planting caused problems getting the seed at the desired planting depth. The plot was harvested July 1<sup>st</sup> and averaged 29 bushels per acre. The Saunders County test was planted September 26<sup>th</sup> and harvested July 2<sup>nd</sup> and average 65 bushels per acre.

The two trials in South Central Nebraska were in Clay and Nuckolls Counties. The Clay County plot was located at the South Central Research & Extension Center, Clay Center. The soil type was a Crete silt loam that was fallow in 2001. The 36 varieties were planted on October 1<sup>st</sup> at a rate of 75 lbs/acre. Wheat was harvested on July 8<sup>th</sup> and averaged 71 bushels per acre. The Nuckolls County trial was planted October 2<sup>nd</sup> at a rate of 75 lbs/acre. This test was disked once and field cultivated three times before planting. This test was fallow in 2001 and starter fertilizer was used at planting. This test was harvested July 1<sup>st</sup> and averaged 80 bushels per acre.

Five trials were conducted in the west central district. These were located in Keith, Perkins, Furnas, Red Willow and Lincoln County. The Keith County test was planted September 14<sup>th</sup> without starter fertilizer. This test was harvested July 2<sup>nd</sup> and averaged 35 bushels per acre. The Perkins County test was planted September 27<sup>th</sup> and was no-tilled into



corn stubble. This plot was harvested July 3<sup>rd</sup> and averaged 11 bushels per acre. The Red Willow County test was planted September 25<sup>th</sup> without starter fertilizer. This test averaged 55 bushels per acre and was harvested June 28<sup>th</sup>. The Furnas County test was planted September 26<sup>th</sup> no-till into corn stubble. This test was harvested July 1<sup>st</sup> and averaged 38 bushels per acre. The Lincoln County test was planted September 21<sup>st</sup> and harvested July 5<sup>th</sup>. This test averaged 56 bushels per acre and was fallow in 2001.

Panhandle wheat enjoyed an ideal fall, but conditions began to deteriorate by early January with low humidity and lack of moisture resulting in both drought stress and wide fluctuations in temperature. The conditions throughout most of the Panhandle continued to deteriorate all the way to maturity with additional drought and temperature stress each week. Only five of the eight dryland trials planted produced harvestable grain or consistent enough plots to fairly compare varieties. Both trials planted without fallow failed and the Box Butte county trial failed, primarily due to a poor seed bed. The seven dryland trials were conducted in Cheyenne, Garden, Scotts Bluff/Goshen, Dawes, Box Butte, Cheyenne no till and Morrill Counties. The Cheyenne County test was planted September 23<sup>rd</sup>. Planting was delayed by fall rain. This was followed by a very dry spring and summer. This test was harvested July 10<sup>th</sup> and averaged 31 bushels per acre. The Garden County test was planted September 13<sup>th</sup> and was fallow in 2001. Hard rains after planting caused some stand reduction due to crusting. This test was harvested July 9<sup>th</sup> and averaged 30 bushels per acre. The Scotts Bluff/Goshen, WY state line test was planted September 24<sup>th</sup>. Fall and winter conditions were dry and warmer than usual. Timely spring showers resulted in yields superior to most other dryland sites. This test was harvested July 16<sup>th</sup> and averaged 39 bushels per acre. The Box Butte County test was planted September 13<sup>th</sup> with poor planting conditions. This test was not harvested due to dry conditions. The Dawes County test was

planted September 12<sup>th</sup> with dry planting conditions. Timely fall rain followed by good winter snow and adequate spring rain helped this plot yield well. This test was harvested July 13<sup>th</sup> and average 37 bushels per acre. The Morrill County test was planted September 11<sup>th</sup> with good planting conditions. The plot received small doses of timely moisture throughout the growing season. This plot was harvested July 8<sup>th</sup> and averaged 33 bushels per acre. The Cheyenne County No till test was planted September 27<sup>th</sup> into Proso Millet stubble. This test was not harvested due to dry conditions..

The Cheyenne County Irrigated test was planted September 26<sup>th</sup> with the previous crop being beans. Very little rain fell at this site, but lots of irrigation produced good yields. This test was harvested July 19<sup>th</sup> and averaged 96 bushels per acre. The Albin WY County irrigated test was planted September 21<sup>st</sup> with good planting conditions due to irrigation. The plot averaged 79 bushels per acre and was harvested July 29<sup>th</sup>.

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 pages 36-37. 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 2002.**

County	Cooperator	Planted	Harvested
Saline	Doug Jiskra, Swanton	Oct. 3	July 1
Saunders	Agricultural Res & Dev Center	Sept. 26	July 2
Clay	South Central Res & Ext Center	Oct. 1	July 8
Nuckolls	Berry Melvin & Doug Anderson	Oct. 2	July 1
Keith	Jim Welsh & Larry Chandler, Brule	Sept. 14	July 2
Perkins	Mike McArtor, Grant	Sept. 27	July 3
Furnas	Dennis Gardner, Edison	Sept. 26	July 1
Red Willow	Capple Farms, McCook	Sept. 25	June 28
Lincoln Ns	West Central Res & Ext Center	Sept. 21	July 5
Cheyenne	High Plains Ag Lab	Sept. 23	July 10
Garden	John Gortemaker, Chappell	Sept. 13	July 9
Goshen, WY		Sept. 24	July 16
Dawes	Cliff Logan, Chadron	Sept. 12	July 13
Box Butte	Jim Jelinek, Alliance	Sept. 13	*
Morrill	Dave Petersen, Bayard	Sept. 11	July 8
Cheyenne No till	High Plains Ag Lab	Sept. 27	*
Cheyenne Irr	Tim Maas, Potter	Sept. 26	July 19
Albin, WY Irr	Theron Anderson, Albin, WY	Sept. 21	July 29

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.  
6515 Ascher Road  
Junction City, KS 66441

Hondo, Thunderbolt, Dumas,  
Jagalene, AP 502CL

Novartis Seed Treatment  
#29 Rolling Hills Rd  
Kearney, NE 68847

Alliance Non Treated, Alliance Dividend Extreme 9g,  
Alliance Dividend XL9g, Alliance Raxil MD

General Mills Operations Inc. NuFrontier, NuHorizon, Golden Spike  
P.O. Box 5022  
Great Falls, MT 59403

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 - 2002.**

County	Soil Type	2001 Crop	pH	Nitrate lbs/a	P ppm	Organic matter %	N+P2O5+K lbs/a
Saline	Wymore silty clay loam	Soybeans	6.2	19.0	6.0	2.1	60-0-0
Saunders	Sharpsburg silty clay loam	Soybeans	---	---	---	---	40-0-0
Nuckolls	Crete silt loam	Fallow	---	---	---	---	10-34-0
Clay	Crete silt loam	Fallow	---	---	---	---	68-26-0
Keith	Kuma loam	Fallow	5.9	213.0	42.0	2.0	50-0-0
Perkins	Mace silt loam	Corn	5.8	52.0	59.0	2.1	100-0-0
Red Willow	Keith & Holdrege silt loam	Fallow	5.9	47.0	27.0	1.9	0-0-0
Furnas	Holdrege silt loam	Corn	5.9	47.0	27.0	2.1	60-0-0
Lincoln Nursery	Hall silt loam	Fallow	6.8	112.0	39.0	1.9	60-0-0
Cheyenne	Keith loam	Fallow	6.1	184.0	65.0	2.7	53-28-0
Garden	Duroc loam	Fallow	6.2	286.0	60.0	2.0	63-50-0
Goshen	Duroc loam	Fallow	7.3	154.0	20.0	1.9	42-20-0
Dawes	Keith silt loam	Fallow	7.0	72.0	25.0	1.6	8-28-0
Box Butte	Keith loam	Fallow	6.7	85.0	33.0	1.2	0-0-0
Morrill	Creighton very fine sandy loam	Fallow	6.4	144.0	35.0	2.0	8-28-0
Cheyenne No till	Keith silt loam	Millet	6.8	31.0	30.0	2.0	38-28-0
Cheyenne Feb.	Alliance loam	Fallow	6.2	260.0	58.0	2.4	73-28-0
Albin WY irrigated	---	Beans	---	---	---	---	60-40-0
Cheyenne Irr.	Kuma loam	Beans	6.7	225.0	49.0	2.1	68-50-0



**Making Your Choice** - Two proven agronomic keys to the profitability and stability of your wheat production system are your choice of varieties and the quality of the seed used to deliver those varieties into the production environment.

Because there is no single perfect wheat variety for all production systems or in all years, using a simple variety complementation technique will enable you to realize the greatest benefit from its array of strengths and offset to a high degree the potential weaknesses (production limitations) found in each variety. This compensation improves the opportunity for yield stability and profitability of your entire wheat production system.

The number of complementary varieties that you grow as part of your wheat farming enterprise and the acres planted to each variety will depend entirely on your specific production conditions and any special needs (common diseases or insects, etc.). Choosing those varieties is an important responsibility. No one, not your seed dealer, or your extension educator, or even your banker, depends as much as you do on variety selection and seed performance in your farming operation.

There are four steps in using the variety complementation strategy.

1. **Identify your 'workhorse' varieties** - These are the varieties now being grown on a majority of your acres with a reliable and proven record of performance over a period of years.
2. **Complement production needs and limits** - Select varieties that have useful characteristics needed for your specific production practices, soil conditions, and offer the best protection from diseases and other hazards common to your growing area.
3. **Complement with a range of maturities** - Select varieties that bloom and mature earlier or later than your workhorse variety. Because weather is unpredictable, some years may favor early varieties, some years may favor later varieties. A spread of maturities will also allow you to stagger your harvest and take maximum advantage of your equipment and reduce potential losses to weathering, shattering, etc.
4. **Complement with different genetics** - Select varieties that share 50 percent or less similar parentage to your workhorse variety and each other. Varieties with similar genetic backgrounds can often be susceptible to the same disease and production risks. See Table 1.

Table 1. Partial Lists of Wheat Variety Families that Share 50% Common Parentage

<u><b>ABILENE</b></u>	<u><b>CHISHOLM</b></u>	<u><b>PONCA</b></u>	<u><b>TAM 107</b></u>
Ogallala	Alliance	Scout	Akron
Nuplains	Custer		Nekota
Rio Blanco		<u><b>RIO BLANCO</b></u>	Niobrara
Thunderbolt	<u><b>COLT</b></u>	Intrada HWW	
Wahoo	Ike	Trego HWW	<u><b>TAM 200</b></u>
	Pronghorn		Intrada HWW
<u><b>ARAPAHOE</b></u>	<u><b>HAIL</b></u>	<u><b>SCOUT</b></u>	<u><b>THUNDERBIRD</b></u>
Culver	Akron	Buckskin	Cougar
Wahoo		Jules	Longhorn
	<u><b>JAGGER</b></u>	Larned	
<u><b>ARLIN HWW</b></u>	Betty HWW	Newton	<u><b>VICTORY</b></u>
Lakin HWW		Sage	Tomahawk
	<u><b>KARL</b></u>	TAM 105	
<u><b>BRULE</b></u>	Jagger	<u><b>SIOUXLAND</b></u>	<u><b>VONA</b></u>
Arapahoe	Karl 92	Millennium	Yuma
Niobrara		Windstar	Yumar
Vista	<u><b>LAMAR</b></u>		<u><b>2163</b></u>
	Prowers	<u><b>SUMNER</b></u>	2137
<u><b>CENTURK</b></u>	<u><b>PAWNEE</b></u>	Wesley	
Centura	Ponca	<u><b>TAM 105</b></u>	<u><b>Unknown/Unrelated</b></u>
Centurk 78		TAM 107	Big Dawg
Rocky	<u><b>PLAINS MAN V</b></u>		Coronado
	Heyne HWW		Dumas
			Hondo



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

Variety	Origin	Year of Release	PVP <sup>1</sup>	Family most closely related to:	Agronomic Characteristics <sup>2</sup>				
					Mat- urity	Winter Hardi- ness	Straw Strength	Plant Height <sup>3</sup>	Col- eoptile Length <sup>4</sup>
2145	KS	2002	yes		2	4	5	2	
2137	KS	1995	yes	2163	2	4	5	3	3
Above	CO	2002	yes	TAM 110	1	3	4	2	
Akron	CO	1994	yes	TAM 107	1	2	5	4	3
Alliance	NE	1993	yes	Chisholm	2	2	3	4	2
AP502CL	ASI	2002	yes		1	3	5	2	3
Arapahoe	NE	1988	yes	Brule	3	4	3	5	2
Betty	KS	1998	yes	Jagger	4	2	4	6	1
Buckskin	NE	1973	no	Scout	3	2	4	9	9
Cougar	NE	1999	yes	Thunderbird	4	3	5	7	8
Culver	NE	1998	yes	Arapahoe	2	3	4	5	2
Dumas	ASI	2001	yes		2	1	6	2	3
Golden Spike	GM	1999	yes		5	3	6	7	4
Halt	CO	1994	yes	TAM 107	1	3	4	2	4
Heyne	KS	1998	yes	Plainsman V	2	3	6	2	3
Hondo	ASI	1998	yes	Rio Blanco	3	4	6	4	3
Jagalene	ASI	2002	yes	Jagger/Abilene	2	4	5	3	3
Jagger	KS	1994	yes	Karl	1	1	3	2	3
Karl 92	KS	1992	yes	Karl	1	2	5	3	2
Lakin	KS	2000	yes	Arlin	2	4	5	3	2
Millennium	NE	1999	yes	Siouxland	3	3	5	7	3
Nekota	NE	1994	no	TAM 107	3	4	4	7	3
Niobrara	NE	1994	yes	TAM 107/Brule	2	4	4	6	4
Nu Frontier	GM	2002	yes		2	3	6	6	4
Nu Horizon	GM	2002	yes		3	3	5	2	4
Nuplains	NE	1999	yes	Abilene	4	3	4	2	2
Ogallala	ASI	1993	yes	Abilene	3	2	6	3	2
Pronghorn	NE	1996	no	Colt	2	4	4	8	8
Prowers	CO	1997	yes	Lamar	4	3	3	8	8
Scout 66	NE	1966	no	Ponca	2	2	3	9	8
Thunderbolt	ASI	1999	yes	Abilene	2	2	5	5	4
Tomahawk	ASI	1991	yes	Victory	2	2	5	3	4
Trego	KS	1999	yes	Rio Blanco	2	3	4	2	2
Vista	NE	1992	yes	Brule	2	2	4	3	1
Wahoo	NE	2000	yes	Abilene/Arapahoe	2	4	3	5	4
Wesley	ARS-NE	1998	-	Sumner	1	4	6	2	1
Windstar	NE	1996	yes	Siouxland	4	2	4	5	2
Yumar	CO	1997	yes	Vona	2	2	6	5	3
					1=Early 5=Late	1=Tender 5=Hardy	1=Weak 6=Strong	1=Short 9=Tall	1=Short 9=Long

<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> Height and bushel weight will vary widely with season, location, and production conditions.  
Ranked based on data obtained from yield trials in Nebraska.

<sup>4</sup> Coleoptile lengths vary considerably based on temperature and growing conditions. A rating of 8 or 9 denotes long (tall) type while 1 - 4 denotes subtle differences between semi-dwarf types.)

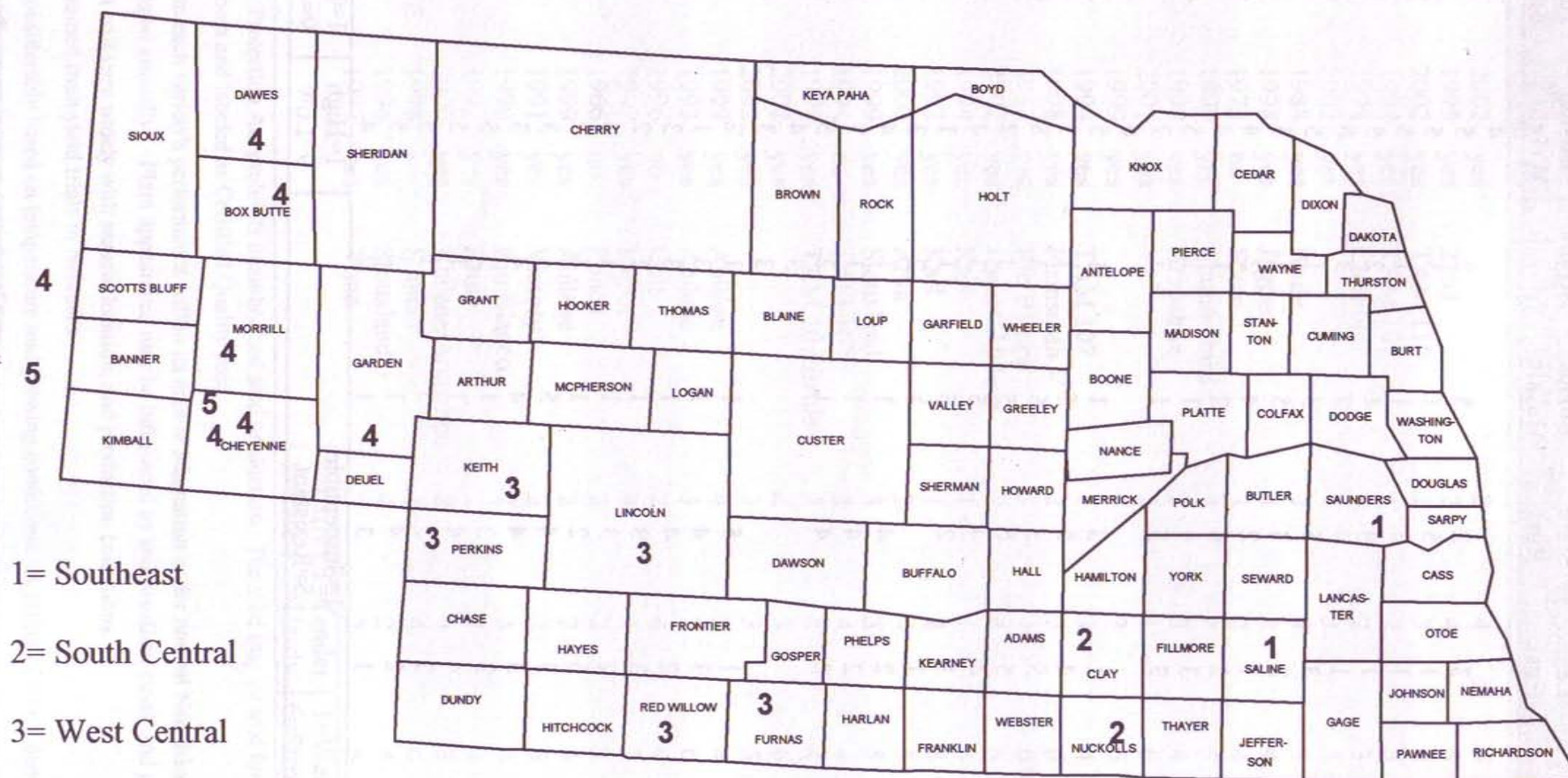


# Table C. Hard Red Winter Wheat Characteristics.

Variety	Reactions					Grain Quality	
	Hessian Fly	Leaf Rust	Stem Rust	Soil Borne Mosaic	Wheat Streak Mosaic	Bushel Weight <sup>3</sup>	Protein Content
2145						4	2
2137	5	3	2	5	2	5	3
Above	1	1	5	1	3	5	5
Akron	1	1	3	1	1	5	5
Alliance	4	1	4	1	2	5	5
AP502CL		1	4	2	3	6	5
Arapahoe	4	3	5	3	1	5	1
Betty	1	2	3	5	2	3	1
Buckskin	4	1	2	4	2	4	3
Cougar	1	2	4	2	1	4	1
Culver	1	3	4	1	1	5	4
Dumas	1	3	5	1	3	2	3
Golden Spike						6	4
Halt	1	1	3	1	1	5	2
Heyne	1	4	5	5	1	3	1
Hondo	4	5	3	5	3	5	3
Jagalene		5	5	5	3	2	3
Jagger	1	4	4	5	3	4	2
Karl 92	1	1	2	5	1	1	1
Lakin	1	1		1	2	3	5
Millennium	5	2	4	1	1	4	3
Nekota	1	2	4	1	1	3	3
Niobrara	1	2	4	1	2	5	4
Nu Frontier					3	4	3
Nu Horizon					3	3	4
Nuplains	1	1	5	1	1	2	2
Ogallala	1	3	4	1	3	1	1
Pronghorn	1	2	4	1	3	3	2
Prowers	1	3	3	1	1	2	3
Scout 66	1	2	3	1	1	4	5
Thunderbolt	1	5	2	1	3	2	2
Tomahawk	1	3	4	5	1	3	3
Trego	5	3	4	4	4	3	4
Vista	5	3	3	1	2	5	2
Wahoo	4	4	4	1	1	5	3
Wesley	1	2	5	5	1	5	2
Windstar	1	2	4	1	2	5	2
Yumar	1	1	3	1	2	4	3
	1=Susceptible 5=Resistant					1=High 9=Low	1=High 9=Low



# Location of 2002 Winter Wheat Tests in Nebraska



Numbers refer to zone



# Southeast Winter Wheat Variety Test - 2002

## 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	Grain Protein pct
-----	NE98471	55	36	73	59.1	37	15.38	12.3
AGRIPRO	Jagalene	53	33	72	63.1	33	13.77	12.3
(W)-----	Lakin	53	34	71	61.9	34	14.36	11.6
-----	2137	53	33	72	61.6	34	14.65	12.1
-----	Millennium	53	33	72	61.1	38	15.26	12.4
(W)-----	Trego	53	35	71	61.8	34	13.58	12.3
-----	NE97465	52	37	66	62.2	39	15.93	12.7
-----	NE97426	52	35	68	59.4	38	17.75	12.6
-----	Wahoo	51	29	72	59.1	36	15.77	12.1
-----	NI98439	51	29	73	60.3	32	14.10	11.7
-----	NE98466	51	29	72	61.5	35	16.05	12.6
-----	NE97638	50	33	67	59.2	36	16.49	11.6
-----	NE97V121	50	29	71	60.3	33	15.87	12.7
-----	Alliance	50	33	67	59.2	35	16.51	11.6
-----	NE97689	49	31	66	57.5	33	17.04	11.8
-----	2145	49	30	67	62.4	31	14.14	13.2
(W)-----	Nuplains	49	27	70	62.9	32	15.06	12.7
-----	Wesley	49	29	68	60.6	31	14.49	12.6
AGRIPRO	Hondo	48	30	65	62.1	33	14.38	13.0
-----	Culver	48	30	66	60.0	35	15.06	12.2
-----	NE97669	46	28	63	59.1	32	16.32	12.3
-----	Arapahoe	46	30	62	59.9	36	16.90	12.8
(W)-----	NW97S182	46	30	61	61.1	37	17.35	12.8
-----	NI98438	46	28	63	60.5	33	15.83	12.3
-----	NE98632	46	23	68	58.9	36	17.18	11.9
-----	Cougar	45	31	59	61.9	37	13.88	12.8
(W)Gen Mills	NuFrontier	45	25	65	61.3	36	18.32	12.3
(W)-----	NW97S218	44	25	62	60.6	34	16.44	12.8
(W)Gen Mills	NuHorizon	44	23	64	60.8	31	15.93	12.7
(W)-----	Betty	43	27	58	61.6	35	15.94	13.0
(W)-----	NW97S278	42	22	61	59.5	33	17.44	12.8
-----	Scout66	41	24	57	60.5	40	17.40	12.2
-----	Turkey	40	30	50	61.8	40	16.56	12.9
-----	Jagger	40	21	59	60.4	32	16.05	12.5
(W)-----	Heyne	37	17	56	61.1	32	15.41	12.8
(W)Gen Mills	Golden Spike	32	19	45	56.7	36	19.04	11.7
Average all entries		47	29	65	60.6	34	15.88	12.4
Dif. req for sig. 5%		7	6	5	1.9	3	1.78	0.9



## Southeast Wheat Variety Tests

1998 - 2002



Brand	Variety	Grain Yield bu/a	Kernel Weight 000/lb	Grain Protein pct	Bushel Weight lb/bu	Plant Height inches
Two year averages						
-----	NE97465	51.3	14.73	11.9	61.7	38
-----	Millennium	50.0	14.81	11.7	60.9	36
-----	Wahoo	49.5	14.88	11.4	59.1	34
-----	NE97638	48.0	15.99	11.0	58.9	34
-----	Alliance	47.5	15.23	11.0	58.9	33
-----	NE97426	46.5	17.16	11.7	58.8	36
(W)-----	Nuplains	46.3	14.77	11.8	60.5	33
(W)-----	NW97S182	45.3	15.28	12.1	60.8	37
-----	Culver	45.0	14.85	11.6	59.3	34
(W)-----	Trego	44.5	13.66	11.9	61.1	31
-----	NE97689	44.5	15.83	11.1	57.1	32
-----	Arapahoe	44.3	15.54	12.1	59.7	36
-----	Cougar	44.3	13.41	12.3	60.9	35
(W)-----	NW97S218	42.5	15.78	12.0	60.1	32
-----	Turkey	42.3	15.31	12.3	61.3	40
-----	2137	42.3	14.67	11.4	60.4	30
-----	NE97669	42.0	15.54	11.7	58.9	31
-----	Scout66	41.3	15.47	11.6	60.4	39
-----	Wesley	40.5	14.04	11.9	59.4	31
(W)-----	NW97S278	39.5	16.70	12.1	59.5	32
(W)Gen Mills	NuFrontier	38.8	17.40	11.8	60.0	34
(W)Gen Mills	NuHorizon	37.8	16.28	11.9	60.1	30
AGRIPRO	Hondo	37.3	14.62	12.3	61.2	32
(W)-----	Lakin	37.3	15.11	11.6	60.3	31
(W)-----	Betty	30.3	16.53	12.5	60.5	32
(W)Gen Mills	Golden Spike	29.0	17.42	11.1	55.5	35
(W)-----	Heyne	28.0	15.11	12.5	60.7	30
-----	Jagger	27.5	15.84	12.2	59.3	29
Average all entries		41.5	15.43	11.8	59.8	33
Dif. req. for sig. 5%		4.5	0.71	0.3	0.5	1
Three year averages						
-----	Wahoo	53.2	14.96	11.3	58.2	34
-----	NE97465	52.7	14.49	11.8	60.8	38
-----	Millennium	52.3	14.45	11.6	60.0	36
(W)-----	Trego	49.7	13.50	11.5	60.3	31
-----	Alliance	49.5	15.13	10.9	58.2	33
(W)-----	Nuplains	49.5	14.66	11.6	59.9	33
-----	Culver	49.3	14.37	11.5	58.7	34
(W)-----	NW97S182	48.0	14.83	11.9	59.5	36
-----	Arapahoe	47.2	15.16	11.9	58.9	35
-----	Cougar	46.7	13.17	12.3	60.3	36
-----	2137	45.8	14.26	11.0	59.3	30
(W)-----	NW97S218	45.7	15.62	12.0	59.0	32

Continued on page 2



# Southeast Wheat Variety Tests Page 2

## 1998 - 2002



15

Brand	Variety	Grain Yield bu/a	Kernel Weight 000/lb	Grain Protein pct	Bushel Weight lb/bu	Plant Height inches
Three year averages (Cont.)						
-----	Wesley	45.7	13.88	11.7	58.4	31
(W)-----	NW97S278	44.5	15.87	11.8	58.6	32
AGRIPRO	Hondo	43.8	14.17	12.2	60.5	32
-----	Scout66	42.3	14.54	11.5	59.8	39
-----	Turkey	41.8	14.87	12.2	60.2	41
(W)-----	Betty	38.3	15.96	12.3	59.5	32
(W)-----	Heyne	36.2	14.82	12.3	59.8	30
-----	Jagger	33.8	15.25	12.0	59.0	31
Average all entries		45.8	14.70	11.8	59.4	34
Dif. req. for sig. 5%		3.5	0.67	0.2	0.4	1
Four year averages						
-----	Wahoo	54.0	14.96	11.3	57.7	34
-----	Millennium	53.3	14.45	11.6	59.6	36
-----	Culver	50.6	14.37	11.5	58.3	34
(W)-----	Trego	50.5	13.50	11.5	59.7	31
(W)-----	Nuplains	50.0	14.66	11.6	59.4	33
-----	Alliance	50.0	15.13	10.9	57.9	33
-----	Wesley	48.4	13.88	11.7	58.2	31
-----	Arapahoe	47.8	15.16	11.9	58.5	35
-----	2137	47.8	14.26	11.0	58.8	30
-----	Cougar	47.4	13.17	12.3	60.0	36
AGRIPRO	Hondo	46.0	14.17	12.2	60.3	32
-----	Scout66	42.5	14.54	11.5	59.4	39
(W)-----	Betty	41.9	15.96	12.3	58.8	32
-----	Turkey	40.9	14.87	12.2	59.5	41
(W)-----	Heyne	39.0	14.82	12.3	59.3	30
-----	Jagger	36.3	15.25	12.0	58.6	31
Average all entries		46.6	14.57	11.7	59.0	34
Dif. req. for sig. 5%		2.9	0.56	0.2	0.3	1
Five year averages						
-----	Millennium	54.0	14.45	11.6	59.4	36
-----	Culver	51.7	14.37	11.5	58.1	34
-----	Alliance	50.9	15.13	10.9	57.6	33
-----	Wesley	50.8	13.88	11.7	58.0	31
-----	2137	50.6	14.26	11.0	58.6	30
(W)-----	Nuplains	50.5	14.66	11.6	59.3	33
-----	Cougar	49.4	13.17	12.3	59.8	36
-----	Arapahoe	48.9	15.16	11.9	58.3	35
AGRIPRO	Hondo	47.7	14.17	12.2	60.1	32
-----	Scout66	43.7	14.54	11.5	59.2	39
-----	Turkey	41.8	14.87	12.2	59.4	41
-----	Jagger	39.8	15.25	12.0	58.4	31
Average all entries		48.3	14.49	11.7	58.8	34
Dif. req. for sig. 5%		2.3	NS	0.1	0.3	1



# South Central Winter Wheat Variety Test - 2002

## Clay and Nuckolls Counties



Brand	Variety	Average Yield bu/a	Clay Yield bu/a	Nuckolls Yield bu/a	Bushel Weight lb/bu	Plant Height inches	Kernel Weight 000/lb	Plant Lodging rating	Grain Protein pct
AGRIPRO	Jagalene	91	89	93	62.4	39	15.41	1	12.4
----	2145	88	84	91	61.1	37	14.46	2	12.4
----	NE97V121	85	80	90	59.5	39	16.26	1	12.1
----	NE97638	84	79	88	59.2	40	16.58	2	12.0
(W)----	Trego	84	79	89	61.8	38	17.13	2	12.3
----	NI98439	84	79	89	60.1	40	15.59	2	11.9
(W)----	Nuplains	84	79	89	62.4	37	15.58	2	12.1
----	NE98466	83	81	84	60.5	39	16.79	2	12.6
----	Millennium	83	80	86	60.6	42	15.49	1	12.3
----	Wesley	82	82	82	60.2	36	16.11	1	12.2
----	NE98471	82	77	86	58.5	42	16.17	2	12.3
----	2137	82	77	87	60.7	38	15.90	1	11.9
----	Culver	81	76	86	59.4	41	16.73	3	11.7
----	Niobrara	80	77	82	58.8	42	17.14	2	11.8
----	Alliance	78	72	83	58.1	41	18.51	2	11.9
----	Wahoo	78	71	85	59.0	40	16.98	2	11.8
(W)----	Lakin	78	72	84	60.6	38	17.12	1	12.6
----	NE97426	78	72	84	58.6	43	19.08	3	12.2
AGRIPRO	Hondo	77	68	86	61.9	39	15.63	2	12.3
----	NE97689	77	72	82	56.4	38	18.51	2	11.9
----	Arapahoe	76	74	78	59.5	41	18.22	3	12.7
(W)Gen Mills	NuHorizon	75	69	80	61.1	34	17.88	1	12.3
----	NE97669	75	71	78	58.3	38	17.34	2	12.3
(W)Gen Mills	NuFrontier	72	67	76	60.9	41	19.70	2	12.2
(W)----	NW97S278	72	68	75	59.6	39	17.68	2	12.3
(W)----	NW97S218	72	67	76	59.9	37	19.32	2	12.7
(W)----	Heyne	72	69	74	61.2	37	17.64	1	13.0
----	NE98632	71	66	76	58.6	34	19.04	1	11.6
(W)----	Betty	70	67	73	61.5	40	18.01	2	12.5
----	Cougar	70	64	76	60.8	42	15.88	1	12.8
----	NE97465	69	60	77	60.6	45	18.26	3	13.1
----	Jagger	69	67	70	59.8	36	17.62	2	12.7
(W)----	NW97S182	68	57	78	58.9	42	17.85	2	12.7
----	Scout66	62	58	66	61.3	46	15.27	4	12.6
----	Turkey	52	46	57	59.8	45	17.68	4	13.3
(W)Gen Mills	Golden Spike	46	44	48	54.9	39	21.52	1	11.6
Average all entries		76	71	80	59.9	39	17.22	2	12.3
Dif. req. for sig. 5%		13	8	7	2.2	4	2.10	1	0.8



# South Central Wheat Variety Tests

## 1998 - 2002



Brand	Variety	Grain Yield bu/a	Plant Lodging rating	Kernel Weight 000/lb	Grain Protein pct	Bushel Weight lb/bu	Plant Height inches
Two year averages							
----	Wahoo	79.8	1.5	15.92	12.0	57.2	37
----	Millennium	78.5	1.3	15.00	12.1	59.4	39
----	NE97669	77.8	1.3	15.53	12.2	57.7	36
----	Wesley	77.0	1.0	14.70	12.5	58.6	33
----	Alliance	76.3	2.3	16.77	11.6	57.6	38
(W)----	NW97S218	74.0	1.5	17.09	12.7	59.0	36
----	NE97689	73.3	1.5	16.74	11.7	55.2	35
----	NE97638	73.0	1.5	15.77	12.1	57.0	38
----	NE97426	72.3	2.5	17.42	12.1	56.7	39
(W)----	NW97S278	72.3	1.5	15.77	12.3	58.8	36
(W)----	NW97S182	72.0	1.8	15.48	12.6	58.4	40
----	Arapahoe	71.3	2.5	16.58	12.6	57.7	39
(W)Gen Mills	NuHorizon	71.3	1.0	16.20	12.3	59.5	31
(W)----	Trego	70.8	1.8	15.85	11.9	60.2	34
----	NE97465	70.5	2.3	16.37	12.9	59.9	43
----	Jagger	70.0	1.5	15.86	12.6	58.7	32
----	Culver	69.5	2.3	16.09	11.9	56.5	38
(W)Gen Mills	NuFrontier	68.8	1.3	17.39	12.3	59.6	37
----	Niobrara	67.3	2.0	16.13	11.8	56.2	39
(W)----	Heyne	66.0	1.0	15.66	13.1	60.2	33
----	2137	65.5	1.3	15.76	11.3	58.2	34
(W)----	Betty	65.5	1.3	16.06	13.0	60.5	36
----	Cougar	65.5	1.0	14.62	12.8	59.3	39
(W)----	Nuplains	62.8	1.3	16.27	12.3	60.1	35
----	Scout66	61.0	3.3	14.69	12.7	59.6	42
(W)----	Lakin	60.8	1.3	16.49	12.6	57.9	34
AGRIPRO	Hondo	57.0	1.5	16.12	12.3	59.3	35
----	Turkey	53.5	3.5	16.07	13.4	59.0	44
(W)Gen Mills	Golden Spike	53.0	1.0	18.60	11.7	55.3	38
Average all entries		68.8	1.7	16.10	12.3	58.4	37
Dif. req. for sig. 5%		NS	0.2	NS	0.3	0.8	1
Three year averages							
----	Wahoo	73.5	2.3	13.50	12.2	57.1	36
----	Wesley	71.2	1.7	12.58	12.5	58.0	32
----	Millennium	71.2	2.2	12.91	12.2	59.1	38
----	Alliance	69.0	2.5	14.25	11.8	57.0	36
(W)----	Trego	67.3	2.2	13.38	12.0	60.0	33
----	Culver	67.2	2.8	13.44	12.0	56.9	36
(W)----	NW97S278	66.3	2.0	13.80	12.4	58.1	34
----	Niobrara	66.0	2.3	13.61	11.9	56.7	38
----	Arapahoe	65.7	3.0	13.94	12.7	57.6	37
(W)----	NW97S182	65.5	2.2	13.14	12.7	58.2	39
(W)----	NW97S218	65.0	2.0	14.52	12.8	58.3	35
----	Jagger	64.0	2.0	13.72	12.6	58.3	32
----	2137	63.2	1.8	13.34	11.6	57.6	33
(W)----	Betty	62.3	1.8	13.69	13.1	59.8	35

Continued on page 2



# South Central Wheat Variety Tests 1998 - 2002



Brand	Variety	Grain Yield bu/a	Plant Lodging rating	Kernel Weight 000/lb	Grain Protein pct	Bushel Weight lb/bu	Plant Height inches
Three year averages (Cont.)							
(W)-----	Nuplains	62.0	1.8	13.57	12.4	60.0	34
(W)-----	Heyne	61.7	1.7	13.34	13.2	59.5	32
-----	Cougar	61.3	1.3	12.29	13.0	59.2	38
AGRIPRO	Hondo	57.3	2.0	13.48	12.3	59.4	34
-----	Scout66	54.3	3.2	12.51	12.6	59.6	40
-----	Turkey	48.0	3.3	13.67	13.5	58.6	42
Average all entries		64.1	2.2	13.40	12.4	58.5	36
Dif. req. for sig. 5%		NS	0.3	NS	0.3	0.8	1
Four year averages							
-----	Wahoo	68.9	2.3	13.50	12.2	57.1	36
-----	Millennium	68.9	2.2	12.91	12.2	59.1	38
-----	Wesley	67.9	1.7	12.58	12.5	58.0	32
-----	Culver	65.1	2.8	13.44	12.0	56.9	36
(W)-----	Trego	65.0	2.2	13.38	12.0	60.0	33
-----	Niobrara	63.3	2.3	13.61	11.9	56.7	38
-----	Alliance	62.5	2.5	14.25	11.8	57.0	36
-----	2137	61.9	1.8	13.34	11.6	57.6	33
-----	Jagger	61.5	2.0	13.72	12.6	58.3	32
-----	Arapahoe	61.0	3.0	13.94	12.7	57.6	37
(W)-----	Betty	61.0	1.8	13.69	13.1	59.8	35
(W)-----	Nuplains	60.3	1.8	13.57	12.4	60.0	34
(W)-----	Heyne	58.5	1.7	13.34	13.2	59.5	32
-----	Cougar	57.8	1.3	12.29	13.0	59.2	38
AGRIPRO	Hondo	57.3	2.0	13.48	12.3	59.4	34
-----	Scout66	48.8	3.2	12.51	12.6	59.6	40
-----	Turkey	42.3	3.3	13.67	13.5	58.6	42
Average all entries		60.7	2.2	13.70	12.4	58.5	36
Dif. req. for sig. 5%		3.9	0.3	NS	0.2	0.7	1
Five year averages							
-----	Wesley	69.6	1.7	12.58	12.5	58.2	32
-----	Millennium	68.0	2.2	12.91	12.2	59.2	38
-----	Culver	67.0	2.8	13.44	12.0	57.0	36
-----	2137	65.5	1.8	13.34	11.6	58.1	33
-----	Alliance	64.8	2.5	14.25	11.8	57.3	36
-----	Niobrara	64.1	2.3	13.61	11.9	57.1	38
-----	Jagger	63.8	2.0	13.72	12.6	58.4	32
-----	Arapahoe	62.9	3.0	13.94	12.7	57.9	37
(W)-----	Nuplains	62.1	1.8	13.57	12.4	60.1	34
AGRIPRO	Hondo	58.9	2.0	13.48	12.3	59.7	34
-----	Cougar	58.5	1.3	12.29	13.0	59.5	38
-----	Scout66	49.9	3.2	12.51	12.6	59.6	40
-----	Turkey	43.8	3.3	13.67	13.5	59.0	42
Average all entries		61.4	2.3	13.30	12.4	58.5	36
Dif. req. for sig. 5%		3.4	0.2	NS	0.2	0.5	1



# West Central Fallow Winter Wheat Variety Test - 2002

## Keith, Red Willow and Lincoln Counties



Brand	Variety	Average Yield bu/a	Keith Yield bu/a	Red Willow Yield bu/a	Lincoln Yield bu/a	Bushel Weight lb/bu	Plant Height inches	Kernel Weight 000/lb	Grain Protein pct
AGRIPRO	Jagalene	58	43	68	63	60.7	29	17.79	13.5
AGRIPRO	Thunderbolt	55	43	58	65	60.7	30	18.14	14.5
(W)-----	Trego	55	39	60	67	59.4	28	17.19	13.4
-----	Above	53	40	61	57	58.8	28	17.15	13.0
-----	Jagger	52	41	59	55	58.8	29	19.11	14.0
-----	NE97426	52	38	57	60	55.8	30	20.16	13.5
-----	Millennium	52	37	59	60	59.0	31	18.60	13.7
-----	NI98439	51	36	64	54	58.9	27	16.76	13.0
-----	Vista	51	40	58	55	57.0	28	18.32	13.8
-----	Wesley	51	38	58	56	57.0	26	18.73	14.1
-----	Culver	51	36	57	59	57.0	29	17.93	13.3
-----	Wahoo	51	36	56	61	57.2	29	18.02	14.1
-----	Alliance	50	41	54	55	58.0	28	20.54	13.7
-----	Akron	50	38	56	56	58.1	29	19.13	13.3
-----	2145	50	37	56	58	58.2	28	18.44	13.7
(W)Gen Mills	NuFrontier	50	37	54	58	57.9	31	20.64	13.9
-----	2137	50	35	56	60	57.2	28	19.80	13.5
(W)-----	Nuplains	50	29	61	59	59.7	26	19.66	14.3
AGRIPRO	AP502CL	50	39	59	53	57.7	27	16.91	13.3
-----	Niobrara	50	34	55	60	57.3	31	18.39	13.7
-----	NE98471	50	38	55	58	57.1	29	18.26	13.1
-----	Halt	49	37	56	54	58.1	27	19.47	13.9
-----	Arapahoe	49	32	55	60	57.9	30	19.04	14.1
-----	NE98466	49	33	59	56	59.0	29	19.24	14.1
-----	NE97638	48	35	52	57	55.5	29	19.14	13.6
(W)-----	Lakin	48	24	57	62	59.1	29	17.73	13.4
-----	NE98632	47	33	54	53	57.7	29	20.35	13.3
-----	NE97V121	47	32	57	51	56.9	28	18.71	13.8
-----	NE97669	47	38	54	49	56.0	28	18.34	13.5
(W)-----	NW97S218	47	30	51	59	58.3	27	19.58	14.1
-----	NE97465	47	37	52	53	58.9	34	19.48	14.5
(W)-----	Betty	46	33	52	54	59.2	31	19.40	14.3
(W)-----	NW97S182	46	31	50	57	58.0	32	17.75	15.0
-----	NE97689	46	36	50	53	54.3	28	20.10	13.8
-----	Pronghorn	45	35	44	55	59.4	33	18.12	14.4
(W)-----	NW97S278	45	38	54	44	56.9	27	19.57	13.7
-----	Cougar	44	32	49	50	59.6	30	18.09	14.7
(W)Gen Mills	Golden Spike	44	32	48	53	56.4	31	19.29	13.6
(W)Gen Mills	NuHorizon	42	30	49	47	60.0	26	19.47	13.4
(W)-----	Heyne	42	26	50	49	59.7	27	17.77	15.0
-----	Scout66	40	34	40	46	59.3	32	17.80	13.5
-----	Turkey	38	29	39	46	58.3	33	19.39	14.6
Average all entries		49	35	55	56	58.0	29	18.81	13.8
Dif. req. for sig. 5%		4	4	5	6	1.5	2	2.00	0.9



# West Central Wheat Variety Tests

## 1998 - 2002



Brand	Variety	Grain Yield bu/a	Kernel Weight 000/lb	Grain Protein pct	Bushel Weight lb/bu	Plant Height inches
Two year averages						
(W)-----	Trego	56.0	16.23	12.6	59.2	30
-----	Alliance	55.8	18.32	12.5	58.2	32
-----	Culver	54.7	16.39	12.5	57.2	32
AGRIPRO	Buckskin	54.7	16.31	13.1	60.3	32
-----	Millennium	54.3	17.02	12.8	58.8	34
-----	Wahoo	53.8	17.46	12.9	57.1	32
-----	NE97426	53.7	18.79	12.5	56.5	33
-----	Akron	53.3	17.31	12.9	57.6	30
-----	Vista	52.8	16.08	12.4	58.3	30
-----	Jagger	52.7	16.93	13.1	58.8	31
-----	NE97638	52.7	17.42	12.5	56.5	32
(W)Gen Mills	NuFrontier	52.3	19.60	13.1	58.3	33
-----	Arapahoe	52.0	17.50	13.1	58.1	33
-----	NE97669	51.8	17.20	12.5	56.9	30
-----	Niobrara	51.7	16.82	12.6	57.8	34
-----	NE97689	51.5	17.61	12.4	55.5	31
-----	Wesley	51.3	16.36	13.1	57.4	28
-----	NE97465	51.3	17.32	13.3	58.8	38
(W)-----	Lakin	51.0	16.44	12.4	59.3	31
-----	Halt	51.0	17.99	13.1	57.6	29
-----	2137	50.5	17.99	12.7	57.8	31
-----	Windstar	50.2	16.80	13.3	58.4	37
-----	Above	50.0	17.87	12.4	57.9	32
(W)-----	NW97S182	49.7	17.05	13.7	58.1	35
(W)Gen Mills	Golden Spike	48.8	17.12	12.4	56.7	33
(W)-----	Nuplains	48.8	17.81	13.0	60.0	29
(W)-----	NW97S278	48.5	17.47	12.6	57.4	30
(W)-----	NW97S218	48.0	18.24	13.2	58.3	29
(W)-----	Betty	47.2	17.73	13.4	59.2	33
-----	Cougar	46.8	15.98	13.5	59.3	34
(W)Gen Mills	NuHorizon	45.5	18.01	12.6	59.2	28
-----	Scout66	45.5	16.18	12.7	58.9	37
(W)-----	Heyne	42.7	16.76	14.0	58.6	29
-----	Turkey	42.0	17.63	13.6	58.2	38
Average all entries		50.8	17.40	12.9	58.0	32
Dif. req. for sig. 5%		1.3	0.58	0.2	0.4	1

Three year averages						
-----	Alliance	56.3	17.53	11.8	58.3	31
(W)-----	Trego	55.9	16.36	12.0	59.0	29
AGRIPRO	Buckskin	54.8	16.31	12.6	59.8	31
-----	Culver	54.3	16.11	12.1	57.2	31
-----	Jagger	54.1	16.94	12.6	58.5	30
-----	Millennium	54.0	16.85	12.5	58.2	33
-----	Wahoo	53.6	17.59	12.2	56.7	31

Continued on page 2



21



# West Central Wheat Variety Tests Page 3

## 1998 - 2002



Brand	Variety	Grain Yield bu/a	Kernel Weight 000/lb	Grain Protein pct	Bushel Weight lb/bu	Plant Height inches
Five year averages						
----	Alliance	62.3	17.53	11.8	58.8	31
----	Culver	61.8	16.11	12.1	58.1	31
----	Jagger	61.6	16.94	12.6	58.7	30
----	Wesley	61.4	16.38	12.6	58.1	28
----	Millennium	61.3	16.85	12.5	59.0	33
----	2137	60.9	17.62	12.1	58.9	30
----	Niobrara	60.4	16.65	12.0	58.2	33
----	Akron	60.2	17.30	12.4	57.8	29
----	Halt	59.9	17.73	12.4	58.6	28
----	Above	58.7	18.01	11.9	58.3	31
----	Arapahoe	57.9	17.81	12.4	58.3	32
(W)----	Nuplains	57.9	17.32	12.3	60.2	28
----	Windstar	55.4	16.83	12.6	59.3	35
----	Cougar	54.0	15.88	12.9	59.8	33
----	Scout66	50.8	15.87	12.1	59.3	36
----	Turkey	45.3	17.57	12.9	58.6	36
Average all entries		58.1	17.02	12.3	58.8	31
Dif. req. for sig. 5%		1.0	0.30	0.1	0.2	1



# West Central No-Till Winter Wheat Variety Test - 2002

## Perkins and Furnas Counties



Brand	Variety	Average Yield bu/a	Perkins Yield bu/a	Furnas Yield bu/a	Bushel Weight lb/bu	Plant Height inches	Kernel Weight 000/lb	Grain Protein pct
AGRIPRO	Jagalene	29	14	44	62.3	22	19.61	12.9
(W)-----	Trego	29	13	45	61.6	21	21.66	13.3
-----	NE97426	28	15	40	56.9	23	22.34	13.3
-----	Above	28	14	42	59.5	21	20.79	12.6
-----	2137	28	12	44	60.3	22	20.58	13.3
(W)Gen Mills	NuFrontier	28	14	42	59.3	23	21.73	13.2
-----	NI98439	27	11	43	59.8	22	21.43	12.7
-----	NE98471	27	11	43	58.5	23	20.19	13.3
-----	Wahoo	27	9	44	58.6	24	19.51	13.3
-----	NE97689	27	10	44	56.2	23	21.79	13.4
-----	Alliance	27	11	42	59.5	23	22.29	12.9
-----	NE97669	26	12	39	58.5	22	20.96	13.0
-----	Vista	26	10	41	59.4	22	21.03	12.9
-----	Akron	26	12	40	59.6	23	21.38	13.2
-----	Niobrara	26	11	40	58.6	23	21.67	13.4
-----	NE97638	26	11	41	57.4	23	22.91	13.3
(W)-----	Betty	26	16	36	60.2	24	20.53	14.1
-----	Millennium	26	12	39	60.2	23	20.77	13.3
-----	NE97465	25	12	38	60.2	25	21.96	14.0
-----	Halt	25	12	37	59.1	21	22.47	13.8
AGRIPRO	Thunderbolt	25	14	36	62.1	22	18.98	13.5
AGRIPRO	AP502CL	25	13	36	58.9	22	22.74	13.2
-----	Culver	24	12	35	58.5	22	20.64	13.7
-----	Jagger	24	14	34	60.9	22	17.78	13.9
-----	Cougar	24	13	35	59.6	25	19.59	14.3
-----	2145	24	11	36	61.6	21	22.14	13.9
-----	NE97V121	24	10	38	58.4	22	21.85	13.5
-----	Pronghorn	24	12	35	60.9	26	21.09	13.1
(W)-----	NW97S278	24	11	37	59.4	22	22.16	13.1
(W)-----	Lakin	24	7	40	60.9	23	19.81	13.1
(W)-----	Nuplains	24	12	35	62.6	21	21.37	13.4
-----	NE98632	23	11	35	59.0	24	23.66	13.0
-----	Wesley	23	11	35	59.7	21	18.16	13.6
-----	Scout66	23	10	35	61.1	25	19.96	13.1
(W)Gen Mills	Golden Spike	22	9	34	55.0	24	24.34	12.9
-----	NE98466	22	8	36	60.4	22	22.66	13.8
-----	Turkey	21	11	30	59.6	25	24.24	13.9
(W)-----	NW97S182	21	9	33	57.9	24	21.80	14.0
(W)Gen Mills	NuHorizon	21	10	31	54.9	22	21.30	12.7
-----	Arapahoe	21	8	34	59.1	23	21.08	14.2
(W)-----	Heyne	21	12	30	61.1	21	19.96	14.4
(W)-----	NW97S218	20	5	34	58.8	21	22.54	13.8
Average all entries		24	11	38	59.4	22	21.37	13.4
Dif. req. for Sig. 5%		NS	3)	5	0.6	NS	NS	0.9



## 2000 - 2002



Brand	Variety	Grain Yield bu/a	Kernel Weight 000/lb	Grain Protein pct	Bushel Weight lb/bu	Plant Height inches
Two year averages						
-----	Alliance	37.3	19.96	12.5	58.1	28
(W)-----	Trego	37.0	19.35	12.9	59.5	26
-----	NE97426	36.8	20.91	13.0	56.7	29
-----	Vista	36.3	18.74	12.6	58.1	26
-----	2137	36.0	19.22	12.8	59.2	27
-----	Wahoo	35.8	18.64	13.2	57.3	29
-----	Niobrara	35.8	19.37	13.1	57.9	30
-----	NE97689	35.8	19.89	13.0	56.4	28
-----	Millennium	35.8	18.75	12.9	58.7	29
AGRIPRO	Buckskin	35.3	17.56	13.4	60.3	28
-----	NE97638	35.3	20.81	13.0	56.6	28
-----	Above	34.5	19.93	12.8	58.3	28
-----	Culver	34.3	19.30	13.3	57.3	29
-----	NE97669	34.3	19.57	12.9	57.6	27
-----	Cougar	34.3	17.98	13.8	58.8	30
-----	NE97465	34.0	20.25	13.8	59.0	32
(W)Gen Mills	NuFrontier	33.8	21.98	13.2	57.8	29
-----	Jagger	33.8	17.66	13.6	59.0	27
-----	Windstar	33.5	18.68	12.5	59.3	32
(W)-----	Betty	33.5	18.59	14.0	58.8	29
(W)-----	Lakin	33.0	18.59	12.9	59.1	28
-----	Akron	32.3	20.40	13.2	57.7	27
-----	Arapahoe	32.0	19.54	13.7	58.0	30
(W)-----	NW97S278	31.8	20.28	13.0	58.3	27
-----	Scout66	31.5	18.34	13.0	59.1	33
(W)-----	Nuplains	31.3	19.52	13.1	60.7	26
(W)Gen Mills	Golden Spike	31.3	21.46	12.8	54.4	29
-----	Wesley	31.3	17.48	13.4	57.8	25
-----	Halt	31.0	20.71	13.4	57.8	26
(W)-----	NW97S182	31.0	19.25	13.7	57.5	31
(W)-----	NW97S218	29.8	20.18	13.5	57.6	26
(W)Gen Mills	NuHorizon	29.3	20.35	12.9	56.0	26
-----	Turkey	29.0	21.22	13.8	58.2	33
(W)-----	Heyne	28.0	18.62	14.0	58.5	26
Average all entries		32.7	19.73	13.3	58.0	28
Dif. req. for sig. 5%		1.1	0.99	0.3	0.6	1

Continued on page 2



2000 - 2002

Brand	Variety	Grain Yield bu/a	Kernel Weight 000/lb	Grain Protein pct	Bushel Weight lb/bu	Plant Height inches
Three year averages						
(W)----	Trego	37.3	18.60	12.5	58.6	26
AGRI PRO	Buckskin	37.0	17.09	13.1	59.2	28
----	2137	36.0	18.17	12.5	58.0	27
----	Alliance	35.5	18.61	12.3	57.3	28
----	Wahoo	35.0	18.26	13.0	56.5	29
----	Millennium	35.0	17.87	12.8	57.6	29
----	Niobrara	34.8	18.62	12.7	57.0	30
----	Above	33.8	18.89	12.5	57.2	28
----	Windstar	33.2	18.19	12.6	58.2	32
(W)----	Betty	33.0	18.37	13.7	57.6	28
----	Halt	32.7	19.61	13.1	57.0	26
----	Jagger	32.5	17.44	13.2	57.6	26
----	Cougar	32.2	17.70	13.7	57.6	30
----	Culver	32.2	18.45	13.0	56.6	28
----	Wesley	31.7	16.93	13.2	56.9	25
----	Arapahoe	31.5	18.87	13.4	56.7	29
(W)----	NW97S278	31.2	19.83	12.7	57.2	27
----	Scout66	31.2	17.63	12.7	58.0	32
----	Akron	31.2	19.05	12.9	56.9	26
(W)----	Nuplains	31.0	18.97	12.9	59.0	26
(W)----	NW97S182	29.5	18.47	13.5	56.6	30
(W)----	NW97S218	29.2	19.39	13.3	56.9	26
(W)----	Heyne	29.0	17.92	13.7	57.8	26
----	Turkey	28.0	19.79	13.6	57.1	33
Average all entries		32.5	18.55	13.1	57.4	28
Dif. req. for sig. 5%		1.6	0.94	0.2	0.3	1



# **Panhandle Dryland Winter Wheat Variety Test - 2002** **Cheyenne, Garden, Goshen, WY, Dawes and Morrill Counties**



Brand	Variety	Average Yield bu/a	Cheyenne Yield bu/a	Garden Yield bu/a	Goshen Yield bu/a	Dawes Yield bu/a	Morrill Yield bu/a	Bushel Weight lb/bu	Plant Height inches	Kernel Weight 000/lb	Grain Protein pct
----	NE97426	40	38	36	45	39	36	54.8	23	20.17	12.8
----	Pronghorn	38	36	34	41	39	37	58.3	25	18.78	13.4
----	Millennium	38	33	37	42	38	35	58.1	24	18.30	13.4
AGRI PRO	Jagalene	38	34	36	40	40	38	60.0	22	17.44	13.2
----	Above	37	35	31	41	41	35	56.0	22	17.28	13.0
----	NE98471	37	33	33	42	39	35	56.2	23	18.74	12.9
----	Windstar	37	33	34	43	37	35	56.2	24	20.08	13.4
(W) Gen Mills	NuFrontier	37	33	34	41	39	35	57.6	23	20.94	13.0
----	Alliance	37	33	32	43	40	34	56.6	22	20.09	12.9
----	NE97689	37	33	35	40	38	34	53.6	23	20.35	13.1
----	CO99534	37	30	35	44	39	36	57.3	23	19.14	13.1
----	Buckskin	36	30	32	42	38	33	57.2	27	18.70	13.2
----	NE97669	36	32	35	41	36	34	55.1	22	18.99	13.1
----	NI98438	36	33	34	40	37	32	57.3	23	18.94	13.3
----	NI98439	36	32	34	37	39	36	58.4	21	16.85	12.6
----	NE97638	36	31	32	44	38	35	54.5	23	19.87	13.0
----	Halt	36	33	30	40	40	32	56.8	21	19.17	13.5
----	Niobrara	36	32	33	41	38	35	56.8	23	18.02	12.9
----	NE97465	36	30	32	43	37	35	57.9	25	20.52	13.6
----	Wesley	35	30	31	42	38	34	56.8	21	17.78	13.7
----	Jagger	35	34	31	38	35	33	58.5	23	17.72	13.5
----	CO99508	35	29	31	41	37	33	56.5	22	18.86	13.1
----	Avalanche	35	31	31	39	37	34	58.1	22	17.95	13.4
(W)-----	Lakin	35	33	26	40	39	32	59.5	22	16.69	13.1
----	2137	35	33	32	39	37	34	56.5	22	19.59	13.7
(W)-----	Trego	35	33	33	37	38	36	58.0	21	17.44	13.0
AGRI PRO	AP502CL	34	31	26	40	39	33	55.5	22	17.37	12.9
----	NE97V121	34	31	29	37	38	34	56.6	22	18.25	13.3
----	Scout66	34	30	30	39	37	36	57.9	25	17.74	12.6

Continued on page 2



# Panhandle Dryland Winter Wheat Variety Test - 2002 Page 2 Cheyenne, Garden, Goshen, WY, Dawes and Morrill Counties



Brand	Variety	Average Yield bu/a	Cheyenne Yield bu/a	Garden Yield bu/a	Goshen Yield bu/a	Dawes Yield bu/a	Morrill Yield bu/a	Bushel Weight lb/bu	Plant Height inches	Kernel Weight 000/lb	Grain Protein pct
----	Culver	34	32	29	40	36	34	57.0	23	17.31	13.2
----	NE98632	34	29	31	41	35	33	56.7	23	21.22	12.8
----	Akron	34	27	30	40	37	34	56.7	22	18.54	12.9
----	Wahoo	34	29	29	40	39	35	56.8	23	18.22	13.3
(W)----	Betty	33	33	31	35	32	32	58.3	23	19.17	13.9
(W)----	Nuplains	33	27	31	36	36	31	58.6	21	20.26	13.9
----	Turkey	33	29	30	36	35	31	57.7	25	20.13	13.3
(W)----	NW97S278	33	31	29	38	34	33	57.0	22	18.52	13.8
----	2145	33	28	31	37	35	31	57.6	21	19.23	13.8
(W)----	NW97S182	32	25	26	41	35	31	58.1	24	18.17	13.8
----	Arapahoe	32	27	27	39	36	34	57.8	23	18.96	14.0
----	Cougar	32	24	30	37	36	36	57.9	25	17.52	13.6
----	NE98466	31	27	25	35	37	31	58.1	23	17.80	13.9
(W)Gen Mills	Golden Spike	31	26	24	40	35	27	54.1	24	20.09	13.6
----	Vista	31	30	22	37	34	32	56.4	22	17.52	13.8
(W)Gen Mills	NuHorizon	30	27	24	35	34	30	59.5	21	17.86	13.2
(W)----	NW97S218	28	23	23	34	32	30	56.9	21	19.99	13.8
(W)----	Heyne	25	20	20	28	30	24	57.5	21	18.12	14.8
Average all entries		34	31	30	39	37	33	57.1	23	18.76	13.4
Dif. req. for sig. 5%		3	3	2	3	2	2	1.5	2	2.20	0.8



# Panhandle Dryland Wheat Variety Tests 1998 - 2002



Brand	Variety	Grain Yield bu/a	Kernel Weight 000/lb	Grain Protein pct	BusHEL Weight lb/bu	Plant Height inches
Two year averages						
----	Millennium	45.2	17.70	13.4	58.5	30
----	NE97426	45.2	19.65	12.7	55.2	29
----	NE97689	45.0	18.85	12.7	55.0	28
----	NE97669	44.7	18.74	13.0	55.7	27
----	NE97638	44.6	19.26	12.9	55.5	28
----	Wahoo	44.1	18.24	13.4	56.8	28
----	Pronghorn	43.7	17.79	13.3	58.8	31
----	Jagger	43.3	16.95	13.6	58.3	27
(W)Gen Mills	NuFrontier	43.2	21.18	13.1	57.8	28
----	NE97465	43.2	19.75	13.8	58.7	32
(W)----	Trego	43.0	18.03	13.0	58.7	26
----	Alliance	42.9	19.39	12.7	57.0	28
----	Above	42.8	16.67	12.7	57.5	26
----	Culver	42.0	17.07	13.1	57.1	28
----	Niobrara	42.0	17.97	13.0	57.0	29
----	Windstar	41.8	20.29	13.5	56.1	29
(W)----	NW97S182	41.7	18.25	13.6	58.1	31
----	Arapahoe	41.6	19.03	13.8	57.5	29
----	Halt	41.4	18.71	13.5	57.1	25
----	Wesley	41.1	17.31	13.7	56.7	25
----	Akron	40.9	18.58	12.7	57.1	27
(W)----	NW97S278	40.9	18.48	13.5	57.3	26
----	2137	40.7	18.80	13.2	57.5	26
----	Buckskin	40.4	18.46	13.3	58.1	34
(W)Gen Mills	Golden Spike	40.4	19.30	13.3	55.4	30
----	Cougar	40.2	16.74	13.8	58.7	31
----	Scout66	39.7	17.46	12.9	58.8	33
(W)----	Lakin	39.2	17.44	13.1	59.0	27
----	Vista	38.6	17.20	13.5	57.1	26
(W)----	Nuplains	38.4	20.14	13.6	59.3	26
(W)Gen Mills	NuHorizon	38.0	18.38	13.1	59.4	25
(W)----	Betty	38.0	18.47	14.4	58.4	28
----	Turkey	37.0	19.35	13.5	58.2	33
(W)----	NW97S218	36.6	19.58	13.9	57.1	26
(W)----	Heyne	30.8	17.83	14.9	57.6	25
Average all entries		41.6	18.50	13.4	57.5	28
Dif. req. for sig. 5%		1.1	0.48	0.3	0.2	1

Continued on page 2



# Panhandle Dryland Wheat Variety Tests Page 2 1998 - 2002



Brand	Variety	Grain Yield bu/a	Kernel Weight 000/lb	Grain Protein pct	Bushel Weight lb/bu	Plant Height inches
Three year averages						
----	NE97689	44.1	18.35	12.4	55.6	27
----	Millennium	43.1	17.36	12.9	58.8	30
----	Wahoo	42.9	17.98	12.9	57.3	28
----	Alliance	42.6	18.64	12.3	57.6	27
----	Niobrara	41.4	17.46	12.6	57.7	29
----	Halt	41.3	18.32	13.0	57.6	25
(W)----	Trego	41.2	17.33	12.8	59.5	26
----	Pronghorn	41.1	17.64	12.9	59.1	31
----	Culver	40.8	16.56	12.7	57.8	28
(W)----	NW97S182	40.8	17.56	13.2	58.6	30
----	Vista	40.2	17.13	13.0	57.6	26
----	Akron	40.2	18.26	12.3	57.8	27
(W)----	NW97S278	39.9	18.09	12.8	57.8	26
----	Windstar	39.8	19.51	13.0	56.7	29
----	2137	39.8	17.90	12.8	58.2	27
----	Arapahoe	39.8	18.71	13.4	58.0	28
----	Wesley	39.5	17.24	13.3	57.2	25
(W)----	Nuplains	38.3	19.09	13.2	60.1	26
----	Buckskin	37.8	17.73	13.0	58.9	33
----	Scout66	37.2	16.85	12.6	59.4	32
----	Cougar	36.9	16.54	13.4	59.0	30
(W)----	Betty	36.6	18.74	13.9	58.6	27
(W)----	NW97S218	35.9	19.09	13.5	57.4	26
----	Turkey	34.5	18.69	13.3	58.5	32
(W)----	Heyne	31.7	17.84	14.3	58.2	25
Average all entries		39.9	17.97	13.0	58.1	28
Dif. req. for sig. 5%		0.8	0.30	0.1	0.2	1

Four year averages						
----	Alliance	45.4	18.64	12.3	58.0	27
----	Millennium	45.3	17.36	12.9	58.6	30
----	Wahoo	45.0	17.98	12.9	57.1	28
----	Halt	44.7	18.32	13.0	57.6	25
----	2137	44.6	17.90	12.8	58.4	27
----	Niobrara	44.1	17.46	12.6	57.9	29
(W)----	NW97S182	44.0	17.56	13.2	58.7	30
----	Vista	43.7	17.13	13.0	57.6	26
----	Akron	43.5	18.26	12.3	57.9	27
----	Wesley	43.2	17.24	13.3	57.3	25
----	Windstar	43.1	19.51	13.0	57.1	29
(W)----	Trego	43.1	17.33	12.8	59.5	26

Continued on page 3



# Panhandle Dryland Wheat Variety Tests Page 3

## 1998 - 2002



Brand	Variety	Grain Yield bu/a	Kernel Weight 000/lb	Grain Protein pct	Bushel Weight lb/bu	Plant Height inches
Four year averages (Cont.)						
-----	Culver	42.9	16.56	12.7	57.8	28
-----	Pronghorn	42.3	17.64	12.9	59.0	31
-----	Arapahoe	42.1	18.71	13.4	57.8	28
(W)-----	Nuplains	41.6	19.09	13.2	60.1	26
(W)-----	Betty	40.3	18.74	13.9	58.8	27
-----	Buckskin	40.2	17.73	13.0	58.9	33
-----	Cougar	39.3	16.54	13.4	59.3	30
-----	Scout66	37.1	16.85	12.6	59.2	32
(W)-----	Heyne	34.9	17.84	14.3	58.3	25
-----	Turkey	34.5	18.69	13.3	58.3	32
Average all entries		42.0	17.90	13.0	58.3	28
Dif. req. for sig. 5%		0.7	0.28	0.1	0.1	1
Five year averages						
-----	Alliance	49.2	18.64	12.3	58.3	27
-----	Millennium	48.3	17.36	12.9	58.8	30
-----	Halt	47.6	18.32	13.0	58.0	25
-----	2137	47.4	17.90	12.8	58.8	27
-----	Niobrara	47.3	17.46	12.6	58.2	29
-----	Akron	46.8	18.26	12.3	58.3	27
-----	Windstar	46.6	19.51	13.0	57.4	29
-----	Culver	46.4	16.56	12.7	58.2	28
-----	Vista	46.1	17.13	13.0	57.9	26
-----	Wesley	45.8	17.24	13.3	57.7	25
-----	Pronghorn	45.6	17.64	12.9	59.2	31
-----	Arapahoe	45.3	18.71	13.4	58.1	28
(W)-----	Nuplains	44.6	19.09	13.2	60.5	26
-----	Buckskin	43.6	17.73	13.0	59.2	33
-----	Cougar	42.1	16.54	13.4	59.5	30
-----	Scout66	39.7	16.85	12.6	59.4	32
-----	Turkey	36.8	18.69	13.3	58.6	32
Average all entries		45.2	17.90	12.9	58.6	29
Dif. req. for sig. 5%		0.6	0.23	0.1	0.1	1



# West Irrigated Winter Wheat Variety Test - 2002

## Cheyenne Co and Albin Wyoming



Brand	Variety	Average Yield bu/a	Cheyenne Yield bu/a	Albin Yield bu/a	Bushel Weight lb/bu	Plant Height inches	Kernel Weight 000/lb	Plant Lodging pct	Grain Protein pct
AGRIPRO	Dumas	98	107	88	60.9	32	17.02	0	13.0
(W)-----	NW97S278	97	102	91	59.3	34	15.95	2	13.1
AGRIPRO	Jagalene	96	104	88	59.1	34	17.62	6	14.1
-----	NI01824	94	106	82	60.2	34	14.89	6	13.3
-----	NI01808	94	103	85	54.3	34	16.63	4	13.4
-----	Yumar	93	100	86	58.4	35	16.33	7	13.1
(W)-----	Lakin	93	99	87	59.1	34	15.77	6	12.2
-----	NE97V121	92	96	87	56.2	34	16.59	7	13.1
-----	Wesley	92	100	83	57.7	31	16.39	2	13.6
-----	NI01823	92	100	83	59.1	34	18.06	2	13.0
-----	NI01803	91	102	79	58.6	32	14.23	1	13.8
(W)-----	Trego	91	102	80	56.6	33	15.83	14	12.8
-----	Jagger	91	100	81	56.1	33	16.82	16	13.7
-----	2145	90	102	78	58.8	33	17.02	4	13.0
-----	2137	90	99	80	57.1	33	17.11	4	12.3
-----	NE97669	90	93	87	55.8	34	16.62	5	12.4
-----	NI98439	89	97	80	59.4	35	15.27	14	12.5
-----	NI01812	89	95	82	55.1	33	18.86	1	12.5
(W)Gen Mills	NuFrontier	89	94	83	60.2	36	17.75	0	12.9
(W)-----	NW97S218	89	93	84	58.0	33	17.34	3	13.0
(W)-----	Heyne	89	100	77	59.1	33	15.07	3	13.2
(W)-----	Betty	89	96	81	59.3	36	16.95	13	14.2
(W)-----	Nuplains	88	95	81	61.2	32	17.49	10	13.9
-----	Millennium	88	94	81	59.2	36	16.64	4	13.1
-----	NE98466	87	94	80	59.4	35	16.97	8	14.0
-----	Halt	87	98	75	56.8	32	18.74	11	13.5
-----	NI98438	87	93	81	57.2	35	15.82	10	13.3
(W)Gen Mills	NuHorizon	86	99	73	58.6	31	17.77	4	12.6
-----	Akron	85	93	77	56.8	34	16.90	4	12.9
-----	NE97689	84	94	74	54.6	34	18.02	25	13.0
(W)Gen Mills	Golden Spike	84	93	75	52.8	36	16.75	1	13.3
-----	NE98471	84	90	77	56.1	34	16.25	10	13.5
-----	NE98632	84	95	73	57.3	35	17.73	6	12.6
-----	NE97638	83	90	75	55.5	36	17.08	17	13.1
-----	Culver	83	92	73	54.2	34	16.60	13	12.6
(W)-----	NW97S182	82	87	76	56.3	37	16.61	7	13.8
-----	Alliance	80	93	67	55.5	34	18.26	16	12.4
-----	Arapahoe	80	91	68	56.5	36	17.41	25	13.1
-----	Wahoo	80	90	70	54.3	34	16.94	27	13.4
-----	NE97426	79	92	65	53.5	36	17.56	38	13.5
-----	NE97465	76	89	63	59.5	38	16.52	9	13.7
Average all entries		88	96	79	57.4	34	16.80	9	13.2
Dif. req. for sig. 5%		6	8	10	2.4	2	1.40	10	0.8



# West Irrigated Wheat Variety Tests 1998 - 2002

Brand	Variety	Grain Yield bu/a	Kernel Weight 000/lb	Grain Protein pct	Bushel Weight lb/bu	Plant Height inches
Two year averages						
(W)-----	NW97S278	87.8	15.50	12.4	58.7	31
-----	Millennium	85.5	15.58	12.4	59.5	35
(W)Gen Mills	NuFrontier	85.0	16.97	12.3	59.5	34
-----	NI98438	84.8	14.72	12.6	58.5	33
-----	Jagger	84.5	15.87	13.2	56.9	31
-----	NE97669	84.5	15.86	12.2	56.6	31
-----	Wesley	84.0	14.95	13.1	57.8	29
(W)-----	Betty	83.0	15.90	13.7	59.3	33
(W)-----	NW97S218	82.8	16.27	12.9	58.5	31
(W)-----	Trego	82.3	15.73	12.3	57.1	31
-----	NE97689	81.8	17.12	12.3	55.2	32
-----	Yumar	81.8	15.98	12.6	57.8	32
-----	Wahoo	80.3	16.28	12.7	55.7	33
(W)-----	Heyne	80.3	15.11	13.4	59.4	30
(W)-----	NW97S182	79.3	15.60	13.1	57.6	35
(W)Gen Mills	NuHorizon	79.3	16.98	12.3	58.8	29
-----	NE97638	78.5	16.22	12.4	56.3	33
(W)Gen Mills	Golden Spike	78.3	16.33	12.6	54.7	34
-----	2137	78.0	16.41	11.7	56.7	31
-----	Halt	78.0	17.93	13.3	56.2	29
(W)-----	Lakin	77.5	16.29	11.9	58.2	31
-----	Culver	77.0	15.99	12.1	55.0	33
-----	Alliance	76.8	17.03	12.0	55.1	32
-----	Akron	76.5	16.27	12.0	56.7	33
-----	NE97465	75.8	15.64	13.4	60.1	37
-----	Arapahoe	75.5	16.68	12.7	56.5	33
(W)-----	Nuplains	75.5	17.74	13.0	60.3	31
-----	NE97426	72.3	18.21	12.8	53.1	33
Average all entries		80.2	16.25	12.6	57.3	32
Dif. req. for sig. 5%		NS	0.71	0.3	0.8	1

## Three year averages

(W)-----	NW97S278	92.5	15.00	12.0	59.7	33
-----	Wesley	89.0	14.89	12.8	58.4	30
-----	Millennium	88.3	15.68	12.3	59.7	37
-----	Jagger	87.0	16.47	12.9	58.0	32
(W)-----	Betty	87.0	16.07	13.4	59.8	35
-----	Yumar	86.7	16.00	12.3	58.5	34
(W)-----	Heyne	85.2	15.34	13.1	60.2	32
-----	2137	84.7	16.00	11.5	58.1	33
(W)-----	NW97S218	84.0	16.49	12.7	59.2	32
(W)-----	Trego	83.8	16.02	12.2	58.4	33
-----	Halt	83.7	17.44	12.8	57.4	32

Continued on page 2



# West Irrigated Wheat Variety Tests Page 2

## 1998 - 2002



Brand	Variety	Grain Yield bu/a	Kernel Weight 000/lb	Grain Protein pct	Bushel Weight lb/bu	Plant Height inches
Three year averages (Cont.)						
(W)----	Nuplains	83.0	17.09	12.7	60.7	32
----	Wahoo	83.0	16.67	12.6	56.4	35
----	Akron	83.0	16.44	11.9	57.3	35
(W)----	NW97S182	81.5	15.59	12.8	58.0	37
----	Culver	79.5	15.93	12.0	56.0	34
----	Alliance	79.5	16.89	11.8	56.5	33
----	Arapahoe	75.3	16.97	12.8	56.7	36
Average all entries		84.3	16.16	12.5	58.3	34
Dif. req. for sig. 5%		NS	0.60	0.3	0.4	1
Four year averages						
----	Millennium	87.6	15.68	12.3	59.5	37
(W)----	Betty	87.3	16.07	13.4	59.7	35
----	Jagger	86.0	16.47	12.9	58.0	32
----	2137	85.0	16.00	11.5	58.2	33
----	Wesley	84.9	14.89	12.8	58.1	30
----	Yumar	84.4	16.00	12.3	58.2	34
(W)----	Heyne	82.9	15.34	13.1	59.9	32
(W)----	Trego	82.4	16.02	12.2	58.7	33
----	Halt	81.6	17.44	12.8	57.3	32
----	Wahoo	81.4	16.67	12.6	56.0	35
(W)----	Nuplains	80.1	17.09	12.7	60.5	32
----	Akron	79.8	16.44	11.9	57.0	35
----	Culver	77.5	15.93	12.0	56.3	34
----	Alliance	77.4	16.89	11.8	56.5	33
----	Arapahoe	75.0	16.97	12.8	56.7	36
Average all entries		82.2	16.26	12.5	58.0	34
Dif. req. for sig. 5%		2.0	0.53	0.2	0.4	1
Five year averages						
----	Millennium	90.1	15.68	12.3	59.0	37
----	Jagger	89.4	16.47	12.9	57.4	32
----	Wesley	87.3	14.89	12.8	57.8	30
----	2137	87.2	16.00	11.5	57.9	33
----	Yumar	86.5	16.00	12.3	58.0	34
----	Halt	83.9	17.44	12.8	56.5	32
(W)----	Nuplains	81.3	17.09	12.7	59.9	32
----	Akron	80.0	16.44	11.9	56.6	35
----	Culver	79.4	15.93	12.0	56.4	34
----	Alliance	76.3	16.89	11.8	56.2	33
----	Arapahoe	76.0	16.97	12.8	56.5	36
Average all entries		83.4	16.34	12.3	57.5	34
Dif. req. for sig. 5%		1.9	0.49	0.2	0.3	1



# Yield of all varieties at all locations - 2002



BRAND	HYBRID	Saline	Clay	Nuckolls	Keith	Furnas	Red	Lincoln	Garden	Scotts	Morrill	Cheyenne	Albin, WY				
		Saunders			Perkins	Willow			Cheyenne	Bluff	Dawes	Irrigated	Irrigated				
***The varieties on this page are in all locations and are sorted by yield response																	
AGRI PRO	Jagalene	33.5	72.3	89.2	93.2	42.9	14.2	44.1	68.1	62.8	34.2	36.4	40.3	40.2	37.7	104.3	87.5
(W)----	Trego	34.7	71.1	78.6	88.6	38.6	12.8	44.9	60.5	66.9	32.8	32.9	37.0	38.1	35.5	102.3	80.4
----	Millennium	32.6	71.6	79.6	86.3	37.2	11.8	38.8	58.6	59.9	33.1	36.9	42.2	37.8	35.5	93.9	81.1
----	NI98439	29.4	72.7	79.2	88.7	36.5	10.6	42.5	63.9	54.3	32.3	33.7	37.4	39.2	35.5	97.4	79.6
----	2137	32.9	71.8	77.5	87.1	34.9	12.2	43.9	56.2	60.2	33.4	32.0	38.7	36.6	33.6	99.0	79.7
----	NE98471	36.3	73.0	77.3	86.0	37.7	11.3	42.8	54.7	57.6	32.7	32.9	42.1	38.6	35.4	90.4	77.4
----	NE97426	35.4	68.0	72.1	84.4	37.6	14.5	40.1	57.5	60.3	38.1	36.1	45.3	39.3	36.1	92.4	64.9
----	Wesley	28.6	68.2	81.9	82.1	37.8	11.3	35.4	58.2	56.1	30.0	31.0	41.7	38.0	34.0	99.8	83.1
----	2145	30.1	67.3	84.0	90.5	36.6	11.2	35.5	55.5	58.2	28.3	31.5	36.6	35.1	31.5	101.7	78.3
----	NE97V121	28.8	70.7	79.6	90.3	32.0	10.2	38.4	56.6	50.7	31.0	28.8	36.8	38.4	34.3	96.0	87.2
(W)----	Lakin	33.9	71.4	72.0	83.8	24.4	7.4	40.2	56.8	61.7	32.8	26.3	39.8	39.0	32.2	98.9	86.6
----	NE97638	32.8	66.5	78.9	88.0	34.8	10.6	41.3	51.7	57.4	31.0	31.9	44.3	38.0	34.6	90.3	74.7
----	Alliance	33.1	67.3	72.3	82.8	41.3	10.5	41.6	53.6	55.2	32.8	32.4	42.9	39.7	34.3	93.0	67.1
(W)---	Nuplains	26.5	70.2	78.7	89.3	28.7	11.9	35.0	60.8	59.1	27.1	30.7	35.9	36.2	31.5	94.9	81.3
----	Wahoo	29.2	72.2	71.5	84.7	36.0	9.4	44.2	55.7	61.2	29.0	28.8	40.1	39.4	34.9	90.1	70.0
(W)Gen Mills	NuFrontier	25.3	64.8	67.1	76.5	36.8	13.5	42.0	53.6	58.1	33.2	33.7	41.0	38.7	34.7	94.0	82.7
----	Culver	30.4	66.3	76.4	86.3	35.7	11.8	35.1	56.8	59.0	32.4	29.0	39.6	35.8	34.0	92.1	73.3
----	NE97689	30.8	65.7	71.5	82.1	35.9	9.9	44.4	49.8	52.9	32.9	34.9	40.4	38.3	33.7	94.1	74.0
----	NE97669	27.7	63.4	71.0	77.8	37.8	12.4	38.8	53.8	48.9	31.5	35.4	40.6	35.6	33.8	93.0	86.8
----	NE98466	29.2	71.6	80.6	83.8	33.3	8.0	36.1	59.1	56.4	26.9	25.1	35.0	36.8	31.1	94.0	80.1
----	Jagger	21.5	59.4	67.3	69.9	41.4	14.3	34.3	58.7	54.8	33.7	31.4	37.9	35.1	33.2	99.7	81.5
(W)----	NW97S278	21.7	60.7	68.3	75.4	37.5	10.9	37.0	54.2	44.4	30.6	29.3	38.5	34.5	32.5	101.6	90.7
----	NE97465	37.4	65.6	60.4	77.1	37.4	11.5	37.9	52.2	52.6	30.1	32.4	43.4	37.3	35.2	89.4	62.8
(W)----	Betty	27.0	58.2	67.4	72.6	33.3	16.1	35.9	51.7	54.5	32.7	30.7	35.3	32.3	31.9	96.3	81.2
----	NE98632	23.4	68.3	65.8	75.7	32.9	10.6	34.8	54.2	53.1	29.2	31.1	41.4	35.3	32.7	94.9	72.6
----	Arapahoe	30.2	62.4	74.3	78.3	31.7	8.0	33.6	55.4	59.8	27.2	27.0	39.0	35.9	33.6	90.5	67.7
(W)----	NW97S218	24.9	62.1	66.5	75.8	29.8	5.3	33.6	51.2	58.6	22.6	23.2	34.3	32.3	30.4	93.4	84.1
(W)----	NW97S182	30.3	61.5	56.7	78.3	31.2	8.7	33.2	50.4	56.8	24.7	25.9	41.1	35.3	31.5	86.9	75.6
(W)Gen Mills	NuHorizon	23.3	64.2	68.8	80.3	30.0	9.6	31.5	49.5	46.7	27.1	23.7	34.8	33.5	30.0	99.3	73.4
(W)----	Heyne	16.6	56.2	68.6	73.8	26.4	12.0	30.2	50.2	48.5	20.1	19.6	28.3	30.4	23.8	100.3	76.7
(W)Gen Mills	Golden Spike	18.9	45.0	43.9	48.2	32.1	9.2	34.1	47.8	52.6	26.4	24.4	40.4	34.8	27.3	92.5	74.9



# Yield of all varieties at all locations - 2002



BRAND	HYBRID	Saline	Clay	Nuckolls	Keith	Furnas	Red	Lincoln	Garden	Scotts	Morrill	Cheyenne	Albin,WY				
		Saunders			Perkins	Willow		Cheyenne	Bluff	Dawes	Irrigated	Irrigated					
***The varieties on this page are not included in all locations and are sorted based on their relative performance in all plots in which they are entered																	
----	CO99508							28.8	30.6	41.2	37.0	33.0					
----	Rawhide																
----	Rampart																
AGRI	AP502CL				39.0	13.3	36.4	58.6	53.2	31.4	26.1	39.9	39.1	32.7			
----	Prowers																
----	Turkey	30.4	49.6	45.7	57.2	29.0	10.5	30.2	39.0	46.1	29.5	29.5	35.8	34.5	31.2		
----	Scout66	23.7	56.7	58.2	65.9	34.3	9.9	35.1	39.8	46.2	29.6	30.0	38.7	37.1	35.6		
----	NI01803														101.9	79.1	
----	Lamar																
----	Vista				39.7	10.0	41.1	58.3	55.1	30.1	22.2	37.2	34.0	31.9			
----	CO99534									30.1	34.6	43.9	38.7	35.5			
----	Akron				37.8	11.5	40.0	56.5	56.4	27.3	30.2	40.4	37.3	33.6	93.2	77.4	
Allnc	Dividend					13.6		55.6		32.4							
----	Cruiser																
----	Avalanche									30.8	30.9	39.5	36.8	34.1			
----	Pronghorn				34.7	12.0	35.1	44.5	55.3	35.6	34.4	41.1	39.1	36.8			
AGRI	Dumas														106.7	88.0	
----	Halt				36.6	11.9	37.4	56.2	53.7	32.7	30.4	40.4	40.4	32.2	97.6	75.4	
Alliance	Raxil MD					14.7		55.7		32.9							
----	Buckskin									30.4	32.0	42.0	37.5	33.1			
----	NI01823														100.3	83.0	
TRIO	T834						40.1	53.9									
Alliance	Dividend XL9g					11.1		55.3		32.6							
----	Ogallala																
Alliance	untreated					11.7		53.1		32.6							
----	Windstar									32.9	34.3	42.7	37.1	35.2			
----	Cougar	30.6	59.0	64.0	76.4	32.4	13.0	34.8	49.2	50.1	24.2	29.6	37.4	36.4	35.7		
----	NI01808															102.9	85.0
----	Niobrara			76.8	82.2	34.4	10.7	40.2	54.7	59.8	32.0	32.8	40.9	38.5	35.4		
----	Above				40.2	14.0	42.3	61.3	57.4	35.3	30.9	40.6	41.2	34.8			
----	NI01824															106.3	82.0
Alliance	Dividend Extreme9g					13.6		55.6		32.4							
----	Yumar															99.8	85.9
----	NI01812															95.2	82.2
----	NI98438	27.5	63.4							32.8	33.6	40.2	36.6	31.9	92.5	81.5	
AGRI	Thunderbolt				42.6	13.6	36.1	57.8	65.0								
AGRI	Hondo	29.7	64.8	68.2	85.8												
Average		29.0	65.0	71.0	80.0	35.0	11.0	38.0	55.0	56.0	31.0	30.0	39.0	37.0	33.0	97.0	79.0



# Percent protein content of all varieties at all locations - 2002



BRAND	HYBRID	Saline	Clay	Nuckolls	Keith	Furnas	Red	Lincoln	Garden	Scotts	Morrill	Cheyenne				
		Saunders			Perkins		Willow		Cheyenne	Bluff	Dawes	Irrigated				
*** varieties are ranked according to their relative performance in each of the tests where they are included.																
(W)----	Heyne	14.2	11.4	14.4	11.5	16.4	16.3	12.4	15.3	13.3	16.2	17.1	14.3	11.9	14.3	13.2
----	NI01803															13.8
(W)----	NW97S182	13.9	11.6	13.6	11.7	16.1	15.6	12.4	16.2	12.6	15.1	16.7	13.0	11.0	13.1	13.8
----	Cougar	13.8	11.8	13.3	12.3	15.8	15.7	12.8	15.6	12.7	15.1	15.8	12.9	11.3	13.0	
(W)----	Betty	14.0	12.0	13.0	12.0	14.9	15.6	12.5	15.3	12.6	15.3	15.8	13.4	11.8	13.1	14.2
----	NE97465	13.7	11.7	14.3	11.9	15.9	16.1	11.9	15.1	12.4	14.9	16.8	13.1	10.4	12.7	13.7
----	Arapahoe	14.2	11.4	13.3	12.0	15.4	16.2	12.2	14.9	12.0	15.2	16.8	13.1	11.5	13.4	13.1
AGRIPRO	Thunderbolt					16.3	15.0	12.0	14.7	12.5						
----	Turkey	14.0	11.8	14.1	12.4	15.7	15.5	12.2	15.0	13.1	14.8	16.0	12.7	10.8	12.4	
----	NE98466	13.8	11.4	13.6	11.5	15.7	15.3	12.2	14.6	12.1	15.2	16.3	13.6	11.1	13.4	14.0
(W)----	NW97S218	13.8	11.8	14.0	11.4	15.3	15.3	12.2	14.8	12.2	15.4	16.2	13.7	11.1	12.6	13.0
(W)----	Nuplains	13.5	11.9	12.5	11.6	16.1	15.3	11.4	14.4	12.4	15.8	17.0	13.3	10.5	12.8	13.9
AGRIPRO	Hondo	13.7	12.3	13.0	11.6											
----	2145	14.6	11.7	13.2	11.6	14.7	15.7	12.1	14.9	11.4	15.2	16.7	12.9	10.9	13.1	13.0
----	Jagger	13.1	11.8	14.0	11.4	15.0	15.8	12.0	15.2	11.9	15.0	16.7	12.5	10.9	12.4	13.7
----	Wesley	13.5	11.6	13.4	11.0	15.5	15.0	12.2	15.2	11.5	15.4	16.5	12.5	10.7	13.4	13.6
----	NI01808															13.4
----	Halt					15.5	15.8	11.7	14.3	12.0	14.8	16.7	13.0	10.1	12.7	13.5
----	NI01824															13.3
(W)----	NW97S278	14.2	11.3	13.3	11.3	15.3	15.0	11.1	14.5	11.2	15.7	16.7	12.7	10.9	13.2	13.1
----	Pronghorn					15.4	14.9	11.2	15.1	12.6	15.0	16.5	12.2	10.8	12.6	
----	Windstar										15.0	16.3	12.2	11.0	12.7	
----	Vista					15.0	14.5	11.3	14.7	11.6	14.9	15.9	12.7	11.5	14.1	
----	Avalanche										14.6	16.7	12.7	10.5	12.3	
----	NE97V121	14.0	11.4	13.3	10.8	15.7	15.0	11.9	14.2	11.5	15.0	16.4	12.5	10.8	12.0	13.1
----	Millennium	13.3	11.5	13.2	11.3	14.9	14.9	11.7	14.3	12.0	15.4	15.9	12.4	11.0	12.5	13.1
TRIO	T834							11.9	14.1							
----	NI98438	13.3	11.2								15.1	16.2	12.0	11.1	12.0	13.3
----	Wahoo	12.7	11.4	12.9	10.6	15.8	15.5	11.1	15.2	11.4	15.6	16.3	12.4	10.1	12.0	13.4
----	Yumar															13.1
----	NI01823															13.0

Continued on page 2



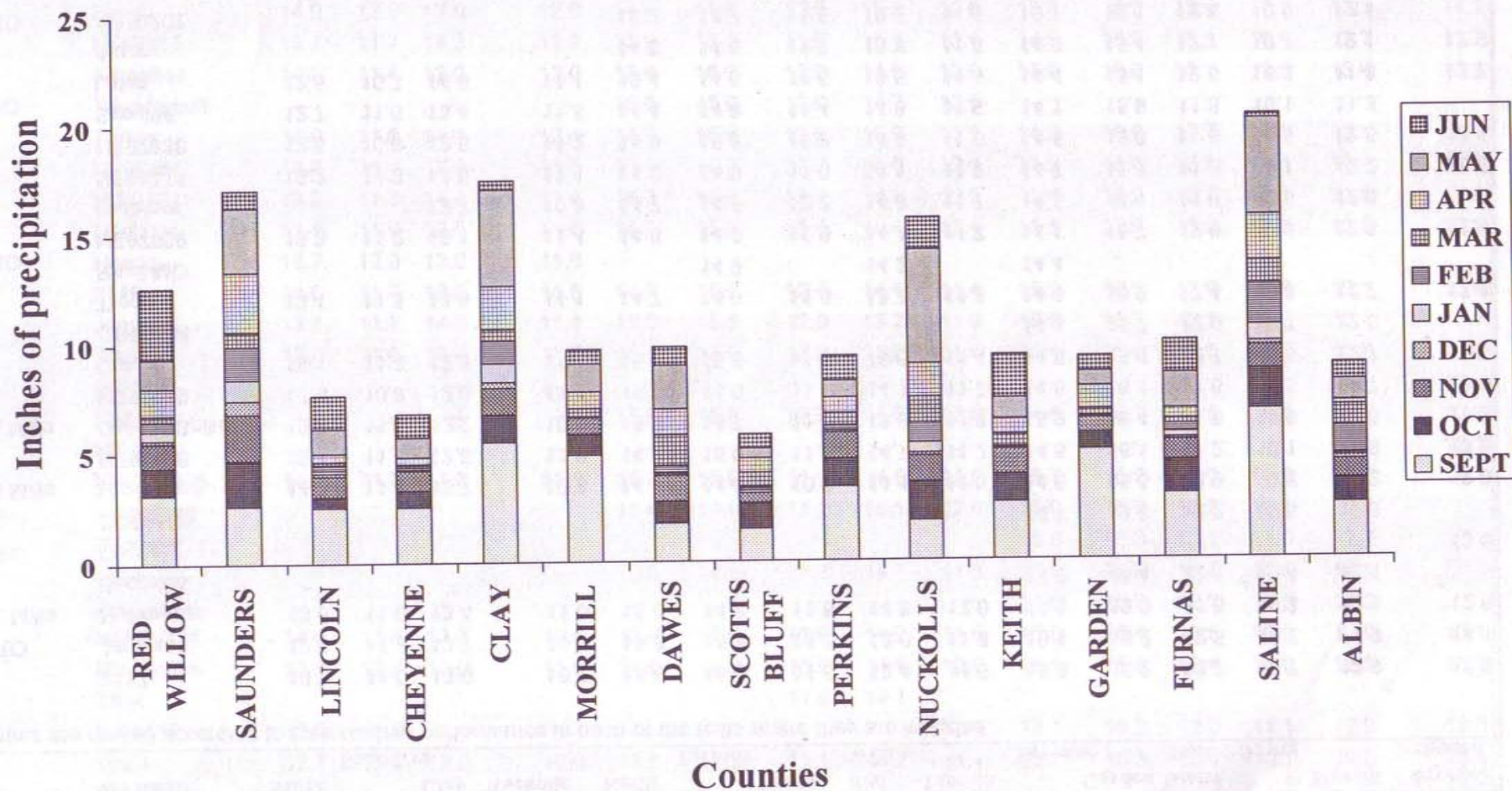
# Percent protein content of all varieties at all locations - 2002 Page 2



BRAND	HYBRID	Saline	Clay	Nuckolls	Keith	Furnas	Red	Lincoln	Garden	Scotts	Morrill	Cheyenne				
		Saunders			Perkins		Willow		Cheyenne	Bluff	Dawes	Irrigated				
*** varieties are ranked according to their relative performance in each of the tests where they are included.																
----	2137	13.2	11.0	13.0	10.7	15.6	15.0	11.5	13.4	11.6	15.3	16.2	13.2	10.7	12.9	12.3
AGRIPRO	Jagalene	12.8	11.8	13.7	11.0	15.6	14.4	11.3	13.0	11.8	15.1	16.2	12.5	10.2	11.9	14.1
(W)Gen Mills	NuFrontier	13.6	11.0	13.4	11.0	15.0	14.8	11.6	14.8	12.0	14.8	15.9	11.6	10.3	12.3	12.9
----	Buckskin										14.9	16.4	12.1	10.4	12.1	
AGRIPRO	Dumas															13.0
----	CO99508										14.7	15.6	12.2	10.5	12.6	
(W)Gen Mills	NuHorizon	14.0	11.4	13.7	10.8	14.9	14.6	10.8	14.1	11.3	14.6	15.5	12.9	10.8	12.3	12.6
----	NE97426	13.4	11.8	12.8	11.6	14.2	15.0	11.6	14.7	11.7	14.6	16.1	11.2	10.1	11.9	13.5
(W)Gen Mills	Golden Spike	12.0	11.3	12.2	10.9	15.3	14.7	11.0	13.9	11.6	15.2	16.4	11.9	10.9	13.5	13.3
----	NE97689	12.8	10.8	12.6	11.1	15.7	14.9	11.9	14.1	11.7	14.5	16.1	11.6	10.5	12.7	13.0
----	Culver	13.1	11.3	12.3	11.1	15.0	15.5	11.8	13.6	11.4	14.5	15.8	12.7	10.5	12.7	12.6
----	CO99534										14.3	15.7	12.0	10.7	12.9	
(W)----	Trego	13.1	11.5	13.5	11.1	14.7	14.9	11.6	13.7	11.8	14.3	16.2	12.4	10.3	11.7	12.8
Alliance	Raxil MD						14.9		14.2		14.4					
----	NE97669	13.3	11.2	13.1	11.4	14.6	14.9	11.0	14.1	11.7	14.1	15.7	12.0	10.9	12.8	12.4
----	Niobrara			12.7	10.8	14.7	14.5	12.2	14.8	11.7	14.3	16.1	11.6	10.5	12.0	
----	NE98471	13.2	11.3	13.5	11.1	14.0	14.9	11.6	14.1	11.2	14.7	15.7	11.9	10.1	12.2	13.5
----	NE97638	12.5	10.6	12.8	11.2	14.9	15.3	11.2	14.9	11.0	14.5	15.8	11.6	10.5	12.5	13.1
----	Scout66	12.7	11.6	13.4	11.8	14.4	14.8	11.4	14.3	11.9	14.1	15.9	11.8	10.1	11.3	
(W)----	Lakin	12.5	10.7	14.0	11.1	15.4	14.6	11.5	13.5	11.3	14.4	16.1	12.8	10.2	11.8	12.2
----	Akron					14.6	14.6	11.7	13.8	11.5	14.8	15.4	12.1	10.2	12.1	12.9
AGRIPRO	AP502CL					15.2	14.7	11.6	13.2	11.6	13.7	16.1	12.3	10.5	12.1	
----	Alliance	12.3	10.9	13.3	10.5	15.2	14.6	11.1	13.8	12.0	14.5	15.7	11.7	10.2	12.3	12.4
----	NE98632	13.1	10.7	12.7	10.5	14.7	14.7	11.3	13.7	11.6	14.6	15.7	11.6	10.5	11.5	12.6
----	Above					14.2	14.0	11.2	13.3	11.4	13.8	16.0	12.2	10.6	12.4	
----	NI01812															12.5
----	NI98439	12.7	10.7	12.7	11.1	14.4	14.7	10.6	13.0	11.7	14.0	15.0	11.9	10.4	11.7	12.5

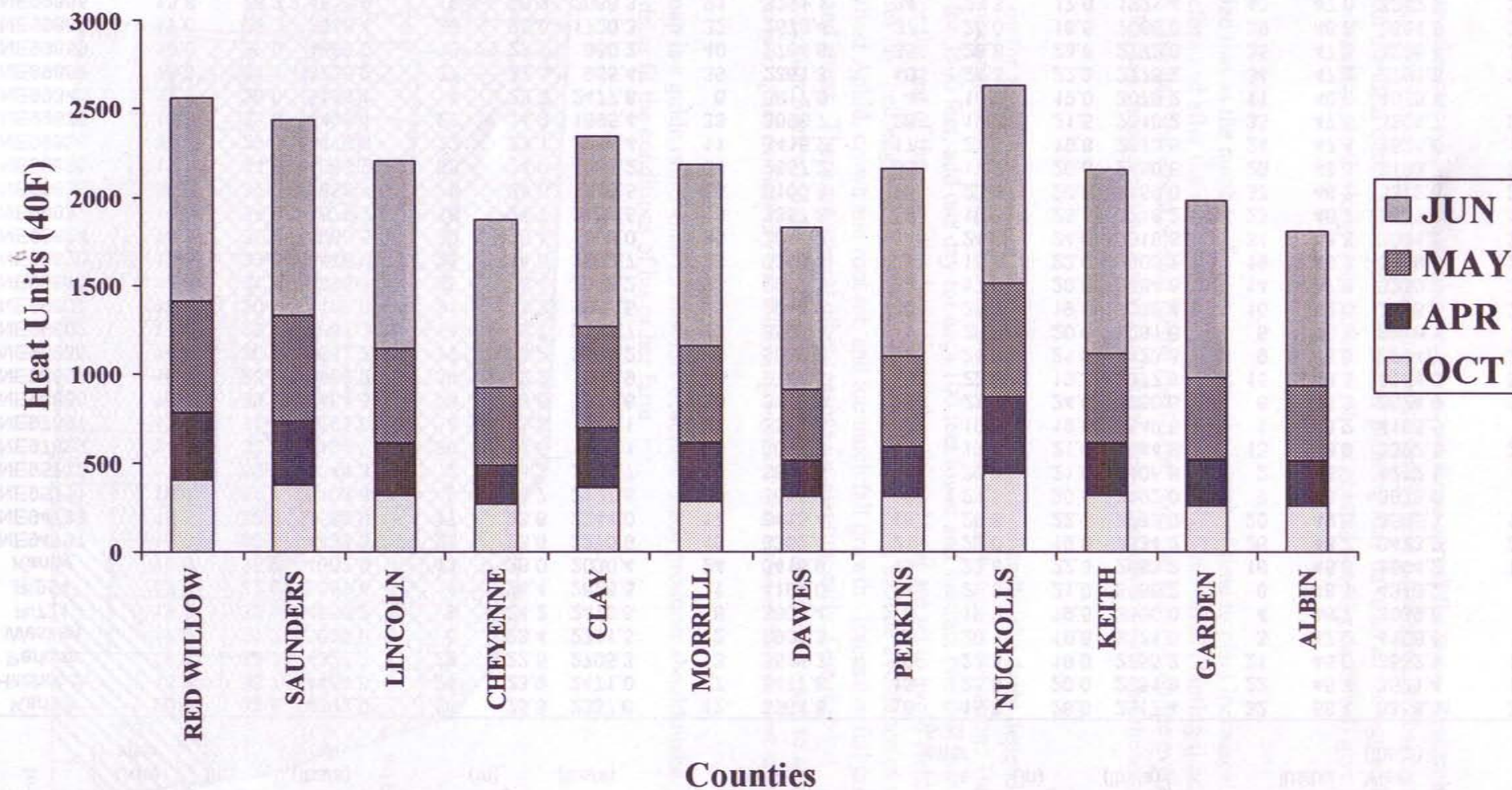


## Precipitation at wheat test sites





# Heat Units (40 F) at wheat test sites 2002





# 2002 Winter Barley Trials in Nebraska and Kansas

VARIETY	Lincoln				McCook				NE State		Colby, KS				Test Wt lbs/bu	Grand Mean Yield (lbs/a)	Grand Rank
	Heading Date after 5/31	Height (in)	Yield (lbs/a)	Rank	Height (in)	Yield (lbs/a)	Rank	Yield Avg. (lbs/a)	Rank	Heading Date after 5/31	Height (in)	Yield (lbs/a)	Rank				
Karl92	20.0	32.8	4392.0	26	25.3	2337.6	12	3364.8	18	16.8	26.0	2317.4	32	58.1	3358.1	28	
Hitchcock	18.8	33.7	4484.6	21	23.9	2471.0	7	3477.8	13	23.8	20.0	2751.8	22	45.7	3571.4	15	
Perkins	18.8	32.8	4327.2	28	22.5	2705.3	3	3516.2	10	23.5	19.0	2755.2	21	46.0	3532.9	18	
Weskan	17.0	31.2	5099.0	6	23.4	2711.5	2	3905.3	2	20.5	19.8	3321.6	3	47.0	4108.6	3	
P-721	17.0	30.5	4856.2	9	24.2	2470.6	8	3663.4	5	19.0	19.5	3300.0	4	46.7	3939.8	7	
P-954	15.8	32.0	5559.4	1	24.4	2828.6	1	4194.0	1	21.3	21.0	3186.2	8	48.1	4313.2	1	
Kanby	19.0	35.9	4802.9	13	26.0	2030.4	24	3416.6	15	23.8	22.3	2863.2	16	45.8	3694.2	11	
NE94737	15.0	30.5	4433.3	25	23.6	2270.9	15	3352.1	21	22.0	19.8	2634.2	26	48.7	3473.2	22	
NE94738	15.5	32.0	4586.9	17	23.6	2244.0	17	3415.4	16	20.5	22.0	2783.0	20	49.6	3595.1	14	
NE95711	16.8	31.4	5108.6	5	23.7	2127.8	20	3618.2	6	21.5	20.5	3192.0	7	46.5	3973.0	6	
NE95713	17.0	32.7	5344.3	2	24.3	2430.7	9	3887.5	3	20.3	21.0	3405.6	2	46.7	4212.5	2	
NE97829	14.3	30.8	4194.7	30	24.6	1881.1	28	3037.9	31	19.5	21.0	2944.8	13	48.9	3392.5	26	
NE97891	13.8	31.4	5205.6	3	23.8	1917.1	27	3561.4	7	19.5	19.5	3549.6	1	48.2	4105.5	4	
NE98888	16.3	33.7	4464.5	24	23.6	1834.6	30	3149.5	26	21.3	24.0	3260.6	6	46.3	3624.9	13	
NE98893	16.5	28.7	3930.2	34	22.2	1562.9	36	2746.6	36	22.8	19.3	2877.6	15	48.5	3184.8	34	
NE98936	14.8	30.6	3632.2	39	23.2	2504.2	4	3068.2	29	21.8	21.0	3123.8	9	48.0	3274.7	30	
NE99802	17.0	29.7	4687.2	14	22.7	2323.7	13	3505.4	11	22.3	20.0	3261.6	5	45.7	3818.1	8	
NE99807	18.8	30.4	4129.0	31	23.2	1967.5	25	3048.2	30	25.3	19.8	3098.4	10	42.0	3425.2	24	
NE99810	12.0	31.8	3898.1	35	23.4	2036.2	23	2967.1	32	17.0	20.5	2884.8	14	47.8	3250.0	31	
NE99820	13.5	33.3	4476.0	23	24.8	1962.7	26	3219.4	25	18.3	22.0	2803.2	19	49.7	3499.5	20	
NE99824	14.5	35.3	4080.5	32	25.4	1608.0	35	2844.2	34	24.0	24.0	2319.8	31	48.8	3081.5	36	
NE99832	14.5	34.6	4579.2	18	24.7	2136.5	19	3357.8	19	19.3	23.5	2718.2	23	46.7	3551.8	17	
NE99833	16.3	32.7	4858.1	8	24.0	1343.5	38	3100.8	27	23.0	20.0	2159.0	37	46.2	3372.6	27	
NE99835	13.5	34.8	4063.2	33	24.0	1651.2	34	2857.2	33	17.3	20.8	2480.6	29	48.6	3133.7	35	
NE99838	16.3	29.7	4476.0	22	23.1	2354.4	11	3415.2	17	21.5	19.8	2673.6	24	47.1	3521.6	19	
NE99839	13.5	35.6	4498.1	20	24.9	1695.4	33	3096.7	28	17.8	21.5	2310.2	33	47.6	3301.7	29	
NE99845	12.8	28.0	5158.1	4	22.6	2477.8	6	3817.9	4	18.3	19.0	3079.2	11	46.0	4018.4	5	
NE99857	18.8	31.1	3738.2	37	22.3	985.4	39	2361.8	40	24.3	22.3	2275.2	34	47.2	2791.8	39	
NE99859	19.0	32.0	4669.0	15	23.1	860.2	40	2764.6	35	26.8	23.8	2272.8	35	47.3	3235.4	33	
NE99862	17.0	28.3	3638.4	38	20.0	1720.3	32	2679.4	37	25.0	18.5	2088.0	39	46.8	2801.9	38	
NE99865	13.8	26.3	4513.9	19	20.9	2068.3	21	3291.1	24	23.3	17.0	1921.4	40	47.0	3242.2	32	
NE99868	13.5	34.2	4811.5	12	25.1	1860.5	29	3336.0	22	18.8	21.5	2836.8	17	47.7	3661.4	12	
NE99875	16.3	33.7	4604.2	16	25.8	2484.5	5	3544.3	8	21.3	22.0	3004.8	12	48.7	3717.8	10	
NE99876	21.0	27.2	3849.6	36	20.9	1421.8	37	2635.7	38	26.5	20.8	2519.0	28	44.7	3001.4	37	
NE99881	17.8	29.8	4822.6	10	24.7	2168.6	18	3495.6	12	25.3	21.5	2176.8	36	46.4	3498.3	21	
NE99885	11.0	30.3	4871.0	7	23.5	2044.8	22	3457.9	14	18.3	19.0	2376.0	30	48.0	3568.3	16	
NE00801	16.5	31.7	4290.7	29	24.0	2355.4	10	3323.0	23	18.5	22.3	2658.2	25	46.6	3424.0	25	
NE00803	14.5	30.3	3295.2	40	23.8	1799.5	31	2547.4	39	19.5	21.3	2132.6	38	47.5	2658.4	40	
NE00808	19.0	32.1	4389.6	27	25.1	2320.3	14	3355.0	20	25.3	20.0	2615.0	27	46.7	3453.2	23	
NE00809	17.0	29.0	4819.7	11	23.8	2251.2	16	3535.4	9	23.3	21.5	2836.8	18	48.5	3730.6	9	
Average	16.1	31.6	4490.9		23.7	2055.8		3273.4		21.4	20.9	2744.2		47.4	3502.8		
CV	7.4	5.5	12.0		6.6	13.7				6.4	6.1	14.0		2.6			
1	1.4	2.1	631.2		1.8	330.7				1.6	1.5	449.3		1.4			

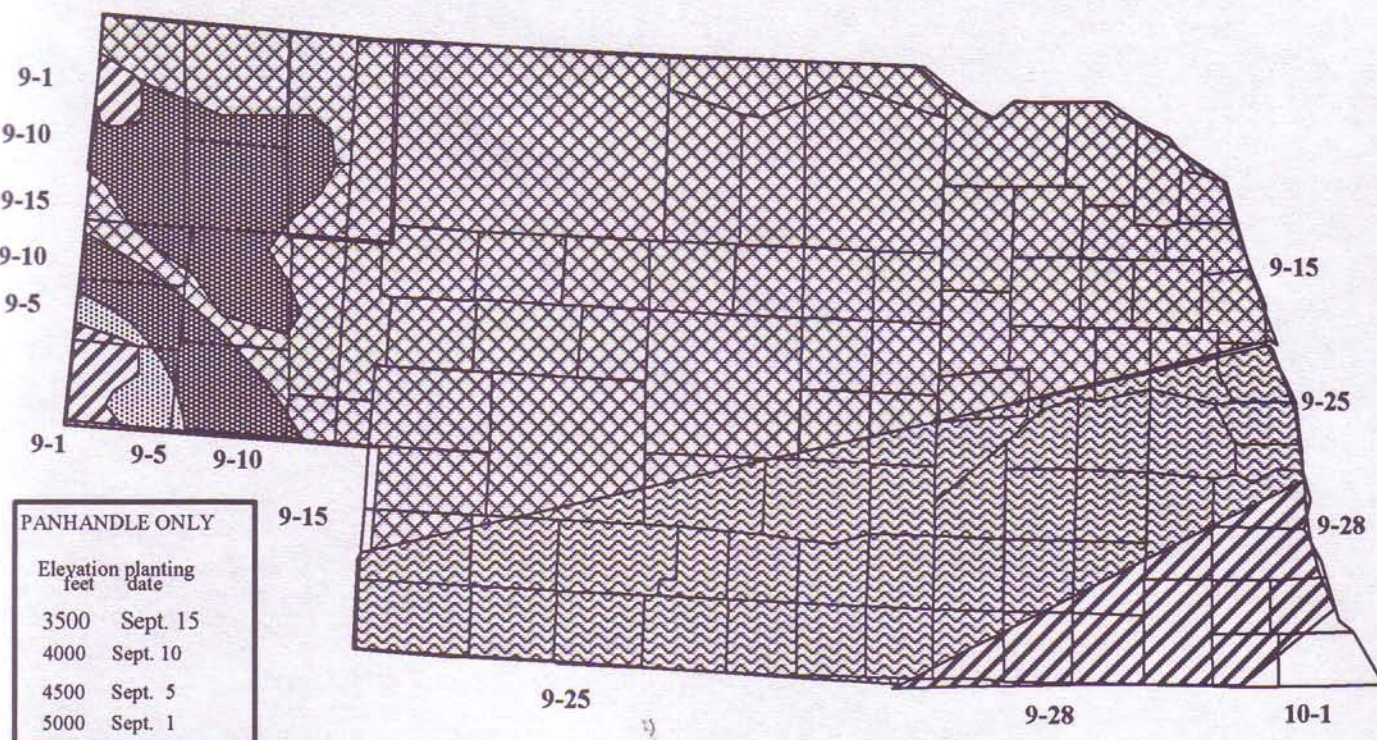


The planting date of winter wheat varies substantially as we move across the state. Research to show the best planting date began many years ago. Each year producers verify these dates through observation of fields planted earlier or later than the ideal date. Some years an earlier planting may have 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.





**Agricultural Research Division**  
**College of Agricultural Sciences and Natural Resources**  
**College of Home Economics**  
**Conservation and Survey Division**  
**Cooperative Extension Division**  
**International Programs**

