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# EC97-103-A Nebraska Fall-Sown Small Grain Variety Tests 1997

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# NEBRASKA FALL-SOWN SMALL GRAIN VARIETY TESTS 1997

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# EXTENSION CIRCULAR 97-103
# NEBRASKA FALL-SOWN SMALL GRAIN VARIETY TESTS

August 1997

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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 97-103

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## NEBRASKA WINTER WHEAT PRODUCTION

| Year | Planted 000 acres (hectares) | Harvested 000 acres (hectares) | Average 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) |

* August 1 estimate.

# NEBRASKA FALL-SOWN SMALL GRAIN VARIETY TESTS 1997

The 1997 estimated winter wheat yield for Nebraska was 37 bushels per acre from 1,900,000 harvested acres. The total production of winter wheat for the state was 70,300,000 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 sixteenth year for privately developed varieties. The state has been divided into four districts for purposes of variety testing. Locations of the 1997 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 — 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 (New for 1997) — Windstar, 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 winterhardiness. 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 (New for 1997) — 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 winterhardiness. 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 are listed on pages 13 - 30. Each district is listed on separate tables with yields of individual locations, average agronomic data, and a summary of the last five years. Page 32 summarizes the yield of each variety at each of the locations where it was entered and page 33 shows the yields as a percentage of three check varieties (Arapahoe, Alliance, and Windstar). Page 34 lists the bushel weights for the varieties at each of the locations where it was tested. Page 35 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% 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 Gage County and one in Saunders County. The Gage County test was planted October 1st at a seeding rate of 60 lbs/acre. The previous crop was wheat which was burned off and disked prior to planting. The plot suffered no winter kill and had good moisture throughout the spring. The plot was harvested July 9th and averaged 53 bushels per acre. The Saunders County test was planted October 14th and harvested July 15th. Lack of moisture during early spring hurt the yields and kept the wheat short.

The two trials in South Central Nebraska were in Clay and Thayer 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 1996. The 30 varieties were planted on October 1st at a rate of 75 lbs/acre in a 40 foot plot. Wheat was harvested on July 15th and averaged 55.5 bushels per acre. The Thayer County trial was planted September 30th at a rate of 75 lbs/acre. The soil type was a Crete silt loam that was disked twice and then field cultivated twice before planting. The plot was harvested July 9th with an average of 57.8 bushels per acre.

Six trials were conducted in the west central district. These were located in Keith, Perkins, Hitchcock, Furnas, Custer, and Lincoln County. The Keith County test was planted into good moisture on September 24th. The plot received some hail damage on June 25th and reduced yields up to 40%. The Perkins County test was planted September 29th and harvested July 14th. This test averaged 53 bushels per acre. The Hitchcock County test was planted September 28th in good moisture. This test averaged 60 bushels per acre and was harvested July 8. The Furnas County test was planted September 28th in good moisture. No starter fertilizer was used. This test averaged 52 bushels per acre. The Custer County test was planted September 17th. The plot received heavy rain soon after planting and some reseeding had to be done on October 3rd. This test was harvested July 18th and averaged 52 bushels per acre. The Lincoln County test was planted September 27th and harvested July 17th. This test averaged 63 bushels per acre and had no lodging.

Seven dryland trials were conducted in the west district. They were Scottsbluff, Sioux, Morrill, Box Butte, Cheyenne ecofallow, Cheyenne fallow and Kimball. An irrigated test was also conducted in Cheyenne County. The Scottsbluff County test was planted September 12 and had good fall moisture. Grasshoppers did some early damage but the plot was sprayed with Loresban. This test was harvested July 22nd and averaged 36 bushels per acre. The Sioux County test was planted September 16th and harvested July 24th. After good spring rains this test averaged 33 bushels per acre. The Morrill County test had good moisture at planting time but had a dry winter. Some of the plots were lost due to blowing sand and gopher damage. Adequate spring and summer moisture helped the plot to average 31 bushels per acre. The Cheyenne County fallow and ecofallow test were lost due to extremely dry weather and mosaic. The Kimball County plot was not harvested when this book went to press on August 14th. The data from Cheyenne County are included on page 25 as a separate table and not included in zone or over years averages. A new test was initiated in Cheyenne County with a February 27 planting of 11 varieties. These data are presented on page 28.

The Cheyenne County irrigated test was planted September 26th into soybean stubble. This test was harvested July 25th and averaged 78 bushels per acre.

Protein and seed size was 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 35. 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 1997.

| County | Cooperator | Planted | Harvested |
|---|---|---|---|
| Gage | Skip & Jim Barr, Liberty | Oct. 1 | July 9 |
| Saunders | Agricultural Res & Dev Center | Oct. 14 | July 15 |
| Clay | South Central Res & Ext Center | Oct. 1 | July 15 |
| Thayer | Roger Bohling, Byron | Sept. 30 | July 9 |
| Keith | Jim Welsh & Larry Chandler, Brule | Sept. 24 | July 17 |
| Perkins | Steve Tucker, Venango | Sept. 29 | July 14 |
| Hitchcock | Brad Jesch, Stratton | Sept. 28 | July 8 |
| Furnas | Don Mues, Arapahoe | Sept. 28 | July 7 |
| Custer | John Beshaler, Arnold | Sept. 17 | July 18 |
| Lincoln Ns | West Central Res & Ext Center | Sept. 27 | July 17 |
| Cheyenne | High Plains Ag Lab | Sept. 27 | Aug. 3 |
| Kimball | Wes Phillips | Sept. 10 | * |
| Scotts Bluff | Ken Hall | Sept. 12 | July 22 |
| Box Butte | Harry Cullen, Hemmingford | Sept. 12 | July 25 |
| Sioux | Howard Mazanec | Sept. 16 | July 24 |
| Morrill | Mike Chrisman | Sept. 9 | July 18 |
| Cheyenne Irr | Tim Maas, Potter | Sept. 26 | July 25 |
| Cheyenne Eco | High Plains Ag Lab | Oct. 2 | * |

*** Not harvested**

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.<br>806 N. 2, P.O. Box 30<br>Berthoud, CO 80513 | Laredo, Ogallala, Coronado<br>Tomahawk, Big Dawg |
| HybriTech Seed International<br>5912 N. Meridan<br>Wichita, KS 67204 | Q566, AP7510, AP7501<br>XH1706 |
| Star Seed Inc.<br>101 Industrial Ave.<br>Osborne, KS 67473 | Champ |
| Polansky Seed<br>Belleville, KS | Dominator |
| Ciba Seed Treatment B.U.<br>#7 Elm Drive<br>Ransom Canyon, TX 79366 | Arapahoe Dividend, Arapahoe Apron, Arapahoe Untreated<br>Alliance Dividend, Alliance Apron, Alliance Untreated |

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 - 1997.

| County | Soil Type | 1995 Crop | pH | Nitrate lbs/a | P ppm | Organic matter % | N+P2O5+K lbs/a |
|---|---|---|---|---|---|---|---|
| Gage | Crete silty clay loam | Wheat | 6.4 | 136.0 | 21.0 | 3.1 | 100-0-0 |
| Saunders | Sharpsburg silty clay loam | Fallow | --- | --- | --- | --- | 40-0-0 |
| Clay | Hastings silt loam | Fallow | --- | --- | --- | --- | 60-40-0 |
| Fillmore | Crete silt loam | Wheat | --- | --- | --- | --- | 95-46-0 |
| Keith | Kuma silt loam | Wheat | 6.7 | 60.0 | 21.0 | 1.7 | 50-33-0 |
| Perkins | Mace silt loam | Wheat | 7.2 | 82.0 | 21.0 | 2.1 | 60-33-0 |
| Hitchcock | Keith silt loam | Wheat | 7.3 | 104.0 | 7.8 | 1.2 | 70-53-0 |
| Furnas | Holdrege silt loam | Corn | 6.3 | 57.0 | 17.0 | 1.6 | 50-40-0 |
| Custer | Holdrege silty clay loam | Corn | 6.0 | 58.0 | 24.0 | 1.4 | 40-33-0 |
| Lincoln Nursery | Hall silt loam | Corn | 6.1 | 58.0 | 34.0 | 1.7 | 70-33-0 |
| Scotts Bluff | Keith silt loam | Wheat | 7.3 | 68.0 | 17.0 | 1.4 | 60-0-0 |
| Sioux | --- | Wheat | 6.8 | 56.0 | 18.9 | 1.5 | 60-0-0 |
| Box Butte | Rosebud loam | Fallow | 6.5 | 76.0 | 43.0 | 1.4 | 20-50-0 |
| Morrill | Otero loamy very fine sand | Wheat | 7.8 | 38.0 | 13.7 | 0.7 | 60-0-0 |
| Cheyenne Fallow | Duroc loam | Fallow | 6.5 | 61.0 | 29.0 | 2.1 | 60-0-0 |
| Cheyenne Irr. | Kuma silt loam | Corn | 6.5 | 161.0 | 63.0 | 1.7 | 100-0-0 |

# Table C. Hard Red Winter Wheat Characteristics.

| Variety | Origin | Year of Release | PVP 1 | Agronomic Characteristics 2 | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Maturity | Winter Hardiness | Straw Strength | Plant Height 4 | Col-eoptile Length 3 |
| 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 stong | 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 |
| Halt | CO | 1994 | yes | early | fair-good | med strong | short | short |
| Hickok | ASI | 1993 | yes | v early | fair | med 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 |
| Longhorn | ASI | 1991 | yes | med early | fair | strong | medium | long |
| 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 |
| Rawhide | NE | | yes | med early | fair | med strong | medium | medium |
| Redland | NE | 1985 | yes | medium | good | strong | medium | short |
| Scout 66 | NE | 1966 | no | med early | fair | medium | tall | long |
| Siouxland | NE | 1984 | yes | med early | fair | med strong | 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 |
| Vona | CO | 1976 | yes | early | poor | strong | short | short |
| Windstar | NE | 1996 | yes | medium | fair | med strong | medium | short |
| Yuma | CO | 1991 | yes | early | fair | med strong | short | short |
| 2137 | PIO/KSU | 1995 | yes | early | good | strong | short | short |
| 2163 | PIO/KSU | 1989 | yes | early | fair | very strong | short | medium |
| Hybrid Wheat | | | | | | | | |
| 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 |

1 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.

2 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.

3 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.

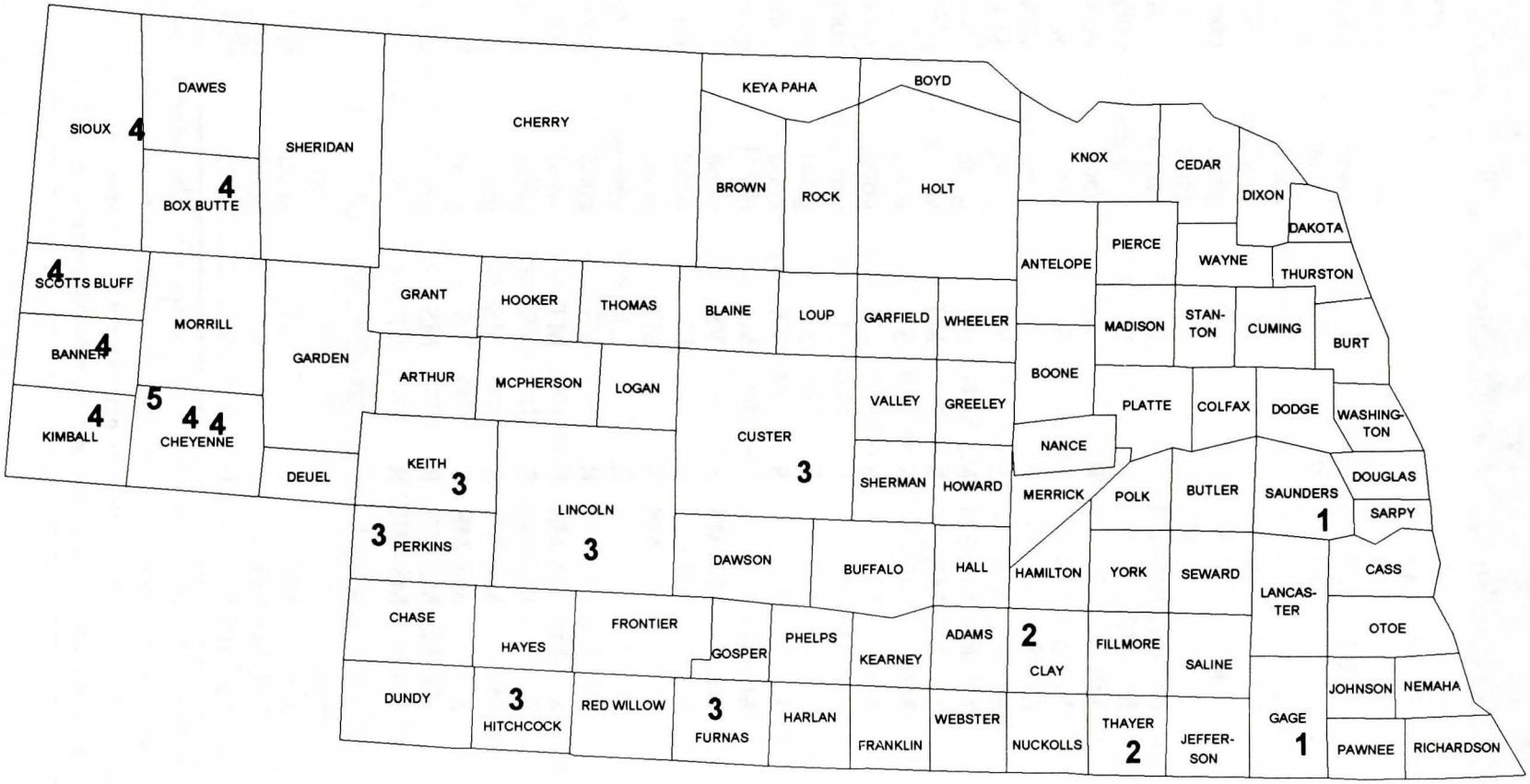
4 Height and bushel weight will vary widely with season, location, and production conditions. General bushel weight ratings: Very Good=62 lb/bu, Good=60 lb/bu, fair=56 lb/bu. Height in optiumum moisture: short=30-35", medium=35-40", tall=40-45".

# Table C. Hard Red Winter Wheat Characteristics.

| Variety | Reactions 5 | | | | | Grain Quality | |
|---|---|---|---|---|---|---|---|
| | Hes-sian Fly | Leaf Rust | Stem Rust | Soil Borne Mosaic | Wheat Streak Mosaic | Bushel Weight 4 | Protein Content |
| Abilene | S | S | MR | R | LT | very good | very good |
| Akron | MR | S | MR-MS | S | - | good | good |
| Alliance | MR | S | MR | S | LT | good | good |
| Arapahoe | MR | MR-MS | R | MR-MS | S | good | very good |
| Big Dawg | S | R | MR | R | LT | good | good |
| Buckskin | MR | S | MS | MR | MS | good | good |
| Centura | MS | MS | MR | S | LT | very good | good |
| Coronado | S | MR | MR-MS | R | MT | good | good |
| Halt | S | S | MS-MR | S | S | good | good |
| Hickok | S | MR-MS | MS-MR | R | S | very good | N/A |
| Ike | R | MS-MR | MR | R | S | very good | very good |
| Jagger | S | MR | MR | R | MT | good | very good |
| Jules | - | MR-MS | MR-MS | S | S | fair | good |
| Karl 92 | S | S-MS | MS | R | VS | very good | very good |
| Lamar | S | S | MS | S | VS | good | good |
| Laredo | S | MS-MR | MR-MS | MS-MR | S | good | good |
| Longhorn | S | MR-MS | MR | S | MT | very good | good |
| Nekota | S | MS | MR | S | S | good | good |
| Niobrara | S | MS | MR | S | LT | good | good |
| Ogallala | S | MR-MS | MR | S | MT | very good | very good |
| Pronghorn | S | MS | MR | S | S | good | good |
| Rawhide | MR | S | MR | S | VS | good | good |
| Redland | R | MS-MR | MR | MS-MR | MT | fair | good |
| Scout 66 | S | MS | MR-MS | S | VS | good | good |
| Siouxland | S | S | MR | S | LT | good | good |
| TAM 107 | S | S | MR-MS | S | MT | good | good |
| Thunderbird | S | MS | MR | R | LT | very good | very good |
| Tomahawk | S | MR-MS | MR | R | VS | good | good |
| Vista | R | MR-MS | MR-MS | S | MT | good | good |
| Vona | MR | S | MS | S | VS | good | good |
| Windstar | S | MS | MR | S | MS | good | good |
| Yuma | S | S | MR-MS | S | VS | good | Fair |
| 2137 | R | MR-MS | MS | R | MS | good | good |
| 2163 | R | MR | MS-MR | R | LT | fair | good |
| Hybrid Wheat | | | | | | | |
| Quantum AP7501 | S | MR | MR | R | MT | good | good |
| Qunatum AP7510 | S | MR | MR | R | MT | good | N/A |
| Quantum 566 | MR | MR-MS | MR | S | S | good | good |
| Quantum 7406 | S | MR-MS | MR | R | S | good | N/A |

5 R=resistant; S=susceptible, MR=moderately resistant; MS=moderately susceptiable. The reation 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 1997 Winter Wheat Tests in Nebraska




Numbers refer to zone

# Southeast District Winter Wheat Variety Tests
# Gage and Saunders Counties - 1997

| Brand | Variety | Average bu/a | Gage County bu/a | Saunders County bu/a | Plant lodge pct | Kernel weight 000/lb | Grain protein pct | Bushel weight lb/bu | Plant height inches |
|---|---|---|---|---|---|---|---|---|---|
| ----- | Nekota | 52 | 59 | 44 | 13 | 15.10 | 13.8 | 59.2 | 31 |
| ----- | 2137 | 51 | 60 | 42 | 9 | 16.19 | 13.2 | 58.2 | 29 |
| ----- | NE93427 | 51 | 59 | 42 | 16 | 16.57 | 13.7 | 60.3 | 30 |
| Polansky | Dominator | 50 | 59 | 41 | 5 | 17.76 | 14.4 | 59.3 | 26 |
| ----- | N95L159 | 49 | 55 | 43 | 5 | 16.78 | 13.6 | 56.1 | 27 |
| ----- | Vista | 49 | 53 | 44 | 8 | 15.78 | 13.9 | 57.5 | 28 |
| ----- | Jagger | 49 | 55 | 42 | 11 | 16.80 | 14.2 | 57.0 | 29 |
| ----- | Niobrara | 49 | 52 | 45 | 33 | 15.80 | 13.2 | 57.5 | 33 |
| ----- | Arapahoe | 49 | 52 | 45 | 19 | 17.35 | 14.1 | 58.0 | 32 |
| ----- | Windstar | 49 | 55 | 42 | 33 | 19.69 | 13.4 | 56.1 | 31 |
| ----- | N95L164 | 49 | 56 | 42 | 10 | 16.96 | 13.7 | 58.2 | 28 |
| ----- | NE93405 | 49 | 51 | 47 | 8 | 14.03 | 14.0 | 59.8 | 35 |
| ----- | NE93554 | 48 | 53 | 42 | 18 | 15.62 | 13.8 | 58.0 | 30 |
| ----- | NE92662 | 48 | 55 | 41 | 10 | 16.33 | 13.7 | 57.4 | 31 |
| ----- | Ike | 48 | 54 | 42 | 20 | 15.49 | 13.9 | 59.1 | 31 |
| ----- | Alliance | 47 | 54 | 40 | 24 | 18.10 | 13.2 | 56.7 | 30 |
| ----- | Pronghorn | 47 | 49 | 45 | 75 | 17.03 | 13.6 | 58.7 | 35 |
| ----- | Karl 92 | 46 | 52 | 39 | 21 | 15.94 | 14.2 | 58.2 | 28 |
| ----- | NE92458 | 46 | 51 | 40 | 18 | 18.14 | 13.9 | 58.5 | 30 |
| AgriPro | Big Dawg | 46 | 54 | 37 | 3 | 15.03 | 14.1 | 57.4 | 31 |
| ----- | 2163 | 45 | 57 | 33 | 7 | 18.62 | 13.7 | 54.8 | 28 |
| AgriPro | Coronado | 45 | 54 | 36 | 7 | 15.85 | 14.0 | 58.1 | 26 |
| ----- | Scout66 | 41 | 41 | 41 | 77 | 15.44 | 14.2 | 59.2 | 37 |
| ----- | Turkey | 37 | 36 | 38 | 71 | 17.83 | 14.1 | 57.5 | 39 |
| ----- | N95L158 * | . | 59 | . | 3 | 17.03 | 13.1 | 57.0 | 33 |
| ----- | Arapahoe Dividend * | . | 53 | . | 16 | 18.43 | 13.2 | 57.2 | 37 |
| ----- | Alliance Dividend * | . | 51 | . | 24 | 16.39 | 12.4 | 57.2 | 37 |
| ----- | Arapahoe Untreated * | . | 50 | . | 25 | 18.66 | 13.4 | 57.2 | 35 |
| ----- | Alliance Untreated * | . | 49 | . | 28 | 17.43 | 12.8 | 56.6 | 35 |
| Average all entries | | 48 | 53 | 42 | 21 | 16.77 | 13.7 | 57.8 | 32 |
| Dif. Req. for Sig. | 5% | NS | 6 | 4 | 17 | 2.80 | NS | 2.1 | 2 |
| | 25% | NS | 4 | 2 | 10 | 1.58 | 0.5 | 1.2 | 1 |

* entered in Gage County only

# Southeast District Winter Wheat Variety Tests 1993 - 1997

| Brand | Variety | Grain yield bu/a | Plant lodging pct | Kernel weight 000/lb | Grain protein pct | Bushel weight lb/bu | Plant height inches |
|---|---|---|---|---|---|---|---|
| | | **2 YEAR AVERAGE** | | | | | |
| ----- | 2137 | 48.5 | 4 | 15.4 | 12.9 | 58.5 | 30 |
| ----- | Nekota | 47.5 | 7 | 15.0 | 13.3 | 58.9 | 32 |
| ----- | Alliance | 46.8 | 13 | 17.5 | 12.6 | 56.8 | 32 |
| ----- | NE92662 | 46.5 | 5 | 16.2 | 13.1 | 57.3 | 33 |
| ----- | Ike | 46.0 | 11 | 16.0 | 13.6 | 59.1 | 33 |
| ----- | Pronghorn | 45.8 | 46 | 16.3 | 12.9 | 59.1 | 35 |
| ----- | Windstar | 45.8 | 17 | 18.9 | 12.8 | 56.8 | 32 |
| ----- | Niobrara | 45.0 | 18 | 17.1 | 13.0 | 56.6 | 34 |
| ----- | Arapahoe | 44.5 | 11 | 18.1 | 13.3 | 57.6 | 34 |
| ----- | 2163 | 44.0 | 4 | 17.8 | 13.1 | 55.6 | 28 |
| ----- | Karl 92 | 44.0 | 11 | 15.6 | 13.6 | 58.5 | 29 |
| ----- | Vista | 43.3 | 5 | 17.5 | 13.2 | 56.6 | 29 |
| ----- | NE92458 | 43.3 | 9 | 18.0 | 13.3 | 58.4 | 31 |
| AgriPro | Coronado | 38.8 | 4 | 15.7 | 13.7 | 57.1 | 27 |
| AgriPro | Big Dawg | 38.5 | 2 | 15.4 | 13.8 | 55.9 | 31 |
| ----- | Scout66 | 38.3 | 70 | 15.9 | 13.5 | 58.6 | 38 |
| ----- | Turkey | 37.8 | 47 | 17.6 | 13.2 | 57.9 | 40 |
| Average all entries | | 37.4 | 17 | 16.7 | 13.2 | 57.6 | 32 |
| Dif. Req. for Sig. | 5% | 2.1 | 8 | 1.1 | 0.3 | 1.0 | 1 |
| | 25% | 1.2 | 4 | 0.6 | 0.2 | 0.6 | 1 |
| | | **3 YEAR AVERAGES** | | | | | |
| ----- | Alliance | 44.6 | 14 | 18.8 | 13.1 | 56.5 | 35 |
| ----- | Windstar | 43.9 | 13 | 19.4 | 13.4 | 57.5 | 35 |
| ----- | Arapahoe | 43.9 | 9 | 18.9 | 13.8 | 57.8 | 36 |
| ----- | Nekota | 43.3 | 7 | 15.0 | 13.3 | 58.9 | 35 |
| ----- | Vista | 43.2 | 4 | 18.4 | 13.6 | 56.6 | 32 |
| ----- | Niobrara | 43.0 | 14 | 18.6 | 13.5 | 55.7 | 37 |
| ----- | Ike | 42.8 | 12 | 17.7 | 14.3 | 58.4 | 35 |
| ----- | Pronghorn | 41.9 | 44 | 17.3 | 14.1 | 59.0 | 38 |
| ----- | Karl 92 | 41.9 | 9 | 17.0 | 14.3 | 58.4 | 31 |
| ----- | 2163 | 40.3 | 3 | 20.2 | 13.8 | 54.4 | 31 |
| ----- | Turkey | 33.8 | 39 | 17.8 | 14.1 | 57.3 | 42 |
| ----- | Scout66 | 33.8 | 71 | 16.8 | 14.2 | 58.4 | 39 |
| Average all entries | | 41.4 | 20 | 18.1 | 13.8 | 57.4 | 35 |
| Dif. Req. for Sig. | 5% | 1.7 | 5 | NS | 0.3 | 0.9 | 1 |
| | 25% | 1.0 | 3 | 0.7 | 0.2 | 0.5 | 1 |

# Southeast District Winter Wheat Variety Tests 1993 - 1997 Page 2

| Brand | Variety | Grain yield bu/a | Plant lodging pct | Kernel weight 000/lb | Grain protein pct | Bushel weight lb/bu | Plant height inches |
|---|---|---|---|---|---|---|---|
| | | **4 YEAR AVERAGES** | | | | | |
| ----- | Alliance | 46.5 | 13 | 18.3 | 13.0 | 56.4 | 34 |
| ----- | Nekota | 46.2 | 6 | 14.9 | 13.2 | 58.8 | 34 |
| ----- | Ike | 45.6 | 11 | 17.1 | 14.0 | 58.5 | 35 |
| ----- | Karl 92 | 45.4 | 7 | 16.5 | 14.0 | 58.4 | 31 |
| ----- | Niobrara | 45.2 | 12 | 17.8 | 13.3 | 55.8 | 36 |
| ----- | Vista | 44.9 | 5 | 17.9 | 13.6 | 56.5 | 31 |
| ----- | Windstar | 44.8 | 11 | 19.1 | 13.4 | 57.0 | 34 |
| ----- | Arapahoe | 44.4 | 8 | 18.6 | 13.8 | 57.5 | 35 |
| ----- | Pronghorn | 42.7 | 35 | 17.0 | 14.0 | 58.8 | 38 |
| ----- | 2163 | 40.5 | 2 | 19.7 | 13.8 | 53.5 | 31 |
| ----- | Turkey | 37.3 | 32 | 17.4 | 14.0 | 57.5 | 42 |
| ----- | Scout66 | 35.1 | 59 | 16.4 | 14.1 | 58.3 | 39 |
| Average all entries | | 43.2 | 17 | 17.6 | 13.7 | 57.2 | 35 |
| Dif. Req. for Sig. | 5% | 1.9 | 6 | 0.8 | 0.3 | 0.8 | 1 |
| | 25% | 1.1 | 4 | 0.5 | 0.2 | 0.4 | 1 |
| | | **5 YEAR AVERAGES** | | | | | |
| ----- | Nekota | 44.9 | 5 | 15.0 | 13.0 | 57.4 | 34 |
| ----- | Arapahoe | 44.7 | 8 | 18.5 | 13.5 | 56.5 | 35 |
| ----- | Alliance | 44.6 | 11 | 18.6 | 12.9 | 55.0 | 34 |
| ----- | Niobrara | 43.7 | 11 | 17.8 | 13.1 | 54.9 | 36 |
| ----- | Vista | 43.3 | 5 | 18.4 | 13.3 | 54.6 | 32 |
| ----- | Karl 92 | 43.3 | 7 | 16.7 | 13.7 | 57.4 | 32 |
| ----- | Pronghorn | 41.8 | 29 | 17.0 | 13.8 | 57.3 | 38 |
| ----- | 2163 | 40.6 | 2 | 19.0 | 13.5 | 53.4 | 32 |
| ----- | Scout66 | 34.7 | 48 | 16.1 | 13.8 | 57.0 | 39 |
| ----- | Turkey | 32.4 | 26 | 18.4 | 13.4 | 55.6 | 42 |
| Average all entries | | 41.4 | 15 | 17.6 | 13.4 | 55.9 | 35 |
| Dif. Req. for Sig. | 5% | 1.9 | 6 | 0.9 | NS | 0.9 | 1 |
| | 25% | 1.1 | 3 | 0.5 | 0.3 | 0.5 | 1 |

# Gage County Wheat Variety Test - Leaf Rust Ratings

John E. Watkins

| Variety | Leaf rust severity and reaction type 6/18/97* |
|---|---|
| Turkey | 21.25 S |
| Scout 66 | 23.75 S |
| 2137 | 6.5 MS-MR |
| Arapahoe | 11.25 MS-MR |
| Windstar | 10.0 MS-MR |
| Alliance | 31.25 S-MS |
| Jagger | trace MR-MS |
| Vista | 13.75 MS-MR |
| 2163 | 10.25 MS-S |
| Ike | 31.25 S |
| Karl 92 | 42.5 S |
| Nekota | 6.5 MS-MR |
| Niobrara | 42.5 S-MS |
| Pronghorn | 7.5 MS-S |
| AgriPro Coronodo | 12.5 MS-MR |
| AgriPro Big Dawg | trace MR |
| Polansky Dominator | 3.1 MS-MR |
| NE92458 | 15.0 MS-MR |
| NE92662 | 5.0 MS |
| NE93554 | 11.5 MR-MS |
| NE93405 | 8.75 MS-MR |
| NE93427 | 12.5 S-MS, 5 MR |
| N95L159 | 12.5 S-MS |
| N95L164 | trace MR |
| Alliance Dividend | 30.0 S |
| Alliance Untreated | 27.5 S |
| Arapahoe Dividend | 4.0 MR-MS |
| Arapahoe Untreated | 6.25 MR-MS |
| N95L158 | 8.75 MS-MR |

*Values represent the average for four replicates.

# South Central District Winter Wheat Variety Tests
# Clay and Thayer Counties - 1997

| Brand | Variety | Average bu/a | Clay County bu/a | Thayer County bu/a | Plant lodge pct | Kernel weight 000/lb | Grain protein pct | Bushel weight lb/bu | Plant height inches |
|---|---|---|---|---|---|---|---|---|---|
| ----- | NE93554 | 65 | 66 | 64 | 1 | 13.97 | 13.7 | 59.2 | 32 |
| ----- | Jagger | 64 | 60 | 68 | 1 | 15.04 | 14.2 | 60.3 | 31 |
| ----- | NE93427 | 61 | 59 | 63 | 1 | 15.79 | 13.0 | 62.3 | 31 |
| ----- | N95L159 | 61 | 57 | 65 | 1 | 15.04 | 13.6 | 59.5 | 29 |
| ----- | 2163 | 61 | 59 | 63 | 1 | 14.69 | 13.0 | 58.8 | 30 |
| AgriPro | Tomahawk | 61 | 59 | 63 | 1 | 14.53 | 14.1 | 60.4 | 30 |
| ----- | Nekota | 60 | 63 | 57 | 1 | 13.75 | 13.8 | 60.4 | 30 |
| ----- | Alliance | 60 | 58 | 62 | 1 | 15.20 | 11.9 | 58.1 | 32 |
| AgriPro | Coronado | 60 | 55 | 65 | 1 | 13.68 | 13.7 | 61.1 | 27 |
| ----- | 2137 | 59 | 56 | 61 | 1 | 14.66 | 13.0 | 60.2 | 32 |
| Star Brand | Champ | 59 | 59 | 59 | 2 | 14.89 | 14.4 | 60.2 | 31 |
| ----- | Arapahoe | 58 | 59 | 56 | 2 | 15.45 | 14.0 | 59.8 | 33 |
| ----- | NE93405 | 58 | 57 | 59 | 2 | 13.46 | 14.1 | 61.3 | 33 |
| ----- | Windstar | 57 | 61 | 53 | 2 | 15.95 | 13.0 | 59.6 | 32 |
| ----- | NE92662 | 57 | 60 | 53 | 1 | 14.90 | 14.0 | 58.8 | 33 |
| Polansky | Dominator | 57 | 49 | 65 | 1 | 15.09 | 14.0 | 61.6 | 30 |
| AgriPro | Ogallala | 57 | 56 | 57 | 1 | 16.57 | 14.3 | 61.9 | 29 |
| ----- | Karl 92 | 56 | 48 | 63 | 1 | 15.20 | 13.2 | 61.0 | 30 |
| ----- | Vista | 55 | 54 | 56 | 1 | 14.50 | 13.8 | 59.0 | 31 |
| ----- | NE92458 | 55 | 50 | 59 | 1 | 15.41 | 13.5 | 62.2 | 32 |
| AgriPro | Big Dawg | 53 | 54 | 51 | 1 | 14.25 | 13.8 | 59.8 | 31 |
| ----- | Niobrara | 52 | 52 | 51 | 1 | 15.15 | 12.5 | 59.0 | 34 |
| ----- | Pronghorn | 52 | 52 | 51 | 3 | 15.38 | 13.1 | 61.1 | 33 |
| ----- | Ike | 51 | 45 | 57 | 1 | 14.69 | 13.7 | 60.8 | 33 |
| ----- | Scout66 | 47 | 47 | 47 | 3 | 14.76 | 13.5 | 61.2 | 35 |
| ----- | Turkey | 39 | 41 | 37 | 3 | 16.55 | 14.1 | 59.7 | 36 |
| ----- | Arapahoe Dividend * | . | 59 | . | 1 | 15.42 | 13.9 | 61.8 | 26 |
| ----- | Arapahoe Untreated * | . | 59 | . | 1 | 15.67 | 14.1 | 61.4 | 26 |
| ----- | Alliance Dividend * | . | 57 | . | 1 | 15.54 | 12.1 | 59.2 | 26 |
| ----- | Alliance Untreated * | . | 57 | . | 1 | 15.39 | 11.9 | 59.4 | 26 |
| ----- | N95L164 ** | . | . | 57 | 1 | 15.32 | 14.0 | 58.4 | 35 |
| Average all entries | | 57 | 56 | 58 | 1 | 14.99 | 13.5 | 60.2 | 31 |
| Dif. Req. for Sig. | 5% | 9 | 6 | 7 | 1 | 1.03 | 0.8 | 1.7 | NS |
| | 25% | 5 | 4 | 4 | 1 | 0.59 | 0.5 | 0.9 | NS |

* entered in Clay County only

** entered in Thayer County only

# South Central District Winter Wheat Variety Tests 1993 - 1997

| Brand | Variety | Grain yield bu/a | Plant lodging pct | Kernel weight 000/lb | Grain protein pct | Bushel weight lb/bu | Plant height inches |
|---|---|---|---|---|---|---|---|
| | | **2 YEAR AVERAGE** | | | | | |
| ----- | Arapahoe | 53.0 | 3 | 17.4 | 13.7 | 57.1 | 36 |
| ----- | NE92662 | 52.8 | 2 | 16.1 | 13.7 | 56.7 | 36 |
| ----- | Nekota | 52.8 | 2 | 15.5 | 13.5 | 57.6 | 34 |
| ----- | 2137 | 52.5 | 2 | 15.3 | 13.1 | 57.9 | 32 |
| ----- | Karl 92 | 51.8 | 2 | 16.1 | 13.4 | 58.8 | 30 |
| ----- | Alliance | 51.8 | 3 | 17.6 | 12.7 | 55.5 | 34 |
| ----- | 2163 | 51.5 | 2 | 16.7 | 13.2 | 56.5 | 31 |
| Star Brand | Champ | 51.5 | 2 | 16.4 | 14.3 | 56.6 | 33 |
| AgriPro | Tomahawk | 51.0 | 2 | 16.3 | 13.7 | 56.7 | 32 |
| ----- | Vista | 49.5 | 2 | 16.5 | 13.6 | 56.5 | 33 |
| ----- | Windstar | 49.5 | 2 | 17.1 | 13.1 | 56.3 | 36 |
| AgriPro | Coronado | 49.3 | 2 | 15.2 | 13.9 | 58.0 | 29 |
| ----- | Jagger | 47.5 | 2 | 17.4 | 14.3 | 56.6 | 31 |
| ----- | Pronghorn | 47.3 | 3 | 16.0 | 13.3 | 59.0 | 37 |
| ----- | Niobrara | 45.8 | 2 | 17.0 | 13.0 | 55.5 | 37 |
| ----- | NE92458 | 45.8 | 2 | 18.3 | 13.7 | 58.3 | 34 |
| ----- | Ike | 45.5 | 2 | 16.4 | 13.9 | 58.1 | 34 |
| ----- | Scout66 | 41.3 | 4 | 15.9 | 13.8 | 58.1 | 41 |
| ----- | Turkey | 35.5 | 4 | 17.9 | 13.6 | 56.5 | 41 |
| AgriPro | Big Dawg | 33.8 | 2 | 15.4 | 13.8 | 55.5 | 32 |
| Average all entries | | 48.0 | 2 | 16.5 | 13.5 | 57.1 | 34 |
| Dif. Req. for Sig. | 5% | NS | 1 | NS | NS | 0.7 | 2 |
| | 25% | 2.4 | 1 | 0.5 | 0.3 | 0.4 | 1 |
| | | **3 YEAR AVERAGE** | | | | | |
| ----- | Karl 92 | 50.7 | 14 | 16.6 | 13.3 | 59.2 | 32 |
| ----- | Vista | 50.3 | 12 | 16.8 | 13.1 | 56.9 | 33 |
| ----- | Jagger | 49.3 | 11 | 17.3 | 13.9 | 57.5 | 33 |
| ----- | Arapahoe | 49.3 | 17 | 17.4 | 13.2 | 57.6 | 37 |
| ----- | Alliance | 48.0 | 17 | 18.1 | 12.3 | 56.3 | 35 |
| ----- | Windstar | 47.7 | 14 | 17.0 | 12.7 | 56.8 | 36 |
| ----- | 2163 | 46.3 | 12 | 17.2 | 12.9 | 56.9 | 33 |
| ----- | Pronghorn | 45.0 | 25 | 16.3 | 13.1 | 59.4 | 38 |
| AgriPro | Tomahawk | 43.8 | 11 | 17.6 | 13.4 | 56.4 | 33 |
| ----- | Ike | 43.3 | 19 | 17.1 | 13.5 | 58.6 | 36 |
| ----- | Niobrara | 40.2 | 19 | 17.3 | 12.7 | 55.5 | 38 |
| ----- | Scout66 | 37.3 | 28 | 16.6 | 14.0 | 58.2 | 41 |
| ----- | Turkey | 33.5 | 26 | 17.6 | 13.5 | 57.7 | 41 |
| Average all entries | | 45.0 | 17 | 17.2 | 13.2 | 57.5 | 36 |
| Dif. Req. for Sig. | 5% | 3.3 | NS | NS | 0.4 | 0.5 | 1 |
| | 25% | 1.9 | NS | NS | 0.2 | 0.3 | 1 |

**Continued on page 2**

# South Central District Winter Wheat Variety Tests
# 1993 - 1997 Page 2

| Brand | Variety | Grain yield bu/a | Plant lodging pct | Kernel weight 000/lb | Grain protein pct | Bushel weight lb/bu | Plant height inches |
|---|---|---|---|---|---|---|---|
| | | **4 YEAR AVERAGE** | | | | | |
| ----- | Karl 92 | 51.5 | 14 | 16.8 | 13.1 | 59.8 | 29 |
| ----- | Vista | 50.0 | 12 | 17.2 | 12.9 | 57.7 | 30 |
| ----- | Arapahoe | 48.3 | 17 | 17.9 | 13.3 | 58.1 | 34 |
| ----- | Alliance | 48.0 | 17 | 18.8 | 12.3 | 57.1 | 32 |
| ----- | Windstar | 47.3 | 14 | 17.6 | 12.8 | 57.5 | 34 |
| AgriPro | Tomahawk | 45.6 | 11 | 17.7 | 13.3 | 57.2 | 31 |
| ----- | Pronghorn | 45.5 | 25 | 17.0 | 13.0 | 59.9 | 36 |
| ----- | Ike | 45.0 | 19 | 17.0 | 13.4 | 59.2 | 33 |
| ----- | 2163 | 43.3 | 12 | 17.9 | 13.1 | 57.1 | 30 |
| ----- | Niobrara | 42.6 | 19 | 17.5 | 12.6 | 56.5 | 35 |
| ----- | Scout66 | 38.5 | 28 | 16.7 | 13.6 | 59.1 | 38 |
| ----- | Turkey | 34.4 | 26 | 17.8 | 13.5 | 58.0 | 39 |
| Average all entries | | 45.0 | 18 | 17.5 | 13.1 | 58.1 | 33 |
| Dif. Req. for Sig. | 5% | 2.4 | NS | NS | 0.4 | 0.4 | 1 |
| | 25% | 1.4 | NS | 0.4 | 0.2 | 0.2 | 1 |
| | | **5 YEAR AVERAGE** | | | | | |
| ----- | Karl 92 | 51.8 | 36 | 16.7 | 13.3 | 58.5 | 31 |
| ----- | Vista | 50.3 | 34 | 17.4 | 13.1 | 56.4 | 32 |
| ----- | Arapahoe | 49.0 | 35 | 17.8 | 13.4 | 56.7 | 35 |
| ----- | Alliance | 48.0 | 36 | 18.7 | 12.6 | 55.8 | 34 |
| AgriPro | Tomahawk | 47.1 | 33 | 17.4 | 13.4 | 56.0 | 32 |
| ----- | 2163 | 45.4 | 32 | 17.6 | 13.1 | 55.9 | 31 |
| ----- | Pronghorn | 44.7 | 41 | 16.9 | 13.2 | 58.7 | 38 |
| ----- | Niobrara | 43.8 | 36 | 17.5 | 12.9 | 55.2 | 36 |
| ----- | Scout66 | 38.3 | 45 | 16.4 | 13.8 | 57.9 | 40 |
| ----- | Turkey | 33.5 | 42 | 17.7 | 13.6 | 55.7 | 41 |
| Average all entries | | 45.2 | 37 | 17.4 | 13.2 | 56.8 | 35 |
| Dif. Req. for Sig. | 5% | 2.2 | NS | 0.6 | 0.4 | 0.4 | 1 |
| | 25% | 1.3 | NS | 0.3 | 0.2 | 0.2 | 1 |

# West Central District Winter Wheat Variety Tests

## Keith, Perkins, Hitchcock, Furnas, Custer, and Lincoln Counties

| Brand | Variety | Avg bu/a | Kei Co. bu/a | Per Co. bu/a | Hit Co. bu/a | Fur Co. bu/a | Cus Co. bu/a | Lin Co. bu/a | Plant lodge pct | Kernel weight 000/lb | Grain protein pct | Bushel weight lb/bu | Plant height inches |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Quantum | XH 1706 | 62 | 40 | 65 | 65 | 63 | 61 | 77 | 0 | 13.56 | 11.9 | 61 | 30 |
| Quantum | 566 | 61 | 39 | 60 | 69 | 61 | 63 | 76 | 0 | 13.65 | 12.3 | 59 | 34 |
| ----- | Jules | 58 | 45 | 60 | 68 | 48 | 53 | 73 | 0 | 14.71 | 10.9 | 60 | 30 |
| ----- | Alliance Dividend | 58 | 38 | 61 | 68 | 52 | 57 | 73 | 0 | 13.82 | 11.3 | 59 | 30 |
| ----- | Alliance Untreated | 57 | 37 | 57 | 66 | 58 | 58 | 67 | 0 | 14.14 | 11.4 | 59 | 30 |
| ----- | Windstar | 56 | 33 | 54 | 65 | 55 | 61 | 65 | 0 | 13.89 | 12.1 | 60 | 32 |
| ----- | NE93554 | 55 | 39 | 57 | 60 | 53 | 55 | 65 | 0 | 13.00 | 12.6 | 59 | 30 |
| ----- | Pronghorn | 55 | 30 | 56 | 65 | 57 | 53 | 70 | 0 | 13.75 | 12.1 | 61 | 33 |
| ----- | Arapahoe Dividend | 54 | 34 | 52 | 58 | 52 | 58 | 69 | 0 | 14.69 | 12.5 | 59 | 32 |
| ----- | 2137 | 54 | 36 | 55 | 62 | 55 | 55 | 62 | 0 | 13.39 | 12.0 | 60 | 29 |
| ----- | Alliance | 54 | 34 | 55 | 63 | 55 | 52 | 67 | 0 | 14.58 | 11.5 | 58 | 30 |
| Quantum | AP 7510 | 54 | 31 | 55 | 63 | 56 | 55 | 65 | 0 | 14.22 | 13.0 | 61 | 27 |
| ----- | Jagger | 53 | 27 | 58 | 62 | 57 | 52 | 61 | 0 | 13.30 | 13.1 | 60 | 29 |
| ----- | Arapahoe Untreated | 53 | 34 | 56 | 58 | 51 | 56 | 64 | 0 | 14.76 | 12.5 | 59 | 32 |
| ----- | NE92662 | 53 | 32 | 54 | 63 | 52 | 53 | 64 | 0 | 13.78 | 12.2 | 59 | 32 |
| ----- | Niobrara | 53 | 35 | 50 | 67 | 53 | 49 | 64 | 0 | 13.90 | 12.0 | 59 | 31 |
| ----- | NE93496 | 52 | 31 | 50 | 54 | 52 | 53 | 69 | 0 | 12.87 | 12.8 | 61 | 33 |
| ----- | Arapahoe | 52 | 33 | 52 | 56 | 56 | 53 | 62 | 0 | 14.71 | 12.6 | 59 | 32 |
| ----- | Akron | 51 | 31 | 57 | 57 | 46 | 52 | 61 | 0 | 13.83 | 12.1 | 61 | 30 |
| ----- | Lamar | 51 | 31 | 54 | 59 | 57 | 43 | 60 | 0 | 13.70 | 12.3 | 60 | 32 |
| Quantum | AP 7501 | 51 | 34 | 53 | 58 | 50 | 54 | 57 | 0 | 15.42 | 12.7 | 61 | 26 |
| ----- | Nekota | 51 | 28 | 53 | 57 | 48 | 52 | 66 | 0 | 13.22 | 12.7 | 60 | 28 |
| AgriPro | Laredo | 51 | 31 | 46 | 62 | 55 | 56 | 53 | 0 | 13.21 | 12.8 | 60 | 27 |
| ----- | N95L159 | 50 | 30 | 52 | 56 | 51 | 55 | 56 | 0 | 13.18 | 12.4 | 59 | 26 |
| ----- | Halt | 49 | 32 | 53 | 58 | 45 | 45 | 62 | 0 | 14.83 | 12.3 | 58 | 27 |
| AgriPro | Coronado | 49 | 27 | 50 | 59 | 53 | 47 | 57 | 0 | 13.04 | 12.5 | 59 | 26 |
| ----- | Vista | 49 | 37 | 49 | 55 | 48 | 47 | 60 | 0 | 13.93 | 12.4 | 59 | 27 |
| AgriPro | Tomahawk | 48 | 25 | 52 | 56 | 50 | 50 | 56 | 0 | 13.50 | 12.8 | 59 | 28 |
| ----- | NE93427 | 48 | 24 | 47 | 58 | 52 | 50 | 59 | 0 | 13.82 | 12.4 | 61 | 29 |
| ----- | NE93405 | 48 | 30 | 48 | 53 | 50 | 50 | 59 | 0 | 12.77 | 12.9 | 60 | 32 |
| AgriPro | Ogallala | 48 | 28 | 51 | 55 | 48 | 45 | 60 | 0 | 15.12 | 13.2 | 61 | 26 |
| ----- | NE92458 | 48 | 22 | 53 | 65 | 48 | 45 | 55 | 0 | 14.73 | 12.6 | 60 | 30 |
| ----- | TAM 107 | 47 | 31 | 52 | 56 | 47 | 45 | 49 | 0 | 13.04 | 12.2 | 58 | 27 |
| ----- | Ike | 46 | 29 | 46 | 53 | 51 | 46 | 52 | 0 | 14.06 | 12.8 | 59 | 30 |
| ----- | Scout66 | 46 | 26 | 46 | 57 | 42 | 45 | 62 | 22 | 13.47 | 12.5 | 61 | 35 |
| ----- | Turkey | 44 | 26 | 39 | 52 | 45 | 46 | 58 | 32 | 14.82 | 12.7 | 60 | 37 |
| ----- | Karl 92 | 43 | 31 | 43 | 51 | 40 | 45 | 48 | 0 | 13.94 | 13.0 | 60 | 27 |
| ----- | N95L164 ** | . | . | . | . | . | . | 71 | . | 12.40 | 13.2 | 60 | 31 |
| Average all entries | | 52 | 32 | 53 | 60 | 52 | 52 | 63 | 1 | 13.97 | 12.4 | 56 | 30 |
| Dif. Req. for Sig. | 5% | 4 | 3 | 6 | 4 | 7 | 5 | 7 | NS | 0.18 | 0.1 | NS | 1 |
| | 25% | 2 | 2 | 4 | 3 | 4 | 3 | 4 | NS | 0.11 | 0.1 | NS | 1 |

**** entered at Lincoln County only**

# West Central District Winter Wheat Variety Tests 1993 - 1997

| Brand | Variety | Grain yield bu/a | Plant lodging pct | Kernel weight 000/lb | Grain protein pct | Bushel weight lb/bu | Plant height inches |
|---|---|---|---|---|---|---|---|
| | | 2 YEAR AVERAGE | | | | | |
| Quantum | 566 | 63.7 | 3 | 14.1 | 12.6 | 60.0 | 34 |
| ----- | Alliance Dividend | 63.1 | 0 | 13.9 | 11.8 | 59.9 | 31 |
| ----- | Alliance Untreated | 63.0 | 0 | 14.0 | 12.0 | 59.8 | 31 |
| ----- | 2137 | 61.2 | 0 | 13.2 | 12.2 | 61.0 | 30 |
| ----- | Alliance | 60.7 | 3 | 14.4 | 12.0 | 59.5 | 31 |
| ----- | Windstar | 58.4 | 0 | 14.6 | 12.4 | 59.8 | 32 |
| ----- | Arapahoe Dividend | 58.3 | 2 | 14.8 | 12.9 | 59.7 | 33 |
| ----- | NE92662 | 57.3 | 0 | 13.8 | 12.5 | 59.6 | 33 |
| ----- | Jules | 57.0 | 8 | 15.0 | 11.3 | 59.3 | 31 |
| ----- | Arapahoe Untreated | 56.9 | 5 | 14.7 | 12.8 | 60.0 | 33 |
| ----- | Arapahoe | 56.7 | 1 | 15.0 | 13.0 | 59.9 | 33 |
| ----- | Niobrara | 56.2 | 2 | 14.0 | 12.2 | 59.4 | 32 |
| ----- | Pronghorn | 56.0 | 17 | 13.7 | 12.7 | 61.1 | 33 |
| Quantum | AP 7510 | 55.1 | 0 | 15.0 | 13.1 | 61.1 | 27 |
| ----- | Nekota | 54.3 | 0 | 13.1 | 12.8 | 60.6 | 30 |
| ----- | Vista | 54.1 | 0 | 13.7 | 12.8 | 59.8 | 27 |
| ----- | Halt | 53.9 | 0 | 14.8 | 13.0 | 58.6 | 27 |
| ----- | Lamar | 53.0 | 0 | 13.6 | 12.7 | 61.1 | 33 |
| AgriPro | Laredo | 52.3 | 2 | 13.3 | 13.0 | 60.4 | 27 |
| ----- | Jagger | 52.1 | 0 | 13.6 | 13.5 | 60.3 | 29 |
| Quantum | AP 7501 | 51.5 | 0 | 15.6 | 12.9 | 60.3 | 27 |
| AgriPro | Tomahawk | 51.3 | 0 | 13.6 | 13.0 | 59.6 | 28 |
| ----- | NE92458 | 50.9 | 2 | 15.0 | 12.9 | 60.4 | 30 |
| ----- | Akron | 50.9 | 6 | 14.1 | 12.3 | 60.4 | 30 |
| ----- | Karl 92 | 50.8 | 0 | 13.5 | 13.5 | 60.4 | 27 |
| AgriPro | Ogallala | 50.8 | 0 | 15.8 | 13.6 | 61.8 | 27 |
| ----- | TAM 107 | 50.7 | 0 | 12.7 | 12.7 | 59.3 | 28 |
| ----- | Ike | 49.9 | 0 | 13.7 | 13.2 | 60.4 | 30 |
| ----- | Scout66 | 49.5 | 45 | 13.3 | 12.8 | 61.1 | 36 |
| ----- | Turkey | 47.2 | 50 | 14.8 | 13.2 | 60.1 | 38 |
| Average all entries | | 54.9 | 4.7 | 14.1 | 12.7 | 58.3 | 31 |
| Dif. Req. for Sig. | 5% | 0.6 | 3.1 | 0.3 | 0.7 | NS | 0.2 |
| | 25% | 0.3 | 1.8 | 0.2 | 0.4 | NS | 0.1 |

**Continued on page 2.**

# West Central District Winter Wheat Variety Tests 1993 - 1997 Page 2.

| Brand | Variety | Grain yield bu/a | Plant lodging pct | Kernel weight 000/lb | Grain protein pct | Bushel weight lb/bu | Plant height inches |
|---|---|---|---|---|---|---|---|
| | | 3 YEAR AVERAGE | | | | | |
| ----- | Alliance | 59.3 | 17 | 15.1 | 12.2 | 58.3 | 34 |
| Quantum | 566 | 59.2 | 17 | 15.1 | 12.9 | 58.6 | 37 |
| ----- | Niobrara | 57.0 | 18 | 14.5 | 12.6 | 58.3 | 35 |
| ----- | Jagger | 56.9 | 13 | 14.6 | 13.5 | 59.4 | 32 |
| Quantum | AP 7501 | 56.7 | 4 | 16.2 | 13.0 | 59.4 | 31 |
| ----- | Windstar | 56.2 | 11 | 16.0 | 12.7 | 58.4 | 35 |
| ----- | Vista | 56.0 | 13 | 14.4 | 13.0 | 58.5 | 31 |
| AgriPro | Ogallala | 55.4 | 10 | 16.2 | 13.7 | 61.0 | 30 |
| ----- | Arapahoe | 55.4 | 14 | 15.5 | 13.2 | 58.8 | 36 |
| ----- | Jules | 54.1 | 12 | 15.9 | 11.8 | 57.8 | 34 |
| ----- | Halt | 53.9 | 14 | 16.4 | 13.3 | 57.5 | 31 |
| ----- | TAM 107 | 53.4 | 7 | 13.0 | 13.1 | 58.8 | 32 |
| AgriPro | Tomahawk | 53.4 | 9 | 14.8 | 13.2 | 58.6 | 32 |
| ----- | Karl 92 | 53.3 | 10 | 14.2 | 13.6 | 59.8 | 30 |
| AgriPro | Laredo | 53.2 | 15 | 14.3 | 13.3 | 59.4 | 30 |
| ----- | Akron | 52.0 | 9 | 15.2 | 12.5 | 59.2 | 34 |
| ----- | Pronghorn | 51.6 | 32 | 14.7 | 13.1 | 59.4 | 36 |
| ----- | Lamar | 51.1 | 14 | 14.3 | 13.1 | 60.2 | 36 |
| ----- | Ike | 50.8 | 16 | 14.6 | 13.5 | 59.2 | 34 |
| ----- | Scout66 | 44.0 | 55 | 14.7 | 13.1 | 59.1 | 38 |
| ----- | Turkey | 41.5 | 57 | 15.8 | 13.5 | 58.5 | 40 |
| Average all entries | | 53.5 | 18 | 15.1 | 13.1 | 57.6 | 34 |
| Dif. Req. for Sig. | 5% | NS | 3 | 0.3 | 0.1 | NS | 1 |
| | 25% | 1.1 | 2 | 0.2 | 0.1 | NS | 1 |

Continued on page 3.

# West Central District Winter Wheat Variety Tests 1993 - 1997 Page 3

| Brand | Variety | Grain yield bu/a | Plant lodging pct | Kernel weight 000/lb | Grain protein pct | Bushel weight lb/bu | Plant height inches |
|---|---|---|---|---|---|---|---|
| | | **4 YEAR AVERAGE** | | | | | |
| Quantum | 566 | 58.8 | 13 | 15.8 | 13.0 | 58.6 | 35 |
| ----- | Alliance | 58.1 | 13 | 16.0 | 12.4 | 58.1 | 33 |
| ----- | Niobrara | 56.5 | 13 | 15.1 | 12.7 | 58.3 | 34 |
| ----- | Vista | 55.2 | 10 | 15.3 | 13.2 | 58.3 | 30 |
| ----- | Windstar | 55.1 | 9 | 16.5 | 12.9 | 58.2 | 34 |
| AgriPro | Ogallala | 54.8 | 8 | 17.0 | 13.7 | 61.1 | 29 |
| ----- | Arapahoe | 53.7 | 11 | 16.2 | 13.4 | 58.7 | 34 |
| ----- | Karl 92 | 53.5 | 8 | 14.8 | 13.6 | 60.0 | 29 |
| AgriPro | Laredo | 53.3 | 11 | 14.8 | 13.3 | 59.5 | 29 |
| AgriPro | Tomahawk | 53.1 | 7 | 15.4 | 13.4 | 58.5 | 31 |
| ----- | TAM 107 | 53.1 | 5 | 13.7 | 13.2 | 58.7 | 31 |
| ----- | Jules | 52.6 | 9 | 16.6 | 12.0 | 57.7 | 32 |
| ----- | Pronghorn | 52.1 | 24 | 15.2 | 13.2 | 59.6 | 35 |
| ----- | Ike | 51.9 | 12 | 15.0 | 13.6 | 59.3 | 33 |
| ----- | Lamar | 50.1 | 11 | 15.0 | 13.3 | 60.4 | 35 |
| ----- | Scout 66 | 45.1 | 45 | 15.1 | 13.2 | 59.5 | 37 |
| ----- | Turkey | 42.5 | 43 | 16.2 | 13.6 | 58.9 | 39 |
| Average all entries | | 52.9 | 14.7 | 15.5 | 13.2 | 58.1 | 33 |
| Dif. Req. for Sig. | 5% | 1.3 | 2.6 | 0.3 | 0.1 | NS | 1 |
| | 25% | 0.8 | 1.5 | 0.2 | 0.1 | NS | 1 |
| | | **5 YEAR AVERAGE** | | | | | |
| ----- | Alliance | 59.5 | 15 | 16.0 | 12.2 | 57.7 | 34 |
| ----- | Niobrara | 59.3 | 13 | 14.9 | 12.5 | 57.9 | 35 |
| AgriPro | Ogallala | 57.4 | 6 | 16.7 | 13.4 | 60.6 | 30 |
| ----- | Vista | 56.7 | 10 | 15.2 | 12.9 | 57.8 | 31 |
| AgriPro | Laredo | 56.4 | 10 | 14.5 | 13.1 | 59.0 | 31 |
| ----- | Karl 92 | 56.2 | 7 | 14.8 | 13.2 | 59.4 | 31 |
| ----- | Arapahoe | 55.5 | 14 | 16.1 | 13.1 | 58.1 | 35 |
| ----- | Ike | 55.4 | 14 | 14.9 | 13.3 | 58.8 | 34 |
| AgriPro | Tomahawk | 55.4 | 6 | 15.1 | 13.1 | 58.0 | 32 |
| ----- | Tam 107 | 55.3 | 4 | 13.7 | 12.9 | 58.1 | 32 |
| ----- | Pronghorn | 52.6 | 30 | 15.2 | 12.9 | 59.1 | 37 |
| ----- | Jules | 51.7 | 9 | 16.4 | 11.8 | 57.3 | 33 |
| ----- | Lamar | 51.1 | 15 | 15.0 | 13.1 | 59.9 | 36 |
| ----- | Scout66 | 45.5 | 51 | 14.9 | 13.0 | 59.0 | 39 |
| ----- | Turkey | 42.0 | 49 | 16.3 | 13.4 | 58.3 | 40 |
| Average all entries | | 54.0 | 17 | 15.3 | 12.9 | 57.8 | 34 |
| Dif. Req. for Sig. | 5% | 1.2 | 3 | 0.2 | 0.1 | NS | 1 |
| | 25% | 0.7 | 2 | 0.1 | 0.1 | NS | 1 |

# West District Winter Wheat Variety Tests
## Scotts Bluff, Sioux, Box Butte, and Morrill Counties - 1997

| Brand | Variety | Average bu/a | S B County bu/a | Sioux County bu/a | B B County bu/a | Mrl County bu/a | Plant lodge pct | Kernel weight 000/lb | Grain protein pct | Bushel weight lb/bu | Plant height inches |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ----- | Alliance Dividend | 41 | 41 | 38 | 49 | 34 | 0 | 16.08 | 11.4 | 58.7 | 28 |
| ----- | 2137 | 40 | 36 | 36 | 50 | 38 | 0 | 15.79 | 11.2 | 59.1 | 27 |
| ----- | Alliance Untreated | 39 | 42 | 37 | 41 | 35 | 0 | 15.75 | 11.3 | 59.2 | 28 |
| ----- | Alliance | 39 | 43 | 36 | 43 | 33 | 0 | 15.30 | 11.6 | 58.8 | 28 |
| Quantum | 566 | 39 | 39 | 38 | 43 | 36 | 0 | 15.73 | 11.4 | 59.4 | 32 |
| ----- | TAM 107 | 38 | 41 | 34 | 45 | 30 | 0 | 14.80 | 12.3 | 58.1 | 26 |
| ----- | Akron | 38 | 37 | 35 | 47 | 34 | 2 | 16.12 | 11.5 | 58.6 | 27 |
| ----- | Buckskin | 38 | 43 | 30 | 45 | 35 | 5 | 15.85 | 11.9 | 59.7 | 34 |
| ----- | Windstar | 37 | 38 | 35 | 46 | 29 | 0 | 16.74 | 11.5 | 57.9 | 29 |
| ----- | Arapahoe Dividend | 37 | 35 | 34 | 44 | 34 | 0 | 17.07 | 12.3 | 58.5 | 29 |
| ----- | Nekota | 37 | 36 | 32 | 46 | 32 | 0 | 14.81 | 11.9 | 59.5 | 26 |
| ----- | Siouxland | 37 | 37 | 34 | 41 | 34 | 1 | 16.17 | 11.2 | 59.5 | 33 |
| ----- | Niobrara | 37 | 37 | 35 | 44 | 33 | 0 | 15.78 | 11.8 | 58.3 | 29 |
| ----- | Vista | 37 | 39 | 33 | 47 | 27 | 0 | 16.10 | 11.9 | 58.3 | 24 |
| ----- | Jules | 37 | 39 | 26 | 43 | 38 | 0 | 16.57 | 11.2 | 57.9 | 28 |
| ----- | Arapahoe | 37 | 39 | 35 | 40 | 35 | 0 | 16.41 | 11.6 | 58.9 | 30 |
| Quantum | XH 1706 | 37 | 40 | 34 | 41 | 31 | 0 | 17.53 | 12.1 | 58.2 | 27 |
| ----- | SD92107 | 36 | 34 | 31 | 39 | 38 | 0 | 16.45 | 11.9 | 58.7 | 31 |
| ----- | NE91518 (purple) | 36 | 33 | 35 | 45 | 29 | 0 | 16.31 | 12.4 | 57.8 | 26 |
| ----- | Arapahoe Untreated | 36 | 35 | 35 | 41 | 31 | 0 | 17.63 | 12.5 | 58.1 | 29 |
| ----- | Pronghorn | 36 | 36 | 33 | 43 | 32 | 7 | 15.34 | 12.1 | 59.7 | 31 |
| ----- | SD89119 | 36 | 35 | 33 | 43 | 31 | 0 | 13.76 | 12.5 | 60.6 | 29 |
| ----- | Scout66 | 35 | 35 | 33 | 39 | 33 | 29 | 14.77 | 12.1 | 60.1 | 34 |
| ----- | NE93554 | 35 | 34 | 36 | 42 | 27 | 0 | 16.10 | 12.4 | 57.6 | 28 |
| ----- | Lamar RWA 32 | 35 | 34 | 30 | 39 | 36 | 2 | 15.00 | 11.9 | 60.1 | 31 |
| ----- | Lancer | 35 | 35 | 32 | 42 | 32 | 2 | 16.98 | 12.2 | 59.5 | 35 |
| Quantum | AP 7501 | 35 | 32 | 34 | 44 | 30 | 0 | 17.93 | 12.2 | 59.0 | 24 |
| Quantum | AP 7510 | 35 | 34 | 35 | 42 | 28 | 0 | 17.01 | 12.3 | 59.6 | 25 |
| ----- | NE93405 | 34 | 33 | 32 | 39 | 30 | 0 | 15.22 | 12.6 | 59.9 | 30 |
| ----- | NE91631 | 34 | 37 | 32 | 37 | 29 | 0 | 18.90 | 11.0 | 58.1 | 30 |
| ----- | NE92662 | 34 | 34 | 34 | 40 | 28 | 0 | 16.55 | 12.0 | 57.5 | 28 |
| ----- | Halt | 34 | 37 | 34 | 37 | 28 | 0 | 16.99 | 11.6 | 57.7 | 25 |
| ----- | NE93669 | 33 | 33 | 36 | 39 | 23 | 0 | 16.00 | 12.1 | 57.8 | 27 |
| ----- | Lamar | 33 | 38 | 32 | 32 | 31 | 1 | 16.46 | 11.9 | 59.7 | 30 |
| ----- | NE93427 | 33 | 33 | 34 | 40 | 24 | 0 | 16.37 | 11.7 | 60.3 | 26 |
| ----- | Centura | 33 | 37 | 31 | 37 | 26 | 1 | 16.78 | 12.1 | 58.7 | 30 |
| ----- | NE93613 | 33 | 36 | 31 | 36 | 28 | 0 | 18.62 | 11.8 | 57.8 | 30 |
| ----- | Lamar RWA 31 | 32 | 34 | 30 | 34 | 28 | 2 | 15.68 | 11.4 | 60.1 | 30 |
| ----- | SD92191 | 31 | 30 | 28 | 37 | 27 | 0 | 17.27 | 12.4 | 59.8 | 30 |
| ----- | Turkey | 31 | 32 | 27 | 36 | 29 | 28 | 16.34 | 12.0 | 59.2 | 34 |
| ----- | Jagger | 29 | 24 | 33 | 38 | 21 | 0 | 16.26 | 12.6 | 58.4 | 26 |
| Average all entries | | 35 | 36 | 33 | 41 | 31 | 2 | 16.06 | 11.8 | 59.0 | 29 |
| Dif. Req. for Sig. | 5% | 4 | 5 | 4 | NS | 7 | 7 | 1.49 | 0.8 | 1.1 | 1 |
| | 25% | 2 | 3 | 2 | 6 | 4 | 4 | 0.87 | 0.5 | 0.6 | 1 |

# Cheyenne County Dryland Winter Wheat Variety Test
# High Plains Ag Lab - 1997

| Brand | Variety | Grain yield bu/a | Plant height inches |
|---|---|---|---|
| Quantum | AP 7510 | 23 | 23 |
| ----- | Windstar | 22 | 27 |
| ----- | Arapahoe Untreated | 20 | 26 |
| ----- | Arapahoe Dividend | 20 | 29 |
| ----- | Jagger | 19 | 26 |
| Quantum | 566 | 17 | 27 |
| ----- | SD92107 | 17 | 25 |
| ----- | Alliance Dividend | 16 | 24 |
| Quantum | XH 1706 | 15 | 22 |
| ----- | 2137 | 14 | 22 |
| ----- | Halt | 14 | 23 |
| ----- | SD89119 | 14 | 23 |
| ----- | Akron | 14 | 24 |
| ----- | NE93427 | 14 | 25 |
| ----- | Buckskin | 13 | 24 |
| ----- | Jules | 13 | 26 |
| ----- | Lamar RWA 31 | 13 | 25 |
| Quantum | AP 7501 | 13 | 23 |
| ----- | Alliance Untreated | 12 | 25 |
| ----- | Niobrara | 12 | 23 |
| ----- | Arapahoe | 12 | 26 |
| ----- | NE91518 (purple) | 11 | 21 |
| ----- | Pronghorn | 11 | 23 |
| ----- | NE93669 | 11 | 24 |
| ----- | NE91631 | 11 | 26 |
| ----- | NE93554 | 10 | 22 |
| ----- | Centura | 10 | 22 |
| ----- | NE93405 | 10 | 23 |
| ----- | Siouxland | 10 | 24 |
| ----- | Turkey | 10 | 25 |
| ----- | NE92662 | 9 | 24 |
| ----- | Alliance | 9 | 25 |
| ----- | Nekota | 8 | 18 |
| ----- | SD92191 | 8 | 23 |
| ----- | Lamar | 8 | 23 |
| ----- | NE93613 | 8 | 24 |
| ----- | Scout66 | 8 | 26 |
| ----- | Lamar RWA 32 | 8 | 23 |
| ----- | TAM 107 | 7 | 21 |
| ----- | Lancer | 7 | 27 |
| ----- | Vista | 5 | 19 |
| Average all entries | | 12 | 24 |
| Dif. Req. for Sig. 5% | | 12 | 6 |
| 25% | | 7 | 3 |

# West District Winter Wheat Variety Tests
# 1993 - 1997

| Brand | Variety | Grain yield bu/a | Plant lodging pct | Kernel weight 000/lb | Grain protein pct | Bushel weight lb/bu | Plant height inches |
|---|---|---|---|---|---|---|---|
| | | **2 YEAR AVERAGE** | | | | | |
| ----- | Alliance Dividend | 47.9 | 0 | 15.0 | 12.0 | 59.6 | 28 |
| ----- | Alliance Untreated | 47.4 | 0 | 14.9 | 11.9 | 59.9 | 29 |
| Quantum | 566 | 46.9 | 0 | 15.1 | 12.3 | 59.8 | 32 |
| ----- | Alliance | 46.8 | 0 | 14.6 | 12.1 | 59.5 | 28 |
| ----- | Akron | 45.3 | 2 | 15.4 | 12.3 | 59.1 | 29 |
| ----- | 2137 | 45.3 | 0 | 14.5 | 12.1 | 60.1 | 28 |
| ----- | Niobrara | 44.9 | 0 | 14.9 | 12.4 | 59.1 | 29 |
| ----- | Vista | 44.7 | 0 | 14.8 | 12.6 | 59.3 | 26 |
| ----- | Jules | 44.4 | 0 | 15.9 | 11.6 | 58.9 | 28 |
| ----- | Buckskin | 44.4 | 5 | 14.8 | 12.6 | 60.5 | 35 |
| ----- | Arapahoe | 44.2 | 0 | 15.8 | 12.5 | 59.6 | 31 |
| ----- | Windstar | 43.9 | 0 | 16.2 | 12.1 | 58.5 | 30 |
| ----- | Arapahoe Dividend | 43.6 | 0 | 16.1 | 12.9 | 59.4 | 30 |
| ----- | Nekota | 43.5 | 0 | 13.9 | 12.6 | 60.2 | 27 |
| ----- | TAM 107 | 43.5 | 0 | 13.5 | 12.7 | 58.9 | 27 |
| ----- | Pronghorn | 43.3 | 7 | 14.7 | 12.6 | 60.3 | 31 |
| ----- | NE92662 | 42.8 | 0 | 15.6 | 12.7 | 58.3 | 30 |
| ----- | Arapahoe Untreated | 42.4 | 0 | 16.4 | 13.1 | 59.2 | 30 |
| ----- | NE91631 | 42.3 | 0 | 18.1 | 11.8 | 58.6 | 32 |
| ----- | Siouxland | 42.3 | 1 | 15.5 | 12.3 | 60.1 | 33 |
| ----- | Halt | 42.2 | 0 | 16.2 | 12.8 | 58.6 | 26 |
| ----- | Scout66 | 41.5 | 29 | 14.1 | 12.9 | 60.6 | 34 |
| ----- | Centura | 41.2 | 1 | 15.6 | 12.5 | 60.1 | 31 |
| ----- | Lamar | 40.9 | 1 | 14.9 | 12.7 | 61.1 | 31 |
| ----- | Turkey | 37.8 | 28 | 15.6 | 13.1 | 59.8 | 36 |
| ----- | Jagger | 36.9 | 0 | 15.2 | 13.4 | 59.6 | 26 |
| Average all entries | | 53.5 | 3 | 11.9 | 12.4 | 59.5 | 30 |
| Dif. Req. for Sig. | 5% | NS | NS | 0.7 | 0.1 | 0.1 | 1 |
| | 25% | 1.4 | NS | 0.4 | 0.1 | 0.1 | 1 |
| | | **3 YEAR AVERAGE** | | | | | |
| ----- | Akron | 51.8 | 2 | 13.5 | 11.4 | 59.6 | 31 |
| ----- | Alliance | 51.5 | 9 | 12.8 | 11.4 | 59.8 | 31 |
| Quantum | 566 | 51.4 | 9 | 13.2 | 11.7 | 60.0 | 34 |
| ----- | Windstar | 50.3 | 4 | 14.0 | 11.3 | 59.0 | 32 |
| ----- | Niobrara | 49.9 | 5 | 12.8 | 11.7 | 59.2 | 32 |
| ----- | Vista | 49.6 | 5 | 12.7 | 12.1 | 59.5 | 28 |
| ----- | Halt | 49.4 | 5 | 14.0 | 12.0 | 59.0 | 28 |
| ----- | Jules | 49.3 | 5 | 14.0 | 10.8 | 59.0 | 31 |
| ----- | NE91631 | 48.9 | 5 | 15.5 | 11.1 | 58.9 | 35 |
| ----- | Buckskin | 48.5 | 8 | 12.8 | 12.1 | 60.7 | 38 |
| ----- | Arapahoe | 48.3 | 9 | 13.9 | 12.0 | 59.6 | 33 |
| ----- | Nekota | 47.4 | 4 | 11.9 | 12.3 | 60.6 | 29 |
| ----- | Siouxland | 47.4 | 3 | 13.6 | 11.9 | 60.2 | 36 |
| ----- | Pronghorn | 47.3 | 18 | 12.7 | 11.9 | 60.4 | 35 |
| ----- | Centura | 47.2 | 6 | 13.6 | 12.0 | 60.5 | 34 |
| ----- | TAM 107 | 47.1 | 2 | 11.4 | 12.3 | 59.3 | 29 |
| ----- | Lamar | 45.9 | 13 | 12.9 | 12.0 | 61.5 | 34 |
| ----- | Jagger | 45.2 | 7 | 13.1 | 12.6 | 60.1 | 29 |
| ----- | Scout66 | 41.1 | 32 | 12.1 | 12.3 | 60.5 | 36 |
| ----- | Turkey | 38.4 | 29 | 13.6 | 12.5 | 60.2 | 38 |
| Average all entries | | 47.8 | 9 | 13.2 | 11.9 | 59.9 | 33 |
| Dif. Req. for Sig. | 5% | 1.2 | 2 | 0.2 | 0.2 | 0.2 | 1 |
| | 25% | 0.7 | 1 | 0.1 | 0.1 | 0.1 | 1 |

# West District Winter Wheat Variety Tests 1993 - 1997 Page 2.

| Brand | Variety | Grain yield bu/a | Plant lodging pct | Kernel weight 000/lb | Grain protein pct | Bushel weight lb/bu | Plant height inches |
|---|---|---|---|---|---|---|---|
| | | **4 YEAR AVERAGE** | | | | | |
| Quantum | 566 | 50.7 | 9 | 13.6 | 12.1 | 59.8 | 33 |
| ----- | Alliance | 50.3 | 9 | 13.5 | 11.7 | 59.6 | 29 |
| ----- | Niobrara | 48.8 | 5 | 13.2 | 12.1 | 59.3 | 31 |
| ----- | Windstar | 48.8 | 4 | 14.3 | 11.8 | 59.0 | 31 |
| ----- | Vista | 48.4 | 5 | 13.2 | 12.4 | 59.4 | 27 |
| ----- | Jules | 47.4 | 5 | 14.5 | 11.2 | 58.9 | 29 |
| ----- | Buckskin | 47.1 | 8 | 13.2 | 12.5 | 60.7 | 36 |
| ----- | Halt | 46.8 | 5 | 14.3 | 12.5 | 59.1 | 27 |
| ----- | Nekota | 46.2 | 4 | 12.4 | 12.7 | 60.4 | 28 |
| ----- | Siouxland | 45.8 | 3 | 14.0 | 12.4 | 60.0 | 34 |
| ----- | Centura | 45.7 | 6 | 14.1 | 12.4 | 60.5 | 32 |
| ----- | Pronghorn | 45.6 | 18 | 13.2 | 12.4 | 60.2 | 33 |
| ----- | Arapahoe | 45.6 | 9 | 14.2 | 12.7 | 59.4 | 32 |
| ----- | TAM 107 | 45.3 | 2 | 12.1 | 12.6 | 59.2 | 28 |
| ----- | Lamar | 44.5 | 13 | 13.3 | 12.4 | 61.5 | 32 |
| ----- | Scout66 | 40.7 | 32 | 12.6 | 12.7 | 60.5 | 35 |
| ----- | Turkey | 37.7 | 29 | 13.9 | 13.0 | 60.0 | 36 |
| Average all entries | | 46.2 | 10 | 13.5 | 12.3 | 59.8 | 31 |
| Dif. Req. for Sig. | 5% | 0.9 | 1 | 0.2 | 0.1 | 0.1 | 1 |
| | 25% | 0.5 | 1 | 0.1 | 0.1 | 0.1 | 1 |
| | | **5 YEAR AVERAGE** | | | | | |
| ----- | Alliance | 51.7 | 6 | 13.5 | 11.7 | 59.4 | 30 |
| ----- | Niobrara | 50.2 | 3 | 13.1 | 12.1 | 59.2 | 32 |
| ----- | Vista | 49.5 | 3 | 13.2 | 12.4 | 59.2 | 27 |
| ----- | Jules | 48.8 | 3 | 14.3 | 11.3 | 58.9 | 30 |
| ----- | TAM 107 | 47.0 | 1 | 12.2 | 12.6 | 59.1 | 28 |
| ----- | Buckskin | 46.9 | 5 | 13.2 | 12.5 | 60.5 | 36 |
| ----- | Arapahoe | 46.6 | 6 | 14.4 | 12.8 | 59.1 | 32 |
| ----- | Nekota | 46.5 | 3 | 12.4 | 12.7 | 60.2 | 29 |
| ----- | Centura | 46.2 | 4 | 14.1 | 12.4 | 60.3 | 33 |
| ----- | Pronghorn | 46.2 | 14 | 13.3 | 12.4 | 60.0 | 34 |
| ----- | Siouxland | 45.7 | 2 | 14.2 | 12.5 | 59.6 | 35 |
| ----- | Lamar | 45.3 | 8 | 13.3 | 12.6 | 61.3 | 33 |
| ----- | Halt | 44.8 | 5 | 14.4 | 12.6 | 58.9 | 27 |
| ----- | Scout66 | 42.0 | 24 | 12.6 | 12.8 | 60.3 | 35 |
| ----- | Turkey | 38.2 | 31 | 14.0 | 13.2 | 59.7 | 36 |
| Average all entries | | 46.4 | 8 | 13.5 | 12.4 | 59.7 | 32 |
| Dif. Req. for Sig. | 5% | 0.9 | 1 | 0.2 | 0.1 | 0.1 | 1 |
| | 25% | 0.5 | 1 | 0.1 | 0.1 | 0.1 | 1 |

# February Winter Wheat Planting

| Variety | Grain yield bu/a | Bushel weight lb/bu | Plant height inches | Grain protein pct |
|---|---|---|---|---|
| Karl 92 | 15 | 52.7 | 23 | 14.0 |
| Ike | 14 | 53.4 | 25 | 13.5 |
| Halt | 13 | 49.5 | 24 | 13.5 |
| Arapahoe | 13 | 52.4 | 27 | 14.1 |
| Windstar | 12 | 51.7 | 27 | 13.3 |
| Niobrara | 11 | 50.4 | 26 | 13.4 |
| Alliance | 11 | 50.5 | 25 | 13.0 |
| Scout 66 | 9 | 53.7 | 29 | 14.0 |
| Vista | 9 | 51.1 | 25 | 13.6 |
| Buckskin | 9 | 52.8 | 29 | 14.0 |
| NE92662 | 8 | 50.7 | 26 | 13.7 |
| Average all entries | 11 | 51.7 | 26 | 13.6 |
| Dif. Req. for Sig. 5% | 2 | 0.8 | 2 | 0.6 |

Planted Feb 27, 1997

# Panhandle Irrigated Winter Wheat Variety Test
# Cheyenne County - 1997

| Brand | Variety | Grain yield bu/a | Plant lodging pct | Kernel weight 000/lb | Grain protein pct | bushel weight lb/bu | Plant height inches |
|---|---|---|---|---|---|---|---|
| Quantum | AP 7510 | 98 | 3 | 18.62 | 12.5 | 59.0 | 38 |
| ----- | Jagger | 94 | 10 | 17.12 | 13.1 | 56.9 | 39 |
| AgriPro | Coronado | 89 | 2 | 14.53 | 13.1 | 58.6 | 37 |
| ----- | N95L159 | 88 | 0 | 15.94 | 12.2 | 56.0 | 38 |
| ----- | N95L158 | 88 | 0 | 16.35 | 11.8 | 56.9 | 38 |
| ----- | 2137 | 88 | 0 | 16.34 | 11.6 | 58.8 | 39 |
| AgriPro | Laredo | 88 | 2 | 16.17 | 12.8 | 58.7 | 37 |
| Quantum | AP 7501 | 87 | 0 | 18.75 | 12.4 | 58.1 | 38 |
| ----- | Karl 92 | 84 | 3 | 16.85 | 12.6 | 58.7 | 36 |
| AgriPro | Ogallala | 83 | 0 | 19.34 | 12.8 | 59.7 | 35 |
| Quantum | XH 1706 | 82 | 8 | 19.12 | 12.1 | 55.7 | 39 |
| ----- | TAM 107 | 81 | 2 | 16.12 | 12.2 | 56.3 | 38 |
| AgriPro | Abilene | 78 | 3 | 20.66 | 12.5 | 56.2 | 37 |
| ----- | Nekota | 76 | 13 | 15.48 | 12.6 | 58.7 | 39 |
| ----- | Yuma | 76 | 10 | 19.30 | 11.7 | 54.3 | 38 |
| ----- | Niobrara | 75 | 7 | 18.89 | 12.2 | 56.5 | 39 |
| ----- | NE92662 | 74 | 22 | 17.44 | 12.1 | 56.8 | 42 |
| ----- | NE93405 | 72 | 0 | 14.57 | 12.9 | 59.4 | 42 |
| ----- | Vista | 71 | 25 | 17.16 | 12.4 | 57.8 | 39 |
| ----- | Vona | 71 | 25 | 21.07 | 12.0 | 54.5 | 40 |
| ----- | Rawhide | 70 | 33 | 19.34 | 12.5 | 56.4 | 42 |
| ----- | Halt | 70 | 34 | 21.07 | 13.3 | 53.3 | 37 |
| ----- | NE93554 | 70 | 27 | 16.98 | 12.1 | 55.7 | 39 |
| ----- | Windstar | 70 | 38 | 18.26 | 11.9 | 55.5 | 40 |
| ----- | NE93427 | 70 | 20 | 20.21 | 12.0 | 55.8 | 41 |
| ----- | Akron | 67 | 22 | 19.07 | 12.0 | 54.5 | 38 |
| ----- | Arapahoe | 64 | 58 | 20.11 | 12.5 | 56.5 | 40 |
| ----- | Jules | 64 | 40 | 14.80 | 11.8 | 55.2 | 38 |
| ----- | Alliance | 63 | 37 | 18.66 | 11.6 | 56.0 | 38 |
| Average all entries | | 78 | 15 | 17.87 | 12.3 | 56.8 | 39 |
| Dif. Req. for Sig. | 5% | 9 | 21 | 2.81 | 0.6 | 1.7 | 3 |
| | 25% | 5 | 12 | 1.61 | 0.4 | 1.0 | 2 |

# West District Irrigated Winter Wheat Variety Tests 1993 - 1997

| Brand | Variety | Grain yield bu/a | Plant lodging pct | Kernel weight 000/lb | Grain protein pct | Bushel weight lb/bu | Plant height inches |
|---|---|---|---|---|---|---|---|
| | | **2 YEAR AVERAGE** | | | | | |
| ----- | 2137 | 85.0 | 0 | 15.8 | 11.7 | 58.0 | 38 |
| Quantum | AP 7510 | 85.0 | 3 | 18.3 | 12.6 | 58.2 | 36 |
| ----- | Karl 92 | 83.5 | 3 | 15.8 | 12.6 | 59.0 | 35 |
| AgriPro | Laredo | 81.0 | 2 | 15.6 | 12.7 | 58.4 | 36 |
| ----- | TAM 107 | 80.5 | 2 | 15.2 | 12.3 | 56.8 | 37 |
| Quantum | AP 7501 | 77.5 | 0 | 19.6 | 12.8 | 56.9 | 36 |
| ----- | Yuma | 77.0 | 10 | 18.1 | 11.9 | 54.6 | 38 |
| ----- | Nekota | 75.5 | 13 | 14.8 | 12.7 | 58.7 | 38 |
| ----- | NE92662 | 73.5 | 22 | 16.3 | 12.1 | 56.8 | 42 |
| ----- | Niobrara | 73.5 | 7 | 17.2 | 12.2 | 56.4 | 41 |
| ----- | Vona | 73.0 | 25 | 20.0 | 12.2 | 54.7 | 39 |
| AgriPro | Ogallala | 73.0 | 0 | 19.8 | 13.2 | 58.6 | 34 |
| ----- | Rawhide | 72.5 | 33 | 19.0 | 12.6 | 56.4 | 42 |
| ----- | Vista | 72.0 | 25 | 16.8 | 12.5 | 57.2 | 38 |
| ----- | Halt | 71.5 | 34 | 19.4 | 13.1 | 54.2 | 37 |
| AgriPro | Abilene | 71.0 | 3 | 22.2 | 13.3 | 56.0 | 36 |
| ----- | Akron | 69.5 | 22 | 18.8 | 12.1 | 55.4 | 39 |
| ----- | Windstar | 67.5 | 38 | 18.7 | 12.3 | 54.8 | 41 |
| ----- | Alliance | 65.0 | 37 | 18.6 | 12.1 | 56.1 | 38 |
| ----- | Arapahoe | 63.5 | 58 | 19.9 | 12.8 | 55.6 | 40 |
| ----- | Jules | 58.0 | 40 | 17.5 | 12.0 | 53.2 | 38 |
| Average all entries | | 73.7 | 18 | 18.0 | 12.4 | 56.5 | 38 |
| Dif. Req. for Sig. | 5% | 5.5 | NS | 2.2 | 0.5 | 0.9 | 1 |
| | 25% | 3.1 | NS | 1.2 | 0.3 | 0.5 | 1 |
| | | **3 YEAR AVERAGE** | | | | | |
| ----- | Karl 92 | 90.7 | 5 | 14.8 | 12.5 | 60.1 | 35 |
| Quantum | AP 7501 | 88.7 | 0 | 17.9 | 12.4 | 58.7 | 36 |
| AgriPro | Laredo | 87.7 | 18 | 14.5 | 12.6 | 59.8 | 35 |
| ----- | Yuma | 86.0 | 11 | 17.0 | 11.8 | 56.7 | 38 |
| ----- | TAM 107 | 84.3 | 5 | 14.3 | 12.2 | 58.1 | 37 |
| ----- | Rawhide | 84.0 | 17 | 18.1 | 12.2 | 57.7 | 41 |
| AgriPro | Ogallala | 84.0 | 0 | 18.5 | 12.8 | 60.4 | 34 |
| ----- | Vona | 81.7 | 17 | 18.8 | 12.0 | 56.8 | 38 |
| ----- | Nekota | 81.3 | 23 | 13.9 | 12.5 | 59.6 | 37 |
| AgriPro | Abilene | 81.3 | 2 | 20.0 | 12.8 | 58.5 | 35 |
| ----- | Vista | 80.7 | 21 | 15.7 | 12.4 | 58.1 | 37 |
| ----- | Halt | 80.3 | 38 | 18.4 | 12.9 | 55.9 | 36 |
| ----- | Akron | 78.7 | 22 | 17.6 | 11.9 | 56.9 | 38 |
| ----- | Niobrara | 77.7 | 32 | 16.4 | 12.1 | 57.4 | 40 |
| ----- | Windstar | 76.0 | 43 | 17.3 | 12.1 | 56.5 | 40 |
| ----- | Alliance | 74.3 | 41 | 17.4 | 11.7 | 57.7 | 38 |
| ----- | Arapahoe | 69.3 | 61 | 18.7 | 12.6 | 57.1 | 40 |
| ----- | Jules | 69.0 | 34 | 16.9 | 11.6 | 54.8 | 38 |
| Average all entries | | 80.9 | 22 | 17.0 | 12.3 | 57.8 | 37 |
| Dif. Req. for Sig. | 5% | 3.9 | 9 | 1.5 | 0.4 | 0.7 | 1 |
| | 25% | 2.3 | 5 | 0.9 | 0.2 | 0.4 | 1 |

# West District Irrigated Winter Wheat Variety Tests 1993 - 1997

| Brand | Variety | Grain yield bu/a | Plant lodging pct | Kernel weight 000/lb | Grain protein pct | Bushel weight lb/bu | Plant height inches |
|---|---|---|---|---|---|---|---|
| | | **4 YEAR AVERAGE** | | | | | |
| ----- | Karl 92 | 89.5 | 4 | 15.2 | 13.1 | 59.9 | 34 |
| AgriPro | Laredo | 87.0 | 14 | 14.8 | 12.8 | 59.7 | 34 |
| ----- | Yuma | 86.3 | 8 | 17.2 | 12.4 | 57.1 | 36 |
| ----- | Rawhide | 84.3 | 12 | 17.9 | 12.8 | 58.1 | 40 |
| ----- | TAM 107 | 83.8 | 4 | 14.6 | 12.5 | 58.3 | 36 |
| AgriPro | Abilene | 82.0 | 1 | 19.6 | 13.2 | 58.8 | 34 |
| ----- | Vona | 81.5 | 11 | 18.8 | 12.4 | 57.3 | 36 |
| ----- | Halt | 80.5 | 26 | 17.5 | 13.3 | 56.1 | 35 |
| ----- | Nekota | 80.5 | 17 | 14.3 | 13.0 | 59.5 | 36 |
| ----- | Vista | 79.8 | 16 | 15.7 | 12.6 | 57.9 | 35 |
| ----- | Windstar | 77.5 | 29 | 17.0 | 12.5 | 56.8 | 37 |
| ----- | Niobrara | 76.8 | 23 | 16.3 | 12.4 | 57.3 | 39 |
| ----- | Alliance | 74.0 | 30 | 17.7 | 12.2 | 57.5 | 36 |
| ----- | Arapahoe | 72.3 | 41 | 18.0 | 13.0 | 57.6 | 39 |
| Average all entries | | 81.1 | 17 | 16.7 | 12.7 | 58.0 | 36 |
| Dif. Req. for Sig. | 5% | 2.7 | NS | 1.2 | 0.3 | 0.6 | 1 |
| | 25% | 1.5 | 5 | 0.7 | 0.2 | 0.3 | 1 |
| | | **5 YEAR AVERAGE** | | | | | |
| ----- | Yuma | 76.0 | 8 | 16.7 | 12.5 | 57.3 | 33 |
| AgriPro | Laredo | 75.0 | 14 | 14.4 | 13.0 | 59.3 | 31 |
| ----- | Rawhide | 73.4 | 12 | 17.7 | 12.9 | 58.1 | 36 |
| ----- | TAM 107 | 73.0 | 4 | 14.5 | 12.7 | 58.0 | 33 |
| ----- | Nekota | 72.8 | 17 | 14.2 | 12.8 | 59.6 | 34 |
| AgriPro | Abilene | 72.6 | 1 | 19.1 | 13.3 | 59.0 | 32 |
| ----- | Vista | 71.6 | 16 | 15.4 | 12.7 | 57.8 | 33 |
| ----- | Alliance | 66.0 | 30 | 17.2 | 12.3 | 57.7 | 34 |
| ----- | Arapahoe | 65.2 | 41 | 17.6 | 13.1 | 57.3 | 36 |
| Average all entries | | 71.7 | 16 | 16.3 | 12.8 | 58.2 | 34 |
| Dif. Req. for Sig. | 5% | NS | NS | 1.0 | 0.4 | 0.5 | 1 |
| | 25% | 1.8 | 4 | 0.6 | 0.2 | 0.3 | 1 |

# Yield in bu/a of wheat varieties at all locations in Nebraska

| Brand | Variety | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | Avg. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ----- | 2137 | 59.8 | 41.5 | 55.5 | 61.0 | 35.6 | 55.4 | 61.8 | 54.8 | 55.2 | 62.2 | 36.3 | 35.8 | 50.3 | 37.7 | 87.7 | 52.7 |
| ----- | 2163 | 56.8 | 33.0 | 59.0 | 62.8 | . | . | . | . | . | . | . | . | . | . | . | 52.9 |
| ----- | Akron | . | . | . | . | 31.4 | 56.6 | 56.6 | 45.8 | 51.8 | 61.4 | 36.5 | 35.2 | 46.5 | 33.5 | 67.0 | 47.5 |
| ----- | Alliance | 53.8 | 40.3 | 57.7 | 62.3 | 34.2 | 55.0 | 63.4 | 55.2 | 52.2 | 66.6 | 43.2 | 35.8 | 43.3 | 33.2 | 63.4 | 50.6 |
| ----- | Alliance Dividend | 50.8 | . | 56.5 | . | 37.6 | 61.2 | 68.2 | 52.2 | 57.4 | 73.0 | 41.2 | 37.7 | 49.3 | 34.3 | . | 51.6 |
| ----- | Alliance Untreated | 49.4 | . | 56.8 | . | 36.6 | 56.6 | 65.8 | 58.4 | 58.0 | 67.0 | 41.5 | 37.2 | 41.0 | 35.0 | . | 50.3 |
| ----- | Arapahoe | 51.8 | 44.8 | 59.0 | 55.8 | 32.6 | 52.0 | 55.6 | 55.6 | 52.8 | 61.8 | 38.5 | 35.0 | 39.5 | 34.7 | 63.8 | 48.9 |
| ----- | Arapahoe Dividend | 52.6 | . | 59.3 | . | 33.8 | 52.0 | 58.0 | 52.4 | 57.5 | 68.6 | 35.2 | 34.2 | 44.3 | 33.7 | . | 48.5 |
| ----- | Arapahoe Untreated | 50.0 | . | 58.5 | . | 34.0 | 56.2 | 58.0 | 51.4 | 55.8 | 63.6 | 34.8 | 35.3 | 41.0 | 31.3 | . | 47.5 |
| ----- | Buckskin | . | . | . | . | . | . | . | . | . | . | 42.7 | 30.0 | 45.0 | 34.5 | . | 38.1 |
| ----- | Centura | . | . | . | . | . | . | . | . | . | . | 37.2 | 30.5 | 37.0 | 26.2 | . | 32.7 |
| ----- | Halt | . | . | . | . | 31.8 | 52.6 | 58.0 | 45.4 | 44.7 | 62.0 | 36.7 | 34.2 | 37.3 | 28.3 | 69.8 | 50.1 |
| ----- | Ike | 53.6 | 42.0 | 44.5 | 57.0 | 29.2 | 46.0 | 53.2 | 50.6 | 45.5 | 52.4 | . | . | . | . | . | 47.4 |
| ----- | Jagger | 55.0 | 42.0 | 60.3 | 68.0 | 27.2 | 57.8 | 62.4 | 57.0 | 51.7 | 61.0 | 24.3 | 32.8 | 38.3 | 20.8 | 94.2 | 50.2 |
| ----- | Jules | . | . | . | . | 45.4 | 60.4 | 67.8 | 48.2 | 53.2 | 72.8 | 39.0 | 26.2 | 43.3 | 37.8 | 64.0 | 50.7 |
| ----- | Karl 92 | 52.4 | 38.8 | 47.5 | 62.5 | 31.0 | 43.4 | 50.6 | 40.2 | 45.0 | 48.2 | . | . | . | . | 83.7 | 49.4 |
| ----- | Lamar | . | . | . | . | 30.6 | 54.0 | 59.2 | 57.2 | 43.0 | 59.8 | 37.8 | 31.7 | 32.3 | 30.6 | . | 43.6 |
| ----- | Lamar RWA 31 | . | . | . | . | . | . | . | . | . | . | 34.2 | 29.7 | 33.8 | 27.8 | . | 31.4 |
| ----- | Lamar RWA 32 | . | . | . | . | . | . | . | . | . | . | 34.3 | 30.3 | 38.5 | 35.6 | . | 34.7 |
| ----- | Lancer | . | . | . | . | . | . | . | . | . | . | 35.3 | 31.7 | 42.3 | 32.2 | . | 35.4 |
| ----- | N95L158 | 58.6 | . | . | . | . | . | . | . | . | . | . | . | . | . | 88.0 | 73.3 |
| ----- | N95L159 | 55.0 | 43.0 | 57.3 | 64.5 | 29.8 | 52.0 | 55.8 | 50.8 | 54.6 | 56.2 | . | . | . | . | 87.7 | 55.2 |
| ----- | N95L164 | 56.0 | 41.8 | . | 56.5 | . | . | . | . | . | 71.4 | . | . | . | . | . | 56.4 |
| ----- | NE91518 (purple | . | . | . | . | . | . | . | . | . | . | 33.2 | 35.3 | 44.5 | 28.8 | . | 35.5 |
| ----- | NE91631 | . | . | . | . | . | . | . | . | . | . | 36.8 | 31.8 | 36.5 | 28.8 | . | 33.5 |
| ----- | NE92458 | 51.2 | 40.3 | 50.3 | 59.3 | 22.0 | 53.2 | 65.0 | 48.4 | 44.7 | 55.2 | . | . | . | . | . | 49.0 |
| ----- | NE92662 | 55.0 | 40.8 | 60.3 | 53.3 | 31.6 | 53.8 | 62.6 | 51.6 | 53.3 | 64.4 | 33.8 | 34.0 | 39.5 | 28.3 | 74.3 | 49.1 |
| ----- | NE93405 | 50.8 | 47.3 | 57.3 | 59.3 | 29.6 | 47.6 | 52.8 | 50.0 | 49.7 | 59.4 | 33.0 | 31.5 | 39.0 | 29.8 | 71.8 | 47.3 |
| ----- | NE93427 | 58.8 | 42.3 | 58.8 | 63.0 | 23.8 | 46.5 | 58.4 | 52.0 | 50.0 | 59.0 | 32.7 | 33.8 | 40.0 | 24.0 | 70.2 | 47.6 |
| ----- | NE93496 | . | . | . | . | 31.0 | 50.2 | 54.2 | 52.4 | 53.3 | 69.0 | . | . | . | . | . | 51.7 |
| ----- | NE93554 | 53.2 | 41.5 | 65.5 | 63.8 | 39.2 | 56.6 | 59.8 | 53.2 | 55.2 | 65.0 | 33.7 | 36.2 | 41.5 | 26.7 | 70.0 | 50.7 |
| ----- | NE93613 | . | . | . | . | . | . | . | . | . | . | 36.3 | 31.0 | 36.3 | 28.3 | . | 33.0 |
| ----- | NE93669 | . | . | . | . | . | . | . | . | . | . | 33.3 | 36.0 | 38.8 | 23.0 | . | 32.8 |
| ----- | Nekota | 59.2 | 44.3 | 63.0 | 57.0 | 27.8 | 53.0 | 57.4 | 48.4 | 52.0 | 66.4 | 35.8 | 31.5 | 46.3 | 32.0 | 76.0 | 50.0 |
| ----- | Niobrara | 51.8 | 44.8 | 51.5 | 50.5 | 35.4 | 49.6 | 66.8 | 52.6 | 49.3 | 64.0 | 36.8 | 35.0 | 43.8 | 32.5 | 75.4 | 49.3 |
| ----- | Pronghorn | 48.8 | 44.5 | 51.5 | 51.3 | 29.8 | 55.8 | 65.4 | 57.2 | 52.8 | 70.2 | 36.2 | 33.3 | 43.0 | 31.7 | . | 48.0 |
| ----- | Rawhide | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 70.3 | 70.3 |
| ----- | SD89119 | . | . | . | . | . | . | . | . | . | . | 35.0 | 33.0 | 42.5 | 30.5 | . | 35.3 |
| ----- | SD92107 | . | . | . | . | . | . | . | . | . | . | 33.8 | 31.3 | 39.3 | 37.7 | . | 35.5 |
| ----- | SD92191 | . | . | . | . | . | . | . | . | . | . | 30.0 | 28.3 | 37.3 | 26.5 | . | 30.5 |
| ----- | Scout66 | 40.6 | 40.5 | 47.0 | 47.3 | 26.4 | 46.4 | 57.4 | 41.6 | 44.7 | 62.0 | 35.0 | 33.3 | 39.0 | 32.5 | . | 42.4 |
| ----- | Siouxland | . | . | . | . | . | . | . | . | . | . | 36.7 | 33.5 | 40.5 | 34.4 | . | 36.3 |
| ----- | TAM 107 | . | . | . | . | 30.8 | 51.6 | 55.6 | 47.4 | 44.5 | 49.2 | 41.2 | 33.7 | 44.5 | 30.0 | 80.6 | 50.9 |
| ----- | Turkey | 35.8 | 38.3 | 41.3 | 37.0 | 25.8 | 38.8 | 52.0 | 44.6 | 45.7 | 58.2 | 32.0 | 27.2 | 35.8 | 29.3 | . | 38.7 |
| ----- | Vista | 52.6 | 43.8 | 54.3 | 55.8 | 36.8 | 48.6 | 55.2 | 48.2 | 47.0 | 59.6 | 39.0 | 32.5 | 47.3 | 26.7 | 70.6 | 47.9 |
| ----- | Vona | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 71.2 | 71.2 |
| ----- | Windstar | 55.2 | 41.5 | 60.5 | 52.5 | 33.4 | 53.8 | 65.2 | 54.8 | 60.7 | 65.2 | 37.5 | 35.0 | 45.8 | 28.7 | 69.5 | 50.6 |
| ----- | Yuma | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 76.3 | 76.3 |
| AgriPro | Abilene | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 77.8 | 77.8 |
| AgriPro | Big Dawg | 53.6 | 36.5 | 54.3 | 50.8 | . | . | . | . | . | . | . | . | . | . | . | 48.8 |
| AgriPro | Coronado | 54.4 | 35.8 | 55.3 | 65.3 | 26.8 | 50.0 | 59.0 | 52.6 | 47.2 | 56.8 | . | . | . | . | 89.2 | 53.9 |
| AgriPro | Laredo | . | . | . | . | 31.0 | 46.0 | 61.8 | 54.6 | 55.5 | 53.4 | . | . | . | . | 87.7 | 55.7 |
| AgriPro | Ogallala | . | . | 55.8 | 57.0 | 27.6 | 50.8 | 55.2 | 47.6 | 44.5 | 60.0 | . | . | . | . | 82.8 | 53.5 |
| AgriPro | Tomahawk | . | . | 59.0 | 63.0 | 24.8 | 52.0 | 56.4 | 49.8 | 50.2 | 55.6 | . | . | . | . | . | 51.4 |
| Polansky | Dominator | 58.6 | 41.3 | 48.5 | 64.5 | . | . | . | . | . | . | . | . | . | . | . | 53.2 |
| Quantum | 566 | . | . | . | . | 38.6 | 60.0 | 68.6 | 61.4 | 63.3 | 75.8 | 39.3 | 38.0 | 42.5 | 35.8 | . | 52.3 |
| Quantum | AP 7501 | . | . | . | . | 34.0 | 53.0 | 58.0 | 49.8 | 53.5 | 57.2 | 31.8 | 33.5 | 43.5 | 29.8 | 86.7 | 48.3 |
| Quantum | AP 7510 | . | . | . | . | 31.0 | 54.8 | 63.0 | 56.2 | 55.0 | 65.2 | 33.8 | 35.0 | 42.0 | 28.0 | 97.6 | 51.1 |
| Quantum | XH 1706 | . | . | . | . | 40.2 | 65.4 | 65.4 | 62.8 | 61.0 | 77.0 | 39.7 | 34.0 | 41.3 | 31.0 | 81.7 | 54.5 |
| Star Brand | Champ | . | . | 59.0 | 59.3 | . | . | . | . | . | . | . | . | . | . | . | 59.2 |

1=Gage, 2=Saunders, 3=Clay, 4=Thayer, 5=Keith, 6=Perkins, 7=Hitchcock, 8=Furnas, 9=Custer, 10=Lincoln, 11=Scotts Bluff, 12=Sioux, 13=Box Butte, 14=Morrill-Banner, 15=Cheyenne Irrigated.

# Yield in % of Alliance, Arapahoe and Windstar of wheat varieties at all locations in Nebraska

| Brand | Variety | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | Avg. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ----- | 2137 | 112 | 98 | 94 | 107 | 107 | 103 | 101 | 99 | 100 | 96 | 91 | 102 | 117 | 117 | 134 | 105 |
| ----- | 2163 | 106 | 78 | 100 | 110 | . | . | . | . | . | . | . | . | . | . | . | 99 |
| ----- | Akron | . | . | . | . | 94 | 106 | 92 | 83 | 94 | 95 | 92 | 100 | 108 | 104 | 102 | 97 |
| ----- | Alliance | 100 | 95 | 98 | 110 | 102 | 103 | 103 | 100 | 95 | 103 | 109 | 102 | 101 | 103 | 97 | 101 |
| ----- | Alliance Dividend | 95 | . | 96 | . | 113 | 114 | 111 | 95 | 104 | 113 | 104 | 107 | 115 | 107 | . | 106 |
| ----- | Alliance Untreated | 92 | . | 96 | . | 110 | 106 | 107 | 106 | 105 | 104 | 104 | 105 | 96 | 109 | . | 103 |
| ----- | Arapahoe | 97 | 106 | 100 | 98 | 98 | 97 | 91 | 101 | 96 | 96 | 97 | 99 | 92 | 108 | 97 | 98 |
| ----- | Arapahoe Dividend | 98 | . | 100 | . | 101 | 97 | 94 | 95 | 104 | 106 | 89 | 97 | 103 | 105 | . | 99 |
| ----- | Arapahoe Untreated | 93 | . | 99 | . | 102 | 105 | 94 | 93 | 101 | 99 | 88 | 100 | 96 | 97 | . | 97 |
| ----- | Buckskin | 0 | . | . | . | . | . | . | . | . | . | 107 | 85 | 105 | 107 | . | 101 |
| ----- | Centura | 0 | . | . | . | . | . | . | . | . | . | 94 | 86 | 86 | 81 | . | 87 |
| ----- | Halt | 0 | . | . | . | 95 | 98 | 94 | 82 | 81 | 96 | 92 | 97 | 87 | 88 | 106 | 102 |
| ----- | Ike | 100 | 100 | 75 | 100 | 87 | 86 | 87 | 92 | 82 | 81 | . | . | . | . | . | 89 |
| ----- | Jagger | 103 | 100 | 102 | 120 | 81 | 108 | 102 | 103 | 94 | 95 | 61 | 93 | 89 | 65 | 144 | 97 |
| ----- | Jules | . | . | . | . | 136 | 113 | 110 | 87 | 96 | 113 | 98 | 74 | 101 | 117 | 98 | 104 |
| ----- | Karl 92 | 98 | 92 | 80 | 110 | 93 | 81 | 82 | 73 | 81 | 75 | . | . | . | . | 128 | 90 |
| ----- | Lamar | . | . | . | . | 92 | 101 | 96 | 104 | 78 | 93 | 95 | 90 | 75 | 95 | . | 92 |
| ----- | Lamar RWA 31 | . | . | . | . | . | . | . | . | . | . | 86 | 84 | 79 | 86 | . | 84 |
| ----- | Lamar RWA 32 | . | . | . | . | . | . | . | . | . | . | 86 | 86 | 90 | 111 | . | 93 |
| ----- | Lancer | . | . | . | . | . | . | . | . | . | . | 89 | 90 | 99 | 100 | . | 94 |
| ----- | N95L158 | 109 | . | . | . | . | . | . | . | . | . | . | . | . | . | 134 | 122 |
| ----- | N95L159 | 103 | 102 | 97 | 113 | 89 | 97 | 91 | 92 | 99 | 87 | . | . | . | . | 134 | 100 |
| ----- | N95L164 | 104 | 99 | . | 99 | . | . | . | . | . | 111 | . | . | . | . | . | 103 |
| ----- | NE91518 (purple | . | . | . | . | . | . | . | . | . | . | 84 | 100 | 104 | 89 | . | 94 |
| ----- | NE91631 | . | . | . | . | . | . | . | . | . | . | 93 | 90 | 85 | 89 | . | 89 |
| ----- | NE92458 | 96 | 95 | 85 | 104 | 66 | 99 | 106 | 88 | 81 | 86 | . | . | . | . | . | 91 |
| ----- | NE92662 | 103 | 97 | 102 | 94 | 95 | 100 | 102 | 93 | 96 | 100 | 85 | 96 | 92 | 88 | 113 | 97 |
| ----- | NE93405 | 95 | 112 | 97 | 104 | 89 | 89 | 86 | 91 | 90 | 92 | 83 | 89 | 91 | 93 | 110 | 94 |
| ----- | NE93427 | 110 | 100 | 100 | 111 | 71 | 87 | 95 | 94 | 91 | 91 | 82 | 96 | 93 | 75 | 107 | 94 |
| ----- | NE93496 | . | . | . | . | 93 | 94 | 88 | 95 | 96 | 107 | . | . | . | . | . | 96 |
| ----- | NE93554 | 99 | 98 | 111 | 112 | 117 | 106 | 97 | 96 | 100 | 101 | 85 | 103 | 97 | 83 | 107 | 101 |
| ----- | NE93613 | . | . | . | . | . | . | . | . | . | . | 91 | 88 | 85 | 88 | . | 88 |
| ----- | NE93669 | . | . | . | . | . | . | . | . | . | . | 84 | 102 | 91 | 71 | . | 87 |
| ----- | Nekota | 110 | 105 | 107 | 100 | 83 | 99 | 93 | 88 | 94 | 103 | 90 | 89 | 108 | 99 | 116 | 99 |
| ----- | Niobrara | 97 | 106 | 87 | 89 | 106 | 93 | 109 | 95 | 89 | 99 | 93 | 99 | 102 | 101 | 115 | 99 |
| ----- | Pronghorn | 91 | 105 | 87 | 90 | 89 | 104 | 107 | 104 | 96 | 109 | 91 | 94 | 100 | 98 | . | 98 |
| ----- | Rawhide | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 107 | 107 |
| ----- | SD89119 | . | . | . | . | . | . | . | . | . | . | 88 | 94 | 99 | 95 | . | 94 |
| ----- | SD92107 | . | . | . | . | . | . | . | . | . | . | 85 | 89 | 92 | 117 | . | 96 |
| ----- | SD92191 | . | . | . | . | . | . | . | . | . | . | 76 | 80 | 87 | 82 | . | 81 |
| ----- | Scout66 | 76 | 96 | 80 | 83 | 79 | 87 | 93 | 75 | 81 | 96 | 88 | 94 | 91 | 101 | . | 87 |
| ----- | Siouxland | . | . | . | . | . | . | . | . | . | . | 92 | 95 | 94 | 107 | . | 97 |
| ----- | TAM 107 | . | . | . | . | 92 | 96 | 91 | 86 | 81 | 76 | 104 | 96 | 104 | 93 | 123 | 104 |
| ----- | Turkey | 67 | 91 | 70 | 65 | 77 | 72 | 85 | 81 | 83 | 90 | 81 | 77 | 84 | 91 | . | 79 |
| ----- | Vista | 98 | 104 | 92 | 98 | 110 | 91 | 90 | 87 | 85 | 92 | 98 | 92 | 110 | 83 | 108 | 96 |
| ----- | Vona | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 109 | 109 |
| ----- | Windstar | 103 | 98 | 102 | 92 | 100 | 100 | 106 | 99 | 110 | 101 | 94 | 99 | 107 | 89 | 106 | 101 |
| ----- | Yuma | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 116 | 116 |
| AgriPro | Abilene | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 119 | 119 |
| AgriPro | Big Dawg | 100 | 86 | 92 | 89 | . | . | . | . | . | . | . | . | . | . | . | 92 |
| AgriPro | Coronado | 101 | 85 | 94 | 115 | 80 | 93 | 96 | 95 | 85 | 88 | . | . | . | . | 136 | 97 |
| AgriPro | Laredo | . | . | . | . | 93 | 86 | 101 | 99 | 100 | 83 | . | . | . | . | 134 | 99 |
| AgriPro | Ogallala | . | . | 94 | 100 | 83 | 95 | 90 | 86 | 81 | 93 | . | . | . | . | 126 | 94 |
| AgriPro | Tomahawk | . | . | 100 | 111 | 74 | 97 | 92 | 90 | 91 | 86 | . | . | . | . | . | 93 |
| Polansky | Dominator | 109 | 98 | 82 | 113 | . | . | . | . | . | . | . | . | . | . | . | 101 |
| Quantum | 566 | . | . | . | . | 116 | 112 | 112 | 111 | 115 | 117 | 99 | 108 | 99 | 111 | . | 110 |
| Quantum | AP 7501 | . | . | . | . | 102 | 99 | 94 | 90 | 97 | 89 | 80 | 95 | 101 | 93 | 132 | 97 |
| Quantum | AP 7510 | . | . | . | . | 93 | 102 | 103 | 102 | 100 | 101 | 85 | 99 | 98 | 87 | 149 | 102 |
| Quantum | XH 1706 | . | . | . | . | 120 | 122 | 107 | 114 | 110 | 119 | 100 | 96 | 96 | 96 | 125 | 110 |
| Star Brand | Champ | . | . | 100 | 104 | . | . | . | . | . | . | . | . | . | . | . | 102 |

1=Gage, 2=Saunders, 3=Clay, 4=Thayer, 5=Keith, 6=Perkins, 7=Hitchcock, 8=Furnas, 9=Custer, 10=Lincoln, 11=Scotts Bluff, 12=Sioux, 13=Box Butte, 14=Morrill-Banner, 15=Cheyenne Irrigated.

# Bushel weight in lb/bu of wheat varieties at all locations in Nebraska

| Brand | Variety | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | Avg. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ----- | 2137 | 58.9 | 57.4 | 61.9 | 58.5 | 60.1 | 59.9 | 60.0 | 59.3 | 60.1 | 61.5 | 58.8 | 59.9 | 57.7 | 60.1 | 58.8 | 59.5 |
| ----- | 2163 | 56.6 | 53.0 | 61.4 | 56.1 | . | . | . | . | . | . | . | . | . | . | . | 56.8 |
| ----- | Akron | . | . | . | . | 60.1 | 60.6 | 61.7 | 59.7 | 60.9 | 61.3 | 58.5 | 59.5 | 57.5 | 58.9 | 54.5 | 59.4 |
| ----- | Alliance | 57.1 | 56.3 | 59.0 | 57.2 | 57.8 | 57.9 | 58.7 | 56.8 | 57.5 | 60.2 | 58.2 | 58.7 | 58.3 | 60.1 | 56.0 | 58.0 |
| ----- | Alliance Dividend | 57.2 | . | 59.2 | . | 58.0 | 58.9 | 60.4 | 57.4 | 57.8 | 61.0 | 58.0 | 59.5 | 56.7 | 60.4 | . | 58.7 |
| ----- | Alliance Untreated | 56.6 | . | 59.4 | . | 59.0 | 59.2 | 59.4 | 57.7 | 56.0 | 60.6 | 58.2 | 59.6 | 58.3 | 60.8 | . | 58.7 |
| ----- | Arapahoe | 57.1 | 58.8 | 61.5 | 58.1 | 56.5 | 58.3 | 60.0 | 59.0 | 59.9 | 61.0 | 57.6 | 58.4 | 59.7 | 59.9 | 56.5 | 58.8 |
| ----- | Arapahoe Dividend | 57.2 | . | 61.8 | . | 57.3 | 58.9 | 60.0 | 58.7 | 60.1 | 59.6 | 57.5 | 59.1 | 57.2 | 60.1 | . | 59.0 |
| ----- | Arapahoe Untreated | 57.2 | . | 61.4 | . | 57.5 | 58.1 | 60.5 | 58.4 | 59.1 | 61.5 | 57.5 | 58.9 | 56.2 | 59.7 | . | 58.8 |
| ----- | Buckskin | . | . | . | . | . | . | . | . | . | . | 59.3 | 59.8 | 58.8 | 60.7 | . | 59.7 |
| ----- | Centura | . | . | . | . | . | . | . | . | . | . | 59.4 | 59.2 | 56.6 | 59.5 | . | 58.7 |
| ----- | Halt | . | . | . | . | 54.6 | 58.7 | 59.9 | 56.4 | 57.4 | 59.9 | 58.3 | 58.7 | 55.8 | 57.9 | 53.3 | 63.1 |
| ----- | Ike | 59.3 | 58.8 | 61.7 | 59.8 | 58.1 | 58.2 | 60.0 | 59.5 | 60.7 | 59.7 | . | . | . | . | . | 59.6 |
| ----- | Jagger | 57.7 | 56.2 | 61.7 | 58.8 | 59.1 | 61.1 | 60.8 | 60.8 | 59.3 | 61.0 | 57.6 | 59.9 | 59.0 | 57.0 | 56.9 | 59.1 |
| ----- | Jules | . | . | . | . | 60.6 | 60.3 | 58.7 | 57.2 | 59.2 | 61.7 | 58.0 | 55.6 | 57.8 | 60.2 | 55.2 | 58.6 |
| ----- | Karl 92 | 57.8 | 58.5 | 62.5 | 59.4 | 59.1 | 61.3 | 59.2 | 58.7 | 59.6 | 60.0 | . | . | . | . | 58.7 | 59.5 |
| ----- | Lamar | . | . | . | . | 58.3 | 59.2 | 61.9 | 59.3 | 59.8 | 62.3 | 59.8 | 59.7 | 58.6 | 60.6 | . | 60.0 |
| ----- | Lamar RWA 31 | . | . | . | . | . | . | . | . | . | . | 59.0 | 60.1 | 61.7 | 59.5 | . | 60.1 |
| ----- | Lamar RWA 32 | . | . | . | . | . | . | . | . | . | . | 59.6 | 61.0 | 59.2 | 60.5 | . | 60.1 |
| ----- | Lancer | . | . | . | . | . | . | . | . | . | . | 59.3 | 60.8 | 56.8 | 61.1 | . | 59.5 |
| ----- | N95L158 | 57.0 | . | . | . | . | . | . | . | . | . | . | . | . | . | 56.9 | 57.0 |
| ----- | N95L159 | 56.1 | 56.0 | 60.6 | 58.3 | 59.2 | 58.7 | 59.7 | 58.4 | 59.1 | 61.4 | . | . | . | . | 56.0 | 58.5 |
| ----- | N95L164 | 57.6 | 58.8 | . | 58.4 | . | . | . | . | . | 60.8 | . | . | . | . | . | 58.9 |
| ----- | NE91518 (purple | . | . | . | . | . | . | . | . | . | . | 57.6 | 58.6 | 57.2 | 57.6 | . | 57.8 |
| ----- | NE91631 | . | . | . | . | . | . | . | . | . | . | 56.3 | 57.7 | 60.5 | 58.0 | . | 58.1 |
| ----- | NE92458 | 59.0 | 57.9 | 63.4 | 60.9 | 57.6 | 59.8 | 61.1 | 59.4 | 59.8 | 60.8 | . | . | . | . | . | 60.0 |
| ----- | NE92662 | 56.0 | 58.7 | 61.1 | 56.5 | 59.7 | 58.8 | 59.9 | 57.5 | 59.4 | 60.7 | 57.9 | 57.9 | 55.3 | 58.8 | 56.8 | 58.3 |
| ----- | NE93405 | 59.0 | 60.5 | 62.7 | 59.9 | 56.5 | 59.4 | 61.1 | 59.7 | 61.5 | 61.1 | 59.3 | 61.2 | 59.2 | 59.9 | 59.4 | 60.0 |
| ----- | NE93427 | 60.6 | 60.0 | 64.0 | 60.5 | 59.3 | 60.2 | 61.7 | 61.1 | 62.4 | 61.9 | 59.8 | 61.3 | 59.6 | 60.5 | 55.8 | 60.6 |
| ----- | NE93496 | . | . | . | . | 58.9 | 60.2 | 61.0 | 59.9 | 62.2 | 63.2 | . | . | . | . | . | 60.9 |
| ----- | NE93554 | 58.2 | 57.7 | 60.1 | 58.2 | 57.7 | 59.2 | 59.1 | 58.9 | 59.7 | 60.1 | 58.4 | 58.7 | 54.4 | 58.7 | 55.7 | 58.3 |
| ----- | NE93613 | . | . | . | . | . | . | . | . | . | . | 56.3 | 57.3 | 58.6 | 59.1 | . | 57.8 |
| ----- | NE93669 | . | . | . | . | . | . | . | . | . | . | 57.7 | 58.7 | 56.5 | 58.2 | . | 57.8 |
| ----- | Nekota | 59.0 | 59.3 | 62.0 | 58.8 | 57.8 | 60.7 | 60.6 | 58.9 | 59.9 | 61.2 | 58.5 | 60.3 | 59.0 | 60.2 | 58.7 | 59.7 |
| ----- | Niobrara | 57.4 | 57.5 | 59.9 | 58.0 | 54.9 | 60.2 | 60.5 | 57.7 | 59.2 | 60.9 | 58.2 | 57.9 | 58.0 | 59.0 | 56.5 | 58.4 |
| ----- | Pronghorn | 59.0 | 58.3 | 61.8 | 60.4 | 58.8 | 60.2 | 61.8 | 59.6 | 61.2 | 61.1 | 58.6 | 60.2 | 59.8 | 60.2 | . | 60.1 |
| ----- | Rawhide | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 56.4 | 56.4 |
| ----- | SD89119 | . | . | . | . | . | . | . | . | . | . | 59.9 | 60.6 | 61.0 | 61.0 | . | 60.6 |
| ----- | SD92107 | . | . | . | . | . | . | . | . | . | . | 57.6 | 58.2 | 59.3 | 59.6 | . | 58.7 |
| ----- | SD92191 | . | . | . | . | . | . | . | . | . | . | 60.0 | 58.7 | 60.1 | 60.2 | . | 59.8 |
| ----- | Scout66 | 58.6 | 59.7 | 61.4 | 60.9 | 58.9 | 60.2 | 61.7 | 60.5 | 59.9 | 61.6 | 59.7 | 60.8 | 59.3 | 60.5 | . | 60.3 |
| ----- | Siouxland | . | . | . | . | . | . | . | . | . | . | 58.4 | 59.6 | 60.2 | 59.9 | . | 59.5 |
| ----- | TAM 107 | . | . | . | . | 56.5 | 58.8 | 59.2 | 57.9 | 58.9 | 59.3 | 58.7 | 57.9 | 57.3 | 58.4 | 56.3 | 63.9 |
| ----- | Turkey | 56.7 | 58.3 | 60.0 | 59.3 | 58.2 | 58.7 | 60.9 | 58.6 | 59.8 | 62.4 | 58.4 | 59.2 | 59.2 | 59.9 | . | 59.3 |
| ----- | Vista | 56.9 | 58.1 | 60.6 | 57.4 | 58.4 | 58.3 | 60.0 | 57.7 | 59.5 | 60.0 | 58.1 | 58.0 | 58.1 | 58.8 | 57.8 | 58.5 |
| ----- | Vona | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 54.5 | 54.5 |
| ----- | Windstar | 54.9 | 57.3 | 61.4 | 57.8 | 56.8 | 58.5 | 60.0 | 58.9 | 61.0 | 63.5 | 57.6 | 57.9 | 56.4 | 59.8 | 55.5 | 58.5 |
| ----- | Yuma | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 54.3 | 54.3 |
| AgriPro | Abilene | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 56.2 | 56.2 |
| AgriPro | Big Dawg | 58.3 | 56.5 | 60.0 | 59.5 | . | . | . | . | . | . | . | . | . | . | . | 58.6 |
| AgriPro | Coronado | 58.1 | 58.1 | 62.2 | 59.9 | 54.7 | 60.3 | 60.9 | 59.9 | 57.5 | 60.7 | . | . | . | . | 58.6 | 59.2 |
| AgriPro | Laredo | . | . | . | . | 60.1 | 58.3 | 60.1 | 60.1 | 60.6 | 61.2 | . | . | . | . | 58.7 | 59.9 |
| AgriPro | Ogallala | . | . | 63.2 | 60.5 | 59.3 | 62.2 | 62.3 | 61.8 | 60.3 | 60.7 | . | . | . | . | 59.7 | 61.1 |
| AgriPro | Tomahawk | . | . | 61.8 | 58.9 | 55.2 | 60.3 | 59.6 | 58.8 | 61.1 | 61.5 | . | . | . | . | . | 59.7 |
| Polansky | Dominator | 59.3 | 59.2 | 62.7 | 60.5 | . | . | . | . | . | . | . | . | . | . | . | 60.4 |
| Quantum | 566 | . | . | . | . | 57.2 | 58.7 | 61.3 | 59.3 | 59.7 | 60.4 | 58.0 | 59.4 | 59.9 | 60.1 | . | 59.4 |
| Quantum | AP 7501 | . | . | . | . | 58.6 | 59.1 | 61.6 | 59.1 | 61.2 | 63.2 | 58.4 | 59.9 | 58.2 | 59.3 | 58.1 | 59.7 |
| Quantum | AP 7510 | . | . | . | . | 59.7 | 59.9 | 63.0 | 59.2 | 61.5 | 63.9 | 59.1 | 59.8 | 59.1 | 60.3 | 59.0 | 60.4 |
| Quantum | XH 1706 | . | . | . | . | 59.7 | 60.3 | 61.3 | 58.2 | 61.7 | 62.1 | 58.8 | 58.7 | 55.0 | 60.4 | 55.7 | 59.3 |
| Star Brand | Champ | . | . | 62.1 | 58.3 | . | . | . | . | . | . | . | . | . | . | . | 60.2 |

1=Gage, 2=Saunders, 3=Clay, 4=Thayer, 5=Keith, 6=Perkins, 7=Hitchcock, 8=Furnas, 9=Custer, 10=Lincoln, 11=Scotts Bluff, 12=Sioux, 13=Box Butte, 14=Morrill-Banner, 15=Cheyenne Irrigated.

# Protein content of wheat varieties at all locations in Nebraska

| Brand | Variety | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | Avg. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ----- | 2137 | 12.6 | 13.7 | 12.8 | 13.2 | 12.7 | 12.7 | 11.4 | 10.9 | 11.3 | 12.8 | 9.7 | 11.1 | 11.5 | 12.3 | 11.6 | 12.0 |
| ----- | 2163 | 13.2 | 14.2 | 12.7 | 13.2 | . | . | . | . | . | . | . | . | . | . | . | 13.3 |
| ----- | Akron | . | . | . | . | 13.0 | 12.1 | 11.6 | 11.5 | 11.1 | 13.4 | 10.1 | 10.9 | 11.9 | 12.9 | 12.0 | 11.9 |
| ----- | Alliance | 12.3 | 14.1 | 12.1 | 11.6 | 12.6 | 12.1 | 10.9 | 10.3 | 10.9 | 12.1 | 9.4 | 11.3 | 12.8 | 12.9 | 11.6 | 11.8 |
| ----- | Alliance Dividend | 12.4 | . | 12.1 | . | 12.0 | 12.5 | 10.5 | 10.1 | 10.8 | 12.1 | 9.3 | 11.1 | 12.1 | 12.9 | . | 11.5 |
| ----- | Alliance Untreated | 12.8 | . | 11.9 | . | 12.1 | 12.6 | 11.1 | 10.2 | 10.3 | 12.3 | 9.5 | 11.4 | 11.5 | 12.7 | . | 11.5 |
| ----- | Arapahoe | 13.6 | 14.6 | 14.1 | 13.8 | 13.3 | 13.3 | 11.8 | 11.6 | 11.4 | 14.2 | 10.5 | 11.8 | 10.5 | 13.6 | 12.5 | 12.7 |
| ----- | Arapahoe Dividend | 13.2 | . | 13.9 | . | 13.4 | 13.3 | 11.8 | 10.9 | 11.5 | 14.0 | 10.5 | 11.7 | 13.6 | 13.5 | . | 12.6 |
| ----- | Arapahoe Untreated | 13.4 | . | 14.1 | . | 13.4 | 12.6 | 11.7 | 11.5 | 12.0 | 13.8 | 10.5 | 11.7 | 14.0 | 13.8 | . | 12.7 |
| ----- | Buckskin | . | . | . | . | . | . | . | . | . | . | 9.9 | 11.6 | 12.6 | 13.3 | . | 11.9 |
| ----- | Centura | . | . | . | . | . | . | . | . | . | . | 9.4 | 12.0 | 13.9 | 13.1 | . | 12.1 |
| ----- | Halt | . | . | . | . | 13.4 | 12.6 | 12.0 | 11.4 | 11.3 | 13.3 | 10.1 | 11.9 | 10.6 | 13.8 | 13.3 | 13.4 |
| ----- | Ike | 13.5 | 14.2 | 13.7 | 13.6 | 13.6 | 13.8 | 12.5 | 11.4 | 11.9 | 13.8 | . | . | . | . | . | 13.2 |
| ----- | Jagger | 13.8 | 14.6 | 14.1 | 14.2 | 14.3 | 13.4 | 12.3 | 11.4 | 12.6 | 14.6 | 12.1 | 11.9 | 12.1 | 14.4 | 13.1 | 13.3 |
| ----- | Jules | . | . | . | . | 11.2 | 11.3 | 10.8 | 9.8 | 10.3 | 11.7 | 8.7 | 11.3 | 13.2 | 11.5 | 11.8 | 11.1 |
| ----- | Karl 92 | 13.6 | 14.7 | 13.6 | 12.7 | 14.0 | 14.0 | 12.7 | 11.7 | 11.5 | 14.1 | . | . | . | . | 12.6 | 13.2 |
| ----- | Lamar | . | . | . | . | 13.2 | 13.3 | 11.4 | 10.8 | 11.6 | 13.5 | 9.4 | 12.1 | 13.0 | 13.1 | . | 12.1 |
| ----- | Lamar RWA 31 | . | . | . | . | . | . | . | . | . | . | 9.4 | 11.5 | 11.6 | 13.1 | . | 11.4 |
| ----- | Lamar RWA 32 | . | . | . | . | . | . | . | . | . | . | 10.1 | 11.6 | 12.6 | 13.2 | . | 11.9 |
| ----- | Lancer | . | . | . | . | . | . | . | . | . | . | 9.9 | 12.3 | 13.0 | 13.4 | . | 12.2 |
| ----- | N95L158 | 13.1 | . | . | . | . | . | . | . | . | . | . | . | . | . | 11.8 | 12.5 |
| ----- | N95L159 | 12.9 | 14.2 | 13.1 | 14.0 | 13.3 | 13.3 | 11.8 | 10.9 | 11.5 | 13.4 | . | . | . | . | 12.2 | 12.8 |
| ----- | N95L164 | 13.4 | 14.0 | . | 14.0 | . | . | . | . | . | 13.2 | . | . | . | . | . | 13.7 |
| ----- | NE91518 (purple | . | . | . | . | . | . | . | . | . | . | 11.4 | 11.1 | 12.9 | 14.0 | . | 12.4 |
| ----- | NE91631 | . | . | . | . | . | . | . | . | . | . | 9.4 | 11.2 | 11.2 | 12.0 | . | 11.0 |
| ----- | NE92458 | 13.3 | 14.4 | 13.9 | 13.0 | 13.4 | 13.5 | 11.4 | 11.4 | 11.9 | 14.2 | . | . | . | . | . | 13.0 |
| ----- | NE92662 | 13.2 | 14.2 | 13.7 | 14.3 | 12.8 | 13.2 | 11.4 | 11.5 | 11.2 | 13.2 | 10.5 | 11.4 | 13.5 | 12.4 | 12.1 | 12.6 |
| ----- | NE93405 | 13.4 | 14.5 | 14.2 | 14.0 | 13.8 | 13.2 | 12.7 | 11.9 | 11.7 | 14.1 | 10.5 | 12.3 | 13.4 | 14.1 | 12.9 | 13.1 |
| ----- | NE93427 | 13.0 | 14.3 | 13.1 | 12.9 | 13.5 | 13.0 | 11.8 | 11.0 | 11.7 | 13.1 | 10.0 | 11.0 | 12.3 | 13.3 | 12.0 | 12.4 |
| ----- | NE93496 | . | . | . | . | 13.4 | 13.6 | 12.9 | 11.6 | 11.9 | 13.3 | . | . | . | . | . | 12.8 |
| ----- | NE93554 | 13.3 | 14.3 | 13.6 | 13.8 | 13.0 | 13.0 | 12.1 | 11.8 | 12.0 | 13.6 | 10.2 | 11.4 | 15.0 | 13.1 | 12.1 | 12.8 |
| ----- | NE93613 | . | . | . | . | . | . | . | . | . | . | 10.4 | 11.8 | 12.2 | 12.7 | . | 11.8 |
| ----- | NE93669 | . | . | . | . | . | . | . | . | . | . | 10.7 | 11.4 | 12.9 | 13.3 | . | 12.1 |
| ----- | Nekota | 13.3 | 14.2 | 13.5 | 14.0 | 13.0 | 13.4 | 12.4 | 11.7 | 12.1 | 13.3 | 10.2 | 12.3 | 11.3 | 13.9 | 12.6 | 12.7 |
| ----- | Niobrara | 12.5 | 13.9 | 12.8 | 12.2 | 13.1 | 12.6 | 11.7 | 10.8 | 11.7 | 12.2 | 9.8 | 11.8 | 13.1 | 12.4 | 12.2 | 12.2 |
| ----- | Pronghorn | 13.5 | 13.7 | 13.0 | 13.2 | 12.9 | 12.9 | 11.4 | 10.6 | 11.4 | 13.1 | 9.8 | 11.9 | 12.9 | 13.7 | . | 12.4 |
| ----- | Rawhide | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 12.5 | 12.5 |
| ----- | SD89119 | . | . | . | . | . | . | . | . | . | . | 10.9 | 12.4 | 12.7 | 14.1 | . | 12.5 |
| ----- | SD92107 | . | . | . | . | . | . | . | . | . | . | 10.3 | 12.0 | 11.9 | 13.5 | . | 11.9 |
| ----- | SD92191 | . | . | . | . | . | . | . | . | . | . | 10.5 | 12.0 | 13.1 | 13.9 | . | 12.4 |
| ----- | Scout66 | 13.8 | 14.5 | 13.5 | 13.5 | 13.3 | 13.5 | 11.6 | 11.2 | 11.8 | 13.4 | 9.9 | 11.9 | 12.9 | 13.6 | . | 12.7 |
| ----- | Siouxland | . | . | . | . | . | . | . | . | . | . | 10.1 | 11.6 | 10.1 | 13.1 | . | 11.2 |
| ----- | TAM 107 | . | . | . | . | 13.2 | 12.8 | 11.5 | 11.1 | 11.4 | 12.9 | 10.0 | 12.0 | 13.7 | 13.6 | 12.2 | 13.4 |
| ----- | Turkey | 14.6 | 13.6 | 14.2 | 13.9 | 13.3 | 13.6 | 12.6 | 11.0 | 11.8 | 13.8 | 10.2 | 12.4 | 11.2 | 14.1 | . | 12.9 |
| ----- | Vista | 13.5 | 14.3 | 13.3 | 14.2 | 13.5 | 13.0 | 11.8 | 11.4 | 11.7 | 13.0 | 10.0 | 12.5 | 11.8 | 13.1 | 12.4 | 12.6 |
| ----- | Vona | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 12.0 | 12.0 |
| ----- | Windstar | 13.0 | 13.8 | 12.8 | 13.2 | 13.1 | 13.1 | 11.6 | 11.2 | 10.8 | 12.9 | 9.9 | 11.7 | 11.3 | 13.1 | 11.9 | 12.2 |
| ----- | Yuma | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 11.7 | 11.7 |
| AgriPro | Abilene | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 12.5 | 12.5 |
| AgriPro | Big Dawg | 13.5 | 14.7 | 13.5 | 14.1 | . | . | . | . | . | . | . | . | . | . | . | 14.0 |
| AgriPro | Coronado | 13.3 | 14.7 | 13.9 | 13.5 | 13.8 | 13.0 | 11.4 | 11.3 | 12.3 | 13.1 | . | . | . | . | 13.1 | 13.0 |
| AgriPro | Laredo | . | . | . | . | 13.5 | 13.8 | 11.9 | 11.3 | 12.3 | 14.0 | . | . | . | . | 12.8 | 12.8 |
| AgriPro | Ogallala | . | . | 13.6 | 14.9 | 14.2 | 14.2 | 12.6 | 11.5 | 12.6 | 14.3 | . | . | . | . | 12.8 | 13.4 |
| AgriPro | Tomahawk | . | . | 14.1 | 14.0 | 13.5 | 12.7 | 12.5 | 11.8 | 12.1 | 14.2 | . | . | . | . | . | 13.1 |
| Polansky | Dominator | 13.5 | 15.3 | 14.1 | 13.8 | . | . | . | . | . | . | . | . | . | . | . | 14.2 |
| Quantum | 566 | . | . | . | . | 12.5 | 13.3 | 11.7 | 11.2 | 11.2 | 13.9 | 9.7 | 11.7 | 11.5 | 12.7 | . | 11.9 |
| Quantum | AP 7501 | . | . | . | . | 13.1 | 13.6 | 12.0 | 11.7 | 12.3 | 13.7 | 10.8 | 12.1 | 12.7 | 13.3 | 12.4 | 12.5 |
| Quantum | AP 7510 | . | . | . | . | 13.6 | 13.7 | 12.7 | 11.9 | 12.2 | 13.9 | 10.8 | 12.0 | 13.1 | 13.2 | 12.5 | 12.7 |
| Quantum | XH 1706 | . | . | . | . | 12.5 | 12.4 | 11.7 | 10.6 | 11.2 | 12.9 | 9.9 | 11.4 | 14.2 | 13.0 | 12.1 | 12.0 |
| Star Brand | Champ | . | . | 14.8 | 14.0 | . | . | . | . | . | . | . | . | . | . | . | 14.4 |

1=Gage, 2=Saunders, 3=Clay, 4=Thayer, 5=Keith, 6=Perkins, 7=Hitchcock, 8=Furnas, 9=Custer, 10=Lincoln, 11=Scotts Bluff, 12=Sioux, 13=Box Butte, 14=Morrill-Banner, 15=Cheyenne Irrigated.

# WHEAT VARIETY SELECTION AND COMPLEMENTATION

**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.

Those choices are 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.

USING VARIETY COMPLEMENTATION - According to the most recent Nebraska drill-box surveys, the average wheat producer plants four or more varieties each year. Today's wheat producer selects those varieties from a long and sometimes confusing list of choices. Where yield was once the only measure of variety performance, now your choices may also consider specific agronomic, pest-resistant, or value-added traits. For example, changes in cropping systems, tillage practices and residue requirements now demand more disease-resistant varieties.

Variety complementation is a simple, proven method to select the varieties best suited for your specific wheat production system. It is a useful tool in building a more sustainable farming operation. Because there is no single perfect variety, complementation enables you to offset the potential weaknesses (production limitations) found in each variety with the strengths of other varieties. This compensation improves the opportunity for yield stability of your entire wheat production system and less yield fluctuation from year to year.

The number of varieties you grow or the acres to be planted to each variety will depend entirely on your production conditions and special needs.

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 chart on next page.

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

**ABILENE**
Ogallala
Rowdy

**BRULE**
Arapahoe
Niobrara
Redland**
Vista

**CENTURK**
Centura
Centurk 78**
Cody
Rocky**
Sandy

**CHISHOLM**
Alliance
Custer
Tonkawa

**COLT**
Ike
Laredo
Pronghorn

**KARL**
Jagger
Karl 92**

PLAINSMAN V
Karl
Karl 92

**SCOUT**
Agate
Arkan
Baca**
Buckskin
Eagle**
Hawk
Homestead
Jules
Larned
Newton
Sage
Scout 66**
Scoutland**
TAM 105

**SIOUXLAND**
Windstar

**TAM 105**
TAM 107

**TAM 107**
Akron
Nekota
Niobrara

**TAM 200**
Ogallala
Hickok

**THUNDERBIRD**
Longhorn
Ponderosa

**VICTORY**
Laredo
Tomahawk

**VONA**
Lamar
Lindon*
Wings*
Yuma

**W558**
2163
2172
2180

**WARRIOR**
Cody
Rawhide
Siouxland

**2163**
2137

**LESS THAN 50% OF ANY FAMILY LISTED**
Big Dawg
Coronado
Thunderbird

*Sister Selection (identical pedigree) **Selection from or reselection of original variety (identical pedigree)

# # #

Our thanks to the NEBRASKA CROP IMPROVEMENT ASSOCIATION for the information in this article.

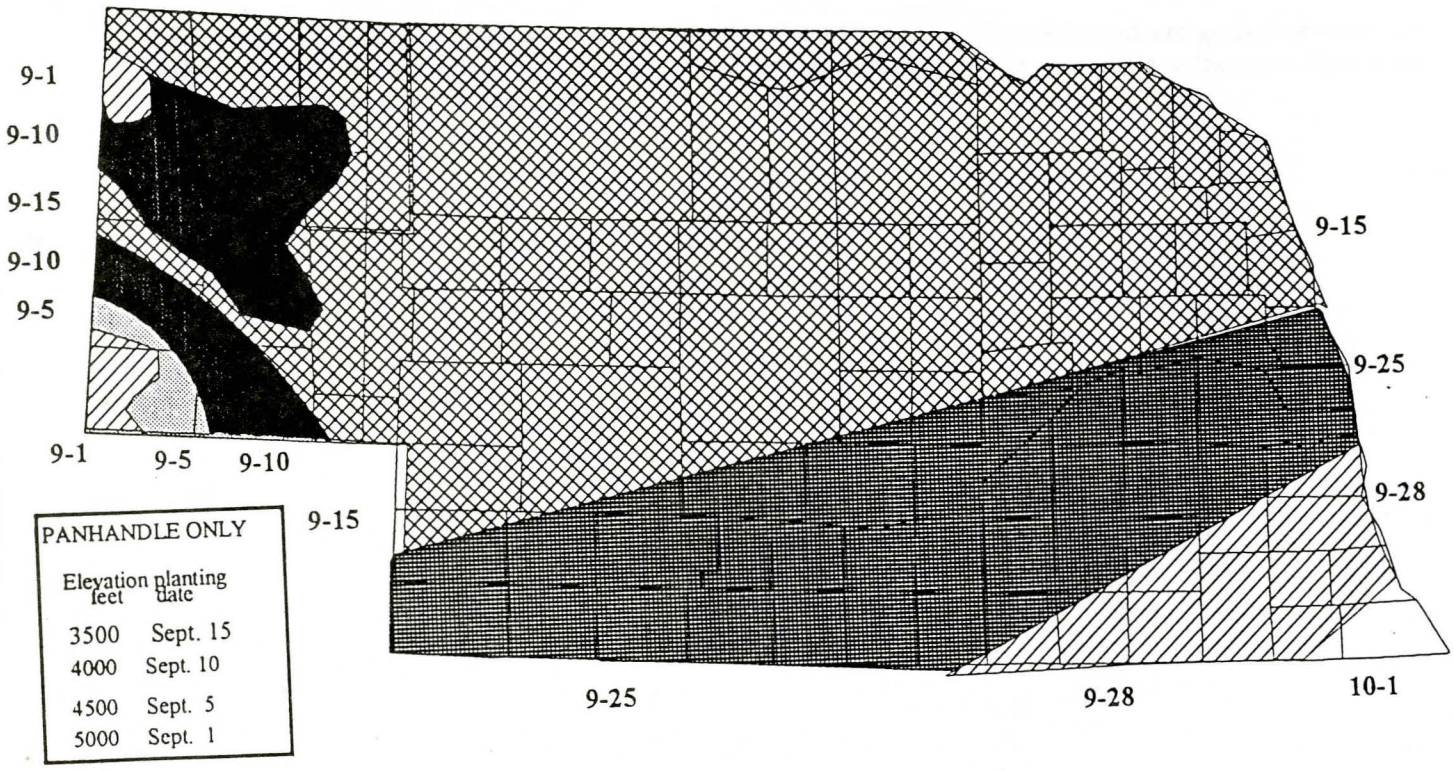
## Suggested seeding dates for winter wheat in Nebraska

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 and % of normal at nine wheat sites in Nebraska in 1997

| Month | Oct | | Nov | | Dec | | Jan | | Feb | |
|---|---|---|---|---|---|---|---|---|---|---|
| Location | ACT | % | ACT | % | ACT | % | ACT | % | ACT | % |
| Box Butte | 0.50 | 66 | 0.24 | 50 | 0.16 | 40 | 0.12 | 33 | 0.11 | 32 |
| Furnas | 1.32 | 156 | 1.25 | 199 | 0.07 | 16 | 0.13 | 34 | 0.27 | 71 |
| Gage | 1.39 | 65 | 1.05 | 84 | 0.06 | 7 | 0.01 | 2 | 0.13 | 18 |
| Saunders | 0.80 | 35 | 1.08 | 83 | 0.06 | 6 | 0.02 | 3 | 0.14 | 19 |
| Lincoln | 0.47 | 50 | 1.44 | 219 | 0.07 | 16 | 0.14 | 36 | 0.30 | 74 |
| Scotts Bluff | 0.35 | 46 | 0.22 | 42 | 0.16 | 36 | 0.12 | 30 | 0.11 | 30 |
| Cheyenne | 0.20 | 24 | 0.17 | 30 | 0.14 | 33 | 0.12 | 32 | 0.14 | 37 |
| Clay | 0.32 | 19 | 1.85 | 181 | 0.08 | 11 | 0.13 | 30 | 0.30 | 46 |
| Sioux | 1.16 | 138 | 0.62 | 132 | 0.80 | 205 | 0.85 | 224 | 0.16 | 43 |

| Month | Mar | | Apr | | May | | June | | July | |
|---|---|---|---|---|---|---|---|---|---|---|
| Location | ACT | % | ACT | % | ACT | % | ACT | % | ACT | % |
| Box Butte | 0.27 | 32 | 0.74 | 43 | 2.34 | 72 | 2.44 | 83 | 2.27 | 98 |
| Furnas | 0.23 | 20 | 0.46 | 25 | 1.81 | 53 | 3.68 | 115 | 2.38 | 82 |
| Gage | 0.30 | 14 | 3.01 | 111 | 2.09 | 52 | 6.01 | 147 | 3.53 | 103 |
| Saunders | 0.25 | 12 | 2.26 | 80 | 0.71 | 16 | 2.88 | 67 | 5.52 | 169 |
| Lincoln | 0.17 | 14 | 0.91 | 47 | 1.50 | 43 | 2.76 | 83 | 4.09 | 141 |
| Scotts Bluff | 0.09 | 9 | 1.46 | 91 | 3.62 | 125 | 2.44 | 90 | 1.06 | 49 |
| Cheyenne | 0.09 | 9 | 0.12 | 7 | 4.49 | 146 | 4.94 | 169 | 2.60 | 108 |
| Clay | 0.36 | 19 | 1.57 | 66 | 4.13 | 101 | 3.23 | 80 | 2.09 | 64 |
| Sioux | 0.26 | 31 | 1.81 | 108 | 4.36 | 158 | 4.34 | 158 | 2.64 | 124 |

# Actual temperature and departure from normal at nine wheat sites in Nebraska in 1997

| Month | Oct | | Nov | | Dec | | Jan | | Feb | |
|---|---|---|---|---|---|---|---|---|---|---|
| Location | Act. | Dep | Act. | Dep | Act. | Dep | Act. | Dep | Act. | Dep |
| Box Butte | 47.8 | -0.1 | 30.1 | -4.5 | 25.7 | 0.2 | 23.5 | -0.2 | 29.2 | 0.4 |
| Furnas | 49.1 | -0.6 | 31.2 | -4.2 | 25.3 | 0.0 | 23.1 | -0.2 | 29.6 | 0.7 |
| Gage | 55.1 | 0.9 | 34.0 | -5.6 | 25.6 | -1.0 | 22.2 | -0.8 | 29.7 | 1.2 |
| Saunders | 53.2 | 0.4 | 29.9 | -8.4 | 20.4 | -4.6 | 17.7 | -3.8 | 27.6 | 0.3 |
| Lincoln | 51.0 | 0.6 | 31.7 | -4.3 | 25.5 | -0.3 | 24.5 | 0.9 | 30.6 | 1.3 |
| Scotts Bluff | 48.5 | 0.4 | 32.6 | -2.6 | 27.2 | 1.2 | 25.0 | 0.3 | 30.2 | 0.4 |
| Cheyenne | 49.2 | 0.9 | 32.6 | -2.4 | 28.1 | 2.0 | 24.9 | 0.2 | 29.2 | -0.5 |
| Clay | 52.3 | 0.2 | 28.6 | -8.6 | 20.8 | -4.6 | 18.8 | -3.7 | 25.9 | -2.4 |
| Sioux | 50.2 | 0.8 | 28.8 | -6.6 | 23.0 | -1.7 | 22.6 | 0.2 | 32.3 | 4.7 |

| Month | Mar | | Apr | | May | | June | | July | |
|---|---|---|---|---|---|---|---|---|---|---|
| Location | Act. | Dep | Act. | Dep | Act. | Dep | Act. | Dep | Act. | Dep |
| Box Butte | 38.3 | 2.5 | 37.7 | -8.2 | 53.4 | -2.6 | 66.6 | 0.3 | 71.3 | -1.5 |
| Furnas | 38.7 | 1.9 | 40.3 | -7.7 | 53.5 | -4.5 | 67.5 | -0.5 | 72.7 | -1.5 |
| Gage | 43.1 | 3.4 | 45.2 | -7.6 | 57.4 | -6.0 | 71.8 | -1.6 | 75.9 | -2.3 |
| Saunders | 40.6 | 1.9 | 44.5 | -7.2 | 56.9 | -5.5 | 73.1 | 0.9 | 76.0 | -0.8 |
| Lincoln | 40.2 | 2.8 | 42.9 | -5.9 | 55.9 | -2.8 | 69.3 | 0.6 | 73.6 | -1.2 |
| Scotts Bluff | 39.8 | 3.7 | 40.0 | -6.0 | 56.0 | 0.1 | 68.4 | 2.1 | 72.6 | -0.1 |
| Cheyenne | 39.9 | 3.8 | 39.4 | -6.7 | 54.0 | -1.9 | 66.8 | 0.9 | 73.1 | 0.7 |
| Clay | 39.7 | 1.3 | 43.7 | -7.2 | 56.1 | -5.3 | 71.4 | 0.1 | 75.2 | -0.9 |
| Sioux | 38.3 | 3.0 | 40.4 | -5.6 | 55.2 | -1.0 | 68.6 | 2.0 | 76.6 | 2.3 |

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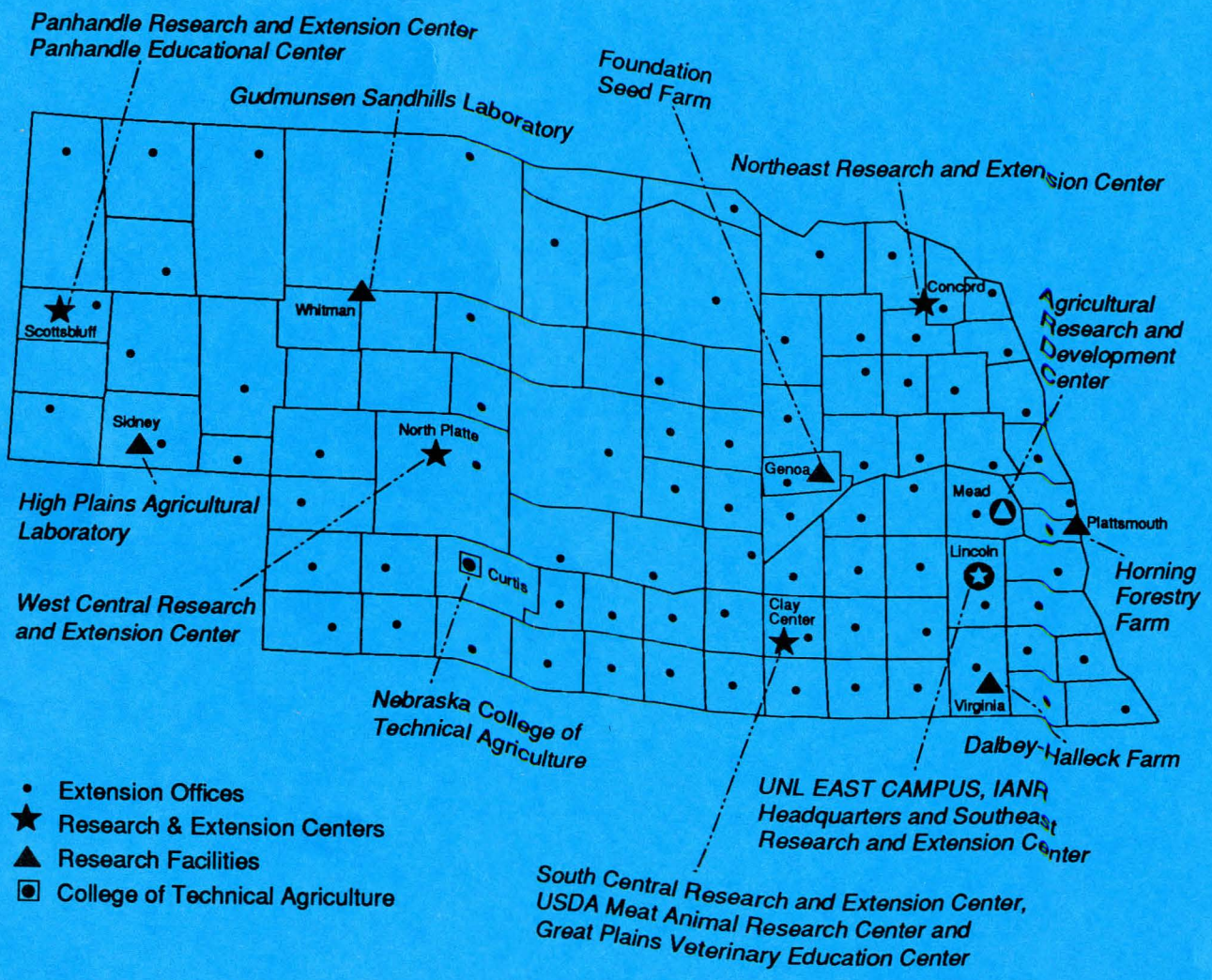
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