UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
in cooperation with
STATE AGRICULTURAL EXPERIMENT STATIONS

# COMPARISON OF WINTER WHEAT VARIETIES GROWN IN COOPERATIVE NURSERY EXPERIMENTS IN THE HARD RED WINTER WHEAT REGION IN 1981

V. A. Johnson
Leader, Wheat Research

This is a joint progress report of cooperative investigations under way in the State Agricultural Experiment Stations and the Agricultural Research Service of the U. S. Department of Agriculture containing preliminary data which have not been sufficiently confirmed to justify general release. Interpretations may be modified with additional experimentation. Confirmed results will be published through established channels. The report is primarily a tool for use of cooperators and their official staffs and for those persons having direct and special interest in the development of agricultural research programs.

The report includes data furnished by the State Agricultural Experiment Stations as well as by the Agricultural Research Service and was compiled in the North Central Region, U. S. Department of Agriculture. The report is not intended for publication and should not be referred to in literature citations nor quoted in publicity or advertising. Use of the data may be granted for certain purposes upon written request to the agency or agencies involved.

Lincoln, Nebraska
1982

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
NORTH CENTRAL REGION

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By

V. A. Johnson [1]

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[1] The writer expresses appreciation to Katie Meierhenry, Sue Groepper, and C. James Peterson for their assistance in preparing this report.

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(The asterisk denotes U.S.D.A. employees)

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## REGIONAL NOTES

The Secretary of Agriculture announced the restoration of the Agricultural Research Service as an agency of the U.S.D.A. on June 17.

John Schafer was named director of the U.S.D.A. Cereal Rust Laboratory in St. Paul, Minnesota. John succeeds John Rowell who retired in 1980.

John Moseman, Beltsville, Maryland, has assumed responsibility for the Uniform and International Rust nurseries formerly managed by Pat Kilpatrick.

Perry Gustavson was named by U.S.D.A. to succeed Ernie Sears in Wheat Cytogenetics at Columbia, Missouri.

Hung T. Nguyen joined the wheat group at Oklahoma State University as Assistant Professor of Agronomy. He will work with Ed Smith in wheat breeding.

J. A. Webster, ARS Entomologist, was transferred to Oklahoma State University from Michigan State in 1981. He will conduct studies on host plant resistance in wheat.

Richard Johnson has replaced Mary Beth Kirkham in crop physiology research at Oklahoma State. Mary Beth moved to the Evapotranspiration Laboratory at Kansas State University.

Other personnel changes at OSU include R. J. Sidwell as new station superintendent and agronomist at Lahoma and Rhea Foraker as replacement for P. D. Kruska at Altus. Roy Johnston became Extension Wheat Specialist at OSU in 1981.

Fred Cholick has replaced Don Keim as spring wheat breeder at South Dakota State University in Brookings. Don moved to a commercial breeding position in Texas.

Mark Grant retired from his wheat breeding position at Lethbridge, Alberta in August. He is succeeded by J. Thomas,

## NEW VARIETIES

The Montana Agricultural Experiment Station released and distributed seed of MT77077 (C.I.17902) under the name "Winridge" in 1981. It combines excellent productivity and winterhardiness with good straw strength and height similar to Centurk. Winridge is resistant to dwarf smut, Cephalosporium and stripe rust. Its stripe rust resistance comes from additive minor genes. Winridge was tested in the western regional nursery.

Montana also voted to release MT7431 (Rego/Cnn//Winalta) in 1982. It was tested in the NRPN in 1979 and 1980. It is a moderately tall, stem rust resistant, bronze chaff variety with a good performance record in Montana.

South Dakota released two hard red winter wheat varieties in 1981. They are "Rose" (C.I.17795) and "Nell" (C.I.17803). Rose, tested in the NRPN as SD7279, is an $F_3$-derived line from Seu Seun/Denton 8// Westmont/4/Hume/3/NE63265. It approaches Winoka in winterhardiness and has shorter stronger straw than Scout 66. Rose is resistant to stem rust, heterogeneous for leaf rust resistance, but susceptible to streak mosaic. Its milling and baking properties are good. Nell was tested in the NRPN as SD73177. It has good straw strength, is slightly shorter and somewhat hardier than Scout 66, and is resistant to stem rust but susceptible to leaf rust and streak mosaic. Its quality is good.

The varieties "Hawk" (C.I.17952) and "Archer" (C.I.17940) were released by North American Plant Breeders. Both were tested in the SRPN in 1980 and 1981, Hawk as NAPB200 and Archer as NAPB201. Hawk has good straw strength, moderate winterhardiness and resistance to soil-borne mosaic and stem rust. Archer has short straw, intermediate maturity, good winterhardiness and resistance to soil-borne mosaic leaf rust and stem rust.

The Nebraska Agricultural Experiment Station will release jointly with ARS in 1982 NE75414, an $F_2$-derived line from the cross NE68723// NE68719/Gage Sel. NE75414 has been named "Brule" and assigned P.I. number 466739. It was tested in the SRPN in 1978-79 and in the NRPN in 1980-81. It is 3-4 inches shorter than Scout 66, flowers 2 days later and has a much shorter coleoptile. It is more winterhardy, has much better straw but lower bushel weight than Scout 66. Brule is intermediate in reactions to stem rust (heterogeneous for SR6), mildew, soil-borne and streak mosaic. It is like Gage in leaf rust reaction and is resistant to the Great Plains biotype of hessian fly. Bread baking properties of Brule are similar to Centurk but it is lower in bake water absorption.

Two winter wheats are being increased in Kansas for possible release in 1982. They are KS75210 from the same cross as Newton and KS79H69 from a Sage/Arthur cross. KS75210 was tested in the SRPN in 1979 and 1981. KS79H69 was entered in the 1981 SRPN and is in the 1982 SRPN. KS75210 is similar to Newton but has higher test weight. KS79H69 has short stiff straw and is early maturing. Its winter-hardiness approaches that of Scout 66.

The Kansas Agricultural Experiment Station also approved the release, as germplasm, of KS81H1640GB, a wheat line resistant to greenbug biotypes C and E, and KS81H1640HF, a wheat line resistant to hessian fly (H3).

The Oklahoma Agricultural Experiment Station and ARS jointly released, as germplasm, Random Mating 1 Winter Wheat Population. The population carries a genetic dominant male sterile gene obtained from North Dakota State University.

## THE 1981 CROP YEAR

Harvest of a record 80.9 million acres and a record national average yield of 34.5 bu/a resulted in a record U. S. wheat production of 2.79 billion bushels. The estimated 1981 production is 380 million bushels higher than the 1980 record.

The performance of the hard red winter wheat crop was particularly noteworthy because of the adversities encountered during the winter and spring growing season that ranged from dry seeding conditions in the fall, severe spring frost damage, greenbugs, chinch bugs, soil-borne mosaic, wheat streak mosaic, and excessively wet weather at harvest time in the central and southern plains. Kansas wheat production for the first time in many years was second to North Dakota production.

Because of dry soil conditions, reseeding became necessary in numerous areas. The winter was mild and widespread spring rains restored soil moisture. The spring continued favorable except for a mid-May freeze that caused heavy losses in the west-central hard winter wheat production area. Losses from wheat streak mosaic in Kansas were estimated to be 7%, from soil-borne mosaic 2%. Soil moisture reserves permitted the crop to finish well throughout the region and yields exceeded earlier expectations.

Wheat production statistics for states in the region appear in the tabulation that follows:

| State | Hectares seeded | Hectares harvested | Abandonment for grain harvest | Yield per harvested hectare | Production (metric tons) |
|---|---|---|---|---|---|
| | 1,000 | 1,000 | % | Quintals | 1,000 |
| New Mexico | 280 | 200 | 29 | 12.0 | 245 |
| Texas | 3,120 | 2,620 | 16 | 18.7 | 4,990 |
| Oklahoma | 3,160 | 2,560 | 19 | 18.0 | 4,702 |
| Colorado | 1,380 | 1,220 | 12 | 18.3 | 2,282 |
| Kansas | 5,600 | 4,880 | 13 | 16.7 | 8,299 |
| Nebraska | 1,240 | 1,180 | 5 | 24.0 | 2,890 |
| Wyoming | 122 | 110 | 10 | 20.0 | 224 |
| Montana | 1,080 | 1,020 | 6 | 23.3 | 2,429 |
| So. Dakota | 520 | 468 | 10 | 17.3 | 828 |
| No. Dakota | 58 | 52 | 10 | 18.0 | 96 |

Source: Crop Production, 1981 Annual Summary. Crop Reporting Board, Statistical Reporting Service, U.S.D.A., Washington, D. C. Cr Pr 2-1 (82).

1981
Southern Regional Performance Nursery

| Entry no. | Variety | C. I. or Sel. No. | Source |
|---|---|---|---|
| 1 | Kharkof | 1442 | Check |
| 2 | Scout 66 | 13996 | " |
| 3 | Sage | 17277 | " |
| 4 | Mara/2*Scout//Sentinel | NE74649 | Nebraska |
| 5 | NE69457//Ctk/Gage Sel. | " 75424 | " |
| 6* | Wrr*5/Agent//NE68457/3/Ctk 78 | " 77682 | " |
| 7* | (Wrr*5/Agent)*2/Kavkaz | " 78668 | " |
| 8** | CIMMYT/Scout | KS75210 | Kansas |
| 9* | Sage/Arthur | " 79H70 | " |
| 10* | " | " 79H69 | " |
| 11 | TAM W-101/Amigo | OK78002 | Oklahoma |
| 12 | Payne/Amigo | " 78047 | " |
| 13* | Ey Sdy/Ncm | " 754615A | " |
| 14* | Payne//TAM W-101/Amigo | " 80099 | " |
| 15* | Osage Sib/Ey Sdy | " 77198 | " |
| 16 | Sdy Sib/Tascosa//Ctk | TX71A889 | Texas |
| 17* | 69A509-2//Blue Boy II/Fox | " 78V2154 | " |
| 18* | 69A2712-6//Agent/Tcs | " 78V3562 | " |
| 19* | TAM W-103/KS73167 | " 79A2729 | " |
| 20* | 65A1664/Centurk | " 73V862 | " |
| 21* | 62A2522-1/Centurk | " 73V1241 | " |
| 22 | CO702078/CO701631 | CO778766 | Colorado |
| 23 | " | " 778785 | " |
| 24 | CO702179/CO701467 | " 779274 | " |
| 25 | CO702269/CO701467 | " 710125 | " |
| 26* | 72F30620/Baca | " 786741 | " |
| 27* | " | " 786747 | " |
| 28 | Ctk/Tac/3/Sut*5/Ag//Sdy | NK77W4036 | N-K |
| 29 | Stt/BVPU//Mtr/NB68639 | " 77W4430 | " |
| 30[1] | II18889/Tpr//CO652643/Baca | NAPB200 | NAPB |
| 31[1] | Sn/Tpr/Wrr//Ctk | " 201 | " |
| 32* | Sn/Tpr//Wrr/3/II18889/Tpr//CO652643 | " 203 | " |
| 33* | " | " 204 | " |
| 34* | Sage Outcross (L. Schraeder) | LS No. 3 | Schr. |

* New entry in 1981.
** Previously tested in SRPN in 1979.
[1] New seed to be provided.

## Test Site Information - SRPN

Clovis, NM -- Irrigated and dryland tests were grown. The irrigated nursery was watered 5 times. Precipitation from October through June amounted to only 5.2 inches with only one May rain recording more than 1 inch. Nurseries were sprayed for greenbugs and mustard on January 14. Emergence of the dryland test was poor.

Farmington, NM -- Conditions not reported.

Bushland, TX -- Irrigated and dryland nurseries were grown on summer fallowed land. The irrigated trial received 150 lb N per acre prior to seeding; the dryland trial which was not fertilized was seeded October 15 at the rate of 37 lb/a. Seeding rate for the irrigated trial was 75 lb/a. It received a pre-plant and 3 spring irrigations. Greenbugs were controlled with malathion and parathion. Weeds in the dryland test were controlled with 2,4-D. Although good dryland stands were established, the nursery was under moisture stress during the winter and again in late April and most of May.

Chillicothe, TX -- The SRPN was seeded on October 14 in a dry seed bed with no subsoil moisture. A 220 lb/a application of 16-20-0 was made before seeding. Diseases and insects did not affect performance although low levels of leaf rust and tan spot were present. Aerial application of parathion was made to control greenbugs. A one-third inch shower 2 days after seeding aided germination and emergence but no further precipitation came until March. Although the nursery was under heavy drought stress during flowering, April rainfall of 3.2 inches assured good yields.

Dallas, TX -- The nursery was seeded October 14 on ground fertilized with 100 lbs. of 18-46-0. Full stands were obtained and excellent growth occurred through January. Greenbugs were controlled by 2 spray applications. N in amount of 60 lb/a was applied in February. Powdery mildew was severe from mid-January through May. The nursery was sprayed for army worm control on April 24. Leaf rust came too late to cause damage. Rains were heavy in late May and early June.

Stillwater, OK -- Crusting resulted in uneven stands in the fall. Drought stress was evident throughout the winter and early spring. Rains late in the season favored later-maturing entries. Leaf rust came too late to influence yields. Bushel weights were above normal.

Altus, OK -- Soil moisture at seeding was good and permitted excellent stand establishment. Production conditions remained favorable throughout most of the season. Diseases and insects were not a problem. High temperatures in early spring may have hurt the early-maturing entries.

Lahoma, OK -- Conditions were favorable throughout the season. Light to moderate infections of tan spot and septoria leaf blotch occurred. The nursery was sprayed for greenbug control. Heavy rains, some hail and high winds prior to harvest caused lodging and damaged the nursery.

Goodwell, OK -- An irrigated nursery was seeded October 10. Conditions were favorable throughout the season. There were no disease problems of consequence. The nursery was sprayed for greenbug control in the spring. Some entries shattered just prior to harvest.

Hutchinson, KS -- Fall stand establishment was only fair. There was no winter killing during a mild dry winter. Drought stress was evident from April 1. The nursery was sprayed for greenbugs in early April. Some damage occurred. Early maturing lines were most severely affected by the drought. Plot to plot variation was very high because of the drought. No freeze damage occurred. Despite late rains the wheat failed to mature normally and test weights were low.

Hays, KS -- Full stands were obtained. Fall and winter growth was excellent. Some moisture stress developed by early May but subsequent rains provided adequate late season moisture. Greenbugs were controlled with insecticides. Wheat streak mosaic was the major problem, with about 75% incidence throughout the nursery. The temperature fell below freezing on May 10 but frost damage did not occur.

Garden City, KS -- Soil moisture was somewhat below normal for the area. Wheat growth continued through a very mild winter. Diseases and insects were not a problem. The May 10 freeze resulted in poor seed set which was most severe in early entries.

Colby, KS -- The wheat emerged to good stands in the fall. No winterkilling occurred during the mild dry winter. March through May precipitation was an above-normal 15.8 inches. Yield prospects were excellent until the May 10 freeze. On-station damage was variable with earliest entries most affected. Lodging and shattering did not occur. Greenbugs and wheat streak mosaic were present but not heavy.

Ft. Collins, CO -- A mild winter and excellent production conditions prevailed. Diseases and insects were not a problem.

Akron, CO -- Fall moisture was adequate for good stand establishment. The winter was very mild. Excellent moisture continued throughout the spring and summer. Nitrogen was deficient in the nursery.

Springfield, CO -- Soil moisture was adequate for good fall stand establishment but very dry conditions prevailed through winter and spring.

Burlington, CO -- Destroyed by hail.

Julesburg, CO -- Destroyed by hail.

Mead, NE -- Fall conditions were good and the winter was mild. Chinch bugs were present but not damaging to the winter wheat. Neither stem nor leaf rusts were factors in performance. The nursery escaped damage from the May freeze.

Clay Center, NE -- Production conditions were near-ideal throughout the season. There was no winterkilling nor damage from the May freeze. Stripe rust developed in significant amounts on susceptible lines. Most entries in the SRPN showed some degree of resistance. Leaf rust developed sufficiently to be read.

North Platte, NE -- Soil moisture was ample at seeding time in the fall. Moisture remained favorable throughout the season. Freezing temperatures in May and hail in June affected yields. Insects and diseases were not present.

Sidney, NE -- Conditions were favorable throughout the crop year. There were no diseases or insects. Cool temperatures during grain filling promoted high yields. Freezes on May 10 and 11 did not cause significant damage.

Alliance, NE -- The wheat crop at Alliance was subjected to moisture stress during most of the crop year. Rain about a month before flowering made the crop. Wheat streak mosaic caused general yellowing of the nursery and probably had some effect on yield.

Brookings, SD -- The nursery was seeded on summer fallow ground with plentiful moisture on September 9 and stand establishment was excellent. No winterkilling occurred but heavy frost on May 9 destroyed the developing spikes in many tillers. Heavy root rot developed and it was difficult to assess damage from the frost. Subsequent drought accentuated the freeze and root rot damage and the nursery was very ragged. Continued drought hastened maturity and reduced test weight. Stem rust did not occur. Leaf rust was prevalent but too late to significantly affect yields. Some powdery mildew developed.

Highmore, SD -- The September 5 seeding was on moist summer-fallowed ground. The winter was relatively mild and stand losses were minimal. The wheat escaped injury from the May frost. Heavy rain of 7.5 inches on July 3 delayed harvest and resulted in some shattering. Stem rust was not observed. Leaf rust was light. An excellent nursery.

Presho, SD -- Fall seeding was done on September 4 under ideal conditions and excellent fall stands were obtained. Winterkilling did not occur but the May 9 freeze destroyed the heads in most tillers. A second set of tillers subsequently developed. Seeding error reduced the nursery to 2 reps only. Light leaf rust but no stem rust occurred.

Columbia, MO -- Soil moisture was short through the fall, winter and early spring. An October rain permitted good fall stand establishment. Rains that started in early April and continued throughout the remainder of the spring prevented the crop from being harvested normally. Heavy sprouting in the heads and weed growth rendered an estimated 40% of the crop questionable for harvesting. There were no disease or insect problems during fall and winter, but wheat streak mosaic became damaging along with mildew and Septoria in spring and summer. Leaf rust arrived late but leaves already were destroyed by mildew.

Ames, IA -- The nursery was seeded September 23 under ideal conditions and emerged to good stands. The mild winter produced no measureable kill. The spring was dry but the nursery which was on fallowed ground made good growth. Diseases generally were light with mosaic, the rusts and Septoria present. The wheat ripened earlier than usual. Lodging occurred but yields and test weights were high. Sub-freezing temperature on May 11 did not cause damage.

Urbana, IL -- Moisture was ample throughout the season. Some entries lodged heavily. Powdery mildew was more severe than usual and may have reduced yields.

Tetonia, ID -- The fall and winter were normal for the area. Summer temperatures were above-normal. Adequate moisture permitted good yields of grain with below-normal protein content. Diseases were not a problem.

Lind, WA -- Fall conditions were excellent. The winter was unusually mild with no damage to the wheat. Both stripe and leaf rust appeared in the fall and stripe rust-susceptible lines were heavily damaged. Leaf rust became heavy later and caused less damage.

TABLE 1. YIELD AND AGRONOMIC DATA FOR 34 ENTRIES IN THE SOUTHERN REGIONAL PERFORMANCE NURSERY IN 1981.
CLOVIS, NEW MEXICO (IRR.)

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM |
|---|---|---|---|---|---|
| OK78002 | 11 | 6152 | 81.1 | 121 | 82 |
| NAPB203 | 32 | 6042 | 79.1 | 122 | 86 |
| NAPB200 | 30 | 5992 | 81.4 | 120 | 81 |
| TX73V862 | 20 | 5664 | 80.4 | 120 | 80 |
| NAPB204 | 33 | 5655 | 79.1 | 123 | 80 |
| CO710125 | 25 | 5619 | 78.9 | 125 | 86 |
| TX79A2729 | 19 | 5611 | 81.3 | 120 | 75 |
| OK754615A | 13 | 5568 | 80.4 | 117 | 85 |
| CO778766 | 22 | 5524 | 78.7 | 127 | 90 |
| TX78V2154 | 17 | 5384 | 80 | 118 | 84 |
| TX78V3562 | 18 | 5327 | 78.9 | 119 | 86 |
| TX71A889 | 16 | 5168 | 81.7 | 120 | 78 |
| CO786747 | 27 | 5090 | 81.7 | 122 | 90 |
| OK80099 | 14 | 5086 | 80.6 | 120 | 82 |
| LS NO.3 | 34 | 5051 | 82.8 | 122 | 103 |
| 17277 | 3 | 4979 | 79.8 | 121 | 96 |
| NK77W4036 | 28 | 4976 | 79.5 | 123 | 86 |
| OK78047 | 12 | 4959 | 80.9 | 122 | 100 |
| CO786741 | 26 | 4948 | 82.1 | 121 | 88 |
| NAPB201 | 31 | 4915 | 79.3 | 122 | 81 |
| NE75424 | 5 | 4910 | 82.2 | 121 | 91 |
| NK77W4430 | 29 | 4894 | 80.8 | 122 | 90 |
| KS75210 | 8 | 4853 | 80.6 | 121 | 85 |
| CO778785 | 23 | 4837 | 78 | 125 | 85 |
| CO779274 | 24 | 4836 | 80.4 | 125 | 98 |
| NE77682 | 6 | 4822 | 81.3 | 123 | 94 |
| NE78668 | 7 | 4750 | 79.6 | 122 | 93 |
| OK77198 | 15 | 4737 | 80 | 120 | 80 |
| TX73V1241 | 21 | 4724 | 81.3 | 120 | 84 |
| 13996 | 2 | 4634 | 80.8 | 121 | 100 |
| NE74649 | 4 | 4440 | 77.8 | 121 | 90 |
| KS79H69 | 10 | 4390 | 79.3 | 118 | 76 |
| KS79H70 | 9 | 3933 | 77.7 | 118 | 78 |
| 1442 | 1 | 3741 | 77.4 | 130 | 109 |
| MEAN | | 5065 | | | |
| L.S.D. (.05) | | 1124 | | | |
| C.V. | | 13.6 | | | |

CLOVIS, NEW MEXICO (DRYL.)

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM |
|---|---|---|---|---|---|
| 17277 | 3 | 3511 | 79.6 | 118 | 67 |
| LS NO.3 | 34 | 3392 | 83 | 118 | 68 |
| OK78047 | 12 | 3065 | 80.4 | 117 | 63 |
| CO779274 | 24 | 3019 | 79.5 | 120 | 70 |
| 13996 | 2 | 2906 | 79.3 | 117 | 73 |
| NAPB200 | 30 | 2872 | 81.9 | 117 | 57 |
| OK78002 | 11 | 2853 | 80 | 118 | 59 |
| CO786741 | 26 | 2841 | 80.4 | 119 | 58 |
| CO786747 | 27 | 2810 | 81 | 118 | 55 |
| NAPB203 | 32 | 2778 | 79.3 | 120 | 59 |
| OK754615A | 13 | 2645 | 80.2 | 114 | 59 |
| NE75424 | 5 | 2633 | 82.1 | 119 | 54 |
| CO778785 | 23 | 2622 | 79 | 121 | 55 |
| CO710125 | 25 | 2616 | 79.3 | 122 | 57 |
| NE77682 | 6 | 2607 | 80.4 | 119 | 63 |
| TX79A2729 | 19 | 2601 | 81.3 | 117 | 58 |
| TX78V2154 | 17 | 2535 | 78.2 | 113 | 62 |
| KS75210 | 8 | 2510 | 81.5 | 117 | 56 |
| OK80099 | 14 | 2480 | 79.8 | 116 | 57 |
| TX78V3562 | 18 | 2478 | 80 | 116 | 58 |
| TX73V1241 | 21 | 2468 | 81.6 | 117 | 54 |
| NK77W4430 | 29 | 2437 | 80.8 | 118 | 71 |
| NAPB204 | 33 | 2427 | 78.9 | 120 | 56 |
| TX73V862 | 20 | 2394 | 79.8 | 118 | 57 |
| KS79H69 | 10 | 2308 | 78 | 115 | 55 |
| NAPB201 | 31 | 2302 | 77.4 | 120 | 56 |
| NE78668 | 7 | 2192 | 80.3 | 119 | 59 |
| TX71A889 | 16 | 2139 | 81.5 | 118 | 57 |
| NK77W4036 | 28 | 2131 | 78.5 | 121 | 66 |
| 1442 | 1 | 2126 | 74.6 | 126 | 74 |
| NE74649 | 4 | 2083 | 78.2 | 118 | 60 |
| OK77198 | 15 | 1987 | 80.6 | 117 | 57 |
| KS79H70 | 9 | 1879 | 76.7 | 117 | 47 |
| CO778766 | 22 | 1818 | 76.8 | 122 | 57 |
| MEAN | | 2543 | | | |
| L.S.D. (.05) | | 850 | | | |
| C.V. | | 20.5 | | | |

FARMINGTON, NEW MEXICO

FOUR REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | PLANT HEIGHT CM |
|---|---|---|---|---|
| NAPB201 | 31 | 5382 | 76.8 | 69 |
| BEZOSTAYA | 36 | 5061 | 75.5 | 74 |
| CO778785 | 23 | 5015 | 76.1 | 69 |
| TX71A889 | 16 | 4924 | 77.7 | 66 |
| TX73V1241 | 21 | 4878 | 75.8 | 67 |
| OK78047 | 12 | 4695 | 76.1 | 72 |
| NE77682 | 6 | 4603 | 78.7 | 71 |
| CO786741 | 26 | 4580 | 79 | 64 |
| CO779274 | . | 4397 | 76.8 | 79 |
| KS75210 | 8 | 4305 | 77.1 | 60 |
| TX78V2154 | 17 | 4305 | 74.5 | 66 |
| NAPB200 | 30 | 4305 | 77.1 | 67 |
| TAM103 | 35 | 4237 | 76.1 | 61 |
| TX78V3562 | 18 | 4214 | 74.5 | 74 |
| OK80099 | 14 | 4191 | 73.9 | 69 |
| OK77198 | 15 | 4168 | 77.1 | 64 |
| NAPB203 | 32 | 4122 | 76.8 | 65 |
| CO710125 | 25 | 4099 | 76.8 | 67 |
| CO786747 | 27 | 4076 | 76.4 | 65 |
| KS79H70 | 9 | 3985 | 74.8 | 58 |
| 17277 | 3 | 3939 | 74.5 | 67 |
| OK78002 | 11 | 3870 | 73.2 | 64 |
| CO779274 | 24 | 3870 | 74.2 | 70 |
| TX73V862 | 20 | 3824 | 76.4 | 62 |
| NAPB204 | 33 | 3824 | 72.2 | 63 |
| OK754615A | 13 | 3664 | 79 | 62 |
| TX79A2729 | 19 | 3618 | 74.8 | 64 |
| NE75424 | 5 | 3572 | 77.4 | 64 |
| NE74649 | 4 | 3550 | 74.8 | 62 |
| 13996 | 2 | 3527 | 77.7 | 72 |
| KS79H69 | 10 | 3435 | 73.5 | 57 |
| LS NO.3 | 34 | 3389 | 78.7 | 71 |
| NE78668 | 7 | 3343 | 71.3 | 70 |
| NK77W4036 | 28 | 3321 | 75.8 | 70 |
| 1442 | 1 | 3092 | 71.9 | 83 |
| NK77W4430 | 29 | 2725 | 76.4 | 64 |
| MEAN | | 4049 | | |
| L.S.D.(.05) | | 1008 | | |
| C.V. | | 17.6 | | |

BUSHLAND, TEXAS (IRR.)

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | PLANT HEIGHT CM |
|---|---|---|---|---|
| TX79A2729 | 19 | 6901 | 81.7 | 80 |
| NAPB200 | 30 | 6619 | 80.2 | 85 |
| TX71A889 | 16 | 6477 | 81.7 | 80 |
| NAPB201 | 31 | 6428 | 78.8 | 80 |
| NAPB204 | 33 | 6305 | 78.8 | 76 |
| NAPB203 | 32 | 6282 | 78.4 | 82 |
| OK78002 | 11 | 6262 | 78.8 | 81 |
| TX78V2154 | 17 | 6199 | 79.2 | 80 |
| TX73V862 | 20 | 6143 | 81 | 78 |
| OK754615A | 13 | 6094 | 80.2 | 78 |
| CO710125 | 25 | 6074 | 79.6 | 80 |
| KS75210 | 8 | 6065 | 81.6 | 86 |
| NK77W4430 | 29 | 5892 | 80.6 | 81 |
| CO778785 | 23 | 5845 | 77 | 83 |
| OK77198 | 15 | 5818 | 81.2 | 79 |
| CO786741 | 26 | 5773 | 80.2 | 85 |
| OK80099 | 14 | 5598 | 79.2 | 77 |
| 17277 | 3 | 5582 | 79.2 | 91 |
| NK77W4036 | 28 | 5578 | 80.6 | 85 |
| CO779274 | 24 | 5454 | 79.6 | 89 |
| NE75424 | 5 | 5362 | 82.1 | 85 |
| CO786747 | 27 | 5360 | 81.4 | 89 |
| LS NO.3 | 34 | 5324 | 82 | 95 |
| 13996 | 2 | 5299 | 79.2 | 90 |
| NE77682 | 6 | 5268 | 80.2 | 88 |
| NE74649 | 4 | 5252 | 77.7 | 89 |
| TX73V1241 | 21 | 5241 | 81.4 | 83 |
| KS79H69 | 10 | 5230 | 79.2 | 79 |
| CO778766 | 22 | 5190 | 77 | 86 |
| TX78V3562 | 18 | 5176 | 79.6 | 82 |
| OK78047 | 12 | 5136 | 80.2 | 90 |
| NE78668 | 7 | 5133 | 78.8 | 90 |
| KS79H70 | 9 | 5098 | 78.8 | 77 |
| 1442 | 1 | 3137 | 78.1 | 104 |
| MEAN | | 5665 | | |
| L.S.D.(.05) | | 424 | | |
| C.V. | | 4.6 | | |

BUSHLAND,TEXAS (DRYL.)

FOUR REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM |
|---|---|---|---|---|---|
| CO786747 | 27 | 1616 | 78.1 | 123 | 46 |
| CO778766 | 22 | 1538 | 76.2 | 124 | 47 |
| LS NO.3 | 34 | 1505 | 77.7 | 123 | 47 |
| NE78668 | 7 | 1473 | 75.9 | 121 | 46 |
| CO786741 | 26 | 1375 | 76.4 | 122 | 41 |
| TX73V862 | 20 | 1318 | 75.6 | 119 | 45 |
| TX79A2729 | 19 | 1313 | 75.9 | 119 | 40 |
| OK77198 | 15 | 1311 | 77.7 | 119 | 40 |
| NE74649 | 4 | 1309 | 74.5 | 120 | 44 |
| OK754615A | 13 | 1298 | 77 | 115 | 48 |
| TX71A889 | 16 | 1291 | 77.4 | 120 | 43 |
| NE75424 | 5 | 1279 | 78.1 | 121 | 42 |
| NAPB201 | 31 | 1266 | 73.7 | 122 | 39 |
| 13996 | 2 | 1259 | 75.6 | 121 | 42 |
| CO779274 | 24 | 1250 | 75.9 | 123 | 51 |
| KS79H69 | 10 | 1247 | 73.7 | 117 | 42 |
| OK80099 | 14 | 1232 | 74.8 | 117 | 43 |
| CO710125 | 25 | 1218 | 74.4 | 122 | 45 |
| NAPB203 | 32 | 1215 | 75.2 | 122 | 39 |
| 17277 | 3 | 1212 | 74.5 | 121 | 42 |
| OK78002 | 11 | 1190 | 74.1 | 118 | 43 |
| NK77W4036 | 28 | 1190 | 76.2 | 121 | 39 |
| NAPB200 | 30 | 1185 | 75.9 | 120 | 41 |
| TX78V3562 | 18 | 1183 | 73.4 | 118 | 46 |
| KS75210 | 8 | 1175 | 77.4 | 119 | 37 |
| NAPB204 | 33 | 1139 | 74.8 | 123 | 37 |
| NE77682 | 6 | 1129 | 74.1 | 123 | 40 |
| TX73V1241 | 21 | 1116 | 76.4 | 119 | 38 |
| NK77W4430 | 29 | 1096 | 74.4 | 121 | 48 |
| OK78047 | 12 | 1064 | 74.8 | 118 | 50 |
| KS79H70 | 9 | 973 | 73.4 | 117 | 43 |
| CO778785 | 23 | 958 | 77.4 | 124 | 37 |
| 1442 | 1 | 916 | 77.4 | 127 | 48 |
| TX78V2154 | 17 | 916 | 74.8 | 116 | 42 |
| MEAN | | 1228 | | | |
| L.S.D.(.05) | | 332 | | | |
| C.V. | | 19.1 | | | |

CHILLICOTHE, TEXAS

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM |
|---|---|---|---|---|---|
| NAPB200 | 30 | 4016 | 74.8 | 104 | 55 |
| TX71A889 | 16 | 3807 | 75.4 | 105 | 65 |
| TX79A2729 | 19 | 3666 | 75 | 105 | 58 |
| OK754615A | 13 | 3523 | 75.8 | 101 | 64 |
| TX73V862 | 20 | 3369 | 73.3 | 101 | 57 |
| TAM105 | | 3365 | 73.4 | 104 | 61 |
| TX78V3562 | 18 | 3321 | 73.4 | 104 | 60 |
| OK78047 | 12 | 3191 | 74.1 | 104 | 64 |
| NE78668 | 7 | 3173 | 72.8 | 104 | 63 |
| NAPB201 | 31 | 3163 | 72.5 | 105 | 58 |
| KS79H70 | 9 | 3098 | 72.7 | 99 | 62 |
| KS79H69 | 10 | 3095 | 72.5 | 99 | 58 |
| OK78002 | 11 | 3087 | 73.5 | 105 | 64 |
| NAPB203 | 32 | 3015 | 73.9 | 107 | 68 |
| OK80099 | 14 | 2953 | 71.9 | 101 | 57 |
| CO786741 | 26 | 2918 | 74.4 | 110 | 74 |
| TX78V2154 | 17 | 2912 | 73.5 | 104 | 57 |
| NE75424 | 5 | 2865 | 75.8 | 106 | 56 |
| NAPB204 | 33 | 2827 | 73.6 | 108 | 61 |
| CO710125 | 25 | 2817 | 72.2 | 109 | 78 |
| TAM101 | | 2807 | 74 | 104 | 62 |
| OK77198 | 15 | 2731 | 75 | 104 | 55 |
| CO779274 | 24 | 2697 | 72.8 | 111 | 82 |
| TX73V1241 | 21 | 2682 | 74.1 | 105 | 58 |
| NK77W4430 | 29 | 2673 | 75.5 | 107 | 69 |
| CO786747 | 27 | 2626 | 74.6 | 110 | 77 |
| NE74649 | 4 | 2572 | 69 | 108 | 76 |
| LS NO.3 | 34 | 2564 | 74.9 | 108 | 88 |
| NK77W4036 | 28 | 2544 | 75.5 | 104 | 62 |
| NE77682 | 6 | 2535 | 74.9 | 106 | 66 |
| 13996 | 2 | 2531 | 72.4 | 108 | 87 |
| CO778766 | 22 | 2509 | 70.1 | 112 | 76 |
| 17277 | 3 | 2335 | 72 | 109 | 88 |
| CO778785 | 23 | 2300 | 71.7 | 112 | 70 |
| KS75210 | 8 | 2099 | 75.9 | 106 | 58 |
| 1442 | 1 | 1846 | 67.3 | 117 | 94 |
| MEAN | | 2895 | | | |
| L.S.D.(.05) | | 315 | | | |
| C.V. | | 6.7 | | | |

DALLAS, TEXAS

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM | LEAF RUST SEV. % | RUST RESP 1-9 | MILDEW 1/27 0-9 | MILDEW 3/22 0-9 | MILDEW 4/22 0-9 |
|---|---|---|---|---|---|---|---|---|---|---|
| OK78002 | 11 | 3627 | 71.6 | 104 | 94 | 30 | 8 | 0 | 0 | 0 |
| TX71A889 | 16 | 3564 | 74.4 | 104 | 97 | 20 | 7 | 1 | 3 | 4 |
| KS79H70 | 9 | 3542 | 73.3 | 98 | 97 | 5 | 2 | 1 | 1 | 5 |
| CO778766 | 22 | 3436 | 71.6 | 109 | 99 | 10 | 3 | 3 | 4 | 4 |
| CO786747 | 27 | 3430 | 73.5 | 106 | 102 | 60 | 8 | 2 | 2 | 6 |
| NK77W4430 | 29 | 3403 | 73.9 | 104 | 94 | 30 | 8 | 5 | 4 | 7 |
| TX73V1241 | 21 | 3398 | 71.2 | 100 | 94 | 10 | 3 | 6 | 6 | 6 |
| NAPB200 | 30 | 3389 | 65.8 | 101 | 91 | 40 | 8 | 4 | 3 | 4 |
| TX79A2729 | 19 | 3342 | 71.9 | 104 | 84 | 20 | 8 | 6 | 6 | 7 |
| TX73V862 | 20 | 3327 | 73.1 | 99 | 89 | 60 | 8 | 6 | 6 | 7 |
| KS79H69 | 10 | 3176 | 73.1 | 98 | 99 | 1 | . | 0 | 0 | 4 |
| NAPB203 | 32 | 3125 | 71 | 105 | 86 | 30 | 8 | 7 | 8 | 8 |
| NAPB204 | 33 | 3067 | 71.2 | 104 | 84 | 40 | 8 | 5 | 5 | 7 |
| OK754615A | 13 | 3044 | 76.1 | 100 | 94 | 20 | 7 | 4 | 4 | 8 |
| CO786741 | 26 | 3028 | 73.3 | 107 | 107 | 60 | 8 | 0 | 3 | 3 |
| OK77198 | 15 | 2907 | 74.4 | 100 | 89 | 5 | 2 | 2 | 6 | 8 |
| NAPB201 | 31 | 2883 | 70.3 | 102 | 84 | 20 | 7 | 6 | 7 | 8 |
| NK77W4036 | 28 | 2878 | 55.2 | 100 | 97 | 1 | . | 1 | 1 | 4 |
| NE78668 | 7 | 2849 | 73.5 | 102 | 104 | 1 | . | 0 | 0 | 0 |
| KS75210 | 8 | 2847 | 73.9 | 103 | 91 | 50 | 8 | 4 | 6 | 7 |
| OK78047 | 12 | 2771 | 74.8 | 101 | 107 | 1 | . | 0 | 0 | 0 |
| NE77682 | 6 | 2762 | 72.5 | 104 | 102 | 20 | 7 | 4 | 4 | 5 |
| CO710125 | 25 | 2739 | 72.9 | 106 | 91 | 5 | 2 | 3 | 3 | 6 |
| NE74649 | 4 | 2706 | 68.6 | 106 | 99 | 40 | 8 | 3 | 3 | 4 |
| 17277 | 3 | 2665 | 74.4 | 108 | 104 | 10 | 7 | 2 | 2 | 7 |
| 13996 | 2 | 2654 | 73 | 106 | 109 | 40 | 8 | 4 | 4 | 7 |
| CO779274 | 24 | 2571 | 73.1 | 107 | 109 | 20 | 2 | 1 | 1 | 4 |
| LS NO.3 | 34 | 2515 | 74.8 | 105 | 112 | 20 | 8 | 6 | 6 | 8 |
| NE75424 | 5 | 2461 | 75.2 | 101 | 99 | 40 | 8 | 4 | 4 | 7 |
| CO778785 | 23 | 2446 | 68 | 109 | 91 | 30 | 8 | 6 | 6 | 6 |
| OK80099 | 14 | 2190 | 73.1 | 100 | 94 | 5 | 2 | 0 | 1 | 2 |
| TX78V3562 | 18 | 2181 | 73.5 | 100 | 89 | 5 | 2 | 5 | 5 | 7 |
| TX78V2154 | 17 | 2168 | 71.6 | 101 | 94 | 1 | . | 3 | 3 | 8 |
| 1442 | 1 | 1589 | 72.2 | 112 | 112 | 60 | 9 | 4 | 4 | 7 |
| MEAN | | 2902 | | | | | | | | |
| L.S.D.(.05) | | 601 | | | | | | | | |
| C.V. | | 12.7 | | | | | | | | |

STILLWATER, OKLAHOMA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM |
|---|---|---|---|---|---|
| TX71A889 | 16 | 3340 | 80.1 | 111 | 78 |
| OK78002 | 11 | 3329 | 77 | 110 | 75 |
| KS75210 | 8 | 3250 | 78.8 | 109 | 77 |
| NE77682 | 6 | 3194 | 79.5 | 111 | 81 |
| TX79A2729 | 19 | 3150 | 76 | 110 | 69 |
| 17277 | 3 | 3082 | 78 | 114 | 85 |
| 13996 | 2 | 3071 | 79.1 | 112 | 90 |
| NE78668 | 7 | 3071 | 77.1 | 108 | 79 |
| TX73V1241 | 21 | 3071 | 79.1 | 108 | 75 |
| NAPB200 | 30 | 3071 | 77.1 | 108 | 72 |
| LS NO.3 | 34 | 3071 | 80.5 | 113 | 90 |
| NK77W4036 | 28 | 2993 | 77.9 | 108 | 77 |
| NE74649 | 4 | 2981 | 74.4 | 112 | 75 |
| CO786747 | 27 | 2959 | 79.3 | 115 | 78 |
| NE75424 | 5 | 2937 | 79.9 | 109 | 73 |
| OK754615A | 13 | 2925 | 77.7 | 105 | 69 |
| CO786741 | 26 | 2869 | 79.3 | 116 | 77 |
| KS79H69 | 10 | 2858 | 74.4 | 106 | 67 |
| NAPB203 | 32 | 2813 | 75.1 | 112 | 69 |
| NAPB204 | 33 | 2724 | 76.8 | 112 | 66 |
| KS79H70 | 9 | 2712 | 74.2 | 106 | 69 |
| CO779274 | 24 | 2679 | 78.9 | 116 | 79 |
| NK77W4430 | 29 | 2668 | 78.2 | 114 | 77 |
| OK77198 | 15 | 2656 | 78.3 | 107 | 64 |
| NAPB201 | 31 | 2623 | 74.4 | 111 | 64 |
| CO710125 | 25 | 2600 | 75.5 | 115 | 70 |
| OK78047 | 12 | 2533 | 76.4 | 107 | 77 |
| OK80099 | 14 | 2533 | 74.3 | 106 | 69 |
| TX78V3562 | 18 | 2421 | 75.3 | 107 | 72 |
| CO778766 | 22 | 2421 | 75.3 | 118 | 66 |
| TX78V2154 | 17 | 2331 | 74.4 | 110 | 71 |
| CO778785 | 23 | 2320 | 74.4 | 116 | 62 |
| TX73V862 | 20 | 2197 | 74.4 | 107 | 70 |
| 1442 | 1 | 2141 | 77.8 | 123 | 89 |
| MEAN | | 2812 | | | |
| L.S.D. (.05) | | 507 | | | |
| C.V. | | 11.0 | | | |

ALTUS, OKLAHOMA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | PLANT HEIGHT CM | LODGING % |
|---|---|---|---|---|---|
| TX79A2729 | 19 | 4358 | 76.1 | 72 | 8 |
| NK77W4430 | 29 | 4053 | 76 | 84 | 18 |
| OK754615A | 13 | 3999 | 77 | 79 | 17 |
| CO710125 | 25 | 3909 | 71.6 | 78 | 18 |
| KS75210 | 8 | 3856 | 76.9 | 76 | 13 |
| TX71A889 | 16 | 3712 | 77.1 | 77 | 20 |
| TX78V2154 | 17 | 3649 | 74.2 | 77 | 27 |
| CO779274 | 24 | 3649 | 74.6 | 87 | 17 |
| CO786741 | 26 | 3578 | 76.2 | 88 | 23 |
| 17277 | 3 | 3569 | 74.9 | 95 | 43 |
| NAPB200 | 30 | 3569 | 75.3 | 69 | 22 |
| OK78047 | 12 | 3371 | 76.9 | 82 | 30 |
| LS NO.3 | 34 | 3371 | 78.2 | 93 | 38 |
| NE77682 | 6 | 3336 | 76.5 | 85 | 23 |
| CO786747 | 27 | 3282 | 76.9 | 85 | 18 |
| NK77W4036 | 28 | 3282 | 77.3 | 73 | 18 |
| OK78002 | 11 | 3273 | 72.5 | 81 | 22 |
| OK77198 | 15 | 3255 | 76.1 | 71 | 10 |
| 13996 | 2 | 3129 | 75.1 | 90 | 47 |
| NAPB204 | 33 | 3031 | 72.4 | 69 | 22 |
| NAPB203 | 32 | 3022 | 74.7 | 73 | 20 |
| OK80099 | 14 | 2995 | 73.8 | 70 | 18 |
| CO778785 | 23 | 2995 | 70.8 | 79 | 40 |
| KS79H69 | 10 | 2923 | 74.9 | 70 | 12 |
| KS79H70 | 9 | 2914 | 74.8 | 66 | 20 |
| NE75424 | 5 | 2842 | 77.3 | 74 | 37 |
| CO778766 | 22 | 2842 | 72.5 | 82 | 30 |
| TX73V1241 | 21 | 2780 | 76.9 | 74 | 12 |
| TX73V862 | 20 | 2663 | 74.4 | 62 | 30 |
| TX78V3562 | 18 | 2645 | 75.1 | 73 | 13 |
| NAPB201 | 31 | 2600 | 73.3 | 68 | 30 |
| NE78668 | 7 | 2564 | 75.6 | 76 | 32 |
| NE74649 | 4 | 2439 | 71.7 | 83 | 22 |
| 1442 | 1 | 2412 | 73.5 | 101 | 47 |
| MEAN | | 3231 | | | |
| L.S.D. (.05) | | 455 | | | |
| C.V. | | 8.6 | | | |

LAHOMA, OKLAHOMA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | PLANT HEIGHT CM | LODGING % | SHATTER 0-9 |
|---|---|---|---|---|---|---|
| OK78002 | 11 | 4183 | 74.6 | 80 | 40 | 0 |
| TX79A2729 | 19 | 3990 | 74.8 | 74 | 28 | 0 |
| KS75210 | 8 | 3784 | 76.4 | 81 | 23 | 0 |
| NAPB200 | 30 | 3757 | 74.2 | 81 | 35 | 0 |
| NK77W4430 | 29 | 3533 | 76.1 | 85 | 33 | 0 |
| OK77198 | 15 | 3484 | 73.9 | 72 | 18 | 0 |
| OK754615A | 13 | 3416 | 75.7 | 78 | 15 | 0 |
| LS NO.3 | 34 | 3318 | 73.8 | 89 | 25 | 0 |
| CO779274 | 24 | 3255 | 74.4 | 82 | 13 | 0 |
| OK78047 | 12 | 3241 | 75.6 | 91 | 65 | 0 |
| NAPB204 | 33 | 3085 | 73.1 | 71 | 10 | 1 |
| 13996 | 2 | 3058 | 75.1 | 91 | 35 | 0 |
| CO786741 | 26 | 3031 | 74.4 | 81 | 28 | 0 |
| NE75424 | 5 | 3013 | 75.9 | 79 | 23 | 0 |
| TX71A889 | 16 | 2950 | 74.9 | 75 | 13 | 0 |
| CO786747 | 27 | 2932 | 73.9 | 85 | 30 | 0 |
| NAPB203 | 32 | 2892 | 72.6 | 75 | 13 | 0 |
| TX73V862 | 20 | 2829 | 71.2 | 71 | 23 | 0 |
| NE78668 | 7 | 2771 | 72.6 | 88 | 33 | 1 |
| TX78V2154 | 17 | 2757 | 70.4 | 76 | 33 | 0 |
| 17277 | 3 | 2730 | 73.7 | 84 | 28 | 0 |
| OK80099 | 14 | 2645 | 72.6 | 78 | 30 | 1 |
| CO778785 | 23 | 2493 | 71.2 | 72 | 15 | 1 |
| NE77682 | 6 | 2484 | 73.8 | 84 | 30 | 2 |
| NK77W4036 | 28 | 2430 | 72.9 | 81 | 48 | 0 |
| TX78V3562 | 18 | 2242 | 74.4 | 76 | 43 | 0 |
| KS79H69 | 10 | 2165 | 72.6 | 71 | 13 | 0 |
| TX73V1241 | 21 | 2080 | 71.5 | 75 | 23 | 3 |
| KS79H70 | 9 | 1932 | 72.2 | 72 | 33 | 0 |
| NAPB201 | 31 | 1852 | 70 | 70 | 13 | 2 |
| CO778766 | 22 | 1726 | 72.5 | 78 | 15 | 4 |
| CO710125 | 25 | 1444 | 74 | 75 | 13 | 7 |
| NE74649 | 4 | 919 | 72.2 | 82 | 5 | 6 |
| 1442 | 1 | 659 | 73 | 96 | 5 | 8 |
| MEAN | | 2738 | | | | |
| L.S.D.(.05) | | 407 | | | | |
| C.V. | | 9.1 | | | | |

GOODWELL,OKLAHOMA (IRR.)

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM | SHATTER 1-5 |
|---|---|---|---|---|---|---|
| TX79A2729 | 19 | 7066 | 72.8 | 126 | 89 | 2 |
| NAPB204 | 33 | 6997 | 73.3 | 128 | 84 | 3 |
| OK754615A | 13 | 6875 | 74.8 | 121 | 84 | 4 |
| TX71A889 | 16 | 6712 | 73.8 | 127 | 91 | 2 |
| CO778785 | 23 | 6483 | 69.4 | 133 | 99 | 2 |
| NAPB201 | 31 | 6353 | 70.3 | 126 | 89 | 5 |
| CO710125 | 25 | 6316 | 72.9 | 129 | 94 | 4 |
| NAPB200 | 30 | 6255 | 73.4 | 124 | 94 | 3 |
| NK77W4430 | 29 | 6235 | 74.4 | 123 | 94 | 2 |
| OK77198 | 15 | 6202 | 73 | 123 | 86 | 3 |
| CO779274 | 24 | 6096 | 73 | 132 | 102 | 2 |
| TX73V862 | 20 | 6015 | 72 | 123 | 94 | 2 |
| NAPB203 | 32 | 5966 | 73.1 | 127 | 91 | 5 |
| CO778766 | 22 | 5827 | 69.3 | 134 | 97 | 3 |
| KS75210 | 8 | 5660 | 73.1 | 125 | 94 | 3 |
| TX78V2154 | 17 | 5624 | 69.9 | 125 | 91 | 2 |
| OK78002 | 11 | 5326 | 71.6 | 127 | 81 | 4 |
| NK77W4036 | 28 | 5175 | 74 | 125 | 94 | 3 |
| 17277 | 3 | 4967 | 71.9 | 126 | 91 | 2 |
| 13996 | 2 | 4955 | 73.4 | 126 | 107 | 3 |
| CO786741 | 26 | 4947 | 73.8 | 126 | 99 | 5 |
| CO786747 | 27 | 4939 | 72.5 | 127 | 91 | 3 |
| OK78047 | 12 | 4813 | 72.4 | 121 | 97 | 3 |
| OK80099 | 14 | 4698 | 70.4 | 122 | 91 | 4 |
| LS NO.3 | 34 | 4507 | 75.1 | 128 | 97 | 2 |
| NE75424 | 5 | 4010 | 73.7 | 122 | 89 | 5 |
| KS79H69 | 10 | 3928 | 71.6 | 120 | 84 | 5 |
| NE78668 | 7 | 3826 | 69.7 | 123 | 99 | 5 |
| KS79H70 | 9 | 3712 | 72.5 | 121 | 84 | 5 |
| NE74649 | 4 | 3289 | 70.7 | 123 | 86 | 5 |
| TX78V3562 | 18 | 3227 | 71.3 | 122 | 102 | 5 |
| NE77682 | 6 | 3146 | 73.3 | 123 | 97 | 5 |
| 1442 | 1 | 2783 | 71.9 | 128 | 94 | 5 |
| TX73V1241 | 21 | 2690 | 71.5 | 127 | 94 | 5 |
| MEAN | | 5165 | | | | |
| L.S.D.(.05) | | 833 | | | | |
| C.V. | | 9.9 | | | | |

## HUTCHINSON, KANSAS

### THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM |
|---|---|---|---|---|---|
| OK78047 | 12 | 3251 | 77.8 | 116 | 62 |
| KS75210 | 8 | 3208 | 79.6 | 116 | 67 |
| TX73V1241 | 21 | 3176 | 79.2 | 115 | 64 |
| NAPB203 | 32 | 3101 | 77.1 | 116 | 63 |
| 17277 | 3 | 3079 | 78.2 | 118 | 69 |
| TX78V2154 | 17 | 3077 | 75.7 | 115 | 65 |
| TX73V862 | 20 | 3010 | 77.9 | 115 | 61 |
| NE77682 | 6 | 2934 | 78 | 117 | 65 |
| TX79A2729 | 19 | 2926 | 77 | 117 | 61 |
| NK77W4430 | 29 | 2909 | 78.6 | 118 | 68 |
| TX71A889 | 16 | 2768 | 79.6 | 117 | 61 |
| 13996 | 2 | 2750 | 80.2 | 118 | 74 |
| CO778785 | 23 | 2748 | 75.9 | 121 | 67 |
| CO778766 | 22 | 2723 | 76.9 | 124 | 68 |
| OK78002 | 11 | 2722 | 75.7 | 117 | 61 |
| NAPB204 | 33 | 2629 | 76.1 | 118 | 58 |
| NAPB200 | 30 | 2620 | 77.5 | 116 | 64 |
| LS NO.3 | 34 | 2620 | 80.6 | 119 | 69 |
| NK77W4036 | 28 | 2576 | 77.3 | 116 | 61 |
| OK80099 | 14 | 2551 | 75.9 | 114 | 62 |
| NE74649 | 4 | 2531 | 73.3 | 119 | 64 |
| NE75424 | 5 | 2512 | 79.5 | 115 | 65 |
| CO710125 | 25 | 2479 | 76 | 120 | 63 |
| OK77198 | 15 | 2472 | 77.7 | 114 | 57 |
| TX78V3562 | 18 | 2458 | 77.4 | 115 | 64 |
| NE78668 | 7 | 2457 | 76.6 | 116 | 71 |
| CO779274 | 24 | 2360 | 78.8 | 122 | 69 |
| KS79H69 | 10 | 2355 | 76.2 | 114 | 62 |
| OK754615A | 13 | 2292 | 78.2 | 116 | 64 |
| CO786747 | 27 | 2280 | 76.9 | 122 | 61 |
| CO786741 | 26 | 2149 | 76.1 | 121 | 60 |
| 1442 | 1 | 2011 | 76.2 | 127 | 83 |
| NAPB201 | 31 | 1976 | 74 | 116 | 66 |
| KS79H70 | 9 | 1891 | 74.6 | 114 | 62 |
| MEAN | | 2635 | | | |
| L.S.D. (.05) | | 656 | | | |
| C.V. | | 15.2 | | | |

## HAYS, KANSAS

### THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM | SHATTER % |
|---|---|---|---|---|---|---|
| NAPB200 | 30 | 3620 | 72.9 | 119 | 69 | 1 |
| TX73V862 | 20 | 3477 | 71.7 | 119 | 66 | 2 |
| TX79A2729 | 19 | 3419 | 72.5 | 120 | 71 | 4 |
| NAPB201 | 31 | 3405 | 70 | 121 | 66 | 2 |
| NK77W4430 | 29 | 3250 | 74.3 | 120 | 74 | 1 |
| OK754615A | 13 | 3233 | 72.9 | 118 | 69 | 2 |
| TX71A889 | 16 | 3210 | 73.1 | 119 | 66 | 1 |
| CO786741 | 26 | 3165 | 72.5 | 122 | 71 | 2 |
| NAPB203 | 32 | 3152 | 73.8 | 119 | 66 | 4 |
| NAPB204 | 33 | 3141 | 73.1 | 121 | 66 | 2 |
| OK78047 | 12 | 3111 | 74.9 | 120 | 76 | 8 |
| OK80099 | 14 | 3031 | 72.6 | 118 | 69 | 5 |
| OK78002 | 11 | 3024 | 73.8 | 120 | 76 | 7 |
| KS75210 | 8 | 2914 | 76.1 | 120 | 66 | 4 |
| NK77W4036 | 28 | 2896 | 72 | 120 | 64 | 4 |
| CO786747 | 27 | 2890 | 73.8 | 122 | 71 | 4 |
| LS NO.3 | 34 | 2829 | 77.2 | 122 | 76 | 4 |
| KS79H70 | 9 | 2786 | 70.9 | 118 | 66 | 5 |
| 13996 | 2 | 2701 | 74.4 | 121 | 79 | 5 |
| OK77198 | 15 | 2701 | 72.3 | 120 | 66 | 1 |
| NE75424 | 5 | 2683 | 75.3 | 121 | 69 | 4 |
| KS79H69 | 10 | 2670 | 69.6 | 118 | 64 | 4 |
| NE77682 | 6 | 2636 | 73.8 | 122 | 69 | 5 |
| NE78668 | 7 | 2634 | 71.8 | 121 | 66 | 5 |
| TX78V2154 | 17 | 2632 | 68.1 | 118 | 66 | 4 |
| TX78V3562 | 18 | 2621 | 70.9 | 119 | 71 | 5 |
| CO710125 | 25 | 2598 | 71.6 | 124 | 74 | 8 |
| CO778766 | 22 | 2567 | 70.3 | 126 | 66 | 5 |
| TX73V1241 | 21 | 2412 | 72.9 | 119 | 69 | 10 |
| NE74649 | 4 | 2376 | 68 | 121 | 69 | 5 |
| 17277 | 3 | 2374 | 73.4 | 123 | 79 | 5 |
| CO778785 | 23 | 2271 | 69.5 | 126 | 61 | 4 |
| CO779274 | 24 | 1791 | 72 | 126 | 79 | 1 |
| 1442 | 1 | 1092 | 74.5 | 140 | 94 | 52 |
| MEAN | | 2803 | | | | |
| L.S.D.(.05) | | 318 | | | | |
| C.V. | | 7.0 | | | | |

GARDEN CITY, KANSAS

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM |
|---|---|---|---|---|---|
| CO778766 | 22 | 2517 | 76.1 | 127 | 75 |
| LS NO.3 | 34 | 2466 | 82.6 | 124 | 86 |
| CO778785 | 23 | 2358 | 77.4 | 125 | 74 |
| CO786747 | 27 | 2233 | 78.3 | 124 | 72 |
| CO710125 | 25 | 2219 | 73.1 | 125 | 73 |
| CO779274 | 24 | 2195 | 78.3 | 129 | 81 |
| CO786741 | 26 | 2188 | 78.3 | 124 | 72 |
| 17277 | 3 | 2118 | 77.4 | 123 | 81 |
| NK77W4430 | 29 | 2053 | 78.7 | 123 | 79 |
| 1442 | 1 | 1852 | 74.4 | 134 | 97 |
| KS75210 | 8 | 1728 | 80.4 | 121 | 67 |
| NAPB201 | 31 | 1652 | 72.2 | 122 | 66 |
| NE74649 | 4 | 1645 | 73.5 | 122 | 70 |
| OK78047 | 12 | 1645 | 75.3 | 122 | 68 |
| NE78668 | 7 | 1639 | 75.7 | 120 | 75 |
| OK78002 | 11 | 1607 | 71 | 123 | 65 |
| 13996 | 2 | 1603 | 76.5 | 122 | 80 |
| NE75424 | 5 | 1558 | 77.8 | 122 | 64 |
| NE77682 | 6 | 1515 | 77 | 123 | 71 |
| TX73V862 | 20 | 1500 | 75.7 | 120 | 61 |
| NAPB200 | 30 | 1495 | 74.8 | 121 | 69 |
| NK77W4036 | 28 | 1493 | 75.7 | 122 | 70 |
| TX79A2729 | 19 | 1475 | 74.8 | 121 | 65 |
| TX73V1241 | 21 | 1464 | 76.1 | 122 | 68 |
| OK754615A | 13 | 1450 | 74.4 | 118 | 63 |
| TX71A889 | 16 | 1419 | 77 | 121 | 64 |
| NAPB204 | 33 | 1410 | 73.5 | 123 | 65 |
| NAPB203 | 32 | 1179 | 75.7 | 122 | 69 |
| OK80099 | 14 | 1078 | 73.5 | 119 | 64 |
| OK77198 | 15 | 950 | 62.8 | 120 | 58 |
| TX78V2154 | 17 | 901 | 74.8 | 119 | 64 |
| KS79H70 | 9 | 838 | 69.7 | 121 | 58 |
| KS79H69 | 10 | 827 | 69.7 | 120 | 58 |
| TX78V3562 | 18 | 749 | 74.4 | 120 | 67 |
| MEAN | | 1618 | | | |
| L.S.D. (.05) | | 403 | | | |
| C.V. | | 15.3 | | | |

COLBY, KANSAS

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM |
|---|---|---|---|---|---|
| CO710125 | 25 | 3398 | 77.4 | 139 | 91 |
| TX71A889 | 16 | 2913 | 78.2 | 132 | 85 |
| NE77682 | 6 | 2819 | 79.8 | 136 | 101 |
| 13996 | 2 | 2768 | 78.7 | 129 | 99 |
| CO778785 | 23 | 2761 | 75.1 | 141 | 88 |
| OK78047 | 12 | 2715 | 77.4 | 131 | 104 |
| NAPB203 | 32 | 2657 | 77.4 | 135 | 91 |
| CO786741 | 26 | 2642 | 78.4 | 133 | 89 |
| LS NO.3 | 34 | 2591 | 80.4 | 135 | 100 |
| NAPB201 | 31 | 2556 | 75.7 | 135 | 84 |
| CO778766 | 22 | 2555 | 74.6 | 139 | 93 |
| 17277 | 3 | 2520 | 78.2 | 134 | 98 |
| NAPB200 | 30 | 2473 | 78.3 | 133 | 87 |
| OK80099 | 14 | 2468 | 76.1 | 132 | 91 |
| CO786747 | 27 | 2433 | 78.5 | 133 | 92 |
| NAPB204 | 33 | 2392 | 77.3 | 136 | 87 |
| CO779274 | 24 | 2319 | 77.7 | 140 | 102 |
| TX73V1241 | 21 | 2243 | 77.6 | 130 | 83 |
| TX79A2729 | 19 | 2228 | 77 | 129 | 78 |
| NE75424 | 5 | 2158 | 79.8 | 135 | 88 |
| NK77W4430 | 29 | 2124 | 78.9 | 134 | 91 |
| OK754615A | 13 | 2123 | 75.9 | 128 | 86 |
| TX73V862 | 20 | 2094 | 76.3 | 132 | 80 |
| NE74649 | 4 | 2043 | 73.5 | 131 | 86 |
| KS79H69 | 10 | 2036 | 74.8 | 131 | 81 |
| OK78002 | 11 | 1951 | 76.4 | 129 | 85 |
| 1442 | 1 | 1871 | 76.1 | 144 | 121 |
| NE78668 | 7 | 1870 | 74.7 | 136 | 102 |
| KS75210 | 8 | 1870 | 78.9 | 127 | 85 |
| TX78V3562 | 18 | 1826 | 75.1 | 133 | 92 |
| NK77W4036 | 28 | 1740 | 77.1 | 139 | 86 |
| KS79H70 | 9 | 1705 | 74.9 | 133 | 80 |
| TX78V2154 | 17 | 1599 | 72.3 | 128 | 81 |
| OK77198 | 15 | 1523 | 76.5 | 134 | 84 |
| MEAN | | 2294 | | | |
| L.S.D. (.05) | | 492 | | | |
| C.V. | | 13.1 | | | |

FT.COLLINS,COLORADO (IRR.)

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM | LODGING 0-9 |
|---|---|---|---|---|---|---|
| OK78002 | 11 | 7728 | 77.1 | 143 | 101 | 3 |
| NAPB201 | 31 | 7549 | 74.4 | 146 | 91 | 1 |
| NE74649 | 4 | 7340 | 74 | 145 | 113 | 1 |
| NAPB200 | 30 | 7161 | 79.5 | 145 | 101 | 1 |
| CO786741 | 26 | 7086 | 77.5 | 146 | 113 | 1 |
| NAPB204 | 33 | 6996 | 76.4 | 147 | 96 | 0 |
| NAPB203 | 32 | 6981 | 74.4 | 146 | 97 | 0 |
| NK77W4036 | 28 | 6937 | 78.4 | 148 | 109 | 1 |
| CO710125 | 25 | 6922 | 75.6 | 148 | 105 | 1 |
| NE78668 | 7 | 6847 | 75.6 | 146 | 114 | 0 |
| TX73V862 | 20 | 6727 | 78.2 | 146 | 91 | 1 |
| CO786747 | 27 | 6683 | 78.2 | 145 | 115 | 0 |
| CO778785 | 23 | 6571 | 75.6 | 149 | 96 | 1 |
| CO779274 | 24 | 6526 | 76.6 | 149 | 115 | 1 |
| TX79A2729 | 19 | 6511 | 76.6 | 144 | 88 | 0 |
| 17277 | 3 | 6474 | 77.1 | 145 | 119 | 3 |
| NE77682 | 6 | 6421 | 77.1 | 145 | 114 | 1 |
| NK77W4430 | 29 | 6406 | 79.1 | 143 | 104 | 0 |
| TX73V1241 | 21 | 6362 | 78.4 | 144 | 96 | 0 |
| KS79H69 | 10 | 6332 | 75.6 | 143 | 91 | 0 |
| CO778766 | 22 | 6324 | 77.1 | 150 | 97 | 2 |
| OK78047 | 12 | 6302 | 76.9 | 145 | 119 | 2 |
| TX71A889 | 16 | 6257 | 79.1 | 143 | 91 | 0 |
| KS75210 | 8 | 6235 | 78.2 | 144 | 100 | 0 |
| OK754615A | 13 | 6145 | 77.9 | 142 | 90 | 1 |
| OK77198 | 15 | 6145 | 77.5 | 146 | 93 | 0 |
| TX78V2154 | 17 | 6033 | 76 | 138 | 91 | 1 |
| OK80099 | 14 | 5996 | 74.4 | 144 | 102 | 0 |
| NE75424 | 5 | 5951 | 79.1 | 144 | 106 | 1 |
| KS79H70 | 9 | 5854 | 76.4 | 144 | 100 | 0 |
| LS NO.3 | 34 | 5854 | 80 | 145 | 126 | 3 |
| 13996 | 2 | 5637 | 76.4 | 144 | 126 | 5 |
| 1442 | 1 | 4570 | 74 | 152 | 135 | 7 |
| TX78V3562 | 18 | 4361 | 76 | 145 | 99 | 1 |
| MEAN | | 6418 | | | | |
| L.S.D.(.05) | | 1008 | | | | |
| C.V. | | 9.6 | | | | |

AKRON, COLORADO

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM |
|---|---|---|---|---|---|
| CO778785 | 23 | 2817 | 75.2 | 153 | 89 |
| NAPB203 | 32 | 2756 | 76 | 150 | 86 |
| NAPB200 | 30 | 2679 | 77.5 | 150 | 90 |
| CO710125 | 25 | 2671 | 74.3 | 153 | 86 |
| NK77W4430 | 29 | 2662 | 80.6 | 149 | 91 |
| OK78047 | 12 | 2611 | 74 | 149 | 112 |
| CO786741 | 26 | 2605 | 79.9 | 149 | 94 |
| NAPB201 | 31 | 2551 | 76.9 | 151 | 88 |
| NE77682 | 6 | 2540 | 77.7 | 150 | 100 |
| CO779274 | 24 | 2492 | 76.8 | 154 | 104 |
| CO778766 | 22 | 2475 | 77.9 | 153 | 93 |
| NE74649 | 4 | 2466 | 76.4 | 148 | 92 |
| NE75424 | 5 | 2449 | 74.8 | 148 | 96 |
| NAPB204 | 33 | 2449 | 75.6 | 153 | 85 |
| 13996 | 2 | 2415 | 77.9 | 147 | 107 |
| OK77198 | 15 | 2406 | 73.8 | 151 | 85 |
| TX71A889 | 16 | 2406 | 78.3 | 148 | 82 |
| CO786747 | 27 | 2372 | 78.3 | 149 | 97 |
| OK754615A | 13 | 2355 | 74.6 | 148 | 86 |
| KS79H70 | 9 | 2339 | 74 | 149 | 84 |
| OK80099 | 14 | 2330 | 72.8 | 149 | 87 |
| TX73V862 | 20 | 2317 | 77.7 | 152 | 81 |
| 17277 | 3 | 2313 | 77.7 | 147 | 99 |
| TX73V1241 | 21 | 2270 | 78.3 | 149 | 84 |
| KS79H69 | 10 | 2244 | 75.6 | 148 | 82 |
| OK78002 | 11 | 2244 | 74 | 147 | 92 |
| NK77W4036 | 28 | 2244 | 77.9 | 154 | 85 |
| TX79A2729 | 19 | 2170 | 77.7 | 149 | 75 |
| TX78V3562 | 18 | 2167 | 77.7 | 149 | 88 |
| NE78668 | 7 | 2133 | 75.6 | 149 | 104 |
| 1442 | 1 | 2022 | 78.3 | 154 | 124 |
| LS NO.3 | 34 | 2014 | 78.7 | 149 | 105 |
| TX78V2154 | 17 | 1877 | 75.6 | 146 | 84 |
| KS75210 | 8 | 1459 | 77.7 | 147 | 82 |
| MEAN | | 2362 | | | |
| L.S.D. (.05) | | 418 | | | |
| C.V. | | 10.8 | | | |

SPRINGFIELD,COLORADO

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | PLANT HEIGHT CM |
|---|---|---|---|---|
| CO779274 | 24 | 2512 | 74.6 | 64 |
| TX79A2729 | 19 | 2387 | 77.9 | 55 |
| NK77W4036 | 28 | 2322 | 76.4 | 52 |
| 17277 | 3 | 2272 | 75.9 | 55 |
| CO778766 | 22 | 2252 | 74.6 | 53 |
| LS NO.3 | 34 | 2233 | 77.1 | 59 |
| CO710125 | 25 | 2203 | 72.8 | 58 |
| CO786741 | 26 | 2128 | 77.4 | 53 |
| 13996 | 2 | 2113 | 75.3 | 57 |
| CO786747 | 27 | 2093 | 77.1 | 55 |
| NAPB204 | 33 | 2078 | 73.8 | 48 |
| TX71A889 | 16 | 2048 | 77.1 | 48 |
| NE74649 | 4 | 2013 | 72.8 | 50 |
| OK80099 | 14 | 1973 | 74.6 | 52 |
| NAPB203 | 32 | 1973 | 73.5 | 50 |
| 1442 | 1 | 1944 | 74.8 | 71 |
| TX78V3562 | 18 | 1909 | 73 | 52 |
| TX73V862 | 20 | 1889 | 75.9 | 52 |
| NAPB200 | 30 | 1889 | 74.3 | 51 |
| TX73V1241 | 21 | 1884 | 74.3 | 51 |
| NAPB201 | 31 | 1879 | 73 | 48 |
| KS75210 | 8 | 1864 | 77.1 | 47 |
| NE78668 | 7 | 1849 | 75.3 | 55 |
| CO778785 | 23 | 1789 | 75.9 | 53 |
| NK77W4430 | 29 | 1789 | 71.2 | 53 |
| NE77682 | 6 | 1754 | 73 | 51 |
| OK78002 | 11 | 1714 | 74.3 | 50 |
| OK77198 | 15 | 1620 | 78.2 | 46 |
| NE75424 | 5 | 1540 | 75.6 | 51 |
| TX78V2154 | 17 | 1510 | 74.3 | 48 |
| OK78047 | 12 | 1490 | 76.1 | 50 |
| KS79H70 | 9 | 1435 | 73.8 | 47 |
| OK754615A | 13 | 1196 | 74.6 | 48 |
| KS79H69 | 10 | 822 | 74.6 | 43 |
| MEAN | | 1893 | | |
| L.S.D.(.05) | | N.S. | | |
| C.V. | | 25.3 | | |

MEAD,NEBRASKA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM | LODGING % | LEAF SEV. % | RUST RESP 1-9 |
|---|---|---|---|---|---|---|---|---|
| TX79A2729 | 19 | 5808 | 77.8 | 142 | 91 | 0 | 80 | 8 |
| CO778766 | 22 | 5237 | 74.3 | 147 | 99 | 1 | 25 | 8 |
| NAPB203 | 32 | 5237 | 76.6 | 144 | 92 | 0 | 60 | 8 |
| CO710125 | 25 | 5219 | 76.9 | 145 | 95 | 0 | 20 | 8 |
| NAPB201 | 31 | 5212 | 74.8 | 144 | 90 | 0 | 50 | 8 |
| NK77W4430 | 29 | 5187 | 79.2 | 143 | 97 | 0 | 60 | 8 |
| NK77W4036 | 28 | 5160 | 78.9 | 143 | 97 | 0 | 0 | . |
| KS75210 | 8 | 5059 | 78.6 | 143 | 97 | 0 | 90 | 8 |
| NAPB200 | 30 | 5055 | 78 | 143 | 97 | 0 | 60 | 8 |
| NE78668 | 7 | 5003 | 77.7 | 143 | 101 | 0 | 0 | . |
| 17277 | 3 | 4956 | 79.7 | 143 | 109 | 2 | 60 | 8 |
| TX73V862 | 20 | 4932 | 77.5 | 140 | 85 | 0 | 60 | 8 |
| TX71A889 | 16 | 4927 | 81 | 142 | 90 | 0 | 20 | 8 |
| NAPB204 | 33 | 4909 | 76.5 | 144 | 88 | 0 | 50 | 8 |
| OK80099 | 14 | 4853 | 75.9 | 138 | 90 | 0 | 0 | . |
| TX73V1241 | 21 | 4781 | 79.9 | 141 | 93 | 0 | 0 | . |
| NE74649 | 4 | 4770 | 74.6 | 143 | 102 | 0 | 80 | 8 |
| OK78047 | 12 | 4705 | 79.1 | 141 | 102 | 1 | 0 | . |
| 13996 | 2 | 4663 | 78.3 | 143 | 112 | 3 | 60 | 8 |
| CO786747 | 27 | 4589 | 80.4 | 143 | 101 | 0 | 80 | 8 |
| CO779274 | 24 | 4544 | 78.4 | 145 | 95 | 0 | 40 | 8 |
| OK754615A | 13 | 4519 | 79.2 | 136 | 88 | 0 | 40 | 8 |
| NE77682 | 6 | 4508 | 78.9 | 143 | 98 | 0 | 0 | 2 |
| NE75424 | 5 | 4497 | 80 | 142 | 100 | 0 | 80 | 8 |
| OK78002 | 11 | 4488 | 75.6 | 143 | 92 | 0 | 20 | 8 |
| CO778785 | 23 | 4463 | 72 | 146 | 90 | 0 | 50 | 8 |
| CO786741 | 26 | 4430 | 78.9 | 144 | 101 | 0 | 80 | 8 |
| TX78V2154 | 17 | 4257 | 77 | 141 | 92 | 1 | 0 | . |
| LS NO.3 | 34 | 4192 | 79.3 | 145 | 112 | 6 | 80 | 8 |
| TX78V3562 | 18 | 4111 | 77.7 | 140 | 94 | 0 | 15 | 8 |
| OK77198 | 15 | 4066 | 78.4 | 140 | 88 | 0 | 20 | 8 |
| KS79H69 | 10 | 3992 | 76.9 | 139 | 82 | 0 | 0 | . |
| 1442 | 1 | 3663 | 76 | 150 | 122 | 5 | 80 | 8 |
| KS79H70 | 9 | 3262 | 75.6 | 140 | 76 | 0 | 0 | . |
| MEAN | | 4684 | | | | | | |
| L.S.D.(.05) | | 676 | | | | | | |
| C.V. | | 8.8 | | | | | | |

CLAY CENTER, NEBRASKA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM | LEAF RUST SEV. % | RUST RESP: 1-9 | STRIPE RUST SEV. 1-5 |
|---|---|---|---|---|---|---|---|---|
| TX71A889 | 16 | 5266 | 78 | 141 | 96 | 20 | 8 | 0 |
| TX79A2729 | 19 | 5248 | 77.9 | 142 | 91 | 80 | 8 | 0 |
| NAPB200 | 30 | 5118 | 76.8 | 142 | 97 | 60 | 8 | 1 |
| CO710125 | 25 | 5055 | 77.4 | 149 | 96 | 20 | 8 | 1 |
| 17277 | 3 | 4956 | 77.1 | 145 | 109 | 60 | 8 | 0 |
| NAPB201 | 31 | 4956 | 73.5 | 144 | 95 | 50 | 8 | 1 |
| NAPB203 | 32 | 4916 | 76 | 144 | 97 | 60 | 8 | 4 |
| OK77198 | 15 | 4860 | 74.3 | 142 | 96 | 20 | 8 | 0 |
| TX73V862 | 20 | 4804 | 74.6 | 141 | 89 | 60 | 8 | 1 |
| CO778766 | 22 | 4748 | 73.8 | 150 | 104 | 25 | 8 | 5 |
| NE78668 | 7 | 4734 | 76.5 | 145 | 111 | 0 | . | 0 |
| NAPB204 | 33 | 4660 | 75.2 | 144 | 93 | 50 | 8 | 4 |
| OK754615A | 13 | 4642 | 76.9 | 142 | 96 | 40 | 8 | 0 |
| TX78V2154 | 17 | 4636 | 77.5 | 142 | 97 | 0 | . | 4 |
| TX73V1241 | 21 | 4622 | 77.9 | 142 | 96 | 0 | . | 2 |
| NK77W4036 | 28 | 4602 | 76.2 | 145 | 105 | 0 | . | 5 |
| KS75210 | 8 | 4560 | 78 | 143 | 98 | 90 | 8 | 0 |
| CO786741 | 26 | 4553 | 78.2 | 146 | 108 | 80 | 8 | 3 |
| OK80099 | 14 | 4546 | 77.3 | 141 | 97 | 0 | . | 0 |
| NK77W4430 | 29 | 4495 | 78.7 | 144 | 102 | 60 | 8 | 3 |
| OK78002 | 11 | 4479 | 75.2 | 143 | 95 | 20 | 8 | 2 |
| OK78047 | 12 | 4459 | 75.1 | 143 | 110 | 0 | . | 1 |
| NE75424 | 5 | 4441 | 77.8 | 142 | 104 | 80 | 8 | 1 |
| CO786747 | 27 | 4358 | 78.3 | 146 | 106 | 80 | 8 | 3 |
| NE74649 | 4 | 4322 | 73.7 | 143 | 105 | 80 | 8 | 0 |
| KS79H69 | 10 | 4255 | 75.5 | 141 | 87 | 0 | . | 2 |
| CO779274 | 24 | 4158 | 71.3 | 148 | 112 | 40 | 8 | 2 |
| CO778785 | 23 | 4140 | 78 | 150 | 100 | 50 | 8 | 4 |
| NE77682 | 6 | 4136 | 77.4 | 144 | 108 | 0 | . | 0 |
| KS79H70 | 9 | 3977 | 75.9 | 142 | 87 | 0 | . | 2 |
| TX78V3562 | 18 | 3961 | 75.1 | 141 | 98 | 15 | 8 | 0 |
| 13996 | 2 | 3959 | 77.1 | 143 | 112 | 60 | 8 | 1 |
| LS NO.3 | 34 | 3425 | . | 145 | 117 | 80 | 8 | 1 |
| 1442 | 1 | 3002 | 74 | 150 | 129 | 80 | 8 | 1 |
| MEAN | | 4501 | | | | | | |
| L.S.D.(.05) | | 501 | | | | | | |
| C.V. | | 6.8 | | | | | | |

NORTH PLATTE, NEBRASKA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | FROST DAMAGE 0-5 |
|---|---|---|---|---|
| CO710125 | 25 | 3946 | 76.4 | 1 |
| CO778785 | 23 | 3845 | 72.2 | 1 |
| NK77W4036 | 28 | 3209 | 76.1 | 1 |
| NAPB204 | 33 | 3169 | 67.2 | 1 |
| NAPB200 | 30 | 3067 | 77.1 | 2 |
| NAPB203 | 32 | 3064 | 75.1 | 2 |
| NAPB201 | 31 | 2870 | 73.8 | 1 |
| CO778766 | 22 | 2833 | 74.4 | 2 |
| OK78047 | 12 | 2832 | 76.8 | 1 |
| TX71A889 | 16 | 2772 | 76.1 | 2 |
| NE75424 | 5 | 2678 | 76.8 | 1 |
| NE77682 | 6 | 2651 | 77.7 | 1 |
| CO786741 | 26 | 2573 | 77.4 | 2 |
| CO786747 | 27 | 2558 | 77.7 | 2 |
| TX73V862 | 20 | 2494 | 74.6 | 2 |
| NK77W4430 | 29 | 2485 | 77.3 | 3 |
| 17277 | 3 | 2468 | 76.5 | 2 |
| NE78668 | 7 | 2439 | 74.2 | 1 |
| CO779274 | 24 | 2394 | 75.5 | 1 |
| 1442 | 1 | 2261 | 72.9 | 0 |
| KS79H69 | 10 | 2257 | 74.8 | 3 |
| 13996 | 2 | 2203 | 76.1 | 2 |
| TX73V1241 | 21 | 2161 | 75.7 | 3 |
| OK80099 | 14 | 2075 | 73.8 | 3 |
| TX79A2729 | 19 | 2072 | 75.1 | 3 |
| OK754615A | 13 | 2057 | 76.4 | 2 |
| OK77198 | 15 | 2041 | 75.2 | 2 |
| LS NO.3 | 34 | 1955 | 79.3 | 1 |
| KS79H70 | 9 | 1929 | 73.5 | 4 |
| NE74649 | 4 | 1875 | 74.2 | 2 |
| OK78002 | 11 | 1809 | 75.2 | 3 |
| KS75210 | 8 | 1684 | 77.8 | 3 |
| TX78V3562 | 18 | 1147 | 75.5 | 4 |
| TX78V2154 | 17 | 1078 | 75.5 | 5 |
| MEAN | | 2440 | | |
| L.S.D.(.05) | | 548 | | |
| C.V. | | 13.8 | | |

SIDNEY, NEBRASKA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 |
|---|---|---|---|---|
| TX78V2154 | 17 | 5059 | 78.3 | 153 |
| OK754615A | 13 | 4890 | 80 | 155 |
| CO778766 | 22 | 4798 | 78.4 | 157 |
| NAPB200 | 30 | 4791 | 79.9 | 156 |
| TX71A889 | 16 | 4695 | 80.8 | 153 |
| TX79A2729 | 19 | 4668 | 80.9 | 154 |
| TX73V862 | 20 | 4644 | 80.1 | 154 |
| OK77198 | 15 | 4547 | 79.1 | 155 |
| NAPB201 | 31 | 4537 | 77.9 | 157 |
| NAPB204 | 33 | 4529 | 78.9 | 156 |
| CO710125 | 25 | 4473 | 77 | 157 |
| TX78V3562 | 18 | 4451 | 77.8 | 154 |
| CO786741 | 26 | 4425 | 81.5 | 154 |
| TX73V1241 | 21 | 4408 | 80.4 | 154 |
| NAPB203 | 32 | 4316 | 79.5 | 156 |
| OK80099 | 14 | 4300 | 77.4 | 153 |
| CO778785 | 23 | 4185 | 70 | 157 |
| KS79H69 | 10 | 4075 | 78.8 | 156 |
| CO779274 | 24 | 4049 | 78.4 | 157 |
| NE74649 | 4 | 4036 | 77.4 | 153 |
| 17277 | 3 | 3966 | 79.6 | 156 |
| KS79H70 | 9 | 3922 | 78.7 | 157 |
| NK77W4430 | 29 | 3919 | 82.2 | 153 |
| NK77W4036 | 28 | 3895 | 79.9 | 156 |
| NE77682 | 6 | 3889 | 80.6 | 155 |
| CO786747 | 27 | 3800 | 80.9 | 154 |
| OK78002 | 11 | 3735 | 78.9 | 152 |
| KS75210 | 8 | 3733 | 80.4 | 155 |
| NE78668 | 7 | 3725 | 78.2 | 157 |
| NE75424 | 5 | 3611 | 81.1 | 156 |
| 13996 | 2 | 3522 | 78.9 | 154 |
| OK78047 | 12 | 3024 | 78.7 | 157 |
| LS NO.3 | 34 | 2871 | 81 | 156 |
| 1442 | 1 | 2795 | 78.7 | 158 |
| MEAN | | 4126 | | |
| L.S.D.(.05) | | 614 | | |
| C.V. | | 9.1 | | |

ALLIANCE, NEBRASKA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 |
|---|---|---|---|---|
| NE77682 | 6 | 3151 | 73.5 | 152 |
| CO786741 | 26 | 3029 | 75.1 | 152 |
| CO778766 | 22 | 2952 | 68.6 | 154 |
| CO786747 | 27 | 2796 | 74.8 | 152 |
| 1442 | 1 | 2643 | 71.6 | 154 |
| OK78047 | 12 | 2638 | 75.5 | 152 |
| CO778785 | 23 | 2603 | 67.7 | 153 |
| OK80099 | 14 | 2588 | 72.9 | 152 |
| LS NO.3 | 34 | 2587 | 77.4 | 152 |
| CO710125 | 25 | 2550 | 70.3 | 153 |
| NE78668 | 7 | 2539 | 72.2 | 153 |
| 13996 | 2 | 2491 | 75.1 | 152 |
| NAPB200 | 30 | 2461 | 72 | 152 |
| OK78002 | 11 | 2454 | 74.8 | 153 |
| NAPB203 | 32 | 2340 | 71.2 | 153 |
| NE74649 | 4 | 2333 | 69 | 152 |
| NAPB201 | 31 | 2270 | 68.4 | 152 |
| OK77198 | 15 | 2250 | 73.7 | 152 |
| NK77W4036 | 28 | 2246 | 71 | 153 |
| TX73V862 | 20 | 2217 | 72.2 | 153 |
| 17277 | 3 | 2212 | 73.5 | 153 |
| NE75424 | 5 | 2196 | 73.5 | 152 |
| TX73V1241 | 21 | 2168 | 72.2 | 152 |
| OK754615A | 13 | 2010 | 72.2 | 153 |
| TX71A889 | 16 | 1993 | 74.2 | 152 |
| KS75210 | 8 | 1953 | 75.5 | 152 |
| NAPB204 | 33 | 1900 | 71 | 152 |
| NK77W4430 | 29 | 1860 | 74.8 | 152 |
| TX78V3562 | 18 | 1789 | 71.6 | 152 |
| TX79A2729 | 19 | 1674 | 72.2 | 151 |
| CO779274 | 24 | 1669 | 72 | 152 |
| KS79H69 | 10 | 1530 | 71.2 | 152 |
| TX78V2154 | 17 | 1114 | 71 | 154 |
| KS79H70 | 9 | 1038 | 71.6 | 153 |
| MEAN | | 2242 | | |
| L.S.D.(.05) | | 501 | | |
| C.V. | | 13.7 | | |

BROOKINGS, SOUTH DAKOTA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | DAYS TO HEADING FROM 1/1 | FROST ROOT ROT DAMAGE % |
|---|---|---|---|---|
| NAPB201 | 31 | 3357 | 152 | 35 |
| CO786741 | 26 | 3231 | 151 | 25 |
| NAPB204 | 33 | 3228 | 151 | 20 |
| NE77682 | 6 | 3223 | 152 | 15 |
| NE78668 | 7 | 3071 | 152 | 20 |
| NK77W4036 | 28 | 2973 | 151 | 25 |
| CO779274 | 24 | 2911 | 154 | 20 |
| NE74649 | 4 | 2821 | 153 | 35 |
| 1442 | 1 | 2738 | 158 | 20 |
| NE75424 | 5 | 2713 | 151 | 50 |
| 13996 | 2 | 2699 | 152 | 65 |
| NAPB203 | 32 | 2680 | 152 | 75 |
| CO778785 | 23 | 2643 | 155 | 20 |
| 17277 | 3 | 2603 | 153 | 20 |
| OK77198 | 15 | 2601 | 151 | 90 |
| OK78047 | 12 | 2591 | 152 | 20 |
| OK80099 | 14 | 2564 | 153 | 30 |
| TX73V1241 | 21 | 2564 | 150 | 25 |
| NK77W4430 | 29 | 2564 | 150 | 50 |
| CO778766 | 22 | 2550 | 155 | 15 |
| CO710125 | 25 | 2526 | 153 | 25 |
| LS NO.3 | 34 | 2479 | 152 | 20 |
| TX79A2729 | 19 | 2458 | 150 | 20 |
| CO786747 | 27 | 2426 | 152 | 70 |
| TX71A889 | 16 | 2423 | 152 | 70 |
| TX73V862 | 20 | 2370 | 152 | 65 |
| NAPB200 | 30 | 2240 | 151 | 93 |
| TX78V3562 | 18 | 2196 | 150 | 15 |
| KS75210 | 8 | 2091 | 151 | 85 |
| TX78V2154 | 17 | 1846 | 149 | 50 |
| OK78002 | 11 | 1692 | 152 | 68 |
| OK754615A | 13 | 1563 | 149 | 80 |
| KS79H70 | 9 | 1342 | 151 | 98 |
| KS79H69 | 10 | 1278 | 151 | 98 |
| MEAN | | 2507 | | |
| L.S.D.(.05) | | 537 | | |
| C.V. | | 13.1 | | |

HIGHMORE, SOUTH DAKOTA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | PLANT HEIGHT CM | LODGING % | SHATTER % | STAND % |
|---|---|---|---|---|---|---|---|
| CO786741 | 26 | 4550 | 79.5 | 79 | 3 | 1 | 93 |
| NE77682 | 6 | 4265 | 78.9 | 82 | 8 | 12 | 98 |
| NE78668 | 7 | 4197 | 77.1 | 81 | 5 | 1 | 100 |
| NAPB203 | 32 | 4146 | 77.7 | 74 | 2 | 1 | 100 |
| CO786747 | 27 | 4142 | 78.9 | 85 | 2 | 1 | 100 |
| 17277 | 3 | 4051 | 78.2 | 84 | 7 | 1 | 100 |
| NAPB201 | 31 | 4010 | 76.6 | 73 | 3 | 1 | 93 |
| NAPB200 | 30 | 4005 | 78.9 | 80 | 5 | 3 | 100 |
| NAPB204 | 33 | 3927 | 77.8 | 73 | 0 | 1 | 83 |
| TX73V1241 | 21 | 3926 | 78.3 | 76 | 3 | 4 | 87 |
| OK77198 | 15 | 3918 | 78.5 | 71 | 0 | 1 | 70 |
| TX73V862 | 20 | 3900 | 78.6 | 69 | 0 | 0 | 87 |
| NE74649 | 4 | 3861 | 75.7 | 83 | 0 | 21 | 83 |
| 1442 | 1 | 3760 | 75.3 | 94 | 18 | 1 | 100 |
| NE75424 | 5 | 3723 | 79.9 | 78 | 2 | 1 | 93 |
| 13996 | 2 | 3712 | 78.6 | 86 | 12 | 0 | 97 |
| TX79A2729 | 19 | 3586 | 78.5 | 65 | 0 | 0 | 65 |
| CO778766 | 22 | 3578 | 75.8 | 78 | 5 | 2 | 73 |
| CO779274 | 24 | 3542 | 77.1 | 87 | 3 | 0 | 55 |
| OK754615A | 13 | 3446 | 78.7 | 75 | 0 | 0 | 70 |
| NK77W4430 | 29 | 3435 | 78.1 | 77 | 3 | 6 | 80 |
| CO778785 | 23 | 3425 | 74.8 | 72 | 2 | 1 | 67 |
| CO710125 | 25 | 3423 | 76.3 | 76 | 2 | 2 | 57 |
| NK77W4036 | 28 | 3418 | 77.7 | 75 | 5 | 2 | 90 |
| OK80099 | 14 | 3346 | 76 | 75 | 0 | 0 | 90 |
| LS NO.3 | 34 | 3332 | 80.4 | 87 | 12 | 0 | 83 |
| KS75210 | 8 | 3318 | 79.2 | 69 | 2 | 0 | 87 |
| OK78047 | 12 | 3277 | 78.1 | 81 | 7 | 1 | 90 |
| TX71A889 | 16 | 3261 | 78.9 | 67 | 0 | 0 | 23 |
| TX78V3562 | 18 | 3203 | 77.2 | 78 | 0 | 1 | 80 |
| KS79H69 | 10 | 2989 | 75.1 | 67 | 0 | 3 | 8 |
| TX78V2154 | 17 | 2841 | 76.4 | 73 | 5 | 0 | 37 |
| OK78002 | 11 | 2745 | 75.3 | 74 | 2 | 1 | 30 |
| KS79H70 | 9 | 2237 | 75.7 | 72 | 0 | 3 | 5 |
| MEAN | | 3603 | | | | | |
| L.S.D.(.05) | | 702 | | | | | |
| C.V. | | 11.9 | | | | | |

PRESHO, SOUTH DAKOTA

TWO REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL |
|---|---|---|---|
| NE78668 | 7 | 2801 | 76.3 |
| NE77682 | 6 | 2414 | 73.9 |
| 17277 | 3 | 2342 | 75.8 |
| NAPB203 | 32 | 2306 | 72.7 |
| 1442 | 1 | 2294 | 75.3 |
| OK754615A | 13 | 2252 | 74.6 |
| CO778766 | 22 | 2234 | 72.6 |
| TX73V1241 | 21 | 2191 | 74.9 |
| CO786747 | 27 | 2189 | 76 |
| CO778785 | 23 | 2167 | 74.8 |
| NAPB204 | 33 | 2167 | 71.6 |
| NAPB200 | 30 | 2101 | 73.4 |
| NAPB201 | 31 | 2101 | 70.2 |
| CO786741 | 26 | 2099 | 75.5 |
| LS NO.3 | 34 | 2091 | 77.1 |
| 13996 | 2 | 2019 | 74.1 |
| NE74649 | 4 | 1985 | 70.5 |
| OK78047 | 12 | 1933 | 76.9 |
| OK80099 | 14 | 1923 | 74.4 |
| OK77198 | 15 | 1895 | 75.1 |
| CO779274 | 24 | 1839 | 72.8 |
| CO710125 | 25 | 1704 | 69.8 |
| TX79A2729 | 19 | 1662 | 74.1 |
| NK77W4036 | 28 | 1624 | 73.1 |
| NE75424 | 5 | 1614 | 75.9 |
| TX71A889 | 16 | 1598 | 74.5 |
| TX78V2154 | 17 | 1474 | 70.8 |
| TX73V862 | 20 | 1464 | 70.4 |
| NK77W4430 | 29 | 1438 | 69.1 |
| KS79H70 | 9 | 1416 | 69.8 |
| KS75210 | 8 | 1398 | 75.5 |
| TX78V3562 | 18 | 1325 | 72.6 |
| KS79H69 | 10 | 1223 | 71 |
| OK78002 | 11 | 1033 | 74.2 |
| MEAN | | 1892 | |
| L.S.D.(.05) | | 429 | |
| C.V. | | 11.1 | |

COLUMBIA, MISSOURI

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM | LODGING % | MILDEW % | WHEAT STREAK MOSAIC 0-9 |
|---|---|---|---|---|---|---|---|---|
| CO778766 | 22 | 4122 | 70.3 | . | 94 | 14 | 8 | 5 |
| CO786747 | 27 | 4100 | 74.8 | 127 | 91 | 17 | 28 | 4 |
| NAPB200 | 30 | 3943 | 72.2 | 121 | 89 | 12 | 5 | 3 |
| CO786741 | 26 | 3923 | 73.5 | 128 | 91 | 18 | 17 | 4 |
| OK80099 | 14 | 3912 | 71.6 | 120 | 89 | 14 | 4 | 3 |
| TX73V1241 | 21 | 3887 | 73.5 | 123 | 87 | 13 | 32 | 4 |
| CO710125 | 25 | 3782 | 72.2 | 129 | 88 | 18 | 28 | 6 |
| OK78047 | 12 | 3775 | 73.5 | 121 | 92 | 25 | 3 | 3 |
| NE78668 | 7 | 3746 | 73.5 | 123 | 93 | 8 | 2 | 4 |
| OK78002 | 11 | 3690 | 73.5 | 123 | 86 | 19 | 3 | 4 |
| TX71A889 | 16 | 3676 | 74.8 | 126 | 89 | 12 | 9 | 4 |
| TX79A2729 | 19 | 3602 | 72.2 | 124 | 80 | 12 | 20 | 3 |
| NAPB203 | 32 | 3553 | 72.2 | 125 | 86 | 16 | 32 | 5 |
| NK77W4430 | 29 | 3549 | 74.8 | 126 | 91 | 22 | 37 | 3 |
| CO779274 | 24 | 3535 | 73.5 | 128 | 100 | 12 | 7 | 6 |
| NE75424 | 5 | 3484 | 73.5 | 123 | 88 | 18 | 12 | 4 |
| OK77198 | 15 | 3481 | 71 | 122 | 80 | 13 | 22 | 3 |
| TX73V862 | 20 | 3481 | 73.5 | 120 | 76 | 17 | 40 | 4 |
| NE77682 | 6 | 3423 | 74.2 | 125 | 94 | 20 | 7 | 4 |
| NAPB201 | 31 | 3385 | 72.9 | 124 | 80 | 25 | 28 | 3 |
| KS75210 | 8 | 3363 | 72.9 | 123 | 86 | 17 | 30 | 4 |
| 13996 | 2 | 3250 | 73.5 | 125 | 102 | 26 | 22 | 4 |
| NE74649 | 4 | 3232 | 69 | 124 | 91 | 17 | 20 | 4 |
| TX78V2154 | 17 | 3210 | 71 | 123 | 86 | 16 | 40 | 5 |
| OK754615A | 13 | 3194 | 73.5 | 120 | 85 | 9 | 17 | 4 |
| NK77W4036 | 28 | 3154 | 72.9 | 123 | 86 | 15 | 7 | 4 |
| TX78V3562 | 18 | 3076 | 71 | 119 | 84 | 10 | 30 | 3 |
| KS79H70 | 9 | 3060 | 71 | 120 | 76 | 8 | 18 | 5 |
| KS79H69 | 10 | 3060 | 71 | 119 | 79 | 8 | 20 | 4 |
| 17277 | 3 | 3024 | 71.6 | 127 | 95 | 18 | 12 | 5 |
| LS NO.3 | 34 | 2997 | 74.8 | 127 | 98 | 31 | 28 | 4 |
| NAPB204 | 33 | 2903 | 71 | 127 | 83 | 14 | 30 | 5 |
| CO778785 | 23 | 2764 | 66.4 | . | 89 | 19 | 15 | 6 |
| 1442 | 1 | 2186 | 71 | 129 | 109 | 35 | 10 | 5 |
| MEAN | | 3427 | | | | | | |
| L.S.D.(.05) | | 646 | | | | | | |
| C.V. | | 11.5 | | | | | | |

AMES, IOWA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | DAYS TO RIPENING FROM 1/1 | PLANT HEIGHT CM | LODGING % |
|---|---|---|---|---|---|---|---|
| CO710125 | 25 | 6165 | 77.7 | 146 | 183 | 93 | 3 |
| TX79A2729 | 19 | 6131 | 78.8 | 142 | 181 | 82 | 10 |
| NAPB201 | 31 | 6041 | 75.3 | 145 | 183 | 86 | 3 |
| NAPB203 | 32 | 6041 | 76.8 | 144 | 183 | 87 | 1 |
| KS75210 | 8 | 5983 | 80.2 | 142 | 181 | 91 | 26 |
| OK78002 | 11 | 5723 | 77.5 | 144 | 182 | 90 | 8 |
| NAPB204 | 33 | 5705 | 77.3 | 144 | 183 | 83 | 1 |
| TX78V2154 | 17 | 5696 | 76.1 | 140 | 179 | 89 | 29 |
| NE75424 | 5 | 5593 | 80.4 | 142 | 181 | 93 | 2 |
| NE77682 | 6 | 5593 | 79.2 | 143 | 179 | 100 | 20 |
| NE78668 | 7 | 5571 | 76.9 | 141 | 180 | 101 | 21 |
| KS79H69 | 10 | 5335 | 77.7 | 140 | 179 | 86 | 1 |
| TX71A889 | 16 | 5324 | 78.4 | 144 | 182 | 84 | 1 |
| NAPB200 | 30 | 5290 | 77.1 | 143 | 181 | 86 | 0 |
| TX73V862 | 20 | 5212 | 77.9 | 141 | 176 | 80 | 2 |
| CO786747 | 27 | 5212 | 79.6 | 146 | 181 | 98 | 2 |
| OK754615A | 13 | 5198 | 78.6 | 137 | 178 | 86 | 8 |
| NE74649 | 4 | 5189 | 75.3 | 143 | 182 | 96 | 5 |
| OK80099 | 14 | 5172 | 76.5 | 139 | 179 | 86 | 3 |
| 17277 | 3 | 5156 | 79.1 | 145 | 181 | 103 | 34 |
| NK77W4036 | 28 | 5111 | 79.1 | 143 | 182 | 93 | 2 |
| TX78V3562 | 18 | 5035 | 77.4 | 138 | 180 | 91 | 1 |
| TX73V1241 | 21 | 5033 | 79.2 | 142 | 180 | 88 | 3 |
| OK77198 | 15 | 5006 | 77.7 | 140 | 180 | 84 | 1 |
| CO778766 | 22 | 4988 | 74.4 | 148 | 183 | 91 | 17 |
| LS NO.3 | 34 | 4831 | 80.8 | 146 | 182 | 110 | 56 |
| CO778785 | 23 | 4811 | 73.8 | 148 | 185 | 86 | 2 |
| CO786741 | 26 | 4779 | 79.2 | 145 | 181 | 97 | 2 |
| CO779274 | 24 | 4752 | 79.3 | 147 | 183 | 103 | 12 |
| 13996 | 2 | 4732 | 79.1 | 144 | 181 | 104 | 75 |
| NK77W4430 | 29 | 4685 | 78.2 | 144 | 181 | 92 | 5 |
| 1442 | 1 | 4577 | 77.3 | 150 | 183 | 117 | 89 |
| KS79H70 | 9 | 4454 | 76.8 | 139 | 176 | 81 | 1 |
| OK78047 | 12 | 4430 | 76.8 | 142 | 178 | 95 | 7 |
| MEAN | | 5252 | | | | | |
| L.S.D.(.05) | | 901 | | | | | |
| C.V. | | 10.5 | | | | | |

URBANA, ILLINOIS

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM | LODGING 0-9 | MILDEW 0-9 |
|---|---|---|---|---|---|---|---|
| NE78668 | 7 | 3721 | 78.2 | 142 | 110 | 3 | 0 |
| TX73V1241 | 21 | 3374 | 80.6 | 139 | 100 | 2 | 5 |
| NK77W4036 | 28 | 3262 | 81.7 | 140 | 102 | 2 | 3 |
| NAPB203 | 32 | 3026 | 73.4 | 143 | 98 | 1 | 6 |
| OK80099 | 14 | 3004 | 78.8 | 138 | 102 | 4 | 1 |
| TX78V2154 | 17 | 2948 | 76.9 | 139 | 103 | 4 | 7 |
| KS79H70 | 9 | 2903 | 78.8 | 138 | 96 | 1 | 6 |
| NAPB201 | 31 | 2869 | 71 | 142 | 97 | 1 | 6 |
| TX71A889 | 16 | 2813 | 75.5 | 141 | 101 | 1 | 4 |
| TX78V3562 | 18 | 2791 | 75.9 | 137 | 107 | 1 | 6 |
| TX73V862 | 20 | 2780 | 72 | 137 | 95 | 2 | 8 |
| OK77198 | 15 | 2768 | 80.9 | 138 | 98 | 2 | 6 |
| OK754615A | 13 | 2735 | 80.4 | 136 | 97 | 2 | 5 |
| TX79A2729 | 19 | 2645 | 77.7 | 141 | 92 | 1 | 6 |
| NAPB204 | 33 | 2578 | 76.4 | 143 | 97 | 0 | 6 |
| OK78047 | 12 | 2567 | 79.3 | 139 | 107 | 8 | 0 |
| NAPB200 | 30 | 2567 | 74.7 | 139 | 107 | 3 | 5 |
| OK78002 | 11 | 2443 | 75.7 | 142 | 102 | 5 | 1 |
| 17277 | 3 | 2331 | 76.1 | 143 | 109 | 4 | 4 |
| KS75210 | 8 | 2309 | 81.4 | 140 | 102 | 2 | 5 |
| KS79H69 | 10 | 2287 | 78.4 | 139 | 96 | 2 | 6 |
| CO778766 | 22 | 2219 | 75.2 | 145 | 109 | 4 | 2 |
| NE74649 | 4 | 2208 | 67.5 | 143 | 96 | 4 | 5 |
| NE77682 | 6 | 2186 | 79.3 | 143 | 110 | 4 | 4 |
| CO710125 | 25 | 2174 | 78.4 | 144 | 104 | 1 | 7 |
| 1442 | 1 | 2130 | 74.7 | 145 | 110 | 7 | 4 |
| CO786741 | 26 | 2051 | 80.6 | 143 | 107 | 3 | 6 |
| CO786747 | 27 | 2006 | 78.8 | 143 | 107 | 3 | 5 |
| NK77W4430 | 29 | 1995 | 83.6 | 142 | 104 | 1 | 8 |
| NE75424 | 5 | 1905 | 77.9 | 143 | 102 | 3 | 7 |
| 13996 | 2 | 1726 | 74.9 | 141 | 102 | 6 | 5 |
| CO779274 | 24 | 1580 | 77.4 | 146 | 114 | 5 | 4 |
| CO778785 | 23 | 1468 | 65.5 | 147 | 106 | 4 | 4 |
| LS NO.3 | 34 | 1222 | 74.2 | 143 | 111 | 6 | 6 |
| MEAN | | 2459 | | | | | |
| L.S.D.(.05) | | 601 | | | | | |
| C.V. | | 15.0 | | | | | |

ABERDEEN, IDAHO

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM | LEAF RUST SEV. % | LEAF RUST RESP 1-9 | STRIPE RUST SEV. % | STRIPE RUST RESP 1-9 |
|---|---|---|---|---|---|---|---|---|---|
| CO778785 | 23 | 4765 | 80.4 | 155 | 92 | . | 0 | 80 | 6 |
| CO710125 | 25 | 4727 | 80.2 | 155 | 98 | . | 0 | 5 | 4 |
| NAPB201 | 31 | 4619 | 79.1 | 155 | 98 | . | 0 | 20 | 5 |
| CO778766 | 22 | 4549 | 80.6 | 156 | 102 | . | 0 | 20 | 6 |
| NE78668 | 7 | 4124 | 78.9 | 158 | 112 | . | 0 | 20 | 4 |
| NAPB200 | 30 | 4103 | 81.8 | 153 | 102 | . | 0 | 10 | 4 |
| NK77W4036 | 28 | 4058 | 80.5 | 155 | 104 | . | 0 | 5 | 3 |
| CO779274 | 24 | 4018 | 80.2 | 155 | 109 | . | 0 | 10 | 5 |
| OK77198 | 15 | 3746 | 79.9 | 155 | 93 | 5 | 4 | 30 | 6 |
| CO786741 | 26 | 3734 | 81.5 | 152 | 102 | 5 | 4 | 10 | 5 |
| OK754615A | 13 | 3593 | 78.7 | 153 | 97 | . | 0 | 20 | 5 |
| TX73V862 | 20 | 3436 | 79.9 | 154 | 90 | . | 0 | 20 | 6 |
| NAPB203 | 32 | 3371 | 79.3 | 154 | 88 | . | 0 | 80 | 7 |
| NAPB204 | 33 | 3335 | 79.3 | 155 | 85 | . | 0 | 80 | 7 |
| NK77W4430 | 29 | 3281 | 80.2 | 152 | 107 | . | 0 | 10 | 6 |
| NE77682 | 6 | 3276 | 78.4 | 154 | 116 | 5 | 3 | 10 | 4 |
| KS79H70 | 9 | 3265 | 78.9 | 152 | 98 | . | 0 | 20 | 7 |
| TX78V2154 | 17 | 3184 | 78.7 | 151 | 96 | . | 0 | 40 | 7 |
| TX73V1241 | 21 | 3095 | 80.6 | 152 | 98 | . | 0 | 20 | 6 |
| TX78V3562 | 18 | 2958 | 79.3 | 153 | 111 | 5 | 2 | 20 | 6 |
| KS79H69 | 10 | 2932 | 78.9 | 152 | 96 | . | 0 | 30 | 6 |
| TX79A2729 | 19 | 2881 | 79.7 | 151 | 87 | . | 0 | 30 | 7 |
| OK80099 | 14 | 2877 | 80.5 | 154 | 93 | . | 0 | 20 | 6 |
| CO786747 | 27 | 2870 | 81 | 151 | 99 | . | 0 | . | 0 |
| OK78047 | 12 | 2847 | 80 | 154 | 114 | 10 | 2 | 20 | 7 |
| TX71A889 | 16 | 2789 | 79.1 | 151 | 88 | . | 0 | 20 | 3 |
| NE74649 | 4 | 2729 | 77.4 | 151 | 104 | 5 | 2 | 20 | 6 |
| 1442 | 1 | 2586 | 77.8 | 157 | 125 | . | 0 | 30 | 5 |
| OK78002 | 11 | 2405 | 78.4 | 151 | 86 | . | 0 | 30 | 6 |
| NE75424 | 5 | 2222 | 80.5 | 152 | 117 | 5 | 3 | 20 | 5 |
| LS NO.3 | 34 | 1996 | 81.3 | 152 | 105 | 10 | 4 | 10 | 6 |
| 17277 | 3 | 1875 | 76.6 | 152 | 117 | . | 0 | 20 | 6 |
| 13996 | 2 | 1429 | 76.1 | 150 | 122 | 5 | 3 | 20 | 6 |
| KS75210 | 8 | 378 | . | 151 | 93 | . | 0 | 20 | 6 |
| MEAN | | 3178 | | | | | | | |
| L.S.D.(.05) | | 810 | | | | | | | |
| C.V. | | 15.6 | | | | | | | |

TETONIA, IDAHO

TWO REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | PLANT HEIGHT CM |
|---|---|---|---|---|
| NAPB201 | 31 | 3263 | 79.1 | 80 |
| CO778766 | 22 | 3112 | 80.5 | 90 |
| CO710125 | 25 | 2972 | 77.8 | 85 |
| CO778785 | 23 | 2732 | 80.4 | 79 |
| NAPB203 | 32 | 2728 | 79.1 | 78 |
| OK78002 | 11 | 2531 | 79.7 | 85 |
| NAPB200 | 30 | 2520 | 79.2 | 79 |
| TX79A2729 | 19 | 2517 | 81.8 | 74 |
| CO779274 | 24 | 2507 | 77.7 | 88 |
| NE78668 | 7 | 2471 | 76.9 | 93 |
| CO786747 | 27 | 2463 | 80.6 | 84 |
| TX78V2154 | 17 | 2440 | 79.2 | 80 |
| OK77198 | 15 | 2422 | 80.1 | 75 |
| OK78047 | 12 | 2384 | 79.1 | 85 |
| NK77W4430 | 29 | 2376 | 81.9 | 84 |
| NE77682 | 6 | 2369 | 78.7 | 88 |
| TX73V862 | 20 | 2320 | 80 | 73 |
| KS79H69 | 10 | 2310 | 78.7 | 79 |
| NK77W4036 | 28 | 2229 | 79.3 | 79 |
| TX78V3562 | 18 | 2228 | 78.7 | 83 |
| OK754615A | 13 | 2207 | 80 | 77 |
| NAPB204 | 33 | 2191 | 79.1 | 77 |
| 13996 | 2 | 2185 | 79.1 | 92 |
| NE74649 | 4 | 2160 | 78.2 | 80 |
| TX71A889 | 16 | 2156 | 80 | 78 |
| TX73V1241 | 21 | 2065 | 80.1 | 82 |
| CO786741 | 26 | 2000 | 80.6 | 81 |
| NE75424 | 5 | 1870 | 78.6 | 82 |
| 1442 | 1 | 1862 | 77.8 | 100 |
| 17277 | 3 | 1829 | 79.2 | 89 |
| OK80099 | 14 | 1651 | 79.9 | 74 |
| LS NO.3 | 34 | 1647 | 80.6 | 89 |
| KS79H70 | 9 | 1181 | 78.4 | 78 |
| KS75210 | 8 | 700 | 79.7 | 73 |
| MEAN | | 2253 | | |
| L.S.D.(.05) | | 910 | | |
| C.V. | | 19.8 | | |

LIND, WASHINGTON

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM | WINTER SURVIVAL % | LEAF RUST SEV. % | LEAF RUST RESP 1-9 | STRIPE RUST SEV. % | STRIPE RUST RESP 1-9 |
|---|---|---|---|---|---|---|---|---|---|---|
| CO710125 | 25 | 3058 | 78.9 | 146 | 79 | 97 | 0 | 0 | 5 | 2 |
| TX79A2729 | 19 | 2419 | 78 | 144 | 77 | 97 | 10 | 5 | 40 | 6 |
| OK77198 | 15 | 2381 | 78.3 | 144 | 81 | 98 | 0 | 0 | 20 | 4 |
| NE78668 | 7 | 2354 | 78.4 | 147 | 95 | 98 | 0 | 0 | 10 | 4 |
| 17277 | 3 | 2273 | 77.3 | 145 | 92 | 96 | 10 | 6 | 70 | 8 |
| NAPB200 | 30 | 2251 | 76.1 | 145 | 80 | 98 | 5 | 4 | 90 | 8 |
| CO778766 | 22 | 2224 | 73.9 | 148 | 82 | 98 | 0 | 0 | 95 | 8 |
| LS NO.3 | 34 | 2197 | 77.7 | 145 | 96 | 99 | 0 | 0 | 90 | 7 |
| OK80099 | 14 | 2183 | 75.6 | 144 | 80 | 98 | 15 | 3 | 30 | 5 |
| 13996 | 2 | 2168 | 75.5 | 144 | 92 | 97 | 5 | 2 | 90 | 8 |
| NAPB203 | 32 | 2143 | 74.9 | 146 | 75 | 99 | 0 | 0 | 90 | 8 |
| NE75424 | 5 | 2100 | 77.8 | 144 | 84 | 97 | 5 | 6 | 70 | 8 |
| CO778785 | 23 | 2074 | 75.1 | 148 | 73 | 96 | 0 | 0 | 95 | 9 |
| TX78V3562 | 18 | 2071 | 74 | 142 | 80 | 97 | 0 | 0 | 60 | 7 |
| CO786747 | 27 | 2022 | 78.3 | 143 | 88 | 97 | 10 | 7 | 70 | 8 |
| NE74649 | 4 | 2018 | 74.6 | 144 | 88 | 96 | 5 | 5 | 80 | 8 |
| OK78047 | 12 | 1930 | 73 | 145 | 97 | 96 | 10 | 3 | 20 | 6 |
| CO786741 | 26 | 1912 | 77.7 | 144 | 87 | 98 | 10 | 7 | 80 | 8 |
| TX73V862 | 20 | 1901 | 75.9 | 143 | 69 | 99 | 10 | 4 | 70 | 8 |
| NAPB204 | 33 | 1865 | 76.4 | 146 | 73 | 98 | 0 | 0 | 95 | 8 |
| OK754615A | 13 | 1805 | 71.9 | 141 | 83 | 99 | 0 | 0 | 99 | 9 |
| KS79H69 | 10 | 1755 | 74.2 | 145 | 70 | 94 | 0 | 0 | 99 | 9 |
| NAPB201 | 31 | 1692 | 70.3 | 145 | 75 | 97 | 10 | 7 | 80 | 8 |
| 1442 | 1 | 1663 | 75.1 | 149 | 107 | 98 | 5 | 5 | 90 | 8 |
| NK77W4036 | 28 | 1645 | 74.6 | 145 | 83 | 98 | 0 | 0 | 90 | 8 |
| CO779274 | 24 | 1603 | 76.9 | 147 | 94 | 95 | 0 | 0 | 99 | 9 |
| TX71A889 | 16 | 1495 | 79.2 | 143 | 74 | 98 | 5 | 4 | 70 | 8 |
| TX78V2154 | 17 | 1491 | 69.7 | 143 | 79 | 98 | 0 | 0 | 99 | 9 |
| KS79H70 | 9 | 1423 | 73.3 | 145 | 66 | 85 | 0 | 0 | 99 | 9 |
| NE77682 | 6 | 1376 | 78.7 | 145 | 86 | 96 | 5 | 4 | 30 | 6 |
| KS75210 | 8 | 1311 | 79.6 | . | 80 | 99 | 20 | 8 | 20 | 6 |
| OK78002 | 11 | 1204 | 69.5 | 144 | 75 | 92 | 0 | 0 | 99 | 9 |
| NK77W4430 | 29 | 1076 | 75.1 | 144 | 80 | 96 | 0 | 0 | 99 | 9 |
| TX73V1241 | 21 | 847 | 74 | 144 | 70 | 94 | 0 | 0 | 99 | 9 |
| MEAN | | 1876 | | | | | | | | |
| L.S.D.(.05) | | 613 | | | | | | | | |
| C.V. | | 20.0 | | | | | | | | |

TABLE 2. SUMMARY OF MEAN YIELDS (kg/ha) OF THE 34 LINES GROWN IN THE 1981 SOUTHERN REGIONAL PERFORMANCE NURSERY AT 32 LOCATIONS, WITH STATE MEANS AND RANKS.

| VARIETY OR PEDIGREE | C.I. OR SEL. NO. | ENTRY NO. | NEBRASKA | | | | | | | MISSOURI | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MEAD | CLAY CENTER | NORTH PLATTE | SIDNEY | AL-LIANCE | MEAN | RANK | COL-UMBIA | RANK |
| II18889/TPR//CO652643/BACA | NAPB200 | 30 | 5055 | 5118 | 3067 | 4791 | 2461 | 4098 | 3 | 3943 | 3 |
| TAMW-103/KS73167 | TX79A2729 | 19 | 5808 | 5248 | 2072 | 4668 | 1674 | 3894 | 7 | 3602 | 12 |
| CO702269/CO701467 | CO710125 | 25 | 5219 | 5055 | 3946 | 4473 | 2550 | 4249 | 1 | 3782 | 7 |
| SN/TPR//WRR/3/II18889/TPR//CO652643 | NAPB203 | 32 | 5237 | 4916 | 3064 | 4316 | 2340 | 3974 | 4 | 3553 | 13 |
| SN/TPR/WRR//CTK | NAPB201 | 31 | 5212 | 4956 | 2870 | 4537 | 2270 | 3969 | 5 | 3385 | 20 |
| SDY SIB/TASCOSA//CTK | TX71A889 | 16 | 4927 | 5266 | 2772 | 4695 | 1993 | 3931 | 6 | 3676 | 11 |
| SN/TPR//WRR/3/II18889/TPR//CO652643 | NAPB204 | 33 | 4909 | 4660 | 3169 | 4529 | 1900 | 3834 | 9 | 2903 | 32 |
| 72F30620/BACA | CO786741 | 26 | 4430 | 4553 | 2573 | 4425 | 3029 | 3802 | 12 | 3923 | 4 |
| CO702078/CO701631 | CO778766 | 22 | 5237 | 4748 | 2833 | 4798 | 2952 | 4113 | 2 | 4122 | 1 |
| 65A1664/CENTURK | TX73V862 | 20 | 4932 | 4804 | 2494 | 4644 | 2217 | 3818 | 11 | 3481 | 17 |
| EY SDY/NCM | OK754615A | 13 | 4519 | 4642 | 2057 | 4890 | 2010 | 3624 | 18 | 3194 | 25 |
| CO702078/CO701631 | CO778785 | 23 | 4463 | 4140 | 3845 | 4185 | 2603 | 3847 | 8 | 2764 | 33 |
| 72F30620/BACA | CO786747 | 27 | 4589 | 4358 | 2558 | 3800 | 2796 | 3620 | 19 | 4100 | 2 |
| (WRR*5/AGENT)*2/KAVKAZ | NE78668 | 7 | 5003 | 4734 | 2439 | 3725 | 2539 | 3688 | 14 | 3746 | 9 |
| TAMW-101/AMIGO | OK78002 | 11 | 4488 | 4479 | 1809 | 3735 | 2454 | 3393 | 26 | 3690 | 10 |
| SAGE | 17277 | 3 | 4956 | 4956 | 2468 | 3966 | 2212 | 3712 | 13 | 3024 | 30 |
| PAYNE/AMIGO | OK78047 | 12 | 4705 | 4459 | 2832 | 3024 | 2638 | 3532 | 22 | 3775 | 8 |
| CTK/TAC/3/SUT*5/AG//SDY | NK77W4036 | 28 | 5160 | 4602 | 3209 | 3895 | 2246 | 3823 | 10 | 3154 | 26 |
| STT/BVPU//MTR/NB68639 | NK77W4430 | 29 | 5187 | 4495 | 2485 | 3919 | 1860 | 3589 | 20 | 3549 | 14 |
| OSAGE SIB/EY SDY | OK77198 | 15 | 4066 | 4860 | 2041 | 4547 | 2250 | 3553 | 21 | 3481 | 17 |
| WRR*5/AGENT//NE68457/3/CTK78 | NE77682 | 6 | 4508 | 4136 | 2651 | 3889 | 3151 | 3667 | 16 | 3423 | 19 |
| CO702179/CO701467 | CO779274 | 24 | 4544 | 4158 | 2394 | 4049 | 1669 | 3363 | 28 | 3535 | 15 |
| PAYNE//TAMW-101/AMIGO | OK80099 | 14 | 4853 | 4546 | 2075 | 4300 | 2588 | 3673 | 15 | 3912 | 5 |
| 62A2522-1/CENTURK | TX73V1241 | 21 | 4781 | 4622 | 2161 | 4408 | 2168 | 3628 | 17 | 3887 | 6 |
| SCOUT 66 | 13996 | 2 | 4663 | 3959 | 2203 | 3522 | 2491 | 3367 | 27 | 3250 | 22 |
| 69A509-2//BLUE BOY II/FOX | TX78V2154 | 17 | 4257 | 4636 | 1078 | 5059 | 1114 | 3229 | 29 | 3210 | 24 |
| CIMMYT/SCOUT | KS75210 | 8 | 5059 | 4560 | 1684 | 3733 | 1953 | 3398 | 25 | 3363 | 21 |
| NE69457//CTK/GAGE SEL. | NE75424 | 5 | 4497 | 4441 | 2678 | 3611 | 2196 | 3484 | 23 | 3484 | 16 |
| SAGE OUTCROSS(L. SCHRAEDER) | LS NO.3 | 34 | 4192 | 3425 | 1955 | 2871 | 2587 | 3006 | 32 | 2997 | 31 |
| MARA/2*SCOUT//SENTINEL | NE74649 | 4 | 4770 | 4322 | 1875 | 4036 | 2333 | 3467 | 24 | 3232 | 23 |
| SAGE/ARTHUR | KS79H69 | 10 | 3992 | 4255 | 2257 | 4075 | 1530 | 3222 | 30 | 3060 | 28 |
| 69A2712-6//AGENT/TCS | TX78V3562 | 18 | 4111 | 3961 | 1147 | 4451 | 1789 | 3092 | 31 | 3076 | 27 |
| SAGE/ARTHUR | KS79H70 | 9 | 3262 | 3977 | 1929 | 3922 | 1038 | 2826 | 34 | 3060 | 28 |
| KHARKOF | 1442 | 1 | 3663 | 3002 | 2261 | 2795 | 2643 | 2873 | 33 | 2186 | 34 |
| Mean | | | 4684 | 4501 | 2440 | 4126 | 2242 | 3599 | | 3427 | |
| L.S.D. | | | 676 | 501 | 548 | 614 | 501 | 571 | | 646 | |
| C.V. | | | 8.8 | 6.8 | 13.8 | 9.1 | 13.7 | 9.7 | | 11.5 | |

TABLE 2 (CONTINUED).

| C.I. OR SEL. NO. | ENTRY NO. | TEXAS | | | | | | OKLAHOMA | | | | | | IOWA | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DALLAS | CHILLI-COTHE | BUSHLAND (IRR.) | BUSHLAND (DRY.) | MEAN | RANK | STILL-WATER | ALTUS | LAHOMA | GOODWELL (IRR.) | MEAN | RANK | AMES | RANK |
| NAPB200 | 30 | 3389 | 4016 | 6619 | 1185 | 3802 | 2 | 3071 | 3569 | 3757 | 6255 | 4163 | 4 | 5290 | 14 |
| TX79A2729 | 19 | 3342 | 3666 | 6901 | 1313 | 3805 | 1 | 3150 | 4358 | 3990 | 7066 | 4641 | 1 | 6131 | 2 |
| CO710125 | 25 | 2739 | 2817 | 6074 | 1218 | 3212 | 13 | 2600 | 3909 | 1444 | 6316 | 3567 | 16 | 6165 | 1 |
| NAPB203 | 32 | 3125 | 3015 | 6282 | 1215 | 3409 | 8 | 2813 | 3022 | 2892 | 5966 | 3673 | 11 | 6041 | 3 |
| NAPB201 | 31 | 2883 | 3163 | 6428 | 1266 | 3435 | 7 | 2623 | 2600 | 1852 | 6353 | 3357 | 23 | 6041 | 3 |
| TX71A889 | 16 | 3564 | 3807 | 6477 | 1291 | 3785 | 3 | 3340 | 3712 | 2950 | 6712 | 4178 | 3 | 5324 | 13 |
| NAPB204 | 33 | 3067 | 2827 | 6305 | 1139 | 3335 | 9 | 2724 | 3031 | 3085 | 6997 | 3959 | 8 | 5705 | 7 |
| CO786741 | 26 | 3028 | 2918 | 5773 | 1375 | 3274 | 10 | 2869 | 3578 | 3031 | 4947 | 3606 | 12 | 4779 | 28 |
| CO778766 | 22 | 3436 | 2509 | 5190 | 1538 | 3168 | 17 | 2421 | 2842 | 1726 | 5827 | 3204 | 25 | 4988 | 25 |
| TX73V862 | 20 | 3327 | 3369 | 6143 | 1318 | 3539 | 5 | 2197 | 2663 | 2829 | 6015 | 3426 | 22 | 5212 | 15 |
| OK754615A | 13 | 3044 | 3523 | 6094 | 1298 | 3490 | 6 | 2925 | 3999 | 3416 | 6875 | 4304 | 2 | 5198 | 17 |
| CO778785 | 23 | 2446 | 2300 | 5845 | 958 | 2887 | 33 | 2320 | 2995 | 2493 | 6483 | 3573 | 15 | 4811 | 27 |
| CO786747 | 27 | 3430 | 2626 | 5360 | 1616 | 3258 | 12 | 2959 | 3282 | 2932 | 4939 | 3528 | 19 | 5212 | 15 |
| NE78668 | 7 | 2849 | 3173 | 5133 | 1473 | 3157 | 18 | 3071 | 2564 | 2771 | 3826 | 3058 | 27 | 5571 | 11 |
| OK78002 | 11 | 3627 | 3087 | 6262 | 1190 | 3541 | 4 | 3329 | 3273 | 4183 | 5326 | 4028 | 7 | 5723 | 6 |
| 17277 | 3 | 2665 | 2335 | 5582 | 1212 | 2949 | 30 | 3082 | 3569 | 2730 | 4967 | 3587 | 14 | 5156 | 20 |
| OK78047 | 12 | 2771 | 3191 | 5136 | 1064 | 3040 | 23 | 2533 | 3371 | 3241 | 4813 | 3490 | 20 | 4430 | 34 |
| NK77W4036 | 28 | 2878 | 2544 | 5578 | 1190 | 3047 | 21 | 2993 | 3282 | 2430 | 5175 | 3470 | 21 | 5111 | 21 |
| NK77W4430 | 29 | 3403 | 2673 | 5892 | 1096 | 3266 | 11 | 2668 | 4053 | 3533 | 6235 | 4122 | 6 | 4685 | 31 |
| OK77198 | 15 | 2907 | 2731 | 5818 | 1311 | 3192 | 14 | 2656 | 3255 | 3484 | 6202 | 3899 | 10 | 5006 | 24 |
| NE77682 | 6 | 2762 | 2535 | 5268 | 1129 | 2923 | 32 | 3194 | 3336 | 2484 | 3146 | 3040 | 28 | 5593 | 9 |
| CO779274 | 24 | 2571 | 2697 | 5454 | 1250 | 2993 | 25 | 2679 | 3649 | 3255 | 6096 | 3920 | 9 | 4752 | 29 |
| OK80099 | 14 | 2190 | 2953 | 5598 | 1232 | 2993 | 24 | 2533 | 2995 | 2645 | 4698 | 3218 | 24 | 5172 | 19 |
| TX73V1241 | 21 | 3398 | 2682 | 5241 | 1116 | 3109 | 19 | 3071 | 2780 | 2080 | 2690 | 2655 | 31 | 5033 | 23 |
| 13996 | 2 | 2654 | 2531 | 5299 | 1259 | 2936 | 31 | 3071 | 3129 | 3058 | 4955 | 3553 | 18 | 4732 | 30 |
| TX78V2154 | 17 | 2168 | 2912 | 6199 | 916 | 3048 | 20 | 2331 | 3649 | 2757 | 5624 | 3590 | 13 | 5696 | 8 |
| KS75210 | 8 | 2847 | 2099 | 6065 | 1175 | 3046 | 22 | 3250 | 3856 | 3784 | 5660 | 4138 | 5 | 5983 | 5 |
| NE75424 | 5 | 2461 | 2865 | 5362 | 1279 | 2992 | 26 | 2937 | 2842 | 3013 | 4010 | 3200 | 26 | 5593 | 9 |
| LS NO.3 | 34 | 2515 | 2564 | 5324 | 1505 | 2977 | 27 | 3071 | 3371 | 3318 | 4507 | 3567 | 17 | 4831 | 26 |
| NE74649 | 4 | 2706 | 2572 | 5252 | 1309 | 2960 | 29 | 2981 | 2439 | 919 | 3289 | 2407 | 33 | 5189 | 18 |
| KS79H69 | 10 | 3176 | 3095 | 5230 | 1247 | 3187 | 15 | 2858 | 2923 | 2165 | 3928 | 2969 | 29 | 5335 | 12 |
| TX78V3562 | 18 | 2181 | 3321 | 5176 | 1183 | 2965 | 28 | 2421 | 2645 | 2242 | 3227 | 2634 | 32 | 5035 | 22 |
| KS79H70 | 9 | 3542 | 3098 | 5098 | 973 | 3177 | 16 | 2712 | 2914 | 1932 | 3712 | 2818 | 30 | 4454 | 33 |
| 1442 | 1 | 1589 | 1846 | 3137 | 916 | 1872 | 34 | 2141 | 2412 | 659 | 2783 | 1999 | 34 | 4577 | 32 |
| Mean | | 2902 | 2884 | 5665 | 1228 | 3170 | | 2812 | 3231 | 2738 | 5165 | 3486 | | 5252 | |
| L.S.D. | | 601 | 322 | 424 | 332 | 536 | | 507 | 455 | 407 | 833 | 933 | | 901 | |
| C.V. | | 12.7 | 6.8 | 4.6 | 19.1 | 8.9 | | 11.0 | 8.6 | 9.1 | 9.9 | 10.1 | | 10.5 | |

TABLE 2 (continued).

| C.I. OR SEL. NO. | ENTRY NO. | NEW MEXICO CLOVIS (IRR.) | CLOVIS (DRY.) | FARMING TON | MEAN | RANK | KANSAS HUTCHINSON | HAYS | GARDEN CITY | COLBY | MEAN | RANK | IDAHO ABERDEEN | TETONIA | MEAN | RANK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NAPB200 | 30 | 5992 | 2872 | 4305 | 4390 | 1 | 2620 | 3620 | 1495 | 2473 | 2552 | 7 | 4103 | 2520 | 3311 | 5 |
| TX79A2729 | 19 | 5611 | 2601 | 3618 | 3943 | 20 | 2926 | 3419 | 1475 | 2228 | 2512 | 13 | 2881 | 2517 | 2699 | 18 |
| CO710125 | 25 | 5619 | 2616 | 4099 | 4111 | 9 | 2479 | 2598 | 2219 | 3398 | 2673 | 2 | 4727 | 2972 | 3849 | 2 |
| NAPB203 | 32 | 6042 | 2778 | 4122 | 4314 | 2 | 3101 | 3152 | 1179 | 2657 | 2522 | 11 | 3371 | 2728 | 3050 | 10 |
| NAPB201 | 31 | 4915 | 2302 | 5382 | 4200 | 5 | 1976 | 3405 | 1652 | 2556 | 2397 | 18 | 4619 | 3263 | 3941 | 1 |
| TX71A889 | 16 | 5168 | 2139 | 4924 | 4077 | 10 | 2768 | 3210 | 1419 | 2913 | 2578 | 6 | 2789 | 2156 | 2473 | 24 |
| NAPB204 | 33 | 5655 | 2427 | 3824 | 3969 | 16 | 2629 | 3141 | 1410 | 2392 | 2393 | 19 | 3335 | 2191 | 2763 | 17 |
| CO786741 | 26 | 4948 | 2841 | 4580 | 4123 | 8 | 2149 | 3165 | 2188 | 2642 | 2536 | 8 | 3734 | 2000 | 2867 | 13 |
| CO778766 | 22 | 5524 | 1818 | . | 3671 | 26 | 2723 | 2567 | 2517 | 2555 | 2591 | 4 | 4549 | 3112 | 3830 | 3 |
| TX73V862 | 20 | 5664 | 2394 | 3824 | 3961 | 17 | 3010 | 3477 | 1500 | 2094 | 2520 | 12 | 3436 | 2320 | 2878 | 12 |
| OK754615A | 13 | 5568 | 2645 | 3664 | 3959 | 18 | 2292 | 3233 | 1450 | 2123 | 2274 | 23 | 3593 | 2207 | 2900 | 11 |
| CO778785 | 23 | 4837 | 2622 | 5015 | 4158 | 6 | 2748 | 2271 | 2358 | 2761 | 2534 | 9 | 4765 | 2732 | 3749 | 4 |
| CO786747 | 27 | 5090 | 2810 | 4076 | 3992 | 15 | 2280 | 2890 | 2233 | 2433 | 2459 | 15 | 2870 | 2463 | 2667 | 19 |
| NE78668 | 7 | 4750 | 2192 | 3343 | 3429 | 29 | 2457 | 2634 | 1639 | 1870 | 2150 | 27 | 4124 | 2471 | 3298 | 6 |
| OK78002 | 11 | 6152 | 2853 | 3870 | 4292 | 3 | 2722 | 3024 | 1607 | 1951 | 2326 | 20 | 2405 | 2531 | 2468 | 25 |
| 17277 | 3 | 4979 | 3511 | 3939 | 4143 | 7 | 3079 | 2374 | 2118 | 2520 | 2523 | 10 | 1875 | 1829 | 1852 | 31 |
| OK78047 | 12 | 4959 | 3065 | 4695 | 4239 | 4 | 3251 | 3111 | 1645 | 2715 | 2681 | 1 | 2847 | 2384 | 2616 | 21 |
| NK77W4036 | 28 | 4976 | 2131 | 3321 | 3476 | 28 | 2576 | 2896 | 1493 | 1740 | 2176 | 25 | 4058 | 2229 | 3144 | 8 |
| NK77W4430 | 29 | 4894 | 2437 | 2725 | 3352 | 32 | 2909 | 3250 | 2053 | 2124 | 2584 | 5 | 3281 | 2376 | 2828 | 14 |
| OK77198 | 15 | 4737 | 1987 | 4168 | 3630 | 27 | 2472 | 2701 | 950 | 1523 | 1912 | 32 | 3746 | 2422 | 3084 | 9 |
| NE77682 | 6 | 4822 | 2607 | 4603 | 4011 | 13 | 2934 | 2636 | 1515 | 2819 | 2476 | 14 | 3276 | 2369 | 2823 | 15 |
| CO779274 | 24 | 4836 | 3019 | 3870 | 3908 | 22 | 2360 | 1791 | 2195 | 2319 | 2166 | 26 | 4018 | 2507 | 3263 | 7 |
| OK80099 | 14 | 5086 | 2480 | 4191 | 3919 | 21 | 2551 | 3031 | 1078 | 2468 | 2282 | 22 | 2877 | 1651 | 2264 | 27 |
| TX73V1241 | 21 | 4724 | 2468 | 4878 | 4023 | 12 | 3176 | 2412 | 1464 | 2243 | 2324 | 21 | 3095 | 2065 | 2580 | 23 |
| 13996 | 2 | 4634 | 2906 | 3527 | 3689 | 25 | 2750 | 2701 | 1603 | 2768 | 2456 | 16 | 1429 | 2185 | 1807 | 33 |
| TX78V2154 | 17 | 5384 | 2535 | 4305 | 4075 | 11 | 3077 | 2632 | 901 | 1599 | 2052 | 29 | 3184 | 2440 | 2812 | 16 |
| KS75210 | 8 | 4853 | 2510 | 4305 | 3889 | 23 | 3208 | 2914 | 1728 | 1870 | 2430 | 17 | 378 | 700 | 539 | 34 |
| NE75424 | 5 | 4910 | 2633 | 3572 | 3705 | 24 | 2512 | 2683 | 1558 | 2158 | 2228 | 24 | 2222 | 1870 | 2046 | 30 |
| LS NO.3 | 34 | 5051 | 3392 | 3389 | 3944 | 19 | 2620 | 2829 | 2466 | 2591 | 2626 | 3 | 1996 | 1647 | 1821 | 32 |
| NE74649 | 4 | 4440 | 2083 | 3550 | 3358 | 31 | 2531 | 2376 | 1645 | 2043 | 2149 | 28 | 2729 | 2160 | 2444 | 26 |
| KS79H69 | 10 | 4390 | 2308 | 3435 | 3378 | 30 | 2355 | 2670 | 827 | 2036 | 1972 | 30 | 2932 | 2310 | 2621 | 20 |
| TX78V3562 | 18 | 5327 | 2478 | 4214 | 4006 | 14 | 2458 | 2621 | 749 | 1826 | 1913 | 31 | 2958 | 2228 | 2593 | 22 |
| KS79H70 | 9 | 3933 | 1879 | 3985 | 3265 | 33 | 1891 | 2786 | 838 | 1705 | 1805 | 33 | 3265 | 1181 | 2223 | 29 |
| 1442 | 1 | 3741 | 2126 | 3092 | 2986 | 34 | 2011 | 1092 | 1852 | 1871 | 1706 | 34 | 2586 | 1862 | 2224 | 28 |
| Mean | | 5065 | 2543 | 4012 | 3870 | | 2635 | 2803 | 1618 | 2294 | 2338 | | 3178 | 2253 | 2715 | |
| L.S.D. | | 1124 | 850 | 1017 | N.S. | | 656 | 318 | 403 | 492 | 586 | | 810 | 910 | 952 | |
| C.V. | | 13.6 | 20.5 | 17.9 | 16.9 | | 15.2 | 7.0 | 15.3 | 13.1 | 12.7 | | 15.6 | 19.8 | 17.1 | |

TABLE 2 (CONCLUDED).

| C.I. OR SEL. NO. | ENTRY NO. | COLORADO FT. COLLINS | COLORADO SPRING-FIELD | COLORADO AKRON | COLORADO MEAN | COLORADO RANK | SOUTH DAKOTA BROOK-INGS | SOUTH DAKOTA HIGH-MORE | SOUTH DAKOTA PRESHO | SOUTH DAKOTA MEAN | SOUTH DAKOTA RANK | ILLINOIS URBANA | ILLINOIS RANK | WASHINGTON LIND | WASHINGTON RANK | 32 SITE MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NAPB200 | 30 | 7161 | 1889 | 2679 | 3910 | 5 | 2240 | 4005 | 2101 | 2782 | 15 | 2567 | 16 | 2251 | 6 | 3640 |
| TX79A2729 | 19 | 6511 | 2387 | 2170 | 3689 | 13 | 2458 | 3586 | 1662 | 2568 | 24 | 2645 | 14 | 2419 | 2 | 3566 |
| CO710125 | 25 | 6922 | 2203 | 2671 | 3932 | 4 | 2526 | 3423 | 1704 | 2551 | 25 | 2174 | 25 | 3058 | 1 | 3554 |
| NAPB203 | 32 | 6981 | 1973 | 2756 | 3904 | 6 | 2680 | 4146 | 2306 | 3044 | 6 | 3026 | 4 | 2143 | 11 | 3529 |
| NAPB201 | 31 | 7549 | 1879 | 2551 | 3993 | 1 | 3357 | 4010 | 2101 | 3156 | 4 | 2869 | 8 | 1692 | 23 | 3516 |
| TX71A889 | 16 | 6257 | 2048 | 2406 | 3571 | 20 | 2423 | 3261 | 1598 | 2427 | 27 | 2813 | 9 | 1495 | 27 | 3447 |
| NAPB204 | 33 | 6996 | 2078 | 2449 | 3841 | 9 | 3228 | 3927 | 2167 | 3107 | 5 | 2578 | 15 | 1865 | 20 | 3414 |
| CO786741 | 26 | 7086 | 2128 | 2605 | 3940 | 3 | 3231 | 4550 | 2099 | 3293 | 3 | 2051 | 27 | 1912 | 18 | 3411 |
| CO778766 | 22 | 6324 | 2252 | 2475 | 3684 | 15 | 2550 | 3578 | 2234 | 2787 | 14 | 2219 | 22 | 2224 | 7 | 3367 |
| TX73V862 | 20 | 6727 | 1889 | 2317 | 3644 | 16 | 2370 | 3900 | 1464 | 2578 | 23 | 2780 | 11 | 1901 | 19 | 3335 |
| OK754615A | 13 | 6145 | 1196 | 2355 | 3232 | 28 | 1563 | 3446 | 2252 | 2420 | 28 | 2735 | 13 | 1805 | 21 | 3311 |
| CO778785 | 23 | 6571 | 1789 | 2817 | 3726 | 11 | 2643 | 3425 | 2167 | 2745 | 17 | 1468 | 33 | 2074 | 13 | 3303 |
| CO786747 | 27 | 6683 | 2093 | 2372 | 3716 | 12 | 2426 | 4142 | 2189 | 2919 | 9 | 2006 | 28 | 2022 | 15 | 3301 |
| NE78668 | 7 | 6847 | 1849 | 2133 | 3610 | 18 | 3071 | 4197 | 2801 | 3356 | 1 | 3721 | 1 | 2354 | 4 | 3284 |
| OK78002 | 11 | 7728 | 1714 | 2244 | 3896 | 7 | 1692 | 2745 | 1033 | 1823 | 33 | 2443 | 18 | 1204 | 32 | 3268 |
| 17277 | 3 | 6474 | 2272 | 2313 | 3686 | 14 | 2603 | 4051 | 2342 | 2999 | 7 | 2331 | 19 | 2273 | 5 | 3243 |
| OK78047 | 12 | 6302 | 1490 | 2611 | 3468 | 22 | 2591 | 3277 | 1933 | 2600 | 22 | 2567 | 16 | 1930 | 17 | 3230 |
| NK77W4036 | 28 | 6937 | 2322 | 2244 | 3834 | 10 | 2973 | 3418 | 1624 | 2672 | 19 | 3262 | 3 | 1645 | 25 | 3228 |
| NK77W4430 | 29 | 6406 | 1789 | 2662 | 3619 | 17 | 2564 | 3435 | 1438 | 2479 | 26 | 1995 | 29 | 1076 | 33 | 3223 |
| OK77198 | 15 | 6145 | 1620 | 2406 | 3390 | 24 | 2601 | 3918 | 1895 | 2805 | 13 | 2768 | 12 | 2381 | 3 | 3221 |
| NE77682 | 6 | 6421 | 1754 | 2540 | 3572 | 19 | 3223 | 4265 | 2414 | 3301 | 2 | 2186 | 24 | 1376 | 30 | 3218 |
| CO779274 | 24 | 6526 | 2512 | 2492 | 3843 | 8 | 2911 | 3542 | 1839 | 2764 | 16 | 1580 | 32 | 1603 | 26 | 3209 |
| OK80099 | 14 | 5996 | 1973 | 2330 | 3433 | 23 | 2564 | 3346 | 1923 | 2611 | 21 | 3004 | 5 | 2183 | 9 | 3157 |
| TX73V1241 | 21 | 6362 | 1884 | 2270 | 3505 | 21 | 2564 | 3926 | 2191 | 2894 | 10 | 3374 | 2 | 847 | 34 | 3127 |
| 13996 | 2 | 5637 | 2113 | 2415 | 3388 | 25 | 2699 | 3712 | 2019 | 2810 | 12 | 1726 | 31 | 2168 | 10 | 3055 |
| TX78V2154 | 17 | 6033 | 1510 | 1877 | 3140 | 31 | 1846 | 2841 | 1474 | 2054 | 31 | 2948 | 6 | 1491 | 28 | 3053 |
| KS75210 | 8 | 6235 | 1864 | 1459 | 3186 | 30 | 2091 | 3318 | 1398 | 2269 | 29 | 2309 | 20 | 1311 | 31 | 3048 |
| NE75424 | 5 | 5951 | 1540 | 2449 | 3313 | 27 | 2713 | 3723 | 1614 | 2683 | 18 | 1905 | 30 | 2100 | 12 | 3043 |
| LS NO.3 | 34 | 5854 | 2233 | 2014 | 3367 | 26 | 2479 | 3332 | 2091 | 2634 | 20 | 1222 | 34 | 2197 | 8 | 3014 |
| NE74649 | 4 | 7340 | 2013 | 2466 | 3940 | 2 | 2821 | 3861 | 1985 | 2889 | 11 | 2208 | 23 | 2018 | 16 | 2984 |
| KS79H69 | 10 | 6332 | 822 | 2244 | 3133 | 32 | 1278 | 2989 | 1223 | 1830 | 32 | 2287 | 21 | 1755 | 22 | 2854 |
| TX78V3562 | 18 | 4361 | 1909 | 2167 | 2812 | 34 | 2196 | 3203 | 1325 | 2241 | 30 | 2791 | 10 | 2071 | 14 | 2839 |
| KS79H70 | 9 | 5854 | 1435 | 2339 | 3209 | 29 | 1342 | 2237 | 1416 | 1665 | 34 | 2903 | 7 | 1423 | 29 | 2689 |
| 1442 | 1 | 4570 | 1944 | 2022 | 2845 | 33 | 2738 | 3760 | 2294 | 2931 | 8 | 2130 | 26 | 1663 | 24 | 2436 |
| Mean | | 6418 | 1893 | 2362 | 3558 | | 2507 | 3603 | 1892 | 2667 | | 2459 | | 1876 | | 3209 |
| L.S.D. | | 1008 | N.S. | 418 | N.S. | | 537 | 702 | 429 | 402 | | 601 | | 613 | | 249 |
| C.V. | | 9.6 | 25.3 | 10.8 | 13.3 | | 13.1 | 11.9 | 11.1 | 12.8 | | 15.0 | | 20.0 | | 12.7 |

TABLE 3. SUMMARY OF MEAN YIELDS (kg/ha) FOR 16 LINES GROWN IN THE SOUTHERN REGIONAL PERFORMANCE NURSERY AT 29 SITES IN 1980 AND 1981 WITH STATE MEANS AND RANKS.

| 1981 ENTRY NO. | VARIETY OR PEDIGREE | C.I. OR SEL. NO. | NEBRASKA | | | | | | SOUTH DAKOTA | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MEAD | CLAY CENTER | NORTH PLATTE | AL-LIANCE | MEAN | RANK | BROOK-INGS | PRESHO | MEAN | RANK |
| 30 | II18889/TPR//CO652643/BACA | NAPB200 | 4991 | 4977 | 3247 | 2866 | 4020 | 4 | 2545 | 1850 | 2197 | 15 |
| 25 | CO702269/CO701467 | CO710125 | 4761 | 5544 | 3404 | 2792 | 4125 | 1 | 2874 | 1690 | 2282 | 12 |
| 16 | SDY SIB/TASCOSA//CTK | TX71A889 | 4843 | 5595 | 3104 | 2566 | 4027 | 3 | 2759 | 1670 | 2215 | 14 |
| 31 | SN/TPR/WRR//CTK | NAPB201 | 4673 | 5115 | 2954 | 2542 | 3821 | 5 | 3834 | 2014 | 2924 | 1 |
| 22 | CO702078/CO701631 | CO778766 | 5191 | 5093 | 2790 | 3269 | 4086 | 2 | 3218 | 2020 | 2619 | 6 |
| 29 | STT/BVPU//MTR/NB68639 | NK77W4430 | 4710 | 4816 | 2880 | 2242 | 3662 | 12 | 3214 | 1626 | 2420 | 11 |
| 12 | PAYNE/AMIGO | OK78047 | 4349 | 4777 | 2562 | 3025 | 3678 | 11 | 3727 | 1955 | 2841 | 2 |
| 11 | TAMW-101/AMIGO | OK78002 | 4750 | 5115 | 2234 | 2787 | 3722 | 9 | 2059 | 1069 | 1564 | 16 |
| 23 | CO702078/CO701631 | CO778785 | 4397 | 4459 | 3368 | 2794 | 3754 | 7 | 3346 | 2050 | 2698 | 4 |
| 24 | CO702179/CO701467 | CO779274 | 4524 | 4520 | 2707 | 2310 | 3515 | 15 | 3367 | 1853 | 2610 | 7 |
| 28 | CTK/TAC/3/SUT*5/AG//SDY | NK77W4036 | 4770 | 4642 | 2953 | 2645 | 3753 | 8 | 3339 | 1537 | 2438 | 10 |
| 3 | SAGE | 17277 | 4775 | 4950 | 2607 | 2714 | 3761 | 6 | 3227 | 2112 | 2670 | 5 |
| 5 | NE69457//CTK/GAGE SEL. | NE75424 | 4530 | 4804 | 2715 | 2833 | 3721 | 10 | 3719 | 1706 | 2712 | 3 |
| 2 | SCOUT 66 | 13996 | 4347 | 4311 | 2764 | 3065 | 3621 | 13 | 3202 | 1983 | 2593 | 8 |
| 4 | MARA/2*SCOUT//SENTINEL | NE74649 | 4623 | 4817 | 2279 | 2526 | 3562 | 14 | 3077 | 2101 | 2589 | 9 |
| 1 | KHARKOF | 1442 | 3655 | 3402 | 2289 | 2741 | 3022 | 16 | 2402 | 2069 | 2235 | 13 |
| | MEAN | | 4618 | 4809 | 2804 | 2732 | 3741 | | 3021 | 1822 | 2422 | |
| | L.S.D. (.05) | | N.S. | 596 | N.S. | 499 | N.S. | | N.S. | 364 | 619 | |
| | C.V | | 8.7 | 6.5 | 17.4 | 14.4 | 10.8 | | 18.7 | 13.8 | 18.1 | |

TABLE 3 (CONTINUED).

| 1981 ENTRY NO. | C.I. OR SEL. NO. | TEXAS DALLAS | TEXAS CHILLI-COTHE | TEXAS BUSHLAND (IRR.) | TEXAS BUSHLAND (DRYL.) | TEXAS MEAN | TEXAS RANK | NEW MEXICO CLOVIS (IRR.) | NEW MEXICO CLOVIS (DRYL.) | NEW MEXICO FARM-INGTON | NEW MEXICO MEAN | NEW MEXICO RANK | MISSOURI COLUM-BIA | MISSOURI RANK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | NAPB200 | 3763 | 3769 | 6374 | 1957 | 3966 | 1 | 5381 | 2344 | 4392 | 4039 | 2 | 4604 | 1 |
| 25 | CO710125 | 3214 | 3004 | 6247 | 1832 | 3574 | 4 | 5281 | 1999 | 4372 | 3884 | 4 | 4188 | 5 |
| 16 | TX71A889 | 3684 | 3603 | 6160 | 1725 | 3793 | 2 | 5103 | 1747 | 5073 | 3974 | 3 | 4517 | 2 |
| 31 | NAPB201 | 3060 | 3154 | 6134 | 1918 | 3567 | 5 | 5110 | 1885 | 4492 | 3829 | 5 | 4136 | 7 |
| 22 | CO778766 | 3633 | 2819 | 5335 | 1924 | 3428 | 7 | 5199 | 1750 | . | 3474 | 12 | 4430 | 3 |
| 29 | NK77W4430 | 3464 | 2769 | 5859 | 1669 | 3440 | 6 | 4553 | 1985 | 3625 | 3388 | 13 | 4138 | 6 |
| 12 | OK78047 | 3437 | 3151 | 5290 | 1701 | 3395 | 8 | 4226 | 2494 | 4372 | 3697 | 8 | 4099 | 9 |
| 11 | OK78002 | 3837 | 3282 | 6236 | 1693 | 3762 | 3 | 4794 | 2339 | 3472 | 3535 | 10 | 4330 | 4 |
| 23 | CO778785 | 2891 | 2578 | 5800 | 1547 | 3204 | 13 | 5143 | 1997 | 5443 | 4194 | 1 | 3206 | 15 |
| 24 | CO779274 | 3019 | 2953 | 5199 | 1780 | 3238 | 12 | 4426 | 2537 | 4150 | 3704 | 7 | 4067 | 10 |
| 28 | NK77W4036 | 3236 | 2820 | 5568 | 1745 | 3342 | 10 | 4342 | 2001 | 3391 | 3244 | 15 | 3748 | 11 |
| 3 | 17277 | 2975 | 2791 | 5286 | 1683 | 3184 | 14 | 4760 | 2510 | 4042 | 3771 | 6 | 3249 | 14 |
| 5 | NE75424 | 3078 | 2873 | 5619 | 1950 | 3380 | 9 | 4636 | 2218 | 3676 | 3510 | 11 | 4116 | 8 |
| 2 | 13996 | 2977 | 2793 | 5025 | 1687 | 3120 | 15 | 4430 | 2327 | 3884 | 3547 | 9 | 3705 | 13 |
| 4 | NE74649 | 3040 | 3128 | 5267 | 1899 | 3333 | 11 | 4767 | 1438 | 3858 | 3354 | 14 | 3738 | 12 |
| 1 | 1442 | 2250 | 2200 | 3185 | 1338 | 2243 | 16 | 3272 | 1702 | 3253 | 2742 | 16 | 2734 | 16 |
| | MEAN | 3274 | 2981 | 5536 | 1753 | 3386 | | 4714 | 2080 | 4084 | 3626 | | 3938 | |
| | L.S.D. (.05) | 551 | 672 | 581 | N.S. | 495 | | N.S. | 637 | N.S. | N.S. | | 496 | |
| | C.V. | 9.3 | 8.6 | 5.3 | 11.4 | 8.1 | | 13.5 | 21.0 | 17.2 | 16.7 | | 10.3 | |

TABLE 3 (CONTINUED).

| 1981 ENTRY NO. | C.I. OR SEL. NO. | OKLAHOMA STILLWATER | OKLAHOMA ALTUS | OKLAHOMA LAHOMA | OKLAHOMA GOODWELL | OKLAHOMA MEAN | OKLAHOMA RANK | COLORADO FT. COLLINS | COLORADO SPRINGFIELD | COLORADO AKRON | COLORADO MEAN | COLORADO RANK | ILLINOIS URBANA | ILLINOIS RANK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | NAPB200 | 3609 | 3901 | 2865 | 5151 | 3881 | 2 | 6898 | 1979 | 2608 | 3829 | 3 | 3432 | 5 |
| 25 | CO710125 | 3278 | 3768 | 1394 | 5238 | 3420 | 7 | 7052 | 2053 | 3006 | 4037 | 1 | 2906 | 9 |
| 16 | TX71A889 | 4001 | 3891 | 2282 | 5575 | 3938 | 1 | 6123 | 1965 | 2698 | 3596 | 12 | 3447 | 4 |
| 31 | NAPB201 | 3234 | 2811 | 1643 | 5197 | 3221 | 12 | 7101 | 1909 | 2425 | 3812 | 4 | 3479 | 3 |
| 22 | CO778766 | 3278 | 3107 | 1334 | 4970 | 3172 | 13 | 6605 | 1974 | 2743 | 3774 | 6 | 3220 | 6 |
| 29 | NK77W4430 | 3463 | 4049 | 2742 | 5233 | 3872 | 3 | 6162 | 1828 | 2843 | 3611 | 10 | 3097 | 8 |
| 12 | OK78047 | 3531 | 3559 | 2473 | 4084 | 3412 | 8 | 6471 | 1654 | 2490 | 3538 | 14 | 3186 | 7 |
| 11 | OK78002 | 3744 | 3224 | 2585 | 4663 | 3554 | 4 | 7379 | 1585 | 2383 | 3782 | 5 | 3723 | 2 |
| 23 | CO778785 | 3105 | 3123 | 1684 | 4987 | 3225 | 11 | 6581 | 1730 | 2709 | 3673 | 9 | 2472 | 15 |
| 24 | CO779274 | 3144 | 3758 | 2603 | 4685 | 3547 | 5 | 6520 | 2120 | 2636 | 3759 | 7 | 2497 | 14 |
| 28 | NK77W4036 | 3615 | 3211 | 2022 | 4402 | 3312 | 9 | 6719 | 1931 | 2374 | 3675 | 8 | 3759 | 1 |
| 3 | 17277 | 3660 | 3555 | 2060 | 4617 | 3473 | 6 | 5981 | 2073 | 2767 | 3607 | 11 | 2204 | 16 |
| 5 | NE75424 | 3419 | 3008 | 2157 | 4016 | 3150 | 14 | 6320 | 1772 | 2630 | 3574 | 13 | 2536 | 11 |
| 2 | 13996 | 3346 | 3160 | 2190 | 4382 | 3270 | 10 | 5657 | 1904 | 2611 | 3390 | 15 | 2498 | 13 |
| 4 | NE74649 | 3133 | 2875 | 986 | 3665 | 2665 | 15 | 7158 | 1913 | 2489 | 3853 | 2 | 2886 | 10 |
| 1 | 1442 | 2320 | 2618 | 677 | 2604 | 2055 | 16 | 4625 | 1705 | 2211 | 2847 | 16 | 2505 | 12 |
| | MEAN | 3367 | 3351 | 1981 | 4592 | 3323 | | 6459 | 1881 | 2601 | 3647 | | 2990 | |
| | L.S.D. (.05) | 715 | 470 | N.S. | N.S. | 586 | | 758 | N.S. | N.S. | N.S. | | N.S. | |
| | C.V. | 8.7 | 9.6 | 12.5 | 8.3 | 9.4 | | 8.7 | 22.4 | 11.8 | 12.1 | | 12.7 | |

TABLE 3 (CONCLUDED).

| 1981 ENTRY NO. | C.I. OR SEL. NO. | KANSAS HUTCHINSON | KANSAS HAYS | KANSAS GARDEN CITY | KANSAS COLBY | KANSAS MEAN | KANSAS RANK | IOWA AMES | IOWA RANK | IDAHO ABERDEEN | IDAHO RANK | WASHINGTON LIND | WASHINGTON RANK | 29 SITE MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | NAPB200 | 2573 | 4062 | 2149 | 3951 | 3184 | 1 | 4787 | 11 | 4344 | 6 | 2449 | 2 | 3718 |
| 25 | CO710125 | 2336 | 3439 | 2293 | 4434 | 3125 | 2 | 5780 | 1 | 4651 | 3 | 2816 | 1 | 3643 |
| 16 | TX71A889 | 2405 | 3811 | 2176 | 4089 | 3120 | 3 | 4975 | 7 | 3931 | 8 | 1753 | 13 | 3630 |
| 31 | NAPB201 | 2129 | 3784 | 1935 | 3794 | 2910 | 10 | 5433 | 3 | 5144 | 1 | 1824 | 12 | 3547 |
| 22 | CO778766 | 1876 | 3371 | 2425 | 4035 | 2927 | 8 | 5262 | 4 | 5075 | 2 | 2207 | 3 | 3506 |
| 29 | NK77W4430 | 2929 | 3658 | 2425 | 3339 | 3088 | 4 | 4785 | 12 | 3632 | 9 | 1381 | 16 | 3418 |
| 12 | OK78047 | 2886 | 3228 | 2534 | 3612 | 3065 | 5 | 4642 | 15 | 3320 | 10 | 2115 | 7 | 3412 |
| 11 | OK78002 | 2337 | 3467 | 2313 | 3745 | 2966 | 6 | 4764 | 13 | 3231 | 11 | 1587 | 15 | 3404 |
| 23 | CO778785 | 1836 | 2941 | 2332 | 3928 | 2759 | 12 | 4720 | 14 | 4640 | 4 | 2128 | 6 | 3377 |
| 24 | CO779274 | 2287 | 2795 | 2532 | 3366 | 2745 | 13 | 4917 | 9 | 4172 | 7 | 1852 | 11 | 3355 |
| 28 | NK77W4036 | 2235 | 3191 | 2039 | 3225 | 2672 | 14 | 5147 | 6 | 4502 | 5 | 1967 | 10 | 3347 |
| 3 | 17277 | 2581 | 3183 | 2411 | 3650 | 2956 | 7 | 4965 | 8 | 2765 | 15 | 2197 | 4 | 3322 |
| 5 | NE75424 | 2353 | 3234 | 2124 | 3450 | 2790 | 11 | 5455 | 2 | 2801 | 13 | 2171 | 5 | 3308 |
| 2 | 13996 | 2546 | 3314 | 2180 | 3646 | 2922 | 9 | 4809 | 10 | 2521 | 16 | 1994 | 9 | 3216 |
| 4 | NE74649 | 2022 | 2878 | 2103 | 3368 | 2593 | 15 | 5178 | 5 | 3203 | 12 | 2077 | 8 | 3189 |
| 1 | 1442 | 1560 | 2145 | 1876 | 2816 | 2100 | 16 | 4276 | 16 | 2774 | 14 | 1736 | 14 | 2515 |
| | MEAN | 2306 | 3281 | 2240 | 3653 | 2870 | | 4994 | | 3794 | | 2013 | | 3369 |
| | L.S.D.(.05) | N.S. | 775 | N.S. | 748 | 398 | | N.S. | | 1116 | | 503 | | 220 |
| | C.V. | 20.7 | 8.1 | 13.5 | 9.0 | 12.3 | | 12.5 | | 14.6 | | 17.0 | | 12.3 |

Table 4. Mean yield, regression coefficient, correlation coefficient, and coefficient of determination from linear regression analysis of variety mean yield on nursery mean yield for the 34 entries in the 1981 Southern Regional Performance Nursery.

| ENTRY NO. | C.I. OR SEL. NO. | MEAN YIELD: OVER 32 LOCATIONS (kg/ha) | REGRESSION COEFFICIENT (by·x) | CORRELATION COEFFICIENT (r) | COEFFICIENT OF DETERMINATION ($r^2$) |
|---|---|---|---|---|---|
| 30 | NAPB 200 | 3640 | 1.15 | .98 | .95 |
| 19 | TX79A2729 | 3566 | 1.21 | .95 | .91 |
| 25 | CO710125 | 3554 | 1.09 | .92 | .85 |
| 32 | NAPB 203 | 3529 | 1.13 | .99 | .97 |
| 31 | NAPB 201 | 3516 | 1.19 | .95 | .90 |
| 16 | TX71A889 | 3447 | 1.13 | .96 | .92 |
| 33 | NAPB 204 | 3414 | 1.17 | .97 | .94 |
| 26 | CO786741 | 3411 | .97 | .96 | .92 |
| 22 | CO778766 | 3367 | .96 | .92 | .85 |
| 20 | TX73V862 | 3335 | 1.12 | .98 | .96 |
| 13 | OK754615A | 3311 | 1.11 | .95 | .90 |
| 23 | CO778785 | 3303 | .99 | .90 | .81 |
| 27 | CO786747 | 3301 | .92 | .97 | .95 |
| 7 | NE78668 | 3284 | .89 | .91 | .84 |
| 11 | OK78002 | 3268 | 1.19 | .94 | .89 |
| 3 | 17277 | 3243 | .95 | .95 | .90 |
| 12 | OK78047 | 3230 | .87 | .95 | .90 |
| 28 | NK77W4036 | 3228 | 1.02 | .96 | .92 |
| 29 | NK77W4430 | 3223 | 1.03 | .94 | .89 |
| 15 | OK77198 | 3221 | 1.04 | .96 | .92 |
| 6 | NE77682 | 3218 | .87 | .92 | .84 |
| 24 | CO779274 | 3209 | .98 | .94 | .89 |
| 14 | OK80099 | 3157 | .97 | .97 | .95 |
| 21 | TX73V1241 | 3127 | .92 | .90 | .80 |
| 2 | 13996 | 3055 | .83 | .94 | .89 |
| 17 | TX78V2154 | 3053 | 1.18 | .95 | .91 |
| 8 | KS75210 | 3048 | 1.14 | .91 | .82 |
| 5 | NE75424 | 3043 | .92 | .96 | .93 |
| 34 | LS No. 3 | 3014 | .79 | .90 | .81 |
| 4 | NE74649 | 2984 | .96 | .92 | .84 |
| 10 | KS79H69 | 2854 | .99 | .96 | .91 |
| 18 | TX78V3562 | 2839 | .84 | .90 | .81 |
| 9 | KS79H70 | 2689 | .90 | .92 | .84 |
| 1 | 1442 | 2436 | .57 | .79 | .63 |

Table 5. Mean yield, regression coefficient, correlation coefficient, and coefficient of determination from linear regression analysis of variety mean yield on nursery mean yield for 16 varieties grown in 29 locations in the 1980 and 1981 Southern Regional Performance Nursery.

| 1981 ENTRY NO. | C.I. OR SEL. NO. | MEAN YIELD: OVER 29 LOCATIONS (kg/ha) | REGRESSION COEFFICIENT (by·x) | CORRELATION COEFFICIENT (r) | COEFFICIENT OF DETERMINATION ($r^2$) |
|---|---|---|---|---|---|
| 30 | NAPB200 | 3718 | 1.06 | .96 | .93 |
| 25 | CO710125 | 3643 | 1.14 | .96 | .93 |
| 16 | TX71A889 | 3630 | 1.16 | .96 | .92 |
| 31 | NAPB201 | 3547 | 1.15 | .95 | .91 |
| 22 | CO778766 | 3506 | 1.09 | .96 | .92 |
| 29 | NK77W4430 | 3418 | 1.00 | .95 | .90 |
| 12 | OK78047 | 3412 | .90 | .95 | .90 |
| 11 | OK78002 | 3404 | 1.16 | .93 | .87 |
| 23 | CO778785 | 3377 | 1.07 | .93 | .87 |
| 24 | CO779274 | 3355 | .95 | .96 | .92 |
| 28 | NK77W4036 | 3347 | 1.00 | .97 | .93 |
| 3 | 17277 | 3322 | .90 | .94 | .89 |
| 5 | NE75424 | 3308 | .97 | .96 | .91 |
| 2 | 13996 | 3218 | .84 | .95 | .91 |
| 4 | NE74649 | 3189 | 1.02 | .94 | .89 |
| 1 | 1442 | 2515 | .63 | .88 | .77 |

TABLE 6. SUMMARY OF AGRONOMIC AND YIELD DATA FOR THE 34 LINES GROWN IN THE 1981 SOUTHERN REGIONAL PERFORMANCE NURSERY.

| VARIETY OR PEIGREE | C.I. OR SEL. NO. | ENTRY NO. | DAYS TO HEADING FROM 1/1 | DAYS TO RIPENING FROM 1/1 | PLANT HEIGHT CM | LODGING % | WINTER SURVIVAL % | STAND % |
|---|---|---|---|---|---|---|---|---|
| NUMBER OF TRIALS | | | 23 | 1 | 27 | 5 | 1 | 1 |
| II18889/TPR//CO652643/BACA | NAPB200 | 30 | 131 | 181 | 79 | 15 | 98 | 100 |
| TAMW-103/KS73167 | TX79A2729 | 19 | 131 | 181 | 74 | 12 | 97 | 65 |
| CO702269/CO701467 | CO710125 | 25 | 135 | 183 | 81 | 11 | 97 | 57 |
| SN/TPR//WRR/3/II18889/TPR//CO652643 | NAPB203 | 32 | 133 | 183 | 77 | 10 | 99 | 100 |
| SN/TPR/WRR//CTK | NAPB201 | 31 | 133 | 183 | 76 | 15 | 97 | 93 |
| SDY SIB/TASCOSA//CTK | TX71A889 | 16 | 132 | 182 | 77 | 9 | 98 | 23 |
| SN/TPR//WRR/3/II18889/TPR//CO652643 | NAPB204 | 33 | 134 | 183 | 74 | 9 | 98 | 83 |
| 72F30620/BACA | CO786741 | 26 | 134 | 181 | 84 | 15 | 98 | 93 |
| CO702078/CO701631 | CO778766 | 22 | 138 | 183 | 83 | 16 | 98 | 73 |
| 65A1664/CENTURK | TX73V862 | 20 | 131 | 176 | 73 | 14 | 99 | 87 |
| EY SDY/NCM | OK754615A | 13 | 129 | 178 | 77 | 10 | 99 | 70 |
| CO702078/CO701631 | CO778785 | 23 | 137 | 185 | 78 | 16 | 96 | 67 |
| 72F30620/BACA | CO786747 | 27 | 134 | 181 | 85 | 14 | 97 | 100 |
| (WRR*5/AGENT)*2/KAVKAZ | NE78668 | 7 | 132 | 180 | 87 | 20 | 98 | 100 |
| TAMW-101/AMIGO | OK78002 | 11 | 132 | 182 | 79 | 18 | 92 | 30 |
| SAGE | 17277 | 3 | 133 | 181 | 90 | 26 | 96 | 100 |
| PAYNE/AMIGO | OK78047 | 12 | 131 | 178 | 88 | 27 | 96 | 90 |
| CTK/TAC/3/SUT*5/AG//SDY | NK77W4036 | 28 | 133 | 182 | 81 | 18 | 98 | 90 |
| STT/BVPU//MTR/NB68639 | NK77W4430 | 29 | 132 | 181 | 83 | 16 | 96 | 80 |
| OSAGE SIB/EY SDY | OK77198 | 15 | 131 | 180 | 74 | 8 | 98 | 70 |
| WRR*5/AGENT//NE68457/3/CTK78 | NE77682 | 6 | 133 | 179 | 86 | 20 | 96 | 98 |
| CO702179/CO701467 | CO779274 | 24 | 136 | 183 | 90 | 11 | 95 | 55 |
| PAYNE//TAMW-101/AMIGO | OK80099 | 14 | 130 | 179 | 78 | 13 | 98 | 90 |
| 62A2522-1/CENTURK | TX73V1241 | 21 | 131 | 180 | 78 | 11 | 94 | 87 |
| SCOUT 66 | 13996 | 2 | 132 | 181 | 93 | 39 | 97 | 97 |
| 69A509-2//BLUE BOY II/FOX | TX78V2154 | 17 | 130 | 179 | 78 | 22 | 98 | 37 |
| CIMMYT/SCOUT | KS75210 | 8 | 131 | 181 | 78 | 16 | 99 | 87 |
| NE69457//CTK/GAGE SEL. | NE75424 | 5 | 132 | 181 | 81 | 16 | 97 | 93 |
| SAGE OUTCROSS(L. SCHRAEDER) | LS NO.3 | 34 | 134 | 182 | 92 | 32 | 99 | 83 |
| MARA/2*SCOUT//SENTINEL | NE74649 | 4 | 132 | 182 | 83 | 10 | 96 | 83 |
| SAGE/ARTHUR | KS79H69 | 10 | 130 | 179 | 73 | 7 | 94 | 8 |
| 69A2712-6//AGENT/TCS | TX78V3562 | 18 | 130 | 180 | 81 | 13 | 97 | 80 |
| SAGE/ARTHUR | KS79H70 | 9 | 130 | 176 | 73 | 12 | 85 | 5 |
| KHARKOF | 1442 | 1 | 140 | 183 | 102 | 39 | 98 | 100 |

TABLE 6 (CONCLUDED).

| C.I. OR SEL. NO. | ENTRY NO. | STRIPE RUST SEV. % | STRIPE RUST RESP 1-9 | LEAF RUST SEV. % | LEAF RUST RESP 1-9 | MILDEW 0-9 | WHEAT STREAK MOSAIC 0-9 | FROST DAMAGE 0-5 | FROST ROOT ROT DAMAGE % | SHATTER % | VOLUME WEIGHT KG/HL | YIELD KG/HA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER OF TRIALS | | 2 | 2 | 5 | 5 | 2 | 1 | 1 | 1 | 2 | 31 | 32 |
| NAPB200 | 30 | 50 | 6 | 41 | 6 | 4 | 3 | 2 | 93 | 2 | 76.4 | 3640 |
| TX79A2729 | 19 | 35 | 7 | 48 | 6 | 7 | 3 | 3 | 20 | 2 | 76.8 | 3566 |
| CO710125 | 25 | 5 | 3 | 11 | 4 | 6 | 6 | 1 | 25 | 5 | 75.4 | 3554 |
| NAPB203 | 32 | 85 | 8 | 38 | 5 | 7 | 5 | 2 | 75 | 2 | 75.5 | 3529 |
| NAPB201 | 31 | 50 | 7 | 33 | 6 | 7 | 3 | 1 | 35 | 1 | 74.1 | 3516 |
| TX71A889 | 16 | 45 | 6 | 16 | 5 | 4 | 4 | 2 | 70 | 1 | 77.7 | 3447 |
| NAPB204 | 33 | 88 | 8 | 35 | 5 | 6 | 5 | 1 | 20 | 2 | 75.1 | 3414 |
| CO786741 | 26 | 45 | 7 | 47 | 7 | 4 | 4 | 2 | 25 | 2 | 77.7 | 3411 |
| CO778766 | 22 | 58 | 7 | 15 | 4 | 3 | 5 | 2 | 15 | 3 | 74.7 | 3367 |
| TX73V862 | 20 | 45 | 7 | 48 | 6 | 8 | 4 | 2 | 65 | 1 | 75.9 | 3335 |
| OK754615A | 13 | 60 | 7 | 25 | 5 | 6 | 4 | 2 | 80 | 1 | 76.9 | 3311 |
| CO778785 | 23 | 88 | 8 | 33 | 5 | 5 | 6 | 1 | 20 | 2 | 73.8 | 3303 |
| CO786747 | 27 | 70 | 4 | 58 | 6 | 6 | 4 | 2 | 70 | 2 | 77.8 | 3301 |
| NE78668 | 7 | 15 | 4 | 0 | 0 | 0 | 4 | 1 | 20 | 3 | 75.7 | 3284 |
| OK78002 | 11 | 65 | 8 | 18 | 5 | 0 | 4 | 3 | 68 | 4 | 75.3 | 3268 |
| 17277 | 3 | 45 | 7 | 35 | 6 | 5 | 5 | 2 | 20 | 3 | 76.5 | 3243 |
| OK78047 | 12 | 20 | 7 | 4 | 3 | 0 | 3 | 1 | 20 | 5 | 76.7 | 3230 |
| NK77W4036 | 28 | 48 | 6 | 0 | 0 | 3 | 4 | 1 | 25 | 3 | 76.1 | 3228 |
| NK77W4430 | 29 | 55 | 8 | 38 | 5 | 8 | 3 | 3 | 50 | 3 | 77.5 | 3223 |
| OK77198 | 15 | 25 | 5 | 10 | 4 | 7 | 3 | 2 | 90 | 1 | 76.4 | 3221 |
| NE77682 | 6 | 20 | 5 | 6 | 4 | 4 | 4 | 1 | 15 | 8 | 77.1 | 3218 |
| CO779274 | 24 | 55 | 7 | 25 | 4 | 4 | 6 | 1 | 20 | 1 | 76.2 | 3209 |
| OK80099 | 14 | 25 | 6 | 5 | 2 | 1 | 3 | 3 | 30 | 3 | 75.3 | 3157 |
| TX73V1241 | 21 | 60 | 8 | 3 | 1 | 5 | 4 | 3 | 25 | 7 | 76.9 | 3127 |
| 13996 | 2 | 55 | 7 | 34 | 6 | 6 | 4 | 2 | 65 | 3 | 76.7 | 3055 |
| TX78V2154 | 17 | 70 | 8 | 0 | 0 | 7 | 5 | 5 | 50 | 2 | 74.7 | 3053 |
| KS75210 | 8 | 20 | 6 | 63 | 6 | 6 | 4 | 3 | 85 | 2 | 78 | 3048 |
| NE75424 | 5 | 45 | 7 | 42 | 7 | 7 | 4 | 1 | 50 | 3 | 77.9 | 3043 |
| LS NO.3 | 34 | 50 | 7 | 38 | 6 | 7 | 4 | 1 | 20 | 2 | 78.7 | 3014 |
| NE74649 | 4 | 50 | 7 | 42 | 6 | 4 | 4 | 2 | 35 | 13 | 73.5 | 2984 |
| KS79H69 | 10 | 65 | 8 | 0 | 0 | 5 | 4 | 3 | 98 | 4 | 74.9 | 2854 |
| TX78V3562 | 18 | 40 | 7 | 8 | 4 | 7 | 3 | 4 | 15 | 3 | 75.4 | 2839 |
| KS79H70 | 9 | 60 | 8 | 1 | 1 | 6 | 5 | 4 | 98 | 4 | 74.6 | 2689 |
| 1442 | 1 | 60 | 7 | 56 | 6 | 5 | 5 | 0 | 20 | 27 | 74.9 | 2436 |

Table 7.
Seedling Reaction of the 1981 Uniform Southern Hard Red Winter Wheat Performance Nursery to Puccinia graminis f. sp. tritici (by D. V. McVey, Cereal Rust Laboratory, ARS, USDA, University of Minnesota, St. Paul, MN).

| Entry No. | Cultivar or sel. | Reaction produced by isolates: 74-4-1A / 72-21-1409A (15B-2) TNMH | TNMK | 69-21-399 / 72-00-13700 (151) QSHS | QFBS | 72-00-53A / 74-14-504C / 72-25-6390 (11-32-113) RTQQ | RPQQ | RKQS | Speculative Sr gene |
|---|---|---|---|---|---|---|---|---|---|
| 1. | Kharkof | S | S | 2,S | 2+ | S | S | S | |
| 2. | Scout 66 | ; | S | S | S | ;1 | ; | S | 17 |
| 3. | Sage | ; | 2 | 2 | 2 | ;1- | ; | 2 | 17,24 |
| 4. | NE 74649 | ; | ; | S | ; | ; | ; | S | 6,17 |
| 5. | NE 75424 | ; | ; | 2 | 0; | ;1,2 | ; | 2,S | 6,9a,17 |
| 6. | NE 77682 | ; | ; | 2 | 0; | ; | ; | 2 | 6,17,24 |
| 7. | NE 78668 | 2- | 2- | 2 | 2- | 2 | 2 | 2- | 24 & or 31 |
| 8. | KS 75210 | S | S | S | S | S | S | S | |
| 9. | KS 79H70 | ; | ; | 0 | 2= | 0;,2 | ; | - | 6,Tt-1,24 |
| 10. | KS 79H69 | ; | ; | 0 | ;,2= | 2 | ; | 2 | 6,Tt-1,24 |
| 11. | OK 78002 | 2- | 2 | 2 | 2= | 2 | 2 | 2= | |
| 12. | OK 78047 | 2 | 2- | 2 | 2= | 2- | 12- | 2= | |
| 13. | OK 754615A | S | S | S | S | S | S | S | |
| 14. | OK 80099 | 2 | 2- | 2 | ;1,2= | ;,2- | 2-,; | 2- | |
| 15. | OK 77198 | ; | S | 2 | 2 | ; | ; | S | 17,7b |
| 16. | TX 71A889 | ; | S,; | 2 | 0; | ; | ; | - | 17,Seg.6 |
| 17. | TX 78V2154 | 2 | 2 | 2 | 2 | 23 | 23 | 2 | 24 |
| 18. | TX 78V3562 | 2 | S | 2 | 2 | S,X~N | S | 2 | |
| 19. | TX 79A2729 | S | S | 2 | 2 | S | 2 | 2 | |
| 20. | TX 73V862 | ; | ; | 2 | ; | ;,23CN | ; | 2CN | 6,17 |
| 21. | TX 73V1241 | ;1 | S | 2 | S | ;1N | ;1 | S | 17 |
| 22. | CO 778766 | S | S | S | S | S | S,;1 | S | |
| 23. | CO 778785 | ; | ; | S | ; | S | ; | S | 6 |
| 24. | CO 779274 | S | S | S | S | S | S | 23C | |
| 25. | CO 710125 | S | S | S | 2 | 2 | 2 | 2+ | |
| 26. | CO 786741 | ; | ; | S | 0; | S | ; | 2 | 6 |
| 27. | CO 786747 | 0; | ; | S | 0; | X | ; | S | 6 |
| 28. | NK 77W4036 | ;1 | S | S | 2 | 0; | ;1N | S | 17 |
| 29. | NK 77W4430 | ; | ; | 2- | ; | ; | ; | 12C | 6,17 |
| 30. | NAPB 200 | ; | ; | 2 | ; | 23 | ; | 23 | 6,24 |
| 31. | NAPB 201 | ; | ; | S | ; | S | ; | S | 6 |
| 32. | NAPB 203 | ; | ; | S | ; | S | ; | S | 6 |
| 33. | NAPB 204 | ; | ; | S | ; | 32 | ; | 2+ | 6 |
| 34. | L.S. No.3 | ; | S | 2 | 2 | ; | ; | S | 17 |

Table 8.
Adult plant reaction of the 1981 Southern Regional Hard Red Winter Wheat Performance Nursery to leaf rust and an inoculated stem rust nursery at St. Paul, MN. (ARS, USDA, Cereal Rust Laboratory by D. V. McVey).

| Cultivar or Sel No. | Leaf Rust | Stem Rust | |
|---|---|---|---|
| | | 6/24/81 | 7/6/81 |
| 1. Kharkof | 60S | 40S | 90S |
| 2. Scout 66 | 60S | 5S | 20S |
| 3. Sage | TS | 0 | TR |
| 4. NE74649 | 60S | TMS | 5MS-S |
| 5. NE75424 | 60S | TR | 50S |
| 6. NE77682 | 10MS-S | TMR | 50S |
| 7. NE78668 | TMS | TR | 60MS-S |
| 8. KS75210 | 60S | 5MS | 80S |
| 9. KS79H70 | TS | 0 | 0 |
| 10. KS79H69 | TS | 0 | 0 |
| 11. OK78002 | TMS-S | TR | 60S |
| 12. OK78047 | TMS | TR | 60MS |
| 13. OK754615A | 10MS-S | 20S | 90S |
| 14. OK80099 | 0 | TR | 40MS |
| 15. OK77198 | TS | 60S | 60S |
| 16. TX71A889 | 5MS | 5S | 60S |
| 17. TX78V2154 | TS | TR | 40MS |
| 18. TX78V3562 | TS | 5MS | 50S |
| 19. TX79A2729 | 10S | TMR | 60S |
| 20. TX73V862 | 10MS-S | 0 | 10MR-MS |
| 21. TX73V1214 | 10S | 30S | 80S |
| 22. CO778766 | 0 | 0 | TR |
| 23. CO778785 | TS | TR | 80S |
| 24. CO779274 | 20MS-S | 10MS-s | 80S |
| 25. CO710125 | T-60S | 10S | 90S |
| 26. CO786741 | 60S | TMS | 60S |
| 27. CO786747 | 60S | TMR | 60S |
| 28. NK77W4036 | 0 | TMS | 50S |
| 29. NK77W4430 | 40S | 0 | 10MR-MS |
| 30. NAPB200 | 40S | TMR | 50S |
| 31. NAPB201 | 5MS-S | TMS-S | 40MS-S |
| 32. NAPB203 | 40S | TMS | 40S |
| 33. NAPB204 | 10MS-S | 0 | 5R-MR |
| 34. LS No. 3 | 40S | TS | 5S |

Table 9.
Field Infection Data - Soil-Borne Mosaic
1981 Southern Regional Performance Nursery

1981 - Urbana, Illinois[1/]

| Entry No. | Disease Severity | |
|---|---|---|
| | Replication 1 | Replication 2 |
| 1 | VS | VS |
| 2 | S | S |
| 3 | VS | VS |
| 4 | S | S |
| 5 | MR | MR |
| 6 | MS | MS |
| 7 | S | S |
| 8 | MS | MS |
| 9 | MR | MR |
| 10 | MS | MS |
| 11 | S-10 ROS | VS-100 ROS |
| 12 | VS | VS |
| 13 | S | S |
| 14 | S | S |
| 15 | VS | VS |
| 16 | MS | MS |
| 17 | VS | VS |
| 18 | S | S |
| 19 | MR | MR |
| 20 | VS | VS |
| 21 | S | S |
| 22 | S | S |
| 23 | VS | VS |
| 24 | S | S |
| 25 | MR | MR |
| 26 | VS | VS |
| 27 | S | S |
| 28 | MS | MS |
| 29 | MS | MS |
| 30 | R | R |
| 31 | R | R |
| 32 | R | R |
| 33 | MR | MR |
| 34 | MR | MR |

1/The nursery was planted in soil-borne mosaic nursery on September 30, 1980.
Final notes on disease severity were taken on April 30, 1981.
Fall conditions were favorable for infection and unless otherwise stated, the disease incidence was about 100%.
Disease severity ratings are the same as those in previous years; Ros.=rosetting.
Cooperators: H. Jedlinski and C. M. Brown.

1981
Northern Regional Performance Nursery

| Entry no. | Variety | C. I. or Sel. No. | Source |
|---|---|---|---|
| 1 | Kharkof | 1442 | Check |
| 2 | Warrior | 13190 | " |
| 3 | Roughrider | 17439 | " |
| 4 | NE68723/NE68719//Gage Sel. | NE75414 | Nebraska |
| 5* | Wrr*5/Agent//Ctk 78 | " 77465 | " |
| 6* | " | " 78659 | " |
| 7* | Wrr*5/Agent//Agate Sib | " 76667 | " |
| 8* | Sentinel/Centurk | " 78414 | " |
| 9* | " | " 78415 | " |
| 10 | Ctk*2/Hand | SD74221 | So. Dak. |
| 11 | Agent/*4Sut*2//Hand | " 75284 | " |
| 12 | Sut Sel./NE66403 | " 73177 | " |
| 13* | Centurk*2/Hand | " 74209 | " |
| 14* | Centurk*5/Hand | " 76705 | " |
| 15* | CI15322//Agent/4*Sut/3/SD713-11 | " 76521 | " |
| 16* | CI15322//Agent/4*Sut/3/Ctk | " 76598 | " |
| 17* | " | " 76602 | " |
| 18* | " | " 76569 | " |
| 19* | CI15322//3*Agent/4*Sut | " 76194 | " |
| 20* | C0695552/Centurk | C0745597 | " |
| 21** | Sn/Tpr//Wrr/3/Ctk | NAPB 201 | NAPB |
| 22* | Rego/Cnn//Winalta | MT7428 | Montana |
| 23* | Froid/Bezostaya | " 77003 | " |
| 24* | C61-9/Winalta//Crest | " 77077 | " |
| 25* | YGSS, Sel. 4662/4*Cnn (white chaff) | " 77062 | " |
| 26* | " (brown chaff) | " 77063 | " |

* New entry in 1981
** Entered from the SRPN

## Test Site Information - NRPN

Clovis, NM -- See information for the SRPN.

Nebraska Stations -- See information for the SRPN.

South Dakota Stations -- See information for the SRPN.

Casselton, ND -- The nursery was seeded into moist soil on September 22 and fall stand establishment was good. Although winter temperatures were mild for the area lack of snow cover resulted in some winterkill. High moisture during spring promoted development of white blotch (Bacillus megaterium) and bacterial leaf necrosis (Pseudomonas syringae) on the upper leaves and tan spot (Pyrenophora tritici repentis) on the lower leaves.

Hettinger, ND -- The nursery was not seeded.

Williston, ND -- Fall moisture above average and excellent stands were obtained. The initial fall freeze did not occur until October 11. The winter was characterized by mild temperatures and sparse snow. Spring temperatures were above normal and precipitation below normal. Winter survival was good for most entries. June was very wet and cool. A heat wave in early July stopped disease development. Insects were not a problem. Total precipitation for the crop season was slightly above normal.

St. Paul, MN -- The nursery survived the winter but was destroyed by birds during the summer.

Waseca, MN -- Production conditions remained good throughout the crop season. Winterkilling did not occur. Leaf rust became heavy.

Archer, WY -- Soil moisture was low during the winter and into late April. From early May through harvest rainfall was above normal. Yields were good.

Sheridan, WY -- Fall and winter moisture was sub-normal. Normal rainfall was received from May until harvest. No diseases developed. Rain and heavy dew at harvest caused bleaching of the grain. Yields were approximately twice normal.

Sidney, MT -- The nursery was seeded on summer fallow ground on September 20. Precipitation from September, 1980 through August, 1981 totalled 14 inches. Insects were not a problem. Leaf spotting complex of diseases included Pyrenophora trichostoma, Pseudomonas syringae, and Septoria nodorum. A light inspection of barley yellow dwarf virus also occurred.

Mocassin, MT -- The winter was mild with very little snow. Winter-killing did not occur. Excess precipitation in late April and May resulted in heavy straw production. Pseudomonas syringae and Pyrenophora trichostoma were sufficiently heavy for readings to be made.

Conrad, MT -- Weather was unusually warm and dry during fall and winter and allowed prolonged aphid activity and development of barley yellow dwarf on the winter wheat. Adequate moisture and cool temperatures in late spring and summer reduced the effects of the disease.

Tetonia, ID -- See information for the SRPN.

Lind, WA -- See information for the SRPN.

Lethbridge, Alberta -- Conditions not reported.

TABLE 10. YIELD AND AGRONOMIC DATA FOR 26 ENTRIES IN THE NORTHERN REGIONAL PERFORMANCE NURSERY IN 1981.

CLOVIS,NEW MEXICO (IRR.)

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM |
|---|---|---|---|---|---|
| NE75414 | 4 | 5859 | 79.3 | 124 | 96 |
| SD76602 | 17 | 5489 | 81.1 | 122 | 100 |
| NE78415 | 9 | 5444 | 79.1 | 123 | 86 |
| CO745597 | 20 | 5399 | 81 | 123 | 97 |
| NE77465 | 5 | 5394 | 81.1 | 121 | 91 |
| NE76667 | 7 | 5386 | 79.3 | 125 | 101 |
| SD76598 | 16 | 5307 | 80.8 | 125 | 101 |
| MT77003 | 23 | 5234 | 81.7 | 123 | 96 |
| SD76705 | 14 | 5187 | 80.4 | 122 | 86 |
| SD73177 | 12 | 4980 | 79.3 | 122 | 93 |
| SD74209 | 13 | 4933 | 81.7 | 123 | 95 |
| NAPB201 | 21 | 4915 | 79.3 | 122 | 81 |
| NE78659 | 6 | 4875 | 79.8 | 123 | 94 |
| MT77062 | 25 | 4805 | 80.2 | 127 | 103 |
| MT77063 | 26 | 4692 | 79.5 | 129 | 105 |
| SD76194 | 19 | 4658 | 79.5 | 125 | 104 |
| MT7428 | 22 | 4610 | 76.8 | 128 | 102 |
| SD76569 | 18 | 4488 | 76.1 | 127 | 97 |
| SD75284 | 11 | 4287 | 78.5 | 123 | 91 |
| 13190 | 2 | 4254 | 78.5 | 125 | 99 |
| MT77077 | 24 | 4222 | 73.3 | 131 | 91 |
| 17439 | 3 | 4188 | 79.3 | 128 | 101 |
| NE78414 | 8 | 3989 | 77 | 124 | 85 |
| SD76521 | 15 | 3976 | 78.3 | 125 | 97 |
| 1442 | 1 | 3741 | 77.4 | 130 | 109 |
| SD74221 | 10 | 3529 | 79.8 | 124 | 83 |
| MEAN | | 4763 | | | |
| L.S.D.(.05) | | 1048 | | | |
| C.V. | | 13.5 | | | |

CLOVIS,NEW MEXICO (DRYL.)

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM |
|---|---|---|---|---|---|
| MT77062 | 25 | 3462 | 80.4 | 124 | 72 |
| SD74209 | 13 | 3414 | 81.5 | 120 | 58 |
| NE77465 | 5 | 3408 | 80.3 | 119 | 62 |
| CO745597 | 20 | 3312 | 80.9 | 119 | 69 |
| MT77003 | 23 | 3093 | 81.3 | 120 | 65 |
| MT77063 | 26 | 3024 | 79.8 | 123 | 71 |
| SD76194 | 19 | 3001 | 80.2 | 121 | 76 |
| NE78659 | 6 | 2923 | 78.9 | 120 | 60 |
| NE78414 | 8 | 2843 | 78.4 | 122 | 52 |
| MT7428 | 22 | 2807 | 76.3 | 125 | 71 |
| NE76667 | 7 | 2802 | 78.1 | 121 | 68 |
| SD75284 | 11 | 2794 | 77.6 | 119 | 68 |
| SD76598 | 16 | 2742 | 80.2 | 121 | 66 |
| SD76705 | 14 | 2667 | 80 | 119 | 51 |
| SD76602 | 17 | 2612 | 79.3 | 120 | 67 |
| SD73177 | 12 | 2593 | 77.8 | 119 | 67 |
| NE75414 | 4 | 2551 | 78 | 120 | 70 |
| 17439 | 3 | 2455 | 78 | 122 | 65 |
| NE78415 | 9 | 2449 | 79.1 | 120 | 56 |
| 13190 | 2 | 2417 | 77.4 | 121 | 69 |
| SD74221 | 10 | 2400 | 81 | 120 | 64 |
| NAPB201 | 21 | 2302 | 77.4 | 120 | 56 |
| SD76521 | 15 | 2182 | 77.9 | 121 | 66 |
| 1442 | 1 | 2126 | 74.6 | 126 | 74 |
| SD76569 | 18 | 1859 | 76.9 | 126 | 67 |
| MT77077 | 24 | 1750 | 77.2 | 126 | 67 |
| MEAN | | 2692 | | | |
| L.S.D.(.05) | | 698 | | | |
| C.V. | | 15.9 | | | |

MEAD, NEBRASKA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM | LODGING 0-9 | LEAF RUST SEV. % | RUST RESP 1-9 |
|---|---|---|---|---|---|---|---|---|
| NE75414 | 4 | 5205 | 73.7 | 145 | 105 | 1 | 60 | 8 |
| NAPB201 | 21 | 5174 | 73.3 | 144 | 93 | 0 | 90 | 8 |
| SD76705 | 14 | 5095 | 77.8 | 143 | 96 | 1 | 0 | . |
| SD76598 | 16 | 5003 | 77.4 | 144 | 112 | 1 | 50 | 8 |
| SD75284 | 11 | 4994 | 77.9 | 143 | 107 | 0 | 80 | 8 |
| SD73177 | 12 | 4918 | 77.8 | 143 | 108 | 1 | 80 | 8 |
| MT77003 | 23 | 4887 | 79.5 | 143 | 106 | 1 | 25 | 8 |
| NE77465 | 5 | 4871 | 77.8 | 143 | 107 | 0 | 70 | 8 |
| NE78415 | 9 | 4851 | 76.8 | 146 | 101 | 0 | 80 | 8 |
| NE76667 | 7 | 4784 | 77.5 | 147 | 111 | 2 | 25 | 8 |
| NE78414 | 8 | 4768 | 77.4 | 146 | 98 | 0 | 90 | 8 |
| CC745597 | 20 | 4734 | 77.5 | 144 | 105 | 3 | 70 | 8 |
| NE78659 | 6 | 4528 | 77.7 | 145 | 105 | 1 | 30 | 8 |
| SD76194 | 19 | 4524 | 76.4 | 146 | 119 | 5 | 60 | 8 |
| SD74209 | 13 | 4454 | 77.4 | 144 | 107 | 2 | 80 | 8 |
| SD74221 | 10 | 4385 | 78.9 | 143 | 99 | 5 | 0 | . |
| SD76602 | 17 | 4360 | 74.6 | 145 | 112 | 4 | 80 | 8 |
| SD76521 | 15 | 4358 | 77.8 | 145 | 113 | 2 | 50 | 8 |
| MT77077 | 24 | 4208 | 73.4 | 150 | 111 | 0 | 20 | 8 |
| 13190 | 2 | 3909 | 74.6 | 148 | 115 | 5 | 80 | 8 |
| MT77063 | 26 | 3797 | 76 | 150 | 117 | 6 | 80 | 8 |
| MT77062 | 25 | 3770 | 77 | 150 | 117 | 5 | 80 | 8 |
| SD76569 | 18 | 3587 | 73.4 | 148 | 110 | 0 | 40 | 8 |
| 17439 | 3 | 3436 | 75.1 | 148 | 117 | 1 | 80 | 8 |
| 1442 | 1 | 3360 | 75.6 | 149 | 120 | 8 | 80 | 8 |
| MT7428 | 22 | 3250 | 73.5 | 150 | 116 | 1 | 80 | 8 |
| MEAN | | 4431 | | | | | | |
| L.S.D.(.05) | | 459 | | | | | | |
| C.V. | | 6.3 | | | | | | |

NORTH PLATTE, NEBRASKA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | FROST DAMAGE 0-5 |
|---|---|---|---|---|
| NE78414 | 8 | 3328 | 75.5 | 0 |
| MT77077 | 24 | 2811 | 71.6 | 0 |
| SD76705 | 14 | 2732 | 76.1 | 1 |
| NAPB201 | 21 | 2704 | 73.5 | 1 |
| MT77003 | 23 | 2702 | 76.1 | 0 |
| SD74209 | 13 | 2656 | 77.4 | 1 |
| SD74221 | 10 | 2570 | 76.1 | 2 |
| CO745597 | 20 | 2558 | 76.1 | 1 |
| NE78659 | 6 | 2520 | 74.8 | 0 |
| MT77063 | 26 | 2489 | 74.2 | 0 |
| 13190 | 2 | 2483 | 74.8 | 0 |
| SD76602 | 17 | 2456 | 75.5 | 0 |
| NE75414 | 4 | 2453 | 73.5 | 2 |
| NE78415 | 9 | 2412 | 75.5 | 1 |
| NE77465 | 5 | 2400 | 75.5 | 1 |
| NE76667 | 7 | 2334 | 75.5 | 0 |
| MT77062 | 25 | 2297 | 74.8 | 0 |
| SD75284 | 11 | 2286 | 75.5 | 1 |
| SD76598 | 16 | 2276 | 76.1 | 0 |
| SD76569 | 18 | 2253 | 71 | 0 |
| 17439 | 3 | 2189 | 76.1 | 0 |
| SD76194 | 19 | 2138 | 75.5 | 0 |
| SD76521 | 15 | 2046 | 77.4 | 1 |
| SD73177 | 12 | 2028 | 76.1 | 2 |
| MT7428 | 22 | 1949 | 72.2 | 0 |
| 1442 | 1 | 1690 | 74.8 | 0 |
| MEAN | | 2414 | | |
| L.S.D.(.05) | | 479 | | |
| C.V. | | 12.1 | | |

SIDNEY,NEBRASKA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 |
|---|---|---|---|---|
| 13190 | 2 | 4078 | 80.2 | 158 |
| NE78659 | 6 | 4027 | 79.1 | 157 |
| NAPB201 | 21 | 3996 | 78.2 | 157 |
| NE78415 | 9 | 3968 | 79.5 | 157 |
| NE75414 | 4 | 3867 | 78.4 | 156 |
| NE78414 | 8 | 3853 | 79.5 | 157 |
| SD76598 | 16 | 3835 | 78.9 | 158 |
| 1442 | 1 | 3754 | 78.3 | 158 |
| SD74209 | 13 | 3684 | 80 | 156 |
| NE76667 | 7 | 3659 | 80 | 158 |
| SD73177 | 12 | 3630 | 79.7 | 155 |
| SD74221 | 10 | 3560 | 79.6 | 157 |
| CO745597 | 20 | 3535 | 80.1 | 157 |
| MT77003 | 23 | 3535 | 80.8 | 157 |
| NE77465 | 5 | 3472 | 79.2 | 157 |
| SD75284 | 11 | 3437 | 79.7 | 155 |
| MT77077 | 24 | 3437 | 78.9 | 159 |
| SD76705 | 14 | 3428 | 78 | 157 |
| MT7428 | 22 | 3389 | 78.8 | 158 |
| MT77063 | 26 | 3382 | 79.5 | 157 |
| SD76521 | 15 | 3119 | 79.7 | 157 |
| SD76602 | 17 | 2937 | 79.7 | 156 |
| SD76194 | 19 | 2897 | 79.5 | 157 |
| SD76569 | 18 | 2711 | 76.1 | 158 |
| MT77062 | 25 | 2711 | 81 | 158 |
| 17439 | 3 | 2621 | 79.3 | 158 |
| MEAN | | 3482 | | |
| L.S.D.(.05) | | 803 | | |
| C.V. | | 14.1 | | |

ALLIANCE, NEBRASKA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | DAYS TO HEADING FROM 1/1 |
|---|---|---|---|
| SD76602 | 17 | 2711 | 152 |
| MT77062 | 25 | 2537 | 154 |
| MT77063 | 26 | 2474 | 155 |
| NE77465 | 5 | 2334 | 152 |
| NE76667 | 7 | 2236 | 154 |
| SD74209 | 13 | 2234 | 152 |
| MT77003 | 23 | 2230 | 155 |
| NE75414 | 4 | 2178 | 153 |
| 1442 | 1 | 2148 | 155 |
| MT7428 | 22 | 2119 | 156 |
| NE78659 | 6 | 2096 | 154 |
| 13190 | 2 | 2067 | 154 |
| SD76598 | 16 | 1951 | 153 |
| SD76194 | 19 | 1925 | 154 |
| NE78415 | 9 | 1902 | 153 |
| SD76705 | 14 | 1892 | 152 |
| NAPB201 | 21 | 1868 | 153 |
| CO745597 | 20 | 1850 | 153 |
| SD76521 | 15 | 1795 | 155 |
| SD73177 | 12 | 1745 | 152 |
| MT77077 | 24 | 1739 | 156 |
| SD75284 | 11 | 1736 | 152 |
| SD74221 | 10 | 1651 | 155 |
| NE78414 | 8 | 1625 | 155 |
| 17439 | 3 | 1100 | 155 |
| SD76569 | 18 | 804 | 157 |
| MEAN | | 1959 | |
| L.S.D. (.05) | | 430 | |
| C.V. | | 13.4 | |

BROOKINGS, SOUTH DAKOTA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | FROST ROOT DAMAGE % |
|---|---|---|---|---|---|
| NE75414 | 4 | 2917 | 75.1 | 153 | 22 |
| SD7279 | . | 2891 | . | 156 | 18 |
| SD75284 | 11 | 2777 | 75.8 | 152 | 47 |
| NAPB201 | 21 | 2754 | 74.8 | 152 | 27 |
| SD76569 | 18 | 2737 | 75.7 | 157 | 15 |
| SD73177 | 12 | 2578 | 75.4 | 153 | 50 |
| SD74221 | 10 | 2438 | 77.1 | 154 | 47 |
| SD76705 | 14 | 2335 | 76.4 | 154 | 63 |
| BUCKSKIN | . | 2304 | . | 154 | 60 |
| NE78415 | 9 | 2301 | 73.9 | 154 | 40 |
| NE77465 | 5 | 2300 | 76.4 | 153 | 48 |
| NE76667 | 7 | 2282 | 75.9 | 155 | 50 |
| SD76602 | 17 | 2248 | 74.9 | 153 | 47 |
| SD76194 | 19 | 2233 | 76.9 | 156 | 40 |
| 17439 | 3 | 2205 | 74.8 | 159 | 33 |
| SD76123 | . | 2190 | . | 153 | 67 |
| MT77062 | 25 | 2184 | 76 | 158 | 20 |
| SD76598 | 16 | 2151 | 76.4 | 154 | 70 |
| WALL | . | 2096 | . | 154 | 57 |
| MT77063 | 26 | 2067 | 75.5 | 158 | 22 |
| 13190 | 2 | 2046 | 75.3 | 156 | 40 |
| SD74209 | 13 | 2046 | 75.8 | 154 | 73 |
| MT77077 | 24 | 2026 | 73.9 | 159 | 43 |
| MT77003 | 23 | 2019 | 76.3 | 155 | 67 |
| NE78659 | 6 | 2002 | 76.2 | 156 | 63 |
| 1442 | 1 | 1960 | 74.2 | 158 | 23 |
| SD76521 | 15 | 1956 | 77.2 | 154 | 80 |
| CO745597 | 20 | 1931 | 75.8 | 154 | 60 |
| NE78414 | 8 | 1805 | 75.8 | 154 | 88 |
| MT7428 | 22 | 1752 | 72.3 | 159 | 33 |
| MEAN | | 2233 | | | |
| L.S.D.(.05) | | 519 | | | |
| C.V. | | 14.2 | | | |

HIGHMORE, SOUTH DAKOTA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | PLANT HEIGHT HEIGHT | LODGING | SHATTER % |
|---|---|---|---|---|---|---|
| NE77465 | 5 | 4321 | 78 | 82 | 8 | 3 |
| NE78415 | 9 | 4086 | 76.3 | 74 | 0 | 1 |
| NAPB201 | 21 | 4054 | 75.7 | 75 | 0 | 1 |
| NE78659 | 6 | 4018 | 76.7 | 87 | 0 | 1 |
| NE78414 | 8 | 3986 | 77.1 | 79 | 3 | 1 |
| SD74209 | 13 | 3930 | 78.1 | 85 | 5 | 3 |
| SD76598 | 16 | 3842 | 76.8 | 88 | 8 | 2 |
| SD74221 | 10 | 3834 | 77.4 | 78 | 15 | 2 |
| SD76602 | 17 | 3826 | 76.7 | 88 | 13 | 1 |
| SD76194 | 19 | 3755 | 76.9 | 93 | 5 | 3 |
| NE76667 | 7 | 3753 | 77.6 | 85 | 5 | 0 |
| SD73177 | 12 | 3733 | 76.8 | 85 | 0 | 1 |
| SD75284 | 11 | 3711 | 76.7 | 83 | 0 | 2 |
| MT77063 | 26 | 3684 | 75 | 91 | 8 | 1 |
| CO745597 | 20 | 3680 | 77.1 | 89 | 8 | 4 |
| WALL | . | 3659 | 76.6 | 89 | 3 | 3 |
| BUCKSKIN | . | 3605 | 76.4 | 89 | 8 | 2 |
| SD76705 | 14 | 3511 | 76.6 | 81 | 10 | 1 |
| NE75414 | 4 | 3475 | 74.6 | 83 | 1 | 4 |
| SD76123 | . | 3389 | 77.3 | 88 | 3 | 6 |
| MT77062 | 25 | 3374 | 75.9 | 89 | 3 | 1 |
| SD76521 | 15 | 3233 | 77.3 | 90 | 3 | 6 |
| MT77003 | 23 | 3205 | 75.9 | 84 | 3 | 1 |
| 13190 | 2 | 3183 | 75 | 90 | 8 | 3 |
| SD7279 | . | 3174 | 76.4 | 87 | 0 | 1 |
| MT7428 | 22 | 3145 | 72.7 | 96 | 0 | 1 |
| SD76569 | 18 | 2955 | 73.9 | 86 | 0 | 0 |
| 1442 | 1 | 2845 | 74.5 | 98 | 35 | 1 |
| MT77077 | 24 | 2828 | 70.7 | 93 | 0 | 1 |
| 17439 | 3 | 2753 | 74.4 | 89 | 0 | 1 |
| MEAN | | 3566 | | | | |
| L.S.D.(.05) | | 578 | | | | |
| C.V. | | 9.9 | | | | |

PRESHO, SOUTH DAKOTA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL |
|---|---|---|---|
| NE78415 | 9 | 1951 | 72.8 |
| NE78414 | 8 | 1725 | 73.9 |
| WALL | . | 1711 | 75.8 |
| SD76598 | 16 | 1660 | 74 |
| NE78659 | 6 | 1607 | 74 |
| MT77062 | 25 | 1581 | 75.7 |
| NE75414 | 4 | 1564 | 72.6 |
| CO745597 | 20 | 1559 | 72.2 |
| BUCKSKIN | . | 1550 | 74.1 |
| SD76194 | 19 | 1530 | 75.9 |
| NE77465 | 5 | 1519 | 73 |
| MT77063 | 26 | 1512 | 75.4 |
| SD76123 | . | 1496 | 75.7 |
| SD76569 | 18 | 1472 | 71.6 |
| 1442 | 1 | 1447 | 74.9 |
| SD76521 | 15 | 1410 | 75.3 |
| SD75284 | 11 | 1379 | 73.6 |
| NE76667 | 7 | 1365 | 75.3 |
| SD76602 | 17 | 1337 | 74.2 |
| 13190 | 2 | 1330 | 74.1 |
| SD76705 | 14 | 1323 | 70.7 |
| SD74221 | 10 | 1309 | 73.9 |
| MT77003 | 23 | 1302 | 77.7 |
| SD74209 | 13 | 1301 | 71.9 |
| SD7279 | . | 1300 | 74.4 |
| MT7428 | 22 | 1287 | 71 |
| NAPB201 | 21 | 1170 | 70.4 |
| 17439 | 3 | 1150 | 72.2 |
| SD73177 | 12 | 1088 | 71.7 |
| MT77077 | 24 | 883 | 67.8 |
| MEAN | | 1414 | |
| L.S.D.(.05) | | 440 | |
| C.V. | | 19.1 | |

CASSELTON, NORTH DAKOTA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM | WINTER SURVIVAL % |
|---|---|---|---|---|---|---|
| NE76667 | 7 | 3143 | 78.7 | 159 | 81 | 72 |
| NE77465 | 5 | 3064 | 77.8 | 158 | 74 | 72 |
| MT77003 | 23 | 2982 | 76.5 | 159 | 80 | 65 |
| NE78415 | 9 | 2883 | 76.8 | 158 | 69 | 77 |
| NE78659 | 6 | 2839 | 77.8 | 158 | 80 | 75 |
| 1442 | 1 | 2834 | 77 | 164 | 96 | 80 |
| NE75414 | 4 | 2828 | 75.7 | 159 | 79 | 72 |
| SD74221 | 10 | 2794 | 79.6 | 158 | 72 | 75 |
| NE78414 | 8 | 2781 | 77.6 | 158 | 69 | 67 |
| SD76705 | 14 | 2730 | 78 | 158 | 68 | 75 |
| MT77062 | 25 | 2633 | 77.4 | 163 | 89 | 72 |
| SD76194 | 19 | 2545 | 77.8 | 161 | 88 | 57 |
| NAPB201 | 21 | 2539 | 74.2 | 158 | 66 | 70 |
| MT77063 | 26 | 2498 | 77.6 | 165 | 83 | 67 |
| 17439 | 3 | 2391 | 76.3 | 164 | 85 | 70 |
| 13190 | 2 | 2299 | 75.5 | 159 | 84 | 77 |
| CO745597 | 20 | 2258 | 76.1 | 159 | 76 | 68 |
| SD74209 | 13 | 2217 | 76.8 | 159 | 75 | 65 |
| SD76602 | 17 | 2030 | 76.3 | 159 | 76 | 65 |
| SD75284 | 11 | 2000 | 77.6 | 158 | 75 | 72 |
| MT7428 | 22 | 1982 | 72.5 | 165 | 91 | 62 |
| MT77077 | 24 | 1803 | 70.1 | 165 | 79 | 68 |
| SD76521 | 15 | 1702 | 78.9 | 159 | 75 | 55 |
| SD73177 | 12 | 1590 | 78.5 | 158 | 74 | 63 |
| SD76569 | 18 | 1575 | 74 | 164 | 83 | 50 |
| SD76598 | 16 | 1541 | 77.8 | 159 | 75 | 57 |
| MEAN | | 2403 | | | | |
| L.S.D.(.05) | | 939 | | | | |
| C.V. | | 23.9 | | | | |

WILLISTON, NORTH DAKOTA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM | WINTER SURVIVAL % | LEAF RUST SEV. % | RUST RESP 1-9 |
|---|---|---|---|---|---|---|---|---|
| NE78415 | 9 | 2798 | 77.9 | 150 | 58 | 92 | 0 | . |
| MT7428 | 22 | 2762 | 76.1 | 153 | 76 | 93 | 0 | . |
| NE78659 | 6 | 2724 | 76.8 | 151 | 67 | 98 | 1 | 8 |
| 17439 | 3 | 2702 | 77.7 | 153 | 77 | 100 | 1 | 8 |
| MT77063 | 26 | 2692 | 78.3 | 154 | 77 | 97 | 55 | 8 |
| 1442 | 1 | 2682 | 77.5 | 155 | 88 | 95 | 1 | 8 |
| MT77077 | 24 | 2657 | 78.7 | 156 | 75 | 93 | 1 | 8 |
| MT77062 | 25 | 2621 | 78.7 | 154 | 80 | 97 | 1 | 8 |
| SD76598 | 16 | 2607 | 78.6 | 152 | 73 | 97 | 0 | . |
| NE75414 | 4 | 2554 | 75.7 | 150 | 67 | 90 | 0 | . |
| SD76569 | 18 | 2543 | 77.7 | 151 | 72 | 97 | 1 | 8 |
| NE78414 | 8 | 2533 | 77.5 | 151 | 59 | 98 | 1 | 8 |
| NE77465 | 5 | 2520 | 78 | 151 | 65 | 93 | 5 | 8 |
| SD74221 | 10 | 2510 | 78.4 | 150 | 59 | 100 | 0 | . |
| NAPB201 | 21 | 2501 | 76.8 | 151 | 60 | 90 | 0 | . |
| CO745597 | 20 | 2488 | 78.6 | 151 | 71 | 95 | 0 | . |
| MT77003 | 23 | 2483 | 79.1 | 153 | 71 | 78 | 0 | . |
| 13190 | 2 | 2445 | 77.9 | 152 | 76 | 88 | 1 | 8 |
| NE76667 | 7 | 2442 | 77.4 | 150 | 69 | 93 | 0 | . |
| SD76521 | 15 | 2437 | 78.2 | 150 | 73 | 93 | 1 | 8 |
| SD74209 | 13 | 2428 | 78.9 | 152 | 63 | 90 | 1 | 8 |
| SD76194 | 19 | 2390 | 78.6 | 151 | 77 | 93 | 0 | . |
| SD76705 | 14 | 2351 | 77.4 | 151 | 57 | 90 | 0 | . |
| SD76602 | 17 | 2350 | 77.3 | 149 | 65 | 97 | 5 | 8 |
| SD75284 | 11 | 2316 | 77.1 | 148 | 61 | 90 | 5 | 8 |
| SD73177 | 12 | 2002 | 77.1 | 148 | 62 | 95 | 1 | 8 |
| MEAN | | 2521 | | | | | | |
| L.S.D.(.05) | | 240 | | | | | | |
| C.V. | | 5.8 | | | | | | |

## WASECA, MINNESOTA

### THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM | LODGING 0-9 | LEAF SEV. % | RUST RESP 1-9 |
|---|---|---|---|---|---|---|---|---|
| NE76667 | 7 | 4765 | 78.7 | 156 | 109 | 2 | 10 | 8 |
| NE78659 | 6 | 4583 | 78 | 155 | 105 | 2 | 5 | 8 |
| SD76705 | 14 | 4378 | 77.4 | 158 | 91 | 2 | 80 | 8 |
| SD76194 | 19 | 4348 | 78.7 | 155 | 113 | 3 | 5 | 8 |
| NE78415 | 9 | 4156 | 76.1 | 155 | 109 | 2 | 70 | 8 |
| NE75414 | 4 | 4116 | 74.2 | 154 | 105 | 2 | 50 | 8 |
| SD74221 | 10 | 4072 | 79.3 | 155 | 102 | 3 | 10 | 8 |
| SD76598 | 16 | 3867 | 78 | 155 | 107 | 2 | 50 | 8 |
| NE78414 | 8 | 3840 | 77.4 | 156 | 99 | 3 | 60 | 8 |
| NE77465 | 5 | 3810 | 76.8 | 155 | 103 | 2 | 30 | 8 |
| NAPB201 | 21 | 3665 | 71.6 | 157 | 108 | 3 | 5 | 8 |
| SD76602 | 17 | 3648 | 74.2 | 155 | 98 | 2 | 5 | 8 |
| CO745597 | 20 | 3621 | 76.8 | 155 | 107 | 3 | 20 | 8 |
| SD76521 | 15 | 3611 | 80 | 155 | 119 | 2 | 50 | 8 |
| SD73177 | 12 | 3601 | 77.4 | 155 | 109 | 3 | 80 | 8 |
| SD75284 | 11 | 3598 | 77.4 | 155 | 105 | 2 | 80 | 8 |
| SD74209 | 13 | 3574 | 77.4 | 155 | 100 | 3 | 50 | 8 |
| 1442 | 1 | 3564 | 76.8 | 155 | 125 | 3 | 70 | 8 |
| MT77062 | 25 | 3531 | 77.4 | 155 | 114 | 2 | 10 | 8 |
| MT77063 | 26 | 3521 | 78.7 | 156 | 109 | 3 | 1 | 8 |
| SD76569 | 18 | 3447 | 76.8 | 155 | 107 | 2 | 50 | 8 |
| MT77003 | 23 | 3396 | 76.8 | 156 | 101 | 3 | 10 | 8 |
| MT77077 | 24 | 3315 | 72.2 | 162 | 105 | 3 | 1 | 8 |
| 13190 | 2 | 3235 | 73.5 | 155 | 107 | 3 | 80 | 8 |
| 17439 | 3 | 3215 | 78.7 | 155 | 108 | 2 | 60 | 8 |
| MT7428 | 22 | 2959 | 76.1 | 157 | 110 | 2 | 40 | 8 |
| MEAN | | 3748 | | | | | | |
| L.S.D.(.05) | | 707 | | | | | | |
| C.V. | | 9.4 | | | | | | |

ARCHER, WYOMING

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM |
|---|---|---|---|---|---|
| NE77465 | 5 | 1009 | 77.6 | 158 | 70 |
| NE75414 | 4 | 978 | 77.6 | 155 | 72 |
| NE78659 | 6 | 957 | 77 | 157 | 67 |
| NAPB201 | 21 | 903 | 75.7 | 157 | 65 |
| SD74209 | 13 | 896 | 78 | 154 | 74 |
| SD76705 | 14 | 887 | 77.2 | 154 | 67 |
| SD76194 | 19 | 871 | 77.9 | 159 | 77 |
| 1442 | 1 | 843 | 77.6 | 153 | 77 |
| NE78414 | 8 | 835 | 77.2 | 158 | 66 |
| SD75284 | 11 | 813 | 77.1 | 155 | 71 |
| SD74221 | 10 | 792 | 78 | 156 | 69 |
| NE78415 | 9 | 784 | 76.7 | 156 | 66 |
| MT77063 | 26 | 783 | 78.6 | 155 | 77 |
| SD76569 | 18 | 782 | 76.8 | 154 | 71 |
| NE76667 | 7 | 778 | 78 | 154 | 74 |
| SD76598 | 16 | 766 | 77.4 | 154 | 75 |
| MT77003 | 23 | 757 | 77.5 | 155 | 75 |
| SD76602 | 17 | 756 | 78 | 158 | 77 |
| MT7428 | 22 | 750 | 74.7 | 154 | 72 |
| SD76521 | 15 | 735 | 79.6 | 155 | 75 |
| SD73177 | 12 | 734 | 78.5 | 155 | 69 |
| MT77062 | 25 | 706 | 76.6 | 155 | 76 |
| 17439 | 3 | 694 | 74 | 155 | 76 |
| 13190 | 2 | 664 | 74 | 155 | 78 |
| MT77077 | 24 | 628 | 74.7 | 159 | 64 |
| CO745597 | 20 | 559 | 75.2 | 156 | 72 |
| MEAN | | 795 | | | |
| L.S.D.(.05) | | 196 | | | |
| C.V. | | 15.1 | | | |

SHERIDAN, WYOMING

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM |
|---|---|---|---|---|---|
| NE77465 | 5 | 4883 | 77.6 | 156 | 100 |
| NE75414 | 4 | 4856 | 74.5 | 154 | 93 |
| SD74209 | 13 | 4829 | 78.1 | 155 | 100 |
| MT77077 | 24 | 4705 | 76.9 | 160 | 101 |
| SD76598 | 16 | 4684 | 77.5 | 156 | 109 |
| CO745597 | 20 | 4679 | 76.8 | 156 | 106 |
| SD76705 | 14 | 4655 | 76.9 | 157 | 91 |
| NAPB201 | 21 | 4647 | 75.3 | 156 | 82 |
| MT7428 | 22 | 4635 | 76.3 | 158 | 109 |
| NE78659 | 6 | 4616 | 76 | 157 | 97 |
| SD76194 | 19 | 4535 | 76.6 | 157 | 117 |
| NE76667 | 7 | 4505 | 75.7 | 156 | 105 |
| MT77003 | 23 | 4343 | 78.4 | 157 | 106 |
| SD76602 | 17 | 4330 | 74.4 | 154 | 105 |
| 13190 | 2 | 4302 | 75.5 | 159 | 113 |
| MT77063 | 26 | 4288 | 76.3 | 159 | 112 |
| SD74221 | 10 | 4246 | 76.6 | 156 | 99 |
| NE78414 | 8 | 4230 | 76.6 | 157 | 91 |
| NE78415 | 9 | 4198 | 76.6 | 154 | 91 |
| SD76569 | 18 | 4072 | 78.1 | 159 | 100 |
| 17439 | 3 | 4044 | 77.5 | 159 | 110 |
| SD73177 | 12 | 3927 | 75.4 | 150 | 93 |
| MT77062 | 25 | 3890 | 76 | 158 | 113 |
| SD75284 | 11 | 3787 | 74.7 | 151 | 95 |
| 1442 | 1 | 3747 | 74.7 | 158 | 117 |
| SD76521 | 15 | 3654 | 76 | 155 | 105 |
| MEAN | | 4357 | | | |
| L.S.D. (.05) | | 634 | | | |
| C.V. | | 8.9 | | | |

SIDNEY,MONTANA

FOUR REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | DAYS TO RIPENING FROM 1/1 | PLANT HEIGHT CM | LEAF SPOT 0-9 |
|---|---|---|---|---|---|---|---|
| MT77003 | 23 | 3858 | 76.1 | 154 | 197 | 81 | 6 |
| NAPB201 | 21 | 3815 | 76.1 | 153 | 198 | 67 | 4 |
| SD74209 | 13 | 3734 | 76.8 | 155 | 197 | 80 | 5 |
| CO745597 | 20 | 3630 | 76.8 | 153 | 196 | 79 | 5 |
| NE77465 | 5 | 3620 | 77.4 | 153 | 197 | 78 | 5 |
| NE75414 | 4 | 3618 | 76.1 | 153 | 197 | 74 | 6 |
| SD75284 | 11 | 3608 | 76.8 | 151 | 197 | 71 | 4 |
| NE78415 | 9 | 3603 | 76.8 | 152 | 196 | 64 | 4 |
| NE78659 | 6 | 3581 | 76.8 | 153 | 196 | 73 | 6 |
| MT77062 | 25 | 3576 | 77.4 | 156 | 196 | 88 | 5 |
| MT77063 | 26 | 3536 | 77.4 | 156 | 197 | 87 | 5 |
| SD76569 | 18 | 3500 | 76.1 | 157 | 198 | 81 | 6 |
| SD76598 | 16 | 3470 | 77.4 | 155 | 197 | 82 | 5 |
| SD76705 | 14 | 3463 | 76.1 | 154 | 197 | 66 | 6 |
| NE78414 | 8 | 3423 | 76.8 | 153 | 198 | 66 | 4 |
| MT77077 | 24 | 3423 | 73.5 | 157 | 198 | 82 | 6 |
| 13190 | 2 | 3418 | 76.1 | 155 | 197 | 87 | 4 |
| SD76602 | 17 | 3373 | 77.4 | 152 | 196 | 76 | 5 |
| MT7428 | 22 | 3354 | 75.5 | 156 | 197 | 85 | 5 |
| 17439 | 3 | 3337 | 76.1 | 156 | 197 | 83 | 6 |
| SD76194 | 19 | 3305 | 77.4 | 154 | 196 | 86 | 5 |
| NE76667 | 7 | 3285 | 76.8 | 154 | 197 | 79 | 5 |
| SD73177 | 12 | 3270 | 77.4 | 151 | 197 | 71 | 5 |
| 1442 | 1 | 3216 | 74.8 | 157 | 196 | 92 | 4 |
| SD74221 | 10 | 3057 | 77.4 | 153 | 196 | 71 | 5 |
| SD76521 | 15 | 2939 | 77.4 | 154 | 198 | 82 | 8 |
| MEAN | | 3462 | | | | | |
| L.S.D.(.05) | | 241 | | | | | |
| C.V. | | 4.9 | | | | | |

MOCASSIN, MONTANA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM | P. SYRINGAE 0-9 | LEAF SPOT SEV. 0-9 | LEAF SPOT HEIGHT 0-9 |
|---|---|---|---|---|---|---|---|---|
| NAPB201 | 21 | 4882 | 76.1 | 166 | 94 | 3 | 3 | 8 |
| SD73177 | 12 | 4246 | 79.2 | 164 | 108 | 6 | 3 | 8 |
| NE78414 | 8 | 4127 | 78.3 | 170 | 98 | 3 | 2 | 6 |
| NE75414 | 4 | 4087 | 76.4 | 168 | 104 | 2 | 4 | 8 |
| NE78415 | 9 | 3957 | 75 | 168 | 109 | 5 | 3 | 7 |
| SD75284 | 11 | 3934 | 79.2 | 162 | 105 | 7 | 3 | 8 |
| SD76705 | 14 | 3901 | 77 | 168 | 104 | 3 | 5 | 8 |
| NE77465 | 5 | 3894 | 73.4 | 169 | 108 | 5 | 5 | 9 |
| SD76598 | 16 | 3663 | 78.5 | 170 | 122 | 2 | 3 | 8 |
| MT77003 | 23 | 3656 | 80.3 | 171 | 111 | 2 | 8 | 9 |
| SD76194 | 19 | 3497 | 78.4 | 170 | 122 | 5 | 2 | 8 |
| NE78659 | 6 | 3488 | 75.9 | 169 | 107 | 5 | 4 | 8 |
| SD74221 | 10 | 3443 | 78.5 | 170 | 101 | 6 | 5 | 9 |
| MT7428 | 22 | 3419 | 77.5 | 175 | 109 | 2 | 5 | 9 |
| SD74209 | 13 | 3398 | 76.1 | 168 | 111 | 4 | 4 | 8 |
| SD76569 | 18 | 3396 | 77 | 173 | 111 | 7 | 2 | 7 |
| MT77077 | 24 | 3241 | 77 | 178 | 110 | 2 | 8 | 9 |
| NE76667 | 7 | 3208 | 78.3 | 171 | 109 | 3 | 3 | 9 |
| MT77062 | 25 | 3190 | 78.6 | 175 | 115 | 2 | 4 | 9 |
| CO745597 | 20 | 3179 | 73.9 | 169 | 113 | 5 | 5 | 9 |
| 13190 | 2 | 3087 | 78.5 | 169 | 111 | 4 | 2 | 8 |
| 17439 | 3 | 2932 | 79.7 | 174 | 107 | 7 | 4 | 7 |
| SD76602 | 17 | 2923 | 77.4 | 164 | 113 | 7 | 4 | 8 |
| 1442 | 1 | 2827 | 77.8 | 175 | 116 | 2 | 3 | 8 |
| SD76521 | 15 | 2820 | 79.2 | 168 | 113 | 5 | 6 | 9 |
| MT77063 | 26 | 2654 | 78.8 | 175 | 106 | 2 | 3 | 8 |
| MEAN | | 3502 | | | | | | |
| L.S.D.(.05) | | 513 | | | | | | |
| C.V. | | 9.0 | | | | | | |

CONRAD,MONTANA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO RIPENING FROM 1/1 | PLANT HEIGHT CM |
|---|---|---|---|---|---|
| NAPB201 | 21 | 5013 | 78.9 | 218 | 71 |
| MT77063 | 26 | 4908 | 80.9 | 216 | 91 |
| NE77465 | 5 | 4803 | 78.8 | 218 | 89 |
| MT77003 | 23 | 4737 | 79.7 | 215 | 91 |
| SD74209 | 13 | 4714 | 79.1 | 214 | 99 |
| NE75414 | 4 | 4687 | 79.2 | 218 | 86 |
| MT77077 | 24 | 4633 | 78 | 218 | 89 |
| SD76598 | 16 | 4474 | 79.6 | 214 | 97 |
| MT77062 | 25 | 4473 | 81 | 216 | 86 |
| SD76705 | 14 | 4464 | 78.3 | 214 | 84 |
| CO745597 | 20 | 4432 | 79.9 | 218 | 91 |
| SD76569 | 18 | 4408 | 80.1 | 218 | 91 |
| NE78415 | 9 | 4397 | 79.3 | 216 | 86 |
| SD75284 | 11 | 4365 | 79.3 | 213 | 89 |
| MT7428 | 22 | 4290 | 78.4 | 217 | 86 |
| NE78659 | 6 | 4274 | 79.3 | 218 | 89 |
| NE78414 | 8 | 4218 | 80 | 217 | 86 |
| SD73177 | 12 | 4217 | 80.1 | 216 | 86 |
| 13190 | 2 | 4175 | 80 | 216 | 89 |
| NE76667 | 7 | 4165 | 78.9 | 216 | 91 |
| SD74221 | 10 | 4154 | 80 | 213 | 89 |
| SD76602 | 17 | 4113 | 80.4 | 216 | 97 |
| SD76521 | 15 | 3934 | 80.9 | 217 | 89 |
| SD76194 | 19 | 3913 | 80.1 | 217 | 102 |
| 1442 | 1 | 3788 | 79.6 | 214 | 102 |
| 17439 | 3 | 3755 | 80.2 | 218 | 89 |
| MEAN | | 4366 | | | |
| L.S.D.(.05) | | 363 | | | |
| C.V. | | 5.1 | | | |

TETONIA, IDAHO

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | PLANT HEIGHT CM |
|---|---|---|---|---|
| MT77077 | 24 | 3391 | 76.4 | 94 |
| SD76705 | 14 | 3131 | 80 | 84 |
| MT77063 | 26 | 2894 | 79.1 | 102 |
| SD76598 | 16 | 2827 | 77.7 | 98 |
| NE77465 | 5 | 2743 | 76.2 | 89 |
| CO745597 | 20 | 2712 | 78.7 | 97 |
| NE78659 | 6 | 2696 | 77.1 | 89 |
| MT77062 | 25 | 2647 | 79.7 | 89 |
| MT7428 | 22 | 2644 | 78.6 | 88 |
| MT77003 | 23 | 2637 | 80 | 93 |
| NAPB201 | 21 | 2630 | 78.7 | 78 |
| 1442 | 1 | 2614 | 79.3 | 111 |
| SD74221 | 10 | 2561 | 79.7 | 89 |
| SD76569 | 18 | 2479 | 76.9 | 86 |
| NE78415 | 9 | 2466 | 77.8 | 83 |
| SD74209 | 13 | 2286 | 78.7 | 86 |
| NE78414 | 8 | 2109 | 78.7 | 77 |
| NE75414 | 4 | 2107 | 77.1 | 80 |
| NE76667 | 7 | 2059 | 78.4 | 94 |
| SD76194 | 19 | 2045 | 78 | 93 |
| 13190 | 2 | 2000 | 79.1 | 109 |
| SD75284 | 11 | 1990 | 77.7 | 88 |
| 17439 | 3 | 1989 | 78.4 | 101 |
| SD73177 | 12 | 1957 | 77.8 | 85 |
| SD76602 | 17 | 1953 | 78.6 | 100 |
| SD76521 | 15 | 1929 | 79.1 | 96 |
| MEAN | | 2442 | | |
| L.S.D.(.05) | | 579 | | |
| C.V. | | 14.5 | | |

ABERDEEN, IDAHO

TWO REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM | LEAF RUST SEV. % | LEAF RUST RESP 1-9 | STRIPE RUST SEV. % | STRIPE RUST RESP 1-9 |
|---|---|---|---|---|---|---|---|---|---|
| MT77077 | 24 | 5142 | 79.3 | 159 | 113 | 5 | 3 | 10 | 7 |
| MT77003 | 23 | 4532 | 81.1 | 155 | 107 | . | 0 | 10 | 5 |
| NAPB201 | 21 | 4476 | 79.3 | 154 | 98 | 5 | 4 | 10 | 5 |
| MT7428 | 22 | 4446 | 79.9 | 157 | 107 | 5 | 4 | 10 | 2 |
| SD76569 | 18 | 4313 | 79.1 | 157 | 101 | . | 0 | 30 | 5 |
| NE78659 | 6 | 4241 | 80.6 | 155 | 106 | . | 1 | 80 | 5 |
| MT77063 | 26 | 4008 | 80 | 157 | 113 | . | 0 | 20 | 6 |
| SD76705 | 14 | 3863 | 80.5 | 154 | 97 | 5 | 3 | 5 | 5 |
| SD74209 | 13 | 3713 | 81.1 | 154 | 111 | . | 1 | 20 | 4 |
| MT77062 | 25 | 3679 | 81.9 | 156 | 116 | . | 0 | 30 | 5 |
| SD76598 | 16 | 3409 | 80.1 | 155 | 113 | . | 0 | 90 | 6 |
| 13190 | 2 | 3275 | 79.7 | 155 | 127 | . | 1 | 70 | 7 |
| 1442 | 1 | 3098 | 79.9 | 158 | 120 | . | 1 | 70 | 5 |
| SD73177 | 12 | 3036 | 79.1 | 152 | 107 | . | 1 | 90 | 8 |
| NE75414 | 4 | 2973 | 79.2 | 152 | 109 | . | 1 | 60 | 8 |
| NE77465 | 5 | 2925 | 78.9 | 152 | 110 | 20 | . | 60 | 7 |
| SD75284 | 11 | 2688 | 78 | 152 | 107 | . | 1 | 100 | 9 |
| NE78414 | 8 | 2662 | 78.3 | 153 | 93 | . | 0 | 70 | 7 |
| SD76602 | 17 | 2418 | 80.1 | 151 | 112 | 10 | 3 | 30 | 6 |
| NE76667 | 7 | 2393 | 78.4 | 153 | 106 | . | 0 | 90 | 9 |
| SD76521 | 15 | 2349 | 79.7 | 152 | 103 | . | 0 | 30 | 5 |
| NE78415 | 9 | 2065 | 79.1 | 152 | 92 | . | 1 | 70 | 7 |
| 17439 | 3 | 2063 | 78.4 | 156 | 121 | . | 1 | 90 | 6 |
| SD76194 | 19 | 1609 | 78.2 | 153 | 107 | . | 0 | 30 | 5 |
| CO745597 | 20 | 1560 | 78.4 | 153 | 108 | 5 | 4 | 30 | 5 |
| SD74221 | 10 | 1503 | 79.1 | 152 | 97 | . | 0 | 50 | 6 |
| MEAN | | 3171 | | | | | | | |
| L.S.D.(.05) | | 1682 | | | | | | | |
| C.V. | | 26.5 | | | | | | | |

LIND, WASHINGTON

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM | LODGING % | STAND % | LEAF RUST SEV. % | LEAF RUST RESP 1-9 | STRIPE RUST SEV. % | STRIPE RUST RESP 1-9 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SD76569 | 18 | 2475 | 80.2 | 148 | 86 | 10 | 98 | 0 | 7 | 25 | 6 |
| MT77003 | 23 | 2455 | 79.6 | 144 | 90 | 27 | 97 | 5 | 6 | 20 | 6 |
| MT77077 | 24 | 2392 | 77.9 | 148 | 88 | 52 | 99 | 10 | 3 | 5 | 6 |
| MT7428 | 22 | 2199 | 78.8 | 148 | 92 | 27 | 97 | 10 | 8 | 40 | 7 |
| MT77062 | 25 | 2042 | 78.8 | 148 | 92 | 77 | 99 | 10 | 7 | 75 | 6 |
| NE76667 | 7 | 2011 | 78.6 | 147 | 91 | 15 | 100 | . | . | 90 | 9 |
| SD76598 | 16 | 2004 | 78.8 | 146 | 91 | 38 | 99 | . | . | 60 | 7 |
| MT77063 | 26 | 2000 | 80.8 | 148 | 97 | 77 | 99 | . | . | 90 | 6 |
| SD76602 | 17 | 1941 | 78.4 | 145 | 93 | 37 | 98 | 10 | 5 | 90 | 8 |
| NE78414 | 8 | 1912 | 78 | 145 | 78 | 7 | 99 | . | . | 60 | 7 |
| NE78415 | 9 | 1908 | 77.8 | 145 | 79 | 7 | 99 | . | . | 80 | 7 |
| SD76194 | 19 | 1905 | 78.7 | 146 | 103 | 67 | 97 | 0 | 0 | 20 | 7 |
| CO745597 | 20 | 1894 | 79.2 | 145 | 91 | 27 | 98 | 15 | 4 | 85 | 8 |
| NE75414 | 4 | 1883 | 78.3 | 145 | 88 | 3 | 96 | 5 | 6 | 70 | 8 |
| SD74209 | 13 | 1787 | 79.2 | 144 | 87 | 10 | 98 | . | . | 70 | 7 |
| SD76521 | 15 | 1769 | 78.4 | 145 | 94 | 57 | 98 | 10 | 3 | 20 | 5 |
| NE78659 | 6 | 1757 | 78.8 | 146 | 86 | 3 | 99 | . | . | 90 | 8 |
| NE77465 | 5 | 1717 | 77.8 | 145 | 88 | 12 | 98 | 5 | 8 | 90 | 8 |
| SD74221 | 10 | 1699 | 78.8 | 145 | 84 | 23 | 96 | . | . | 90 | 8 |
| NAPB201 | 21 | 1657 | 78.4 | 145 | 79 | 0 | 98 | 10 | 8 | 80 | 7 |
| 13190 | 2 | 1650 | 78.7 | 147 | 95 | 22 | 96 | . | . | 95 | 8 |
| 1442 | 1 | 1594 | 77.7 | 148 | 107 | 90 | 98 | 10 | 6 | 90 | 8 |
| SD73177 | 12 | 1401 | 78 | 144 | 86 | 3 | 95 | . | . | 99 | 9 |
| SD75284 | 11 | 1329 | 78.4 | 144 | 87 | 3 | 97 | . | . | 99 | 9 |
| SD76705 | 14 | 1307 | 78.9 | 144 | 78 | 0 | 99 | . | . | 99 | 9 |
| 17439 | 3 | 1282 | 77.1 | 147 | 91 | 10 | 97 | . | . | 99 | 9 |
| MEAN | | 1845 | | | | | | | | | |
| L.S.D. (.05) | | 249 | | | | | | | | | |
| C.V. | | 8.2 | | | | | | | | | |

LETHBRIDGE, ALBERTA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | DAYS TO RIPENING FROM 1/1 | PLANT HEIGHT CM | LODGING 0-9 | SHATTER 0-9 | 1000-K.WT. GM |
|---|---|---|---|---|---|---|---|---|---|
| NAPB201 | 21 | 7481 | 79.9 | 154 | 199 | 90 | 1 | 1 | 30 |
| NE78415 | 9 | 7022 | 81 | 155 | 199 | 100 | 1 | 1 | 38.4 |
| NE77465 | 5 | 6885 | 81.7 | 155 | 198 | 105 | 2 | 1 | 32.6 |
| NE75414 | 4 | 6687 | 80.8 | 156 | 200 | 108 | 2 | 1 | 36.8 |
| NE78414 | 8 | 6673 | 81.4 | 156 | 199 | 97 | 1 | 1 | 38 |
| SD76705 | 14 | 6524 | 82 | 157 | 198 | 98 | 2 | 1 | 29.4 |
| SD73177 | 12 | 6451 | 81.5 | 152 | 199 | 107 | 2 | 2 | 34.8 |
| SD74209 | 13 | 6419 | 82.1 | 158 | 200 | 110 | 2 | 3 | 31.2 |
| MT77003 | 23 | 6120 | 80.6 | 157 | 201 | 107 | 3 | 1 | 41.2 |
| SD75284 | 11 | 6112 | 81.1 | 153 | 198 | 108 | 2 | 1 | 33.6 |
| SD76194 | 19 | 6109 | 80.6 | 157 | 201 | 120 | 5 | 1 | 36.4 |
| MT7428 | 22 | 5986 | 81.1 | 160 | 202 | 115 | 3 | 2 | 40.2 |
| NE78659 | 6 | 5955 | 81.7 | 157 | 200 | 110 | 2 | 1 | 34 |
| CO745597 | 20 | 5935 | 80.8 | 157 | 201 | 107 | 2 | 2 | 36.4 |
| NE76667 | 7 | 5900 | 82.5 | 157 | 200 | 112 | 2 | 1 | 36 |
| MT77077 | 24 | 5894 | 79 | 163 | 203 | 115 | 2 | 1 | 29.4 |
| SD76569 | 18 | 5816 | 82.1 | 160 | 202 | 112 | 2 | 1 | 33.2 |
| MT77063 | 26 | 5788 | 81.9 | 160 | 202 | 125 | 4 | 1 | 35.2 |
| SD76598 | 16 | 5733 | 81.6 | 156 | 199 | 112 | 2 | 1 | 33 |
| SD76602 | 17 | 5648 | 80.9 | 154 | 199 | 110 | 3 | 1 | 32.4 |
| SD76521 | 15 | 5635 | 82.1 | 156 | 200 | 110 | 3 | 1 | 34.2 |
| SD74221 | 10 | 5404 | 82.4 | 159 | 199 | 100 | 3 | 1 | 29.6 |
| MT77062 | 25 | 5248 | 82.2 | 160 | 201 | 123 | 4 | 1 | 33.6 |
| 17439 | 3 | 4995 | 81.9 | 161 | 202 | 118 | 3 | 1 | 33.6 |
| 1442 | 1 | 4794 | 81.3 | 160 | 201 | 127 | 6 | 1 | 34.4 |
| 13190 | 2 | 4177 | 81.1 | 161 | 201 | 128 | 6 | 1 | 33.2 |
| MEAN | | 5977 | | | | | | | |
| L.S.D.(.05) | | 796 | | | | | | | |
| C.V. | | 8.2 | | | | | | | |

TABLE 11. SUMMARY OF MEAN YIELDS (kg/ha) OF THE 26 LINES GROWN IN THE 1981 NORTHERN REGIONAL PERFORMANCE NURSERY AT 21 LOCATIONS WITH STATE MEANS AND RANKS.

| VARIETY OR PEDIGREE | C.I. OR SEL. NO. | ENTRY NO. | NEBRASKA | | | | | | NEW MEXICO | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MEAD | NORTH PLATTE | SIDNEY | AL-LIANCE | MEAN | RANK | CLOVIS (IRR.) | CLOVIS (DRY.) | MEAN | RANK |
| SN/TPR//WRR/3/CTK | NAPB201 | 21 | 5174 | 2704 | 3996 | 1868 | 3435 | 1 | 4915 | 2302 | 3609 | 17 |
| WRR*5/AGENT//CTK78 | NE77465 | 5 | 4871 | 2400 | 3472 | 2334 | 3269 | 8 | 5394 | 3408 | 4401 | 1 |
| NE68723/NE68719//GAGE SEL. | NE75414 | 4 | 5205 | 2453 | 3867 | 2178 | 3426 | 2 | 5859 | 2551 | 4205 | 3 |
| WRR*5/AGENT//CTK78 | NE78659 | 6 | 4528 | 2520 | 4027 | 2096 | 3293 | 5 | 4875 | 2923 | 3899 | 12 |
| FROID/BEZOSTAYA | MT77003 | 23 | 4887 | 2702 | 3535 | 2230 | 3338 | 4 | 5234 | 3093 | 4164 | 5 |
| CENTURK*5/HAND | SD76705 | 14 | 5095 | 2732 | 3428 | 1892 | 3287 | 6 | 5187 | 2667 | 3927 | 11 |
| SENTINEL/CENTURK | NE78415 | 9 | 4851 | 2412 | 3968 | 1902 | 3284 | 7 | 5444 | 2449 | 3947 | 10 |
| CENTURK*2/HAND | SD74209 | 13 | 4454 | 2656 | 3684 | 2234 | 3257 | 10 | 4933 | 3414 | 4174 | 4 |
| CI15322//AGENT/4*SUT/3/CTK | SD76598 | 16 | 5003 | 2276 | 3835 | 1951 | 3266 | 9 | 5307 | 2742 | 4025 | 9 |
| SENTINEL/CENTURK | NE78414 | 8 | 4768 | 3328 | 3853 | 1625 | 3394 | 3 | 3989 | 2843 | 3416 | 19 |
| WRR*5/AGENT//AGATE SIB | NE76667 | 7 | 4784 | 2334 | 3659 | 2236 | 3253 | 11 | 5386 | 2802 | 4094 | 7 |
| YGSS.SEL.4662/4*CNN(BROWN CHAFF) | MT77063 | 26 | 3797 | 2489 | 3382 | 2474 | 3036 | 19 | 4692 | 3024 | 3858 | 13 |
| CO695552/CENTURK | CO745597 | 20 | 4734 | 2558 | 3535 | 1850 | 3169 | 12 | 5399 | 3312 | 4355 | 2 |
| C61-9/WINALTA//CREST | MT77077 | 24 | 4208 | 2811 | 3437 | 1739 | 3049 | 17 | 4222 | 1750 | 2986 | 24 |
| YGSS,SEL.4662/4*CNN(WHITE CHAFF) | MT77062 | 25 | 3770 | 2297 | 2711 | 2537 | 2829 | 22 | 4805 | 3462 | 4134 | 6 |
| AGENT/*4SUT*2//HAND | SD75284 | 11 | 4994 | 2286 | 3437 | 1736 | 3113 | 15 | 4287 | 2794 | 3540 | 18 |
| REGO/CNN//WINALTA | MT7428 | 22 | 3250 | 1949 | 3389 | 2119 | 2677 | 24 | 4610 | 2807 | 3708 | 16 |
| CI15322//3*AGENT/4*SUT | SD76194 | 19 | 4524 | 2138 | 2897 | 1925 | 2871 | 20 | 4658 | 3001 | 3830 | 14 |
| SUT SEL./NE66403 | SD73177 | 12 | 4918 | 2028 | 3630 | 1745 | 3080 | 16 | 4980 | 2593 | 3787 | 15 |
| CI15322//AGENT/4*SUT/3/CTK | SD76602 | 17 | 4360 | 2456 | 2937 | 2711 | 3116 | 14 | 5489 | 2612 | 4051 | 8 |
| CTK*2/HAND | SD74221 | 10 | 4385 | 2570 | 3560 | 1651 | 3042 | 18 | 3529 | 2400 | 2964 | 25 |
| CI15322//AGENT/4*SUT/3/CTK | SD76569 | 18 | 3587 | 2253 | 2711 | 804 | 2339 | 25 | 4488 | 1859 | 3173 | 22 |
| WARRIOR | 13190 | 2 | 3909 | 2483 | 4078 | 2067 | 3134 | 13 | 4254 | 2417 | 3335 | 20 |
| KHARKOF | 1442 | 1 | 3360 | 1690 | 3754 | 2148 | 2738 | 23 | 3741 | 2126 | 2933 | 26 |
| CI15322//AGENT/4*SUT/3/SD713-11 | SD76521 | 15 | 4358 | 2046 | 3119 | 1795 | 2829 | 21 | 3976 | 2182 | 3079 | 23 |
| ROUGHRIDER | 17439 | 3 | 3436 | 2189 | 2621 | 1100 | 2337 | 26 | 4188 | 2455 | 3322 | 21 |
| Mean | | | 4431 | 2414 | 3482 | 1959 | 3072 | | 4763 | 2692 | 3727 | |
| L.S.D. | | | 459 | 479 | 803 | 430 | 539 | | 1048 | 698 | 845 | |
| C.V. | | | 6.3 | 12.2 | 14.1 | 13.4 | 11.2 | | 13.5 | 15.9 | 14.6 | |

TABLE 11 (CONTINUED).

| C.I. OR SEL. NO. | ENTRY NO. | SOUTH DAKOTA BROOK-INGS | HIGH-MORE | PRESHO | MEAN | RANK | NORTH DAKOTA CASSEL-TON | WILLIS-TON | MEAN | RANK | WYOMING SHERI-DAN ARCHER | SHERI-DAN | MEAN | RANK | MINNESOTA WASECA | RANK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NAPB201 | 21 | 2754 | 4054 | 1170 | 2660 | 3 | 2539 | 2501 | 2520 | 14 | 903 | 4647 | 2775 | 5 | 3665 | 11 |
| NE77465 | 5 | 2300 | 4321 | 1519 | 2713 | 2 | 3064 | 2520 | 2792 | 3 | 1009 | 4883 | 2946 | 1 | 3810 | 10 |
| NE75414 | 4 | 2917 | 3475 | 1564 | 2652 | 4 | 2828 | 2554 | 2691 | 7 | 978 | 4856 | 2917 | 2 | 4116 | 6 |
| NE78659 | 6 | 2002 | 4018 | 1607 | 2542 | 7 | 2839 | 2724 | 2782 | 4 | 957 | 4616 | 2786 | 4 | 4583 | 2 |
| MT77003 | 23 | 2019 | 3205 | 1302 | 2175 | 22 | 2982 | 2483 | 2732 | 6 | 757 | 4343 | 2550 | 13 | 3396 | 22 |
| SD76705 | 14 | 2335 | 3511 | 1323 | 2390 | 16 | 2730 | 2351 | 2541 | 13 | 887 | 4655 | 2771 | 6 | 4378 | 3 |
| NE78415 | 9 | 2301 | 4086 | 1951 | 2779 | 1 | 2883 | 2798 | 2840 | 1 | 784 | 4198 | 2491 | 18 | 4156 | 5 |
| SD74209 | 13 | 2046 | 3930 | 1301 | 2425 | 14 | 2217 | 2428 | 2323 | 19 | 896 | 4829 | 2862 | 3 | 3574 | 17 |
| SD76598 | 16 | 2151 | 3842 | 1660 | 2551 | 6 | 1541 | 2607 | 2074 | 23 | 766 | 4684 | 2725 | 7 | 3867 | 8 |
| NE78414 | 8 | 1805 | 3986 | 1725 | 2505 | 10 | 2781 | 2533 | 2657 | 8 | 835 | 4230 | 2532 | 16 | 3840 | 9 |
| NE76667 | 7 | 2282 | 3753 | 1365 | 2467 | 12 | 3143 | 2442 | 2792 | 2 | 778 | 4505 | 2642 | 11 | 4765 | 1 |
| MT77063 | 26 | 2067 | 3684 | 1512 | 2421 | 15 | 2498 | 2692 | 2595 | 11 | 783 | 4288 | 2535 | 15 | 3521 | 20 |
| CO745597 | 20 | 1931 | 3680 | 1559 | 2390 | 16 | 2258 | 2488 | 2373 | 16 | 559 | 4679 | 2619 | 12 | 3621 | 13 |
| MT77077 | 24 | 2026 | 2828 | 883 | 1912 | 26 | 1803 | 2657 | 2230 | 20 | 628 | 4705 | 2666 | 10 | 3315 | 23 |
| MT77062 | 25 | 2184 | 3374 | 1581 | 2380 | 19 | 2633 | 2621 | 2627 | 10 | 706 | 3890 | 2298 | 24 | 3531 | 19 |
| SD75284 | 11 | 2777 | 3711 | 1379 | 2622 | 5 | 2000 | 2316 | 2158 | 22 | 813 | 3787 | 2300 | 23 | 3598 | 16 |
| MT7428 | 22 | 1752 | 3145 | 1287 | 2062 | 24 | 1982 | 2762 | 2372 | 18 | 750 | 4635 | 2692 | 9 | 2959 | 26 |
| SD76194 | 19 | 2233 | 3755 | 1530 | 2506 | 9 | 2545 | 2390 | 2467 | 15 | 871 | 4535 | 2703 | 8 | 4348 | 4 |
| SD73177 | 12 | 2578 | 3733 | 1088 | 2466 | 13 | 1590 | 2002 | 1796 | 26 | 734 | 3927 | 2330 | 22 | 3601 | 15 |
| SD76602 | 17 | 2248 | 3826 | 1337 | 2470 | 11 | 2030 | 2350 | 2190 | 21 | 756 | 4330 | 2543 | 14 | 3648 | 12 |
| SD74221 | 10 | 2438 | 3834 | 1309 | 2527 | 8 | 2794 | 2510 | 2652 | 9 | 792 | 4246 | 2519 | 17 | 4072 | 7 |
| SD76569 | 18 | 2737 | 2955 | 1472 | 2388 | 18 | 1575 | 2543 | 2059 | 25 | 782 | 4072 | 2427 | 20 | 3447 | 21 |
| 13190 | 2 | 2046 | 3183 | 1330 | 2186 | 21 | 2299 | 2445 | 2372 | 17 | 664 | 4302 | 2483 | 19 | 3235 | 24 |
| 1442 | 1 | 1960 | 2845 | 1447 | 2084 | 23 | 2834 | 2682 | 2758 | 5 | 843 | 3747 | 2295 | 25 | 3564 | 18 |
| SD76521 | 15 | 1956 | 3233 | 1410 | 2200 | 20 | 1702 | 2437 | 2070 | 24 | 735 | 3654 | 2194 | 26 | 3611 | 14 |
| 17439 | 3 | 2205 | 2753 | 1150 | 2036 | 25 | 2391 | 2702 | 2547 | 12 | 694 | 4044 | 2369 | 21 | 3215 | 25 |
| Mean | | 2233 | 3566 | 1414 | 2404 | | 2403 | 2521 | 2462 | | 795 | 4357 | 2576 | | 3748 | |
| L.S.D. | | 519 | 578 | 440 | N.S. | | 936 | 240 | N.S. | | 196 | 634 | N.S. | | 707 | |
| C.V. | | 14.2 | 9.9 | 19.1 | 13.1 | | 23.9 | 5.8 | 17.0 | | 15.1 | 8.9 | 11.2 | | 9.4 | |

TABLE 11 (CONCLUDED).

| C.I. OR SEL. NO. | ENTRY NO. | MONTANA | | | | | IDAHO | | | | WASHINGTON | | ALBERTA | | 21 SITE MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MOCASSIN | SIDNEY | CONRAD | MEAN | RANK | ABERDEEN | TETONIA | MEAN | RANK | LIND | RANK | LETHBRIDGE | RANK | |
| NAPB201 | 21 | 4882 | 3815 | 5013 | 4570 | 1 | 4476 | 2630 | 3553 | 3 | 1657 | 20 | 7481 | 1 | 3483 |
| NE77465 | 5 | 3894 | 3620 | 4803 | 4106 | 3 | 2925 | 2743 | 2834 | 13 | 1717 | 18 | 6885 | 3 | 3423 |
| NE75414 | 4 | 4087 | 3618 | 4687 | 4131 | 2 | 2973 | 2107 | 2540 | 15 | 1883 | 14 | 6687 | 4 | 3402 |
| NE78659 | 6 | 3488 | 3581 | 4274 | 3781 | 12 | 4241 | 2696 | 3469 | 6 | 1757 | 17 | 5955 | 13 | 3348 |
| MT77003 | 23 | 3656 | 3858 | 4737 | 4084 | 4 | 4532 | 2637 | 3584 | 2 | 2455 | 2 | 6120 | 9 | 3341 |
| SD76705 | 14 | 3901 | 3463 | 4464 | 3943 | 8 | 3863 | 3131 | 3497 | 5 | 1307 | 25 | 6524 | 6 | 3325 |
| NE78415 | 9 | 3957 | 3603 | 4397 | 3985 | 5 | 2065 | 2466 | 2266 | 19 | 1908 | 11 | 7022 | 2 | 3314 |
| SD74209 | 13 | 3398 | 3734 | 4714 | 3949 | 7 | 3713 | 2286 | 3000 | 11 | 1787 | 15 | 6419 | 8 | 3269 |
| SD76598 | 16 | 3663 | 3470 | 4474 | 3869 | 11 | 3409 | 2827 | 3118 | 10 | 2004 | 7 | 5733 | 19 | 3229 |
| NE78414 | 8 | 4127 | 3423 | 4218 | 3923 | 9 | 2662 | 2109 | 2386 | 17 | 1912 | 10 | 6673 | 5 | 3203 |
| NE76667 | 7 | 3208 | 3285 | 4165 | 3553 | 21 | 2393 | 2059 | 2226 | 20 | 2011 | 6 | 5900 | 15 | 3203 |
| MT77063 | 26 | 2654 | 3536 | 4908 | 3699 | 17 | 4008 | 2894 | 3451 | 7 | 2000 | 8 | 5788 | 18 | 3176 |
| CO745597 | 20 | 3179 | 3630 | 4432 | 3747 | 15 | 1560 | 2712 | 2136 | 23 | 1894 | 13 | 5935 | 14 | 3119 |
| MT77077 | 24 | 3241 | 3423 | 4633 | 3766 | 14 | 5142 | 3391 | 4267 | 1 | 2392 | 3 | 5894 | 16 | 3101 |
| MT77062 | 25 | 3190 | 3576 | 4473 | 3746 | 16 | 3679 | 2647 | 3163 | 9 | 2042 | 5 | 5248 | 23 | 3093 |
| SD75284 | 11 | 3934 | 3608 | 4365 | 3969 | 6 | 2688 | 1990 | 2339 | 18 | 1329 | 24 | 6112 | 10 | 3045 |
| MT7428 | 22 | 3419 | 3354 | 4290 | 3688 | 18 | 4446 | 2644 | 3545 | 4 | 2199 | 4 | 5986 | 12 | 3035 |
| SD76194 | 19 | 3497 | 3305 | 3913 | 3572 | 19 | 1609 | 2045 | 1827 | 26 | 1905 | 12 | 6109 | 11 | 3035 |
| SD73177 | 12 | 4246 | 3270 | 4217 | 3911 | 10 | 3036 | 1957 | 2496 | 16 | 1401 | 23 | 6451 | 7 | 3035 |
| SD76602 | 17 | 2923 | 3373 | 4113 | 3470 | 23 | 2418 | 1953 | 2186 | 21 | 1941 | 9 | 5648 | 20 | 3022 |
| SD74221 | 10 | 3443 | 3057 | 4154 | 3551 | 22 | 1503 | 2561 | 2032 | 24 | 1699 | 19 | 5404 | 22 | 2948 |
| SD76569 | 18 | 3396 | 3500 | 4408 | 3768 | 13 | 4313 | 2479 | 3396 | 8 | 2475 | 1 | 5816 | 17 | 2937 |
| 13190 | 2 | 3087 | 3418 | 4175 | 3560 | 20 | 3275 | 2000 | 2638 | 14 | 1650 | 21 | 4177 | 26 | 2861 |
| 1442 | 1 | 2827 | 3216 | 3788 | 3277 | 25 | 3098 | 2614 | 2856 | 12 | 1594 | 22 | 4794 | 25 | 2794 |
| SD76521 | 15 | 2820 | 2939 | 3934 | 3231 | 26 | 2349 | 1929 | 2139 | 22 | 1769 | 16 | 5635 | 21 | 2742 |
| 17439 | 3 | 2932 | 3337 | 3755 | 3342 | 24 | 2063 | 1989 | 2026 | 25 | 1282 | 26 | 4995 | 24 | 2643 |
| Mean | | 3502 | 3462 | 4366 | 3776 | | 3171 | 2442 | 2807 | | 1845 | | 5977 | | 3121 |
| L.S.D. | | 513 | 241 | 363 | 458 | | 1682 | 579 | N.S. | | 249 | | 796 | | 245 |
| C.V. | | 9.0 | 4.9 | 5.1 | 6.2 | | 26.5 | 14.5 | 20.7 | | 8.2 | | 8.2 | | 12.0 |

TABLE 12. SUMMARY OF MEAN YIELDS (kg/ha) FOR 7 LINES GROWN IN THE NORTHERN REGIONAL PERFORMANCE NURSERY AT 16 SITES IN 1980 AND 1981 WITH STATE MEANS AND RANKS.

| 1981 ENTRY NO. | VARIETY OR PEDIGREE | C.I. OR SEL. NO. | NEBRASKA MEAD | NEBRASKA NORTH PLATTE | NEBRASKA ALLIANCE | NEBRASKA MEAN | NEBRASKA RANK | MINNESOTA WASECA | MINNESOTA RANK |
|---|---|---|---|---|---|---|---|---|---|
| 4 | NE68723/NE68719//GAGE SEL. | NE75414 | 4961 | 3210 | 2743 | 3638 | 1 | 4367 | 1 |
| 11 | AGENT/*4SUT*2//HAND | SD75284 | 4667 | 2922 | 2655 | 3415 | 2 | 4097 | 3 |
| 12 | SUT SEL./NE66403 | SD73177 | 4571 | 2682 | 2447 | 3233 | 4 | 3829 | 7 |
| 10 | CTK*2/HAND | SD74221 | 4173 | 2932 | 2310 | 3138 | 5 | 4244 | 2 |
| 2 | WARRIOR | 13190 | 4083 | 2878 | 2815 | 3259 | 3 | 3837 | 6 |
| 3 | ROUGHRIDER | 17439 | 3740 | 2750 | 1994 | 2828 | 6 | 3838 | 5 |
| 1 | KHARKOF | 1442 | 3466 | 2230 | 2297 | 2664 | 7 | 4024 | 4 |
| | MEAN | | 4237 | 2801 | 2466 | 3168 | | 4115 | |
| | L.S.D. (.05) | | N.S. | 489 | N.S. | 704 | | N.S. | |
| | C.V. | | 6.2 | 8.3 | 12.1 | 8.4 | | 14.4 | |

TABLE 12 (CONTINUED).

| 1981 ENTRY NO. | C.I. OR SEL. NO. | WYOMING ARCHER | WYOMING SHERIDAN | WYOMING MEAN | WYOMING RANK | NORTH DAKOTA CASSELTON | NORTH DAKOTA WILLISTON | NORTH DAKOTA MEAN | NORTH DAKOTA RANK | SOUTH DAKOTA BROOKINGS | SOUTH DAKOTA HIGHMORE | SOUTH DAKOTA PRESHO | SOUTH DAKOTA MEAN | SOUTH DAKOTA RANK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | NE75414 | 1088 | 4283 | 2686 | 1 | 2119 | 1408 | 1763 | 4 | 3718 | 2553 | 1412 | 2561 | 2 |
| 11 | SD75284 | 1182 | 3312 | 2247 | 5 | 1788 | 1265 | 1527 | 6 | 3609 | 2731 | 1454 | 2598 | 1 |
| 12 | SD73177 | 1006 | 3615 | 2311 | 2 | 1760 | 1119 | 1440 | 7 | 3003 | 2917 | 1286 | 2402 | 3 |
| 10 | SD74221 | 753 | 3775 | 2264 | 3 | 2875 | 1362 | 2118 | 1 | 3181 | 2376 | 1125 | 2228 | 4 |
| 2 | 13190 | 846 | 3651 | 2249 | 4 | 2176 | 1362 | 1769 | 3 | 2749 | 2306 | 1250 | 2101 | 5 |
| 3 | 17439 | 966 | 3417 | 2192 | 6 | 1993 | 1459 | 1726 | 5 | 2619 | 2092 | 1051 | 1921 | 6 |
| 1 | 1442 | 892 | 3293 | 2093 | 7 | 2700 | 1465 | 2082 | 2 | 2216 | 2214 | 1271 | 1900 | 7 |
| Mean | | 962 | 3621 | 2291 | | 2202 | 1348 | 1775 | | 3014 | 2456 | 1264 | 2244 | |
| L.S.D. (.05) | | N.S. | 406 | N.S. | | N.S. | N.S. | N.S. | | 783 | N.S. | N.S. | 692 | |
| C.V. | | 27.2 | 10.3 | 14.0 | | 21.2 | 7.7 | 19.1 | | 11.7 | 17.6 | 18.4 | 15.5 | |

TABLE 12 (CONCLUDED).

| 1981 ENTRY NO. | C.I. OR SEL. NO. | NEW MEXICO CLOVIS (IRR.) | NEW MEXICO CLOVIS (DRYL.) | NEW MEXICO MEAN | NEW MEXICO RANK | IDAHO ABERDEEN | IDAHO RANK | WASHINGTON LIND | WASHINGTON RANK | ALBERTA LETHBRIDGE | ALBERTA RANK | 16 SITE MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | NE75414 | 5716 | 1834 | 3775 | 1 | 3528 | 1 | 2039 | 1 | 5306 | 1 | 3143 |
| 11 | SD75284 | 4483 | 2215 | 3349 | 3 | 3039 | 4 | 1701 | 5 | 4746 | 3 | 2867 |
| 12 | SD73177 | 4607 | 2303 | 3455 | 2 | 3283 | 2 | 1590 | 6 | 4941 | 2 | 2810 |
| 10 | SD74221 | 3620 | 2070 | 2845 | 5 | 2243 | 7 | 1889 | 3 | 4531 | 4 | 2716 |
| 2 | 13190 | 3957 | 2204 | 3081 | 4 | 3087 | 3 | 1894 | 2 | 3800 | 7 | 2681 |
| 3 | 17439 | 3662 | 1988 | 2825 | 6 | 2669 | 6 | 1559 | 7 | 4341 | 5 | 2509 |
| 1 | 1442 | 3272 | 1702 | 2487 | 7 | 2768 | 5 | 1720 | 4 | 4067 | 6 | 2475 |
| MEAN | | 4188 | 2045 | 3117 | | 2945 | | 1770 | | 4533 | | 2743 |
| L.S.D. (.05) | | 956 | N.S. | N.S. | | N.S. | | 288 | | N.S. | | 236 |
| C.V. | | 14.7 | 17.1 | 16.1 | | 17.1 | | 15.3 | | 8.1 | | 13.6 |

Table 13. Mean yield, regression coefficient, correlation coefficient, and coefficient of determination from linear regression analysis of variety mean yield on nursery mean yield for the 26 entries in the 1981 Northern Regional Performance Nursery.

| ENTRY NO. | C.I. OR SEL. NO. | MEAN YIELD: OVER 21 LOCATIONS (kg/ha) | REGRESSION COEFFICIENT (by·x) | CORRELATION COEFFICIENT (r) | COEFFICIENT OF DETERMINATION ($r^2$) |
|---|---|---|---|---|---|
| 21 | NAPB 201 | 3483 | 1.23 | .96 | .93 |
| 5 | NE77465 | 3423 | 1.13 | .98 | .96 |
| 4 | NE75414 | 3402 | 1.16 | .98 | .96 |
| 6 | NE78659 | 3348 | 1.00 | .97 | .94 |
| 23 | MT77003 | 3341 | 1.02 | .96 | .91 |
| 14 | SD76705 | 3325 | 1.13 | .98 | .96 |
| 9 | NE78415 | 3314 | 1.13 | .96 | .92 |
| 13 | SD74209 | 3269 | 1.08 | .98 | .97 |
| 16 | SD76598 | 3229 | 1.06 | .98 | .95 |
| 7 | NE76667 | 3203 | 1.04 | .96 | .92 |
| 8 | NE78414 | 3203 | 1.02 | .95 | .90 |
| 26 | MT77063 | 3176 | .91 | .95 | .91 |
| 20 | CO745597 | 3119 | 1.06 | .95 | .90 |
| 24 | MT77077 | 3101 | .99 | .89 | .78 |
| 25 | MT77062 | 3093 | .82 | .95 | .90 |
| 11 | SD75284 | 3045 | 1.03 | .97 | .94 |
| 12 | SD73177 | 3035 | 1.15 | .97 | .95 |
| 19 | SD76194 | 3035 | 1.00 | .94 | .89 |
| 22 | MT7428 | 3035 | .94 | .92 | .86 |
| 17 | SD76602 | 3022 | .98 | .96 | .91 |
| 10 | SD74221 | 2948 | .88 | .92 | .84 |
| 18 | SD76569 | 2937 | .94 | .91 | .82 |
| 2 | 13190 | 2881 | .80 | .94 | .88 |
| 1 | 1442 | 2794 | .73 | .94 | .88 |
| 15 | SD76521 | 2742 | .92 | .98 | .96 |
| 3 | 17439 | 2643 | .85 | .96 | .92 |

Table 14. Mean yield, regression coefficient, correlation coefficient, and coefficient of determination from linear regression analysis of variety mean yield on nursery mean yield for varieties grown in 16 locations in the 1980 and 1981 Northern Regional Performance Nursery.

| 1981 ENTRY NO. | C.I. OR SEL. NO. | MEAN YIELD: OVER 16 LOCATIONS (kg/ha) | REGRESSION COEFFICIENT (by·x) | CORRELATION COEFFICIENT (r) | COEFFICIENT OF DETERMINATION ($r^2$) |
|---|---|---|---|---|---|
| 4 | NE75414 | 3143 | 1.25 | .98 | .95 |
| 11 | SD75284 | 2867 | 1.07 | .97 | .95 |
| 12 | SD73177 | 2810 | 1.08 | .97 | .94 |
| 10 | SD74221 | 2716 | .99 | .95 | .91 |
| 2 | 13190 | 2681 | .88 | .97 | .93 |
| 3 | 17439 | 2509 | .93 | .97 | .95 |
| 1 | 1442 | 2475 | .80 | .94 | .88 |

TABLE 15. SUMMARY OF AGRONOMIC AND YIELD DATA FOR THE 26 LINES IN THE 1981 NORTHERN REGIONAL PERFORMANCE NURSERY.

| VARIETY OR PEDIGREE | C.I. OR SEL. NO. | ENTRY NO. | DAYS TO HEADING FROM 1/1 | DAYS TO RIPENING FROM 1/1 | PLANT HEIGHT CM | LODGING 0-9 | SHATTER % | WINTER SURVIVAL % | STAND % |
|---|---|---|---|---|---|---|---|---|---|
| NUMBER OF TRIALS | | | 17 | 2 | 16 | 3 | 1 | 2 | 2 |
| SN/TPR//WRR/3/CTK | NAPB201 | 21 | 150 | 205 | 79 | 1 | 1 | 80 | 97 |
| WRR*5/AGENT//CTK78 | NE77465 | 5 | 150 | 204 | 89 | 1 | 3 | 83 | 97 |
| NE68723/NE68719//GAGE SEL. | NE75414 | 4 | 150 | 205 | 89 | 2 | 4 | 81 | 88 |
| WRR*5/AGENT//CTK78 | NE78659 | 6 | 151 | 205 | 89 | 2 | 1 | 87 | 65 |
| FROID/BEZOSTAYA | MT77003 | 23 | 151 | 204 | 91 | 2 | 1 | 72 | 68 |
| CENTURK*5/HAND | SD76705 | 14 | 150 | 203 | 81 | 2 | 1 | 83 | 87 |
| SENTINEL/CENTURK | NE78415 | 9 | 150 | 204 | 83 | 1 | 1 | 84 | 95 |
| CENTURK*2/HAND | SD74209 | 13 | 150 | 204 | 90 | 2 | 3 | 78 | 97 |
| CI15322//AGENT/4*SUT/3/CTK | SD76598 | 16 | 151 | 203 | 95 | 2 | 2 | 77 | 97 |
| WRR*5/AGENT//AGATE SIB | NE76667 | 7 | 151 | 204 | 93 | 2 | 0 | 83 | 97 |
| SENTINEL/CENTURK | NE78414 | 8 | 151 | 205 | 81 | 1 | 1 | 83 | 100 |
| YGSS.SEL.4662/4*CNN(BROWN CHAFF) | MT77063 | 26 | 153 | 205 | 98 | 4 | 1 | 82 | 89 |
| CO695552/CENTURK | CO745597 | 20 | 150 | 205 | 92 | 3 | 4 | 82 | 89 |
| C61-9/WINALTA//CREST | MT77077 | 24 | 155 | 206 | 92 | 1 | 1 | 81 | 90 |
| YGSS,SEL.4662/4*CNN(WHITE CHAFF) | MT77062 | 25 | 153 | 204 | 98 | 4 | 1 | 84 | 75 |
| AGENT/*4SUT*2//HAND | SD75284 | 11 | 148 | 203 | 88 | 2 | 2 | 81 | 63 |
| SUT SEL./NE66403 | SD73177 | 12 | 148 | 204 | 88 | 2 | 1 | 79 | 83 |
| CI15322//3*AGENT/4*SUT | SD76194 | 19 | 151 | 205 | 100 | 4 | 3 | 75 | 96 |
| REGO/CNN//WINALTA | MT7428 | 22 | 154 | 205 | 95 | 2 | 1 | 78 | 74 |
| CI15322//AGENT/4*SUT/3/CTK | SD76602 | 17 | 149 | 204 | 93 | 3 | 1 | 81 | 97 |
| CTK*2/HAND | SD74221 | 10 | 150 | 203 | 85 | 4 | 2 | 88 | 88 |
| CI15322//AGENT/4*SUT/3/CTK | SD76569 | 18 | 153 | 206 | 91 | 1 | 0 | 73 | 99 |
| WARRIOR | 13190 | 2 | 152 | 205 | 98 | 4 | 3 | 83 | 68 |
| KHARKOF | 1442 | 1 | 153 | 204 | 105 | 5 | 1 | 88 | 99 |
| CI15322//AGENT/4*SUT/3/SD713-11 | SD76521 | 15 | 150 | 205 | 94 | 2 | 6 | 74 | 99 |
| ROUGHRIDER | 17439 | 3 | 153 | 205 | 96 | 2 | 1 | 85 | 63 |

TABLE 15 (CONCLUDED).

| C.I. OR SEL. NO. | ENTRY NO. | STRIPE RUST SEV. % | STRIPE RUST RESP 1-9 | LEAF RUST SEV. % | LEAF RUST RESP 1-9 | P. SYRINGAE 0-9 | LEAF SPOT 0-9 | FROST DAMAGE 0-5 | FROST ROOT ROT DAMAGE % | 1000-K.WT. GM | VOLUME WEIGHT KG/HL | YIELD KG/HA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER OF TRIALS | | 2 | 2 | 5 | 5 | 1 | 2 | 1 | 1 | 1 | 20 | 21 |
| NAPB201 | 21 | 45 | 6 | 22 | 7 | 3 | 4 | 1 | 27 | 30 | 76.2 | 3483 |
| NE77465 | 5 | 75 | 8 | 26 | 8 | 5 | 5 | 1 | 48 | 32.6 | 77.7 | 3423 |
| NE75414 | 4 | 65 | 8 | 29 | 6 | 2 | 5 | 2 | 22 | 36.8 | 76.5 | 3402 |
| NE78659 | 6 | 85 | 7 | 12 | 6 | 5 | 5 | 0 | 63 | 34 | 77.7 | 3348 |
| MT77003 | 23 | 15 | 6 | 10 | 6 | 2 | 7 | 0 | 67 | 41.2 | 78.7 | 3341 |
| SD76705 | 14 | 52 | 7 | 21 | 6 | 3 | 5 | 1 | 63 | 29.4 | 77.8 | 3325 |
| NE78415 | 9 | 75 | 7 | 50 | 6 | 5 | 3 | 1 | 40 | 38.4 | 77.2 | 3314 |
| SD74209 | 13 | 45 | 6 | 44 | 6 | 4 | 4 | 1 | 73 | 31.2 | 78.3 | 3269 |
| SD76598 | 16 | 75 | 7 | 33 | 5 | 2 | 4 | 0 | 70 | 33 | 78.2 | 3229 |
| NE76667 | 7 | 90 | 9 | 12 | 5 | 3 | 4 | 0 | 50 | 36 | 78 | 3203 |
| NE78414 | 8 | 65 | 7 | 50 | 6 | 3 | 3 | 0 | 88 | 38 | 77.6 | 3203 |
| MT77063 | 26 | 55 | 6 | 45 | 6 | 2 | 4 | 0 | 22 | 35.2 | 78.2 | 3176 |
| CO745597 | 20 | 58 | 7 | 22 | 6 | 5 | 5 | 1 | 60 | 36.4 | 77.6 | 3119 |
| MT77077 | 24 | 8 | 7 | 7 | 6 | 2 | 7 | 0 | 43 | 29.4 | 75 | 3101 |
| MT77062 | 25 | 53 | 6 | 25 | 6 | 2 | 4 | 0 | 20 | 33.6 | 78.3 | 3093 |
| SD75284 | 11 | 100 | 9 | 55 | 6 | 7 | 4 | 1 | 47 | 33.6 | 77.5 | 3045 |
| SD73177 | 12 | 95 | 9 | 54 | 6 | 6 | 4 | 2 | 50 | 34.8 | 77.7 | 3035 |
| SD76194 | 19 | 25 | 6 | 16 | 4 | 5 | 4 | 0 | 40 | 36.4 | 78.1 | 3035 |
| MT7428 | 22 | 25 | 5 | 27 | 7 | 2 | 5 | 0 | 33 | 40.2 | 76 | 3035 |
| SD76602 | 17 | 60 | 7 | 22 | 6 | 7 | 5 | 0 | 47 | 32.4 | 77.5 | 3022 |
| SD74221 | 10 | 70 | 7 | 3 | 4 | 6 | 5 | 2 | 47 | 29.6 | 78.6 | 2948 |
| SD76569 | 18 | 28 | 6 | 23 | 6 | 7 | 4 | 0 | 15 | 33.2 | 76.5 | 2937 |
| 13190 | 2 | 83 | 8 | 54 | 6 | 4 | 3 | 0 | 40 | 33.2 | 77 | 2881 |
| 1442 | 1 | 80 | 7 | 40 | 6 | 2 | 4 | 0 | 23 | 34.4 | 76.9 | 2794 |
| SD76521 | 15 | 25 | 5 | 28 | 5 | 5 | 7 | 1 | 80 | 34.2 | 78.5 | 2742 |
| 17439 | 3 | 95 | 8 | 47 | 6 | 7 | 5 | 0 | 33 | 33.6 | 77.3 | 2643 |

Table 16.

Seedling Reaction of the 1981 Uniform Northern Hard Red Winter Wheat Performance Nursery to Puccinia graminis f. sp. tritici (by D. V. McVey, Cereal Rust Laboratory, ARS, USDA, University of Minnesota, St. Paul, MN).

| Entry No. | Cultivar or sel. | Reaction produced by isolates: 74-4-1A / 72-21-1409A (15B-2) TNMH | TNMK | 69-21-399 / 72-00-1370C (151) QSHS | QFBS | 72-00-53A / 74-14-504C / 72-25-639C (11-32-113) RTQQ | RPQQ | RKQS | Speculative Sr gene |
|---|---|---|---|---|---|---|---|---|---|
| 1. | Kharkof | S | S | 2,S | S,2 | S,23CN | S,; | S | |
| 2. | Warrior | S | S | S | 2 | S | S | S | |
| 3. | Roughrider | ;1 | ; | 0 | ;1 | S | ; | - | 6,Tt-1 |
| 4. | NE 75414 | ;1 | S,; | 2 | S,; | ; | ; | S | 6,17 |
| 5. | NE 77465 | 0; | ; | 2 | 0; | ; | ; | 2 | 6,17,24 |
| 6. | NE 78659 | 0; | ; | 2 | 0; | ; | 0; | 2 | 6,17,24 |
| 7. | NE 76667 | ; | ; | 2- | 0; | 2 | ; | 2- | 6,24 |
| 8. | NE 78414 | ; | ; | S | 0; | ;1N | ; | S | 6,17 |
| 9. | NE 78415 | ; | ; | S | 0; | ;1N | ; | S | 6,17 |
| 10. | SD 74221 | S,; | S,; | 0,2 | 0; | S | ; | S | Seg.6,Seg.17, Seg. Tt-1 |
| 11. | SD 75285 | ; | S,; | 2 | ;,2 | ; | ; | S | 6,17 |
| 12. | SD 73177 | ; | S,; | 2= | 2 | ;1N | ; | S | 6,17 |
| 13. | SD 74209 | ; | ; | 2 | 0;,S | ; | ; | S | 6,17 |
| 14. | SD 76705 | ; | ; | 0 | 0; | ; | ; | S | 6,17,Tt-1 |
| 15. | SD 76521 | S | S | 2- | 2 | 2 | 2 | 2- | |
| 16. | SD 76598 | ; | ; | 2 | 0; | ; | ; | 2= | 6,17,24 |
| 17. | SD 76602 | ; | S,; | S,2 | S,; | ;1,S | ; | S | 17,Seg.6 |
| 18. | SD 76569 | ;1 | S | 2 | 2 | ; | ; | 2,S | 17 |
| 19. | SD 76194 | ; | S | 2- | 2 | ; | ; | 2- | 17 |
| 20. | CO 745597 | ; | ; | S | ; | S | ; | S | 6 |
| 21. | NAPB 201 | ; | ; | S | ; | S | ; | S | 6 |
| 22. | MT 7428 | S | S | S | S | S | S | S | |
| 23. | MT 77003 | ;1 | S | S | S | XCN,S | XCN | S | 17 |
| 24. | MT 77077 | S | S | 2 | 2 | S | S | S | 7b |
| 25. | MT 77062 | S | S | S | S | S | S | S | |
| 26. | MT 77063 | S | S | S | S | S | S | S | |

Table 17.

Adult plant reaction of the 1981 Uniform Northern Regional Hard Red Winter Wheat Performance Nursery to leaf rust and an inoculated stem rust nursery at St. Paul, MN. (ARS-USDA Cereal Rust Laboratory by D. V. McVey).

| Cultivar or Sel.No. | Leaf Rust | Stem Rust 6/24/81 | Stem Rust 7/6/81 |
|---|---|---|---|
| 1. Kharkof | 5S | 20S | 90S |
| 2. Warrior | 30S | 15S | 90S |
| 3. Roughrider | 50S | 0 | 20MR-MS |
| 4. NE 75414 | 5MS | TMS | 30S |
| 5. NE 77465 | 5S | TMS-S | 60S |
| 6. NE 78659 | 55 | 0 | 50S |
| 7. NE 76667 | TS | TR | 20MS |
| 8. NE 78414 | TS | TMS | 20MS |
| 9. NE 78415 | TS | TMR | 10S |
| 10. SD 74221 | TS | 0 | TR90S |
| 11. SD 75284 | 60S | 15MS-S | 60S |
| 12. SD 73177 | 60S | 20S | 60S |
| 13. 5074209 | 10MS-S | TMS | 60S |
| 14. SD 76705 | 0 | 0 | TR4DMR-MS |
| 15. SD 76521 | TS | 5Mr | 5MR |
| 16. SD 76598 | TS | 0 | TR |
| 17. SD 76602 | TS | TR | 10's |
| 18. SD 76569 | 30MS-S | 0 | TR |
| 19. SD 76194 | 0 | 0 | 10MS |
| 20. CO 745597 | 5S | 30'S | 60S |
| 21. NAPB 201 | TS | TR | 60S |
| 22. MT 7428 | 10S | 30S | 90S |
| 23. MT 77003 | 0 | 10S | 60S |
| 24. MT 77077 | 10S | 20S | 80S |
| 25. MT 77062 | 40S | 40S | 90S |
| 26. MT 77063 | 20S | 40S | 90S |

Table 18.

Field Infection Data - Soil-Borne Mosaic
1981 Northern Regional Performance Nursery

1981 - Urbana, Illinois[1/]

| Entry No. | Disease Severity | |
|---|---|---|
| | Replication 1 | Replication 2 |
| 1 | VS | VS |
| 2 | MS | MS |
| 3 | S | S |
| 4 | MS | MS |
| 5 | MR | MR |
| 6 | S | S |
| 7 | MR | MR |
| 8 | MS | MS |
| 9 | S | S |
| 10 | MS | MS |
| 11 | S | S |
| 12 | S | S |
| 13 | MS | MS |
| 14 | S | VS |
| 15 | S | VS |
| 16 | S | S |
| 17 | MS | MS |
| 18 | S | S |
| 19 | S | S |
| 20 | MS | MS |
| 21 | R | R |
| 22 | MS | MS |
| 23 | VS | VS |
| 24 | MS | MS |
| 25 | VS | VS |
| 26 | S | S |

[1/] The nursery was planted in soil-borne mosaic nursery on September 30, 1980.
Final notes on disease severity were taken on April 30, 1981.
Fall conditions were favorable for infection and unless otherwise stated, the disease incidence was about 100%.
Disease severity ratings are the same as those in previous years; Ros.=rosetting.
Cooperators: H. Jedlinski and C. M. Brown.

1981
Regional Hybrid Wheat Nursery
(3 replications)

| Entry no. | Designation or Pedigree | C. I. or Sel. No. | Source |
|---|---|---|---|
| 1 | Newton | 17715 | Check |
| 2 | Centurk | 15075 | " |
| 3 | Sage | 17277 | " |
| 4 | Northrup, King Hybrid | HRW9010 | N-K |
| 5 | Rohm & Haas Hybrid | RH790410 | R & H |
| 6 | " | " 791928 | " |
| 7 | " | " 801213 | " |
| 8 | " | " 801324 | " |
| 9 | " | " 801534 | " |
| 10 | " | " 801624 | " |
| 11 | " | " 801634 | " |
| 12 | " | " 801824 | " |
| 13 | " | " 801834 | " |
| 14 | " | " 801924 | " |
| 15 | " | " 802242 | " |
| 16 | " | " 802244 | " |
| 17 | " | " 802341 | " |
| 18 | " | " 802344 | " |
| 19 | " | " 802442 | " |
| 20 | " | " 802542 | " |
| 21 | " | " 802642 | " |
| 22 | " | " 802644 | " |
| 23 | " | " 802744 | " |
| 24 | " | " 802844 | " |
| 25 | " | " 803042 | " |
| 26 | " | " 803144 | " |
| 27 | " | " 803573 | " |
| 28 | " | " 803577 | " |

Hybrid Nursery Sites in 1981

| Texas | Kansas |
|---|---|
| Dallas | Hutchinson |
| Chillicothe | Hays |
| Bushland (irrig.) | Colby |
| **Oklahoma** | **Nebraska** |
| Stillwater | Mead |
| Lahoma | Clay Center |
| | North Platte |

Test Site Information

For information about production conditions at test sites refer to appropriate test site information for the SRPN.

TABLE 19. YIELD AND AGRONOMIC DATA FOR 28 ENTRIES IN THE REGIONAL HYBRID WINTER WHEAT PERFORMANCE NURSERY GROWN IN 1981.

**BUSHLAND,TEXAS (IRR.)**

**THREE REPLICATIONS**

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM |
|---|---|---|---|---|---|
| TAM105 | . | 6403 | 78.4 | 122 | 82 |
| VONA | . | 6383 | 80.2 | 120 | 86 |
| DEKALBH105 | . | 6107 | 79.6 | 119 | 84 |
| RH790410 | 5 | 5939 | 80.2 | 120 | 98 |
| RH802341 | 17 | 5872 | 81.4 | 121 | 88 |
| RH803577 | 28 | 5806 | 79.9 | 122 | 98 |
| RH801213 | 7 | 5771 | 79.9 | 121 | 96 |
| HRW9010 | 4 | 5681 | 81 | 123 | 84 |
| RH801534 | 9 | 5645 | 79.9 | 122 | 95 |
| 17715 | 1 | 5616 | 79.6 | 123 | 87 |
| RH801634 | 11 | 5591 | 79.2 | 123 | 93 |
| RH802244 | 16 | 5573 | 78.4 | 123 | 95 |
| RH801324 | 8 | 5569 | 81.4 | 121 | 90 |
| RH803573 | 27 | 5520 | 78.1 | 123 | 97 |
| RH801834 | 13 | 5515 | 79.9 | 123 | 92 |
| RH802644 | 22 | 5506 | 79.2 | 123 | 92 |
| RH802844 | 24 | 5477 | 79.9 | 124 | 96 |
| RH791928 | 6 | 5369 | 80.2 | 122 | 88 |
| RH802344 | 18 | 5324 | 79.2 | 123 | 97 |
| 17277 | 3 | 5309 | 78.8 | 125 | 99 |
| RH802744 | 23 | 5284 | 79.2 | 124 | 95 |
| RH803144 | 26 | 5234 | 79.9 | 124 | 93 |
| RH801824 | 12 | 5225 | 80.6 | 121 | 96 |
| RH802242 | 15 | 5183 | 80.2 | 122 | 97 |
| RH802542 | 20 | 5167 | 80.6 | 121 | 93 |
| RH802442 | 19 | 5100 | 79.8 | 121 | 99 |
| RH801624 | 10 | 5091 | 81.2 | 123 | 95 |
| RH801924 | 14 | 4999 | 81 | 123 | 96 |
| 15075 | 2 | 4927 | 78.8 | 125 | 93 |
| RH802642 | 21 | 4902 | 79.9 | 122 | 91 |
| RH803042 | 25 | 4893 | 79.9 | 122 | 96 |
| MEAN | | 5483 | | | |
| L.S.D.(.05) | | 350 | | | |
| C.V. | | 3.9 | | | |

DALLAS, TEXAS

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM | LEAF RUST SEV. % | RUST RESP 1-9 | MILDEW 1/27 0-9 | MILDEW 3/30 0-9 | MILDEW 4/22 0-9 |
|---|---|---|---|---|---|---|---|---|---|---|
| RH790410 | 5 | 4690 | 77.4 | 98 | 112 | 40 | 8 | 2 | 1 | 7 |
| RH801324 | 8 | 4656 | 77.4 | 99 | 102 | 30 | 8 | 2 | 4 | 7 |
| RH802542 | 20 | 4604 | 78 | 100 | 109 | 20 | 7 | 0 | 2 | 6 |
| RH801924 | 14 | 4481 | 77.4 | 101 | 107 | 30 | 8 | 3 | 1 | 7 |
| RH801213 | 7 | 4369 | 78.7 | 102 | 114 | 10 | 7 | 3 | 5 | 7 |
| RH801624 | 10 | 4335 | 78 | 102 | 109 | 30 | 8 | 3 | 3 | 5 |
| RH801634 | 11 | 4331 | 77.4 | 103 | 104 | 30 | 8 | 2 | 4 | 5 |
| RH791928 | 6 | 4116 | 77.4 | 99 | 104 | 60 | 8 | 3 | 4 | 7 |
| RH802341 | 17 | 4024 | 78 | 99 | 109 | 20 | 8 | 0 | 2 | 7 |
| RH801834 | 13 | 3995 | 76.8 | 104 | 107 | 60 | 8 | 4 | 5 | 8 |
| RH802642 | 21 | 3995 | 77.4 | 101 | 102 | 60 | 8 | 2 | 4 | 7 |
| RH801824 | 12 | 3983 | 77.4 | 99 | 107 | 40 | 8 | 3 | 3 | 7 |
| HRW9010 | 4 | 3977 | 77.4 | 101 | 89 | 30 | 8 | 4 | 3 | 7 |
| RH803042 | 25 | 3894 | 78 | 100 | 112 | 20 | 3 | 2 | 2 | 8 |
| RH802844 | 24 | 3889 | 77.4 | 106 | 112 | 30 | 8 | 3 | 4 | 7 |
| RH802344 | 18 | 3844 | 75.5 | 105 | 107 | 30 | 8 | 0 | 4 | 7 |
| RH803144 | 26 | 3820 | 77.4 | 105 | 109 | 60 | 9 | 4 | 4 | 7 |
| RH803577 | 28 | 3811 | 77.4 | 105 | 104 | 5 | 2 | 4 | 5 | 8 |
| RH802644 | 22 | 3784 | 76.1 | 106 | 104 | 60 | 8 | 1 | 4 | 6 |
| RH802744 | 23 | 3777 | 76.1 | 106 | 102 | 60 | 9 | 3 | 3 | 6 |
| RH802442 | 19 | 3770 | 77.4 | 99 | 114 | 50 | 8 | 1 | 2 | 7 |
| RH803573 | 27 | 3739 | 78 | 107 | 107 | 5 | 3 | 4 | 4 | 7 |
| 15075 | 2 | 3647 | 76.8 | 103 | 112 | 10 | 7 | 1 | 1 | 3 |
| RH802242 | 15 | 3616 | 78 | 101 | 109 | 30 | 8 | 3 | 1 | 7 |
| 17277 | 3 | 3596 | 75.5 | 108 | 109 | 0 | . | 5 | 4 | 7 |
| RH801534 | 9 | 3528 | 74.8 | 103 | 102 | 60 | 9 | 2 | 5 | 7 |
| RH802244 | 16 | 3459 | 76.8 | 104 | 107 | 40 | 8 | 3 | 3 | 7 |
| 17715 | 1 | 3401 | 73.5 | 104 | 94 | 60 | 8 | 3 | 4 | 6 |
| MEAN | | 3969 | | | | | | | | |
| L.S.D. (.05) | | 630 | | | | | | | | |
| C.V. | | 9.7 | | | | | | | | |

CHILLICOTHE, TEXAS

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM |
|---|---|---|---|---|---|
| TAM105 | . | 3913 | 73.3 | 103 | 65 |
| RH801324 | 8 | 3831 | 74.7 | 102 | 59 |
| RH790410 | 5 | 3804 | 75.5 | 103 | 64 |
| RH801534 | 9 | 3578 | 75.4 | 104 | 64 |
| RH802341 | 17 | 3577 | 74.8 | 103 | 59 |
| RH801924 | 14 | 3476 | 75.2 | 103 | 58 |
| RH802442 | 19 | 3471 | 75.3 | 102 | 64 |
| RH801824 | 12 | 3452 | 74.9 | 103 | 63 |
| DEKALBH105 | . | 3411 | 74 | 100 | 63 |
| RH801213 | 7 | 3405 | 75.6 | 103 | 68 |
| DEKALBH108 | . | 3401 | 74.4 | 102 | 64 |
| DEKALBH107 | . | 3380 | 74.2 | 101 | 64 |
| VONA | . | 3329 | 74.7 | 103 | 60 |
| RH802242 | 15 | 3284 | 75.2 | 102 | 64 |
| RH802542 | 20 | 3282 | 75.1 | 103 | 65 |
| RH803577 | 28 | 3263 | 74.3 | 107 | 80 |
| RH801834 | 13 | 3243 | 74.8 | 107 | 75 |
| RH802844 | 24 | 3243 | 73.6 | 108 | 85 |
| RH791928 | 6 | 3237 | 75.8 | 102 | 60 |
| RH802642 | 21 | 3211 | 74.5 | 103 | 59 |
| RH803144 | 26 | 3173 | 74.5 | 107 | 75 |
| RH803042 | 25 | 3127 | 75.3 | 102 | 62 |
| RH802644 | 22 | 3079 | 73.8 | 108 | 74 |
| RH801624 | 10 | 3059 | 74.8 | 103 | 63 |
| DEKALBH90 | . | 3018 | 74.8 | 102 | 60 |
| HRW9010 | 4 | 2963 | 75.9 | 103 | 52 |
| TAM101 | . | 2954 | 74.1 | 104 | 63 |
| RH802744 | 23 | 2936 | 73.5 | 108 | 80 |
| TAM106 | . | 2831 | 73.6 | 104 | 52 |
| RH802344 | 18 | 2792 | 74.2 | 108 | 74 |
| RH802244 | 16 | 2772 | 74.2 | 107 | 79 |
| RH801634 | 11 | 2737 | 75.4 | 107 | 67 |
| RH803573 | 27 | 2702 | 73.5 | 109 | 83 |
| 17277 | 3 | 2700 | 72.3 | 110 | 91 |
| 17715 | 1 | 2688 | 74.5 | 107 | 65 |
| 15075 | 2 | 2271 | 73.9 | 107 | 74 |
| MEAN | | 3183 | | | |
| L.S.D.(.05) | | 505 | | | |
| C.V. | | 9.7 | | | |

LAHOMA, OKLAHOMA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | PLANT HEIGHT CM | LODGING % | SHATTER 0-9 |
|---|---|---|---|---|---|---|
| RH803577 | 28 | 3856 | 75.1 | 84 | 50 | 0 |
| RH801834 | 13 | 3667 | 75.5 | 90 | 55 | 0 |
| RH802244 | 16 | 3546 | 75.5 | 88 | 50 | 1 |
| RH802442 | 19 | 3174 | 76.2 | 83 | 68 | 0 |
| RH802242 | 15 | 3143 | 75.6 | 84 | 65 | 0 |
| RH803573 | 27 | 3111 | 74.7 | 87 | 45 | 0 |
| RH801824 | 12 | 3071 | 76.1 | 85 | 63 | 0 |
| RH801213 | 7 | 3067 | 74.4 | 87 | 50 | 0 |
| RH790410 | 5 | 3053 | 75.6 | 79 | 55 | 0 |
| 17277 | 3 | 2972 | 73.3 | 86 | 48 | 2 |
| RH801924 | 14 | 2937 | 75.9 | 82 | 60 | 0 |
| 17715 | 1 | 2914 | 74.7 | 79 | 35 | 1 |
| RH802344 | 18 | 2910 | 74.8 | 79 | 35 | 1 |
| RH791928 | 6 | 2878 | 73.1 | 80 | 63 | 0 |
| RH802642 | 21 | 2874 | 75.6 | 76 | 50 | 0 |
| RH803144 | 26 | 2838 | 75.1 | 82 | 50 | 1 |
| RH803042 | 25 | 2825 | 76.8 | 81 | 50 | 0 |
| RH801534 | 9 | 2798 | 75.1 | 82 | 45 | 1 |
| RH801634 | 11 | 2780 | 74.4 | 81 | 40 | 1 |
| RH802542 | 20 | 2672 | 76.1 | 81 | 55 | 0 |
| RH801324 | 8 | 2654 | 75.9 | 79 | 45 | 0 |
| RH802844 | 24 | 2654 | 75.6 | 82 | 33 | 2 |
| RH802744 | 23 | 2591 | 75.1 | 79 | 35 | 2 |
| RH801624 | 10 | 2587 | 75.3 | 84 | 55 | 0 |
| RH802644 | 22 | 2573 | 74.4 | 76 | 40 | 1 |
| RH802341 | 17 | 2533 | 75.6 | 83 | 68 | 0 |
| 15075 | 2 | 2484 | 71.9 | 84 | 50 | 2 |
| HRW9010 | 4 | 1964 | 76.2 | 76 | 33 | 0 |
| MEAN | | 2897 | | | | |
| L.S.D. (.05) | | 534 | | | | |
| C.V. | | 11.3 | | | | |

STILLWATER, OKLAHOMA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM |
|---|---|---|---|---|---|
| RH801824 | 12 | 3340 | 78.2 | 106 | 81 |
| RH802244 | 16 | 3262 | 79.5 | 111 | 87 |
| RH801624 | 10 | 3239 | 79.6 | 107 | 81 |
| RH803144 | 26 | 3150 | 79.9 | 110 | 85 |
| RH803577 | 28 | 3138 | 79.3 | 110 | 86 |
| RH802644 | 22 | 3127 | 78.3 | 110 | 81 |
| RH802844 | 24 | 3105 | 79.1 | 112 | 87 |
| RH803042 | 25 | 3105 | 79.2 | 106 | 81 |
| RH802242 | 15 | 3094 | 78.9 | 106 | 81 |
| RH802542 | 20 | 3082 | 78.7 | 106 | 79 |
| 17277 | 3 | 3060 | 78.9 | 112 | 88 |
| RH802344 | 18 | 3026 | 78.8 | 111 | 83 |
| RH802744 | 23 | 3026 | 79.2 | 111 | 83 |
| RH801634 | 11 | 3015 | 78.9 | 110 | 83 |
| RH801924 | 14 | 2948 | 77.5 | 107 | 79 |
| RH802642 | 21 | 2948 | 78 | 106 | 78 |
| RH802442 | 19 | 2914 | 78.6 | 106 | 84 |
| RH801834 | 13 | 2858 | 78.2 | 111 | 89 |
| RH802341 | 17 | 2813 | 77.9 | 107 | 72 |
| 15075 | 2 | 2768 | 78.6 | 110 | 81 |
| RH801534 | 9 | 2768 | 79.5 | 111 | 83 |
| RH801213 | 7 | 2735 | 80.1 | 109 | 85 |
| RH803573 | 27 | 2735 | 78.3 | 112 | 86 |
| RH791928 | 6 | 2724 | 77.7 | 106 | 73 |
| 17715 | 1 | 2712 | 78.6 | 111 | 78 |
| RH790410 | 5 | 2656 | 77.8 | 106 | 80 |
| RH801324 | 8 | 2623 | 78.4 | 106 | 73 |
| HRW9010 | 4 | 2152 | 77.9 | 106 | 68 |
| MEAN | | 2933 | | | |
| L.S.D.(.05) | | 502 | | | |
| C.V. | | 10.5 | | | |

COLBY, KANSAS

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM |
|---|---|---|---|---|---|
| RH801624 | 10 | 3071 | 77.5 | 134 | 98 |
| RH801924 | 14 | 2717 | 77 | 133 | 95 |
| RH801834 | 13 | 2677 | 78.1 | 130 | 96 |
| 15075 | 2 | 2649 | 76.6 | 136 | 99 |
| RH802242 | 15 | 2569 | 77 | 131 | 93 |
| RH802244 | 16 | 2524 | 78.1 | 131 | 93 |
| RH801824 | 12 | 2487 | 77.4 | 129 | 91 |
| RH791928 | 6 | 2480 | 76.5 | 132 | 86 |
| RH802744 | 23 | 2425 | 76.9 | 131 | 98 |
| RH802341 | 17 | 2416 | 76.3 | 129 | 83 |
| 17277 | 3 | 2408 | 76.4 | 133 | 98 |
| RH803042 | 25 | 2397 | 76.8 | 134 | 97 |
| RH790410 | 5 | 2395 | 76.8 | 130 | 88 |
| RH802442 | 19 | 2394 | 77.1 | 130 | 91 |
| RH801213 | 7 | 2392 | 77.6 | 130 | 91 |
| RH801324 | 8 | 2384 | 76.4 | 130 | 86 |
| RH802642 | 21 | 2374 | 75.8 | 133 | 90 |
| RH802844 | 24 | 2319 | 76.8 | 131 | 93 |
| RH801634 | 11 | 2273 | 76.8 | 130 | 89 |
| RH802644 | 22 | 2271 | 76.1 | 132 | 88 |
| RH803573 | 27 | 2222 | 77.2 | 132 | 91 |
| RH803577 | 28 | 2193 | 75.9 | 129 | 93 |
| RH802542 | 20 | 2156 | 76.5 | 131 | 87 |
| RH803144 | 26 | 2140 | 77.4 | 134 | 93 |
| RH802344 | 18 | 1958 | 76.4 | 132 | 88 |
| HRW9010 | 4 | 1874 | 77 | 134 | 86 |
| 17715 | 1 | 1824 | 76.6 | 130 | 82 |
| RH801534 | 9 | 1636 | 76.5 | 131 | 84 |
| MEAN | | 2344 | | | |
| L.S.D. (.05) | | 405 | | | |
| C.V. | | 10.6 | | | |

HAYS, KANSAS

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM |
|---|---|---|---|---|---|
| 17715 | 1 | 3481 | 76 | 120 | 69 |
| RH801213 | 7 | 3430 | 75.7 | 119 | 75 |
| RH802341 | 17 | 3206 | 75 | 118 | 71 |
| RH801624 | 10 | 3203 | 75.4 | 119 | 71 |
| RH801834 | 13 | 3192 | 76.8 | 120 | 73 |
| RH802244 | 16 | 3188 | 76.4 | 119 | 73 |
| RH802642 | 21 | 3136 | 73.5 | 120 | 70 |
| RH803144 | 26 | 3120 | 76.2 | 120 | 72 |
| RH791928 | 6 | 3109 | 73.1 | 118 | 70 |
| RH803577 | 28 | 3107 | 75.5 | 119 | 75 |
| RH801534 | 9 | 3085 | 74.9 | 119 | 71 |
| RH790410 | 5 | 3055 | 75.6 | 118 | 65 |
| RH802844 | 24 | 3055 | 75.5 | 121 | 75 |
| RH801324 | 8 | 3033 | 74.5 | 117 | 70 |
| RH802542 | 20 | 3028 | 75.6 | 118 | 73 |
| RH801634 | 11 | 3022 | 74.9 | 120 | 69 |
| RH801924 | 14 | 2997 | 74.8 | 119 | 70 |
| RH802644 | 22 | 2986 | 74.4 | 120 | 69 |
| RH803573 | 27 | 2981 | 76.2 | 120 | 75 |
| RH803042 | 25 | 2952 | 74.8 | 119 | 76 |
| RH802344 | 18 | 2946 | 74.8 | 120 | 69 |
| RH801824 | 12 | 2943 | 75.5 | 118 | 74 |
| RH802242 | 15 | 2921 | 75.2 | 118 | 75 |
| RH802744 | 23 | 2800 | 74.8 | 121 | 71 |
| HRW9010 | 4 | 2762 | 75.6 | 119 | 60 |
| RH802442 | 19 | 2641 | 75.1 | 118 | 73 |
| 15075 | 2 | 2605 | 73.4 | 122 | 69 |
| 17277 | 3 | 2257 | 74.5 | 122 | 74 |
| MEAN | | 3009 | | | |
| L.S.D. (.05) | | 380 | | | |
| C.V. | | 7.7 | | | |

HUTCHINSON, KANSAS

FOUR REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM |
|---|---|---|---|---|---|
| RH801534 | 9 | 3514 | 78.2 | 117 | 80 |
| RH802344 | 18 | 3358 | 77.4 | 118 | 77 |
| RH801924 | 14 | 3262 | 78.3 | 115 | 74 |
| RH803144 | 26 | 3162 | 78.4 | 118 | 79 |
| RH801634 | 11 | 3147 | 76.4 | 118 | 80 |
| RH801624 | 10 | 3127 | 77.8 | 115 | 77 |
| RH802242 | 15 | 3027 | 78.2 | 115 | 81 |
| RH802542 | 20 | 3021 | 77.3 | 115 | 75 |
| RH802341 | 17 | 2990 | 77.7 | 115 | 74 |
| RH802642 | 21 | 2917 | 77.9 | 115 | 78 |
| RH802442 | 19 | 2902 | 78.7 | 115 | 82 |
| RH803573 | 27 | 2858 | 77.5 | 120 | 80 |
| RH801824 | 12 | 2855 | 77.4 | 114 | 78 |
| RH802244 | 16 | 2855 | 76.6 | 119 | 83 |
| RH802844 | 24 | 2821 | 77.7 | 119 | 77 |
| RH801324 | 8 | 2788 | 76.8 | 115 | 71 |
| RH802644 | 22 | 2778 | 75.6 | 120 | 78 |
| RH802744 | 23 | 2737 | 76.6 | 120 | 80 |
| RH801834 | 13 | 2731 | 76.6 | 119 | 78 |
| RH790410 | 5 | 2720 | 77.3 | 115 | 75 |
| RH803577 | 28 | 2718 | 74.9 | 120 | 81 |
| HRW9010 | 4 | 2686 | 79.1 | 114 | 70 |
| 17277 | 3 | 2576 | 75.5 | 122 | 83 |
| 17715 | 1 | 2566 | 75.5 | 119 | 73 |
| RH801213 | 7 | 2459 | 77.8 | 116 | 76 |
| RH803042 | 25 | 2350 | 76.6 | 115 | 75 |
| 15075 | 2 | 2089 | 75.5 | 121 | 78 |
| RH791928 | 6 | 1723 | 74.7 | 117 | 66 |
| MEAN | | 2812 | | | |
| L.S.D.(.05) | | 695 | | | |
| C.V. | | 17.5 | | | |

CLAY CENTER, NEBRASKA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM |
|---|---|---|---|---|---|
| RH802344 | 18 | 4825 | 76.6 | 143 | 102 |
| RH802844 | 24 | 4777 | 78 | 145 | 113 |
| 17715 | 1 | 4721 | 76.6 | 144 | 97 |
| RH802644 | 22 | 4695 | 76.8 | 144 | 109 |
| RH802542 | 20 | 4678 | 77 | 141 | 102 |
| RH801324 | 8 | 4537 | 76.4 | 141 | 99 |
| RH801213 | 7 | 4510 | 79.1 | 141 | 111 |
| RH801834 | 13 | 4509 | 76.9 | 143 | 113 |
| RH801634 | 11 | 4499 | 77.1 | 143 | 110 |
| RH802244 | 16 | 4494 | 77.4 | 143 | 109 |
| RH803573 | 27 | 4467 | 77.7 | 144 | 115 |
| RH802744 | 23 | 4458 | 77.1 | 144 | 113 |
| RH801824 | 12 | 4457 | 76.2 | 141 | 106 |
| RH803577 | 28 | 4413 | 78 | 143 | 110 |
| RH801924 | 14 | 4370 | 76 | 141 | 108 |
| HRW9010 | 4 | 4329 | 77.4 | 141 | 98 |
| RH803144 | 26 | 4309 | 78.3 | 144 | 112 |
| RH791928 | 6 | 4291 | 76.6 | 140 | 99 |
| RH801624 | 10 | 4274 | 76.2 | 142 | 112 |
| RH803042 | 25 | 4254 | 77.3 | 141 | 112 |
| RH802341 | 17 | 4239 | 77.3 | 141 | 97 |
| 17277 | 3 | 4226 | 77.7 | 144 | 111 |
| RH802242 | 15 | 4190 | 76.9 | 141 | 105 |
| RH802642 | 21 | 4106 | 76.9 | 141 | 105 |
| RH790410 | 5 | 4092 | 77.8 | 141 | 107 |
| RH801534 | 9 | 4070 | 76.1 | 144 | 106 |
| RH802442 | 19 | 3869 | 77.4 | 141 | 104 |
| 15075 | 2 | 3559 | 76.9 | 145 | 112 |
| MEAN | | 4365 | | | |
| L.S.D.(.05) | | N.S. | | | |
| C.V. | | 10.6 | | | |

MEAD, NEBRASKA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM |
|---|---|---|---|---|---|
| RH802644 | 22 | 5257 | 78.7 | 142 | 104 |
| RH802244 | 16 | 4796 | 79.2 | 143 | 109 |
| RH801824 | 12 | 4790 | 80.1 | 140 | 103 |
| RH801834 | 13 | 4652 | 79.5 | 143 | 107 |
| RH802542 | 20 | 4555 | 80 | 140 | 99 |
| RH803577 | 28 | 4543 | 79.3 | 142 | 103 |
| RH801634 | 11 | 4501 | 79.7 | 143 | 106 |
| RH801924 | 14 | 4501 | 80.2 | 142 | 103 |
| RH802744 | 23 | 4466 | 77.8 | 144 | 108 |
| RH802242 | 15 | 4465 | 80.1 | 139 | 102 |
| RH802642 | 21 | 4448 | 79.5 | 141 | 97 |
| RH801624 | 10 | 4398 | 80 | 142 | 103 |
| RH802344 | 18 | 4349 | 79.1 | 142 | 105 |
| RH803144 | 26 | 4312 | 80 | 143 | 110 |
| RH803042 | 25 | 4310 | 80 | 141 | 105 |
| RH802844 | 24 | 4268 | 78.9 | 143 | 108 |
| RH802442 | 19 | 4239 | 80 | 140 | 103 |
| RH801213 | 7 | 4195 | 80 | 141 | 101 |
| 17277 | 3 | 4179 | 78.3 | 144 | 104 |
| RH802341 | 17 | 4177 | 80.2 | 140 | 95 |
| RH803573 | 27 | 4130 | 79.2 | 143 | 106 |
| 17715 | 1 | 4084 | 77.8 | 143 | 98 |
| HRW9010 | 4 | 4046 | 79.9 | 141 | 86 |
| RH801534 | 9 | 3876 | 79.3 | 143 | 101 |
| RH791928 | 6 | 3819 | 79.3 | 141 | 92 |
| 15075 | 2 | 3768 | 78.2 | 143 | 99 |
| RH801324 | 8 | 3728 | 80 | 139 | 92 |
| RH790410 | 5 | 3397 | 80.4 | 141 | 95 |
| MEAN | | 4295 | | | |
| L.S.D. (.05) | | 798 | | | |
| C.V. | | 11.4 | | | |

NORTH PLATTE, NEBRASKA

THREE REPLICATIONS

| C.I. OR SEL. NO. | ENTRY NO. | YIELD KG/HA | VOLUME WEIGHT KG/HL |
|---|---|---|---|
| RH802542 | 20 | 3054 | 76.1 |
| RH802442 | 19 | 2946 | 78 |
| RH801624 | 10 | 2925 | 77.4 |
| 15075 | 2 | 2897 | 76.8 |
| RH802642 | 21 | 2897 | 76.1 |
| RH801634 | 11 | 2862 | 77.4 |
| RH802341 | 17 | 2841 | 77.7 |
| RH791928 | 6 | 2838 | 77.3 |
| RH803042 | 25 | 2837 | 77.3 |
| RH802844 | 24 | 2787 | 77.8 |
| RH802242 | 15 | 2763 | 77.1 |
| RH801324 | 8 | 2762 | 77.4 |
| RH790410 | 5 | 2760 | 77.8 |
| RH801824 | 12 | 2696 | 77.7 |
| RH801834 | 13 | 2696 | 77.4 |
| RH802744 | 23 | 2542 | 77.4 |
| RH802644 | 22 | 2519 | 77.4 |
| RH801924 | 14 | 2476 | 77 |
| RH802244 | 16 | 2463 | 77.4 |
| RH803573 | 27 | 2454 | 77.1 |
| RH801213 | 7 | 2362 | 78 |
| RH803144 | 26 | 2172 | 76.9 |
| 17277 | 3 | 2153 | 77.1 |
| RH802344 | 18 | 2111 | 76.1 |
| RH801534 | 9 | 2099 | 77.8 |
| 17715 | 1 | 1903 | 76.8 |
| RH803577 | 28 | 1818 | 76.1 |
| HRW9010 | 4 | 1788 | 77.7 |
| MEAN | | 2551 | |
| L.S.D. (.05) | | 552 | |
| C.V. | | 13.2 | |

TABLE 20. SUMMARY OF MEAN YIELDS (kg/ha) OF THE 28 ENTRIES GROWN IN THE 1981 HYBRID PERFORMANCE NURSERY AT 11 SITES, WITH STATE MEANS AND RANKS.

| | | NEBRASKA | | | | | KANSAS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C.I. OR SEL. NO. | ENTRY NO. | MEAD | CLAY CENTER | NORTH PLATTE | MEAN | RANK | HUTCHINSON | HAYS | COLBY | MEAN | RANK |
| RH801834 | 13 | 4652 | 4509 | 2696 | 3952 | 5 | 2731 | 3192 | 2677 | 2867 | 4 |
| RH801624 | 10 | 4398 | 4274 | 2925 | 3866 | 8 | 3127 | 3203 | 3071 | 3134 | 1 |
| RH801824 | 12 | 4790 | 4457 | 2696 | 3981 | 3 | 2855 | 2943 | 2487 | 2762 | 10 |
| RH802542 | 20 | 4555 | 4678 | 3054 | 4095 | 2 | 3021 | 3028 | 2156 | 2735 | 14 |
| RH801924 | 14 | 4501 | 4370 | 2476 | 3782 | 13 | 3262 | 2997 | 2717 | 2992 | 2 |
| RH802244 | 16 | 4796 | 4494 | 2463 | 3918 | 7 | 2855 | 3188 | 2524 | 2855 | 5 |
| RH801634 | 11 | 4501 | 4499 | 2862 | 3954 | 4 | 3147 | 3022 | 2273 | 2814 | 7 |
| RH801213 | 7 | 4195 | 4510 | 2362 | 3689 | 16 | 2459 | 3430 | 2392 | 2760 | 11 |
| RH802341 | 17 | 4177 | 4239 | 2841 | 3752 | 15 | 2990 | 3206 | 2416 | 2870 | 3 |
| RH803577 | 28 | 4543 | 4413 | 1818 | 3592 | 22 | 2718 | 3107 | 2193 | 2673 | 20 |
| RH802644 | 22 | 5257 | 4695 | 2519 | 4157 | 1 | 2778 | 2986 | 2271 | 2678 | 19 |
| RH801324 | 8 | 3728 | 4537 | 2762 | 3676 | 19 | 2788 | 3033 | 2384 | 2735 | 15 |
| RH790410 | 5 | 3397 | 4092 | 2760 | 3416 | 25 | 2720 | 3055 | 2395 | 2724 | 17 |
| RH802844 | 24 | 4268 | 4777 | 2787 | 3944 | 6 | 2821 | 3055 | 2319 | 2732 | 16 |
| RH802242 | 15 | 4465 | 4190 | 2763 | 3806 | 11 | 3027 | 2921 | 2569 | 2839 | 6 |
| RH802642 | 21 | 4448 | 4106 | 2897 | 3817 | 10 | 2917 | 3136 | 2374 | 2809 | 8 |
| RH802344 | 18 | 4349 | 4825 | 2111 | 3762 | 14 | 3358 | 2946 | 1958 | 2754 | 12 |
| RH803144 | 26 | 4312 | 4309 | 2172 | 3598 | 21 | 3162 | 3120 | 2140 | 2807 | 9 |
| RH802442 | 19 | 4239 | 3869 | 2946 | 3684 | 17 | 2902 | 2641 | 2394 | 2646 | 22 |
| RH802744 | 23 | 4466 | 4458 | 2542 | 3822 | 9 | 2737 | 2800 | 2425 | 2654 | 21 |
| RH803042 | 25 | 4310 | 4254 | 2837 | 3801 | 12 | 2350 | 2952 | 2397 | 2567 | 24 |
| RH803573 | 27 | 4130 | 4467 | 2454 | 3684 | 18 | 2858 | 2981 | 2222 | 2687 | 18 |
| RH801534 | 9 | 3876 | 4070 | 2099 | 3348 | 28 | 3514 | 3085 | 1636 | 2745 | 13 |
| RH791928 | 6 | 3819 | 4291 | 2838 | 3650 | 20 | 1723 | 3109 | 2480 | 2437 | 27 |
| 17715 | 1 | 4084 | 4721 | 1903 | 3569 | 23 | 2566 | 3481 | 1824 | 2624 | 23 |
| 17277 | 3 | 4179 | 4226 | 2153 | 3520 | 24 | 2576 | 2257 | 2408 | 2414 | 28 |
| HRW9010 | 4 | 4046 | 4329 | 1788 | 3388 | 27 | 2686 | 2762 | 1874 | 2441 | 26 |
| 15075 | 2 | 3768 | 3559 | 2897 | 3408 | 26 | 2089 | 2605 | 2649 | 2448 | 25 |
| Mean | | 4295 | 4365 | 2551 | 3737 | | 2812 | 3009 | 2344 | 2722 | |
| L.S.D. | | 798 | N.S. | 552 | N.S. | | 695 | 380 | 405 | N.S. | |
| C.V. | | 11.4 | 10.6 | 13.2 | 11.6 | | 17.5 | 7.7 | 10.6 | 13.5 | |

TABLE 20 (CONCLUDED).

| C.I. OR SEL. NO. | ENTRY NO. | TEXAS | | | | | OKLAHOMA | | | | 11 SITE MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DALLAS | CHILLI COTHE | BUSHLAND (IRR.) | MEAN | RANK | STILL-WATER | LAHOMA | MEAN | RANK | |
| RH801834 | 13 | 3995 | 3243 | 5515 | 4251 | 8 | 2858 | 3667 | 3263 | 3 | 3612 |
| RH801624 | 10 | 4335 | 3059 | 5091 | 4162 | 15 | 3239 | 2587 | 2913 | 13 | 3574 |
| RH801824 | 12 | 3983 | 3452 | 5225 | 4220 | 11 | 3340 | 3071 | 3206 | 4 | 3573 |
| RH802542 | 20 | 4604 | 3282 | 5167 | 4351 | 5 | 3082 | 2672 | 2877 | 18 | 3573 |
| RH801924 | 14 | 4481 | 3476 | 4999 | 4319 | 6 | 2948 | 2937 | 2942 | 11 | 3560 |
| RH802244 | 16 | 3459 | 2772 | 5573 | 3935 | 25 | 3262 | 3546 | 3404 | 2 | 3539 |
| RH801634 | 11 | 4331 | 2737 | 5591 | 4220 | 12 | 3015 | 2780 | 2897 | 16 | 3523 |
| RH801213 | 7 | 4369 | 3405 | 5771 | 4515 | 3 | 2735 | 3067 | 2901 | 15 | 3518 |
| RH802341 | 17 | 4024 | 3577 | 5872 | 4491 | 4 | 2813 | 2533 | 2673 | 25 | 3517 |
| RH803577 | 28 | 3811 | 3263 | 5806 | 4293 | 7 | 3138 | 3856 | 3497 | 1 | 3515 |
| RH802644 | 22 | 3784 | 3079 | 5506 | 4123 | 16 | 3127 | 2573 | 2850 | 20 | 3507 |
| RH801324 | 8 | 4656 | 3831 | 5569 | 4685 | 2 | 2623 | 2654 | 2638 | 26 | 3506 |
| RH790410 | 5 | 4690 | 3804 | 5939 | 4811 | 1 | 2656 | 3053 | 2855 | 19 | 3506 |
| RH802844 | 24 | 3889 | 3243 | 5477 | 4203 | 14 | 3105 | 2654 | 2879 | 17 | 3490 |
| RH802242 | 15 | 3616 | 3284 | 5183 | 4028 | 20 | 3094 | 3143 | 3118 | 5 | 3478 |
| RH802642 | 21 | 3995 | 3211 | 4902 | 4036 | 19 | 2948 | 2874 | 2911 | 14 | 3437 |
| RH802344 | 18 | 3844 | 2792 | 5324 | 3987 | 23 | 3026 | 2910 | 2968 | 9 | 3404 |
| RH803144 | 26 | 3820 | 3173 | 5234 | 4076 | 18 | 3150 | 2838 | 2994 | 8 | 3403 |
| RH802442 | 19 | 3770 | 3471 | 5100 | 4114 | 17 | 2914 | 3174 | 3044 | 6 | 3402 |
| RH802744 | 23 | 3777 | 2936 | 5284 | 3999 | 21 | 3026 | 2591 | 2809 | 22 | 3368 |
| RH803042 | 25 | 3894 | 3127 | 4893 | 3971 | 24 | 3105 | 2825 | 2965 | 10 | 3359 |
| RH803573 | 27 | 3739 | 2702 | 5520 | 3987 | 22 | 2735 | 3111 | 2923 | 12 | 3356 |
| RH801534 | 9 | 3528 | 3578 | 5645 | 4251 | 9 | 2768 | 2798 | 2783 | 24 | 3327 |
| RH791928 | 6 | 4116 | 3237 | 5369 | 4240 | 10 | 2724 | 2878 | 2801 | 23 | 3326 |
| 17715 | 1 | 3401 | 2688 | 5616 | 3901 | 26 | 2712 | 2914 | 2813 | 21 | 3265 |
| 17277 | 3 | 3596 | 2700 | 5309 | 3868 | 27 | 3060 | 2972 | 3016 | 7 | 3222 |
| HRW9010 | 4 | 3977 | 2963 | 5681 | 4207 | 13 | 2152 | 1964 | 2058 | 28 | 3111 |
| 15075 | 2 | 3647 | 2271 | 4927 | 3615 | 28 | 2768 | 2484 | 2626 | 27 | 3060 |
| Mean | | 3969 | 3156 | 5396 | 4174 | | 2933 | 2897 | 2915 | | 3430 |
| L.S.D. | | 630 | 526 | 317 | 466 | | 502 | 534 | 528 | | 265 |
| C.V. | | 9.7 | 10.2 | 3.6 | 7.5 | | 10.5 | 11.3 | 10.9 | | 10.7 |

TABLE 21. SUMMARY OF AGRONOMIC AND YIELD DATA FOR THE 26 ENTRIES IN THE 1981 HYBRID PERFORMANCE NURSERY.

| C.I. OR SEL. NO. | ENTRY NO. | DAYS TO HEADING FROM 1/1 | PLANT HEIGHT CM | LODGING % | SHATTER % | LEAF RUST SEV. % | LEAF RUST RESP. 1-9; | MILDEW 0-9 | VOLUME WEIGHT KG/HL | YIELD KG/HA |
|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER OF TRIALS | | 9 | 10 | 1 | 1 | 1 | 1 | 1 | 11 | 11 |
| RH801834 | 13 | 122 | 92 | 55 | 0 | 60 | 8 | 8 | 77.3 | 3612 |
| RH801624 | 10 | 121 | 89 | 55 | 0 | 30 | 8 | 5 | 77.6 | 3574 |
| RH801824 | 12 | 119 | 88 | 63 | 0 | 40 | 8 | 7 | 77.4 | 3573 |
| RH802542 | 20 | 119 | 86 | 55 | 0 | 20 | 7 | 6 | 77.4 | 3573 |
| RH801924 | 14 | 121 | 87 | 60 | 0 | 30 | 8 | 7 | 77.3 | 3560 |
| RH802244 | 16 | 122 | 92 | 50 | 1 | 40 | 8 | 7 | 77.2 | 3539 |
| RH801634 | 11 | 122 | 88 | 40 | 1 | 30 | 8 | 5 | 77.1 | 3523 |
| RH801213 | 7 | 120 | 90 | 50 | 0 | 10 | 7 | 7 | 77.9 | 3518 |
| RH802341 | 17 | 119 | 83 | 68 | 0 | 20 | 8 | 7 | 77.5 | 3517 |
| RH803577 | 28 | 122 | 91 | 50 | 0 | 5 | 2 | 8 | 76.9 | 3515 |
| RH802644 | 22 | 123 | 88 | 40 | 1 | 60 | 8 | 6 | 76.4 | 3507 |
| RH790410 | 5 | 119 | 86 | 55 | 0 | 40 | 8 | 7 | 77.5 | 3506 |
| RH801324 | 8 | 119 | 82 | 45 | 0 | 30 | 8 | 7 | 77.2 | 3506 |
| RH802844 | 24 | 123 | 93 | 33 | 2 | 30 | 8 | 7 | 77.3 | 3490 |
| RH802242 | 15 | 119 | 89 | 65 | 0 | 30 | 8 | 7 | 77.5 | 3478 |
| RH802642 | 21 | 120 | 85 | 50 | 0 | 60 | 8 | 7 | 76.8 | 3437 |
| RH802344 | 18 | 122 | 88 | 35 | 1 | 30 | 8 | 7 | 76.6 | 3404 |
| RH803144 | 26 | 123 | 91 | 50 | 1 | 60 | 9 | 7 | 77.6 | 3403 |
| RH802442 | 19 | 119 | 90 | 68 | 0 | 50 | 8 | 7 | 77.6 | 3402 |
| RH802744 | 23 | 123 | 91 | 35 | 2 | 60 | 9 | 6 | 76.7 | 3368 |
| RH803042 | 25 | 120 | 90 | 50 | 0 | 20 | 3 | 8 | 77.4 | 3359 |
| RH803573 | 27 | 123 | 93 | 45 | 0 | 5 | 3 | 7 | 77 | 3356 |
| RH801534 | 9 | 122 | 87 | 45 | 1 | 60 | 9 | 7 | 77 | 3327 |
| RH791928 | 6 | 120 | 82 | 63 | 0 | 60 | 8 | 7 | 76.5 | 3326 |
| 17715 | 1 | 122 | 82 | 35 | 1 | 60 | 8 | 6 | 76.4 | 3265 |
| 17277 | 3 | 124 | 94 | 48 | 2 | 0 | . | 7 | 76.2 | 3222 |
| HRW9010 | 4 | 120 | 77 | 33 | 0 | 30 | 8 | 7 | 77.7 | 3111 |
| 15075 | 2 | 123 | 90 | 50 | 2 | 10 | 7 | 3 | 76.1 | 3060 |

Table 22. Mean yield, regression coefficient, correlation coefficient, and coefficient of determination from linear regression analysis of variety mean yield on nursery mean yield for the 28 entries in the 1981 Hybrid Nursery.

| ENTRY NO. | C.I. OR SEL. NO. | MEAN YIELD: OVER 11 LOCATIONS (kg/ha) | REGRESSION COEFFICIENT ($b_{y \cdot x}$) | CORRELATION COEFFICIENT (r) | COEFFICIENT OF DETERMINATION ($r^2$) |
|---|---|---|---|---|---|
| 13 | RH801834 | 3612 | .98 | .97 | .94 |
| 10 | RH801624 | 3574 | .80 | .95 | .89 |
| 12 | RH801824 | 3573 | .95 | .98 | .96 |
| 20 | RH802542 | 3573 | 1.01 | .96 | .92 |
| 14 | RH801924 | 3560 | .88 | .96 | .92 |
| 16 | RH802244 | 3539 | 1.00 | .94 | .88 |
| 11 | RH801634 | 3523 | 1.07 | .98 | .95 |
| 7 | RH801213 | 3518 | 1.12 | .98 | .95 |
| 17 | RH802341 | 3517 | 1.04 | .97 | .94 |
| 28 | RH803577 | 3515 | 1.13 | .94 | .88 |
| 22 | RH802644 | 3507 | 1.17 | .96 | .93 |
| 8 | RH801324 | 3506 | 1.03 | .93 | .88 |
| 5 | RH790410 | 3506 | 1.01 | .90 | .80 |
| 24 | RH802844 | 3490 | 1.03 | .99 | .97 |
| 15 | RH802242 | 3478 | .84 | .98 | .96 |
| 21 | RH802642 | 3437 | .83 | .98 | .96 |
| 18 | RH802344 | 3404 | 1.09 | .96 | .92 |
| 26 | RH803144 | 3403 | .97 | .98 | .95 |
| 19 | RH802442 | 3402 | .81 | .96 | .92 |
| 23 | RH802744 | 3368 | 1.02 | .99 | .97 |
| 25 | RH803042 | 3359 | .87 | .97 | .94 |
| 27 | RH803573 | 3356 | 1.04 | .98 | .97 |
| 9 | RH801534 | 3327 | 1.04 | .92 | .84 |
| 6 | RH791928 | 3326 | .99 | .92 | .85 |
| 1 | 17715 | 3265 | 1.18 | .95 | .91 |
| 3 | 17277 | 3222 | 1.02 | .96 | .93 |
| 4 | HRW9010 | 3111 | 1.29 | .98 | .96 |
| 2 | 15075 | 3060 | .80 | .90 | .82 |

## QUALITY DATA

Composites of 1-lb. samples of each SRPN and NRPN entry from each harvested site are evaluated at the Hard Red Winter Wheat Quality Laboratory at Manhattan, Kansas. Results are reported to cooperators by K. F. Finney.

## UNIFORM WINTERHARDINESS NURSERY

The nursery is comprised of Southern and Northern Materials Sections. The Southern Section contained 265 entries and the Northern Section 248 entries in 1981. Nursery lists and survival data from test sites at which differential survival occurred appear in the tabulations that follow.

## SOIL-BORNE MOSAIC NURSERY

The nursery was comprised of 112 entries in 1981. Three nursery sites (Urbana, Illinois; Manhattan, Kansas; and Hesston, Kansas) were used in 1981. The nursery list and reaction data are reported.

1981
Uniform Winterhardiness Nursery
Southern Materials Section

| Entry no. | Variety or Pedigree | C. I. or Sel. No. | Source |
|---|---|---|---|
| 1 | Warrior | 13190 | Check |
| 2 | Newton | 17715 | Kansas |
| 3 | CIMMYT/Sut | KS75210 | " |
| 4 | " | " 78597 | " |
| 5 | " | " 780602 | " |
| 6 | Newton Sel. | " 79205 | " |
| 7 | Pkr 76//CIMMYT/Sut | " 79239 | " |
| 8 | " | " 79249 | " |
| 9 | " | " 80334 | " |
| 10 | Scout 66 | 13996 | Check |
| 11 | Pkr 76//CIMMYT/Sut | KS80336 | Kansas |
| 12 | Ctk//CIMMYT/Sut | " 79257 | " |
| 13 | Trison/4/Cch/2*Tmp//Sut/3/CIMMYT/Sut | " 79498 | " |
| 14 | " | " 79507 | " |
| 15 | " | " 79518 | " |
| 16 | " | " 79529 | " |
| 17 | KS71315//CIMMYT/Sut | " 80340 | " |
| 18 | " | " 80341 | " |
| 19 | " | " 80342 | " |
| 20 | Tascosa | 13023 | Check |
| 21 | KS71315//CIMMYT/Sut | KS80343 | Kansas |
| 22 | Arthur/Sut Sel. | " 79467 | " |
| 23 | " | " 79474 | " |
| 24 | " | " 79478 | " |
| 25 | " | " 79483 | " |
| 26 | Newton/TAM W-101 | " 79350 | " |
| 27 | " | " 79356 | " |
| 28 | Newton/Wings | " 79362 | " |
| 29 | " | " 79364 | " |
| 30 | Warrior | 13190 | Check |
| 31 | Newton/Wings | KS79371 | Kansas |
| 32 | " | " 79372 | " |
| 33 | " | " 79379 | " |
| 34 | " | " 79387 | " |
| 35 | " | " 79388 | " |
| 36 | " | " 79391 | " |
| 37 | " | " 79397 | " |
| 38 | Newton/Lindon | " 79410 | " |
| 39 | " | " 79413 | " |
| 40 | Scout 66 | 13996 | Check |
| 41 | Newton/Lindon | KS79417 | Kansas |
| 42 | " | " 79427 | " |
| 43 | " | " 79428 | " |
| 44 | " | " 79431 | " |
| 45 | " | " 79439 | " |
| 46 | " | " 79441 | " |
| 47 | " | " 79444 | " |
| 48 | " | " 79446 | " |

1981 UWHN (Southern Materials Section) continued:

| Entry no. | Variety or Pedigree | C. I. or Sel. No. | Source |
|---|---|---|---|
| 49 | KS73148/Plainsman V | KS79279 | Kansas |
| 50 | Tascosa | 13023 | Check |
| 51 | KS73148/Plainsman V | KS79283 | Kansas |
| 52 | " | " 79289 | " |
| 53 | KS73159/Plainsman V | " 79298 | " |
| 54 | Plainsman V/KS73159 | " 79301 | " |
| 55 | Plainsman V/KS73253 | " 80248 | " |
| 56 | " | " 80251 | " |
| 57 | Plainsman V/KS73H530 | " 80252 | " |
| 58 | Plainsman V/Lindon | " 80257 | " |
| 59 | " | " 80259 | " |
| 60 | Warrior | 13190 | Check |
| 61 | Newton/3/Sdy//At 50/Kaw | KS80280 | Kansas |
| 62 | " | " 80292 | " |
| 63 | " | " 80293 | " |
| 64 | " | " 80296 | " |
| 65 | " | " 80299 | " |
| 66 | KS73165/3/Sdy//At 50/Kaw | " 80301 | " |
| 67 | Sage/Arthur | " 79H4 | " |
| 68 | " | " 79H10 | " |
| 69 | " | " 79H25 | " |
| 70 | Scout 66 | 13996 | Check |
| 71 | Sage/Arthur | KS79H31 | Kansas |
| 72 | " | " 79H32 | " |
| 73 | 72F30620/Baca | CO786741 | Colorado |
| 74 | " | " 786747 | " |
| 75 | CO702078/CO701631 | " 778766 | " |
| 76 | CO702179/CO701467 | " 779274 | " |
| 77 | CO702269/CO701473 | " 710125 | " |
| 78 | CO702078/CO701631 | " 778785 | " |
| 79 | Sdy/Tmp 64//TAM W-101 | OK77139 | Oklahoma |
| 80 | Tascosa | 13023 | Check |
| 81 | Aurora/TAM W-101 | OK78206 | Oklahoma |
| 82 | " | " 78207 | " |
| 83 | Sdy/Ctk | " 78287 | " |
| 84 | " | " 78296 | " |
| 85 | Ctk/Bez 1 | " 79242 | " |
| 86 | " | " 79245 | " |
| 87 | " | " 79249 | " |
| 88 | Aurora/2*TAM W-101 | " 79256 | " |
| 89 | " | " 79257 | " |
| 90 | Warrior | 13190 | Check |
| 91 | Aurora/2*TAM W-101 | OK79259 | Oklahoma |
| 92 | Bez/Danne//CO725052 | " 79277 | " |
| 93 | " | " 79278 | " |
| 94 | Sdy/Fertodi 293//CO725052 | " 79286 | " |
| 95 | TAM W-101//Ctk/Bez 1 | " 79309 | " |
| 96 | Payne/Amigo Sib | " 80018 | " |
| 97 | " | " 80019 | " |

1981 UWHN (Southern Materials Section) continued:

| Entry no. | Variety or Pedigree | C. I. or Sel. No. | Source |
|---|---|---|---|
| 98 | Ncm/Bez//Sdy/Fertodi 293/3/CO725052 | OK80203 | Oklahoma |
| 99 | " | " 80204 | " |
| 100 | Scout 66 | 13996 | Check |
| 101 | Ncm/Bez//Sdy/Fertodi 293/3/CO725052 | OK80205 | Oklahoma |
| 102 | " | " 80207 | " |
| 103 | " | " 80208 | " |
| 104 | " | " 80209 | " |
| 105 | " | " 80210 | " |
| 106 | " | " 80211 | " |
| 107 | Aurora/CO725052 | " 80213 | " |
| 108 | Payne//Jubilay/Sage | " 80216 | " |
| 109 | Lindon//Payne/Predgornaia | " 80225 | " |
| 110 | Tascosa | 13023 | Check |
| 111 | Aurora/2*TAM W-101 | OK80243 | Oklahoma |
| 112 | Payne//TAM W-101/Amigo | " 80253 | " |
| 113 | " | " 80254 | " |
| 114 | " | " 80256 | " |
| 115 | " | " 80258 | " |
| 116 | " | " 80267 | " |
| 117 | " | " 80268 | " |
| 118 | " | " 80273 | " |
| 119 | " | " 80275 | " |
| 120 | Warrior | 13190 | Check |
| 121 | Vona//TAM W-101/Amigo | OK80277 | Oklahoma |
| 122 | TAM W-106//Payne/Amigo | " 80281 | " |
| 123 | 2*Payne/GB73 | " 80299 | " |
| 124 | II18889/Tpr//CO652643/Baca | NAPB200 | NAPB |
| 125 | Sn/Tpr//Wrr/3/Ctk | " 201 | " |
| 126 | Sn/Tpr//Wrr/3/II18889/Tpr//CO652643 | " 203 | " |
| 127 | " | " 204 | " |
| 128 | II18889/Tpr//CO652643/Baca | " 205 | " |
| 129 | II18889/Tpr//CO652643/Ctk | " 206 | " |
| 130 | Scout 66 | 13996 | Check |
| 131 | Sn/Tpr//Wrr/3/II18889/Tpr//CO652643 | NAPB207 | NAPB |
| 132 | " | " 208 | " |
| 133 | " | " 209 | " |
| 134 | " | " 210 | " |
| 135 | " | " 211 | " |
| 136 | Mara/2*Sut/Sentinel | NE74649 | Nebraska |
| 137 | NE68723/NE68719//Gage Sel. | " 75414 | " |
| 138 | NE69457//Ctk/Gage Sel. | " 75424 | " |
| 139 | NE68446//NE68723/Ctk | " 76404 | " |
| 140 | Tascosa | 13023 | Check |
| 141 | Wrr*5/Agent//Agate Sib | NE76667 | Nebraska |
| 142 | Bez 1/2*Ctk 78 | " 76706 | " |
| 143 | " | " 76707 | " |
| 144 | NE68719/CI13864 | " 77404 | " |
| 145 | Tp//SS/12500//Pn/Cnn//Buckskin//NE69457 | " 77446 | " |

1981 UWHN (Southern Materials Section) continued:

| Entry no. | Variety or Pedigree | C. I. or Sel. No. | Source |
|---|---|---|---|
| 146 | Wrr*5/Agent//Ctk 78 | NE77465 | Nebraska |
| 147 | Wrr*5/Agent//NE68457//Ctk 78 | " 77682 | " |
| 148 | Aiv/Nbr/Bola1//Skorospelka 3//Ctk 78 | " 77696 | " |
| 149 | Sentinel/Ctk | " 78414 | " |
| 150 | Warrior | 13190 | Check |
| 151 | Sentinel/Ctk | NE78415 | Nebraska |
| 152 | " | " 78417 | " |
| 153 | NE68719/Buckskin//NE68719/NB66430 | " 78466 | " |
| 154 | Wrr*5/Agent//Aurora/3/Ctk 78 | " 78488 | " |
| 155 | Wrr*5/Agent//Ctk 78 | " 78659 | " |
| 156 | (Wrr*5/Agent)*2/Kavkaz | " 78668 | " |
| 157 | NE69412/Ctk 78 | " 78676 | " |
| 158 | Agate Sib/TX65A1503-1 | " 78696 | " |
| 159 | " | " 78697 | " |
| 160 | Scout 66 | 13996 | Check |
| 161 | Agate Sib/TX65A1503-1 | NE78698 | Nebraska |
| 162 | " | " 78702 | " |
| 163 | NE69581/Buckskin | " 78798 | " |
| 164 | Wrr/Minn III-54-12//NE69559 | " 78868 | " |
| 165 | II21031/Tpr//CO652363 | CO701733 | " |
| 166 | Lancota Sel. | NE78892 | " |
| 167 | " | " 78911 | " |
| 168 | Lancota | 17389 | " |
| 169 | Lancota Sel. | " 78925 | " |
| 170 | Tascosa | 13023 | Check |
| 171 | NE69412/NE68723//Ctk 78 | NE79424 | Nebraska |
| 172 | Lca/Wrr*5/Agent//NE69412 | " 79452 | " |
| 173 | NE66497/NE70502//NE69412/Buckskin | " 79464 | " |
| 174 | NE68457/NE66497//Agate Sib//Ftn/ Cnn/Lcr | " 79473 | " |
| 175 | Homestead/BBII//HiPlains/Predgornia | " 79484 | " |
| 176 | Lovrin 13/2*HiPlains | " 79495 | " |
| 177 | Sh.Wh/Sut//Sentinel | " 79507 | " |
| 178 | Lovrin 13/Ctk 78//NE68463 | " 79509 | " |
| 179 | Buckskin//Guide/Scoutland | " 79512 | " |
| 180 | Warrior | 13190 | Check |
| 181 | NE68463/Sage | NE79517 | Nebraska |
| 182 | Eagle//391-56-D8/Kaw | " 79524 | " |
| 183 | " | " 79525 | " |
| 184 | Burgas 2/HiPlains | " 79527 | " |
| 185 | Ftn/Cnn//Lcr//NE70510 | " 79536 | " |
| 186 | Sage/Agate Sib | " 79546 | " |
| 187 | Sage/3/Fertodi/Lcr//Homestead | " 79548 | " |
| 188 | " | " 79553 | " |
| 189 | " | " 79554 | " |
| 190 | Scout 66 | 13996 | Check |

1981 UWHN (Southern Materials Section) continued:

| Entry no. | Variety or Pedigree | C. I. or Sel. No. | Source |
|---|---|---|---|
| 191 | Sage/3/Sh.Wh/Sut//HiPlains | NE79559 | Nebraska |
| 192 | " | " 79561 | " |
| 193 | Fertodi/Lcr//Sage | " 79562 | " |
| 194 | Ftn/Mi/Hope//Pn/2*Cnn//Pnc/3*Cnn// Capitan | " 79569 | " |
| 195 | NE69613/HiPlains | " 79581 | " |
| 196 | Buckskin/NE73835 | " 79589 | " |
| 197 | Sh.Wh/Sut//Sentinel | " 80409 | " |
| 198 | Lovrin 13/Ctk 78//NE68463 | " 80411 | " |
| 199 | " | " 80412 | " |
| 200 | Tascosa | 13023 | Check |
| 201 | Lovrin 13/2*Ctk 78 | NE80413 | Nebraska |
| 202 | Homestead/Sage | " 80416 | " |
| 203 | Sh.Wh/Sut/NE68463 | " 80424 | " |
| 204 | Sage/3/Fertodi/Lcr//Homestead | " 80426 | " |
| 205 | Fertodi/Lcr//Sage | " 80428 | " |
| 206 | NE69613/Sage | " 80431 | " |
| 207 | Ctk 78/Krasnodarskaya 39 | " 80433 | " |
| 208 | Buckskin/Bennett Sib | " 80434 | " |
| 209 | Tp/Bsn/Cns#2/Ae/Pn/Ko//391-56-D1-8/ Tsc//NE68463 | " 80435 | " |
| 210 | Warrior | 13190 | Check |
| 211 | Homestead/Predgornia//Homestead// Fertodi/Lcr | NE80444 | Nebraska |
| 212 | " | " 80445 | " |
| 213 | Sh.Wh/Sut//Sentinel | " 80447 | " |
| 214 | NE68463/Sage | " 80456 | " |
| 215 | Sage/Agate Sib | " 80457 | " |
| 216 | NE75414 Sel. | " 80466 | " |
| 217 | Capitan/Riebesel//Trader, Sel. | " 80467 | " |
| 218 | Dwf Bez/Lancota | " 80471 | " |
| 219 | " | " 80472 | " |
| 220 | Scout 66 | 13996 | Check |
| 221 | At 66/Cmn/2/NE68709//Zg1480-69 | NE80473 | Nebraska |
| 222 | " | " 80474 | " |
| 223 | NE69559/Dacia | " 80475 | " |
| 224 | NE69559/NE701134 | " 80476 | " |
| 225 | " | " 80477 | " |
| 226 | " | " 80478 | " |
| 227 | Aurora/NE701154 | " 80486 | " |
| 228 | NE69752//TX2607-6/Bez 1 | " 80489 | " |
| 229 | MV69-05//NE69753/Homestead | " 80492 | " |
| 230 | Tascosa | 13023 | Check |
| 231 | MV69-05//NE69753/Homestead | NE80493 | Nebraska |
| 232 | Soviet Wheat Composite | " 80496 | " |
| 233 | Ctk 78//Oro/Skorospelka 3//NB66497 | " 80507 | " |
| 234 | Homestead//Fertodi/Lcr | " 80511 | " |
| 235 | Homestead/3/At 66/Wi//Lcr | " 80516 | " |

1981 UWHN (Southern Materials Section) concluded:

| Entry no. | Variety or Pedigree | C. I. or Sel. No. | Source |
|---|---|---|---|
| 236 | Homestead/Agate Sib | NE80518 | Nebraska |
| 237 | " | " 80519 | " |
| 238 | Wrr/Minn III-54-12//NE69559 | " 80527 | " |
| 239 | Purple Seed Bulk | " 80529 | " |
| 240 | Warrior | 13190 | Check |
| 241 | Purple Seed Bulk | NE80532 | Nebraska |
| 242 | Fav/5/Cirpiz/4/Jang Kwang//At 66/ Cmn/3/Velvet | 7060 | " |
| 243 | CI13449/Centurk | -- | " |
| 244 | NB68719//Nap Hal/CI13449 | 79Y95097 | " |
| 245 | Kharkof | 1442 | SRPN |
| 246 | Sage | 17277 | " |
| 247 | Sage/Arthur | KS79H70 | " |
| 248 | " | " 79H69 | " |
| 249 | TAM W-101/Amigo | OK78002 | " |
| 250 | Scout 66 | 13996 | Check |
| 251 | Payne/Amigo | OK78047 | SRPN |
| 252 | Ey Sdy/Ncm | " 754615A | " |
| 253 | Payne//TAM W-101/Amigo | " 80099 | " |
| 254 | Osage Sib/Ey Sdy | " 77198 | " |
| 255 | Sdy Sib/Tascosa//Ctk | TX71A889 | " |
| 256 | 69A509-2//BlueBoy II/Fox | " 78V2154 | " |
| 257 | 62A2712-6//Agent/Tcs | " 73V3562 | " |
| 258 | TAM W-103/KS73167 | " 79A2729 | " |
| 259 | 65A1664/Centurk | " 73V862 | " |
| 260 | Tascosa | 13023 | Check |
| 261 | 62A2522-1/Centurk | TX73V1241 | SRPN |
| 262 | Ctk/Tac/3/Sut*5/Ag//Sdy | NK77W4036 | " |
| 263 | Stt/BVPU//Mtr/NB68639 | " 77W4430 | " |
| 264 | Sage Outcross (L. Schraeder) | LS No. 3 | " |
| 265 | Warrior | 13190 | Check |

Survival (%) of the 265 entries in the 1981 Uniform Winterhardiness Nursery (Southern Materials Section) grown at Casselton, North Dakota.

| Entry No. | Rep I | Rep II | Entry No. | Rep I | Rep II | Entry No. | Rep I | Rep II |
|---|---|---|---|---|---|---|---|---|
| 1 | 80 | 75 | 51 | 65 | 60 | 101 | 75 | 70 |
| 2 | 70 | 70 | 52 | 75 | 60 | 102 | 80 | 75 |
| 3 | 70 | 70 | 53 | 75 | 55 | 103 | 80 | 70 |
| 4 | 70 | 70 | 54 | 70 | 50 | 104 | 65 | 50 |
| 5 | 70 | 80 | 55 | 70 | 55 | 105 | 60 | 70 |
| 6 | 65 | 60 | 56 | 65 | 70 | 106 | 60 | 70 |
| 7 | 65 | 60 | 57 | 70 | 70 | 107 | 60 | 65 |
| 8 | 65 | 50 | 58 | 70 | 75 | 108 | 75 | 50 |
| 9 | 75 | 65 | 59 | 60 | 75 | 109 | 70 | 60 |
| 10 | 70 | 50 | 60 | 65 | 70 | 110 | 70 | 60 |
| 11 | 70 | 68 | 61 | 60 | 70 | 111 | 70 | 60 |
| 12 | 75 | 75 | 62 | 60 | 60 | 112 | 70 | 60 |
| 13 | 75 | 75 | 63 | 60 | 75 | 113 | 65 | 70 |
| 14 | 70 | 70 | 64 | 60 | 70 | 114 | 70 | 65 |
| 15 | 70 | 70 | 65 | 70 | 50 | 115 | 70 | 60 |
| 16 | 70 | 70 | 66 | 80 | 60 | 116 | 70 | 60 |
| 17 | 70 | 65 | 67 | 75 | 60 | 117 | 80 | 70 |
| 18 | 80 | 70 | 68 | 70 | 70 | 118 | 70 | 70 |
| 19 | 80 | 75 | 69 | 70 | 70 | 119 | 70 | 70 |
| 20 | 60 | 70 | 70 | 75 | 65 | 120 | 75 | 75 |
| 21 | 65 | 75 | 71 | 70 | 70 | 121 | 75 | 60 |
| 22 | 70 | 70 | 72 | 70 | 40 | 122 | 75 | 60 |
| 23 | 75 | 70 | 73 | 75 | 40 | 123 | 75 | 60 |
| 24 | 70 | 70 | 74 | 70 | 50 | 124 | 70 | 70 |
| 25 | 70 | 65 | 75 | 80 | 75 | 125 | 70 | 70 |
| 26 | 75 | 65 | 76 | 60 | 50 | 126 | 70 | 65 |
| 27 | 60 | 60 | 77 | 65 | 50 | 127 | 80 | 50 |
| 28 | 60 | 65 | 78 | 80 | 80 | 128 | 85 | 60 |
| 29 | 60 | 70 | 79 | 80 | 80 | 129 | 75 | 60 |
| 30 | 65 | 65 | 80 | 65 | 80 | 130 | 75 | 70 |
| 31 | 60 | 50 | 81 | 70 | 75 | 131 | 70 | 70 |
| 32 | 50 | 60 | 82 | 70 | 70 | 132 | 70 | 60 |
| 33 | 50 | 60 | 83 | 70 | 75 | 133 | 80 | 65 |
| 34 | 50 | 40 | 84 | 70 | 70 | 134 | 80 | 65 |
| 35 | 55 | 50 | 85 | 80 | 65 | 135 | 80 | 70 |
| 36 | 60 | 40 | 86 | 85 | 75 | 136 | 85 | 60 |
| 37 | 60 | 60 | 87 | 75 | 70 | 137 | 85 | 60 |
| 38 | 40 | 55 | 88 | 70 | 70 | 138 | 85 | 70 |
| 39 | 50 | 40 | 89 | 70 | 80 | 139 | 75 | 70 |
| 40 | 60 | 50 | 90 | 70 | 80 | 140 | 60 | 70 |
| 41 | 60 | 50 | 91 | 70 | 75 | 141 | 80 | 75 |
| 42 | 60 | 70 | 92 | 70 | 75 | 142 | 80 | 75 |
| 43 | 75 | 65 | 93 | 70 | 75 | 143 | 80 | 75 |
| 44 | 70 | 75 | 94 | 65 | 70 | 144 | 80 | 80 |
| 45 | 70 | 70 | 95 | 50 | 70 | 145 | 75 | 60 |
| 46 | 75 | 70 | 96 | 60 | 60 | 146 | 80 | 75 |
| 47 | 70 | 70 | 97 | 70 | 60 | 147 | 80 | 80 |
| 48 | 65 | 60 | 98 | 70 | 75 | 148 | 75 | 60 |
| 49 | 70 | 60 | 99 | 70 | 75 | 149 | 75 | 60 |
| 50 | 70 | 65 | 100 | 75 | 75 | 150 | 80 | 65 |

Survival (%) of the 265 entries in the 1981 Uniform Winterhardiness Nursery (Southern Materials Section) grown at Casselton, North Dakota (continued).

| Entry No. | Rep I | Rep II | Entry No. | Rep I | Rep II | Entry No. | Rep I | Rep II |
|---|---|---|---|---|---|---|---|---|
| 151 | 80 | 60 | 201 | 60 | 75 | 251 | 60 | 60 |
| 152 | 65 | 60 | 202 | 65 | 75 | 252 | 70 | 60 |
| 153 | 70 | 70 | 203 | 60 | 70 | 253 | 70 | 65 |
| 154 | 70 | 70 | 204 | 60 | 70 | 254 | 75 | 30 |
| 155 | 70 | 70 | 205 | 60 | 70 | 255 | 75 | 60 |
| 156 | 80 | 70 | 206 | 70 | 70 | 256 | 70 | 40 |
| 157 | 80 | 75 | 207 | 70 | 70 | 257 | 65 | 60 |
| 158 | 80 | 65 | 208 | 75 | 65 | 258 | 65 | 60 |
| 159 | 80 | 65 | 209 | 70 | 70 | 259 | 65 | 60 |
| 160 | 75 | 75 | 210 | 60 | 65 | 260 | 60 | 70 |
| 161 | 80 | 75 | 211 | 60 | 60 | 261 | 60 | 70 |
| 162 | 80 | 70 | 212 | 50 | 60 | 262 | 70 | 60 |
| 163 | 80 | 75 | 213 | 60 | 50 | 263 | 70 | 60 |
| 164 | 80 | 70 | 214 | 60 | 60 | 264 | 65 | 60 |
| 165 | 85 | 75 | 215 | 65 | 60 | 265 | 70 | 75 |
| 166 | 80 | 75 | 216 | 60 | 60 | | | |
| 167 | 80 | 75 | 217 | 70 | 50 | | | |
| 168 | 75 | 70 | 218 | 70 | 50 | | | |
| 169 | 75 | 80 | 219 | 70 | 50 | | | |
| 170 | 75 | 75 | 220 | 65 | 60 | | | |
| 171 | 70 | 75 | 221 | 65 | 65 | | | |
| 172 | 70 | 70 | 222 | 65 | 60 | | | |
| 173 | 75 | 75 | 223 | 65 | 75 | | | |
| 174 | 75 | 80 | 224 | 60 | 70 | | | |
| 175 | 80 | 70 | 225 | 60 | 55 | | | |
| 176 | 75 | 75 | 226 | 65 | 50 | | | |
| 177 | 85 | 75 | 227 | 70 | 70 | | | |
| 178 | 80 | 75 | 228 | 70 | 65 | | | |
| 179 | 80 | 80 | 229 | 65 | 50 | | | |
| 180 | 80 | 80 | 230 | 65 | 50 | | | |
| 181 | 75 | 75 | 231 | 70 | 60 | | | |
| 182 | 75 | 65 | 232 | 75 | 60 | | | |
| 183 | 80 | 65 | 233 | 75 | 60 | | | |
| 184 | 80 | 70 | 234 | 75 | 50 | | | |
| 185 | 80 | 80 | 235 | 70 | 40 | | | |
| 186 | 75 | 70 | 236 | 70 | 75 | | | |
| 187 | 75 | 65 | 237 | 70 | 75 | | | |
| 188 | 75 | 70 | 238 | 50 | 70 | | | |
| 189 | 70 | 70 | 239 | 40 | 70 | | | |
| 190 | 60 | 70 | 240 | 50 | 70 | | | |
| 191 | 75 | 70 | 241 | 60 | 70 | | | |
| 192 | 75 | 70 | 242 | 20 | 50 | | | |
| 193 | 60 | 75 | 243 | 40 | 40 | | | |
| 194 | 60 | 70 | 244 | 20 | 40 | | | |
| 195 | 75 | 65 | 245 | 75 | 60 | | | |
| 196 | 75 | 65 | 246 | 60 | 55 | | | |
| 197 | 70 | 70 | 247 | 60 | 50 | | | |
| 198 | 80 | 75 | 248 | 60 | 50 | | | |
| 199 | 75 | 75 | 249 | 60 | 40 | | | |
| 200 | 60 | 75 | 250 | 70 | 60 | | | |

1981
Uniform Winterhardiness Nursery
Northern Materials Section

| Entry no. | Variety or Pedigree | C. I. or Sel. No. | Source |
|---|---|---|---|
| 1 | Froid | 14486 | Check |
| 2 | SS/12500//RCh/Pn/3/NE63243/61528/64323 | SD715-10 | So.Dak. |
| 3 | SS/D8/Wmt/4/Hume/3/NE63265 | " 7279 | " |
| 4 | Wnk//Rogue 66/TX65A1304 | " 72311 | " |
| 5 | SS/D8/Wmt//SD6689 | " 73160 | " |
| 6 | Scout Sel./NE66403 | " 73177 | " |
| 7 | Centurk/Hand | " 74183-3 | " |
| 8 | " | " 74184-2 | " |
| 9 | Centurk*2/Hand | " 74209 | " |
| 10 | Winoka | 14000 | Check |
| 11 | Centurk*2/Hand | SD74213 | So.Dak. |
| 12 | " | " 74213-2 | " |
| 13 | " | " 74216-6 | " |
| 14 | " | " 74217-1 | " |
| 15 | " | " 74217-4 | " |
| 16 | " | " 74219 | " |
| 17 | " | " 74220 | " |
| 18 | " | " 74221 | " |
| 19 | Centurk | 15075 | " |
| 20 | Warrior | 13190 | Check |
| 21 | Hand | 17288 | So.Dak. |
| 22 | Centurk*4/Hand | SD75108-2 | " |
| 23 | " | " 75115-3 | " |
| 24 | " | " 75125 | " |
| 25 | " | " 75125-1 | " |
| 26 | Centurk*2/Hand | " 75238-2 | " |
| 27 | " | " 75244-2 | " |
| 28 | Agt/4*Sut*2//Hand | " 75272-1 | " |
| 29 | " | " 75284 | " |
| 30 | Froid | 14486 | Check |
| 31 | Ctk*3/Hand//Ctk*4/Nap Hal | SD75376 | So.Dak. |
| 32 | P.I.255141-1/3*Ctk | " 75421-1 | " |
| 33 | Sage/Hand | " 76106W | " |
| 34 | C.I.15322//3*Agt/4*Sut | " 76123 | " |
| 35 | " | " 76125 | " |
| 36 | " | " 76142 | " |
| 37 | " | " 76169 | " |
| 38 | " | " 76177 | " |
| 39 | C.I.15092/speltoides//wheat/3/5*Ctk | " 76189 | " |
| 40 | Winoka | 14000 | Check |
| 41 | C.I.15322//3*Agt/4*Sut | SD76194 | So.Dak. |
| 42 | Lancota//Centurk*4/Nap Hal | " 76308 | " |
| 43 | C.I.15322//Agt/4*Sut/3/Ctk*4/Nap Hal | " 76367 | " |
| 44 | " | " 76369 | " |

1981 UWHN (Northern Materials Section) continued:

| Entry no. | Variety or Pedigree | C. I. or Sel. No. | Source |
|---|---|---|---|
| 45 | C.I.15322//3*Agt/4*Sut | SD76463 | So.Dak. |
| 46 | C.I.15322//Agt/4*Sut/3/SD713-11 | " 76501 | " |
| 47 | " | " 76521 | " |
| 48 | C.I.15322//Agt/4*Sut/3/Ctk | " 76569 | " |
| 49 | " | " 76589 | " |
| 50 | Warrior | 13190 | Check |
| 51 | C.I.15322//Agt/4*Sut/3/Ctk | " 76596 | So.Dak. |
| 52 | " | " 76598 | " |
| 53 | " | " 76602 | " |
| 54 | Scoutland*4/3/Ctk//Crim/WSMV-immune Triticale | " 76667 | " |
| 55 | Centurk*5/Hand | " 76694 | " |
| 56 | " | " 76705 | " |
| 57 | " | " 76706 | " |
| 58 | " | " 76708 | " |
| 59 | " | " 76709 | " |
| 60 | Froid | 14486 | Check |
| 61 | II18889/TP//2643/3/Ctk | CO429784 | So.Dak. |
| 62 | II21031/Tpr//CO652363, C.I.17801 | " 701733 | " |
| 63 | CO673410/CO695427 | " 745094 | " |
| 64 | CO695552/Ctk | " 745597 | " |
| 65 | " | " 745622 | " |
| 66 | " | " 745649 | " |
| 67 | " | " 745656 | " |
| 68 | CO695713/Ctk | " 745984 | " |
| 69 | CO695388/Ctk | " 746086 | " |
| 70 | Winoka | 14000 | Check |
| 71 | Centurk | 15075 | So.Dak. |
| 72 | Buckskin | 17263 | " |
| 73 | Ctk/Hand | SD74183-3-8 | " |
| 74 | " | " 74183-3-11 | " |
| 75 | Ctk*4/Hand | " 75124-1 | " |
| 76 | Scoutland*4/3/Ctk//Crim/Triticale | " 75215-1 | " |
| 77 | Ctk*3/Hand//Ctk*4/Nap Hal | " 75376-1 | " |
| 78 | Ctk*4/Hand | " 75123-1 | " |
| 79 | Ctk*4/Nap Hal//Ctk*3/Hand | " 76203-4 | " |
| 80 | Warrior | 13190 | Check |
| 81 | Ctk*4/Nap Hal//Ctk*3/Hand | SD76218-12 | So.Dak. |
| 82 | C.I.15322//Agt/4*Sut/3/SD713-11 | " 76499 | " |
| 83 | " | " 76499-1 | |
| 84 | C.I.15092/speltoides//Fletcher/3/5*Ctk (C.I.17882) | SD75Transl.B | " |
| 85 | " (C.I.17883) | SD76Transl.C | " |
| 86 | " (C.I.17884) | SD77Transl.D | " |
| 87 | " (C.I.17886) | SD78Transl.G | " |
| 88 | Lancer | 13547 | " |

1981 UWHN (Northern Materials Section) continued:

| Entry no. | Variety or Pedigree | C. I. or Sel. No. | Source |
|---|---|---|---|
| 89 | Sage/SD75314 | SD791034 | So.Dak. |
| 90 | Froid | 14486 | Check |
| 91 | Sage/SD75314 | SD791036 | So.Dak. |
| 92 | " | " 791041 | " |
| 93 | " | " 791042 | " |
| 94 | " | " 791043 | " |
| 95 | " | " 791048 | " |
| 96 | " | " 791049 | " |
| 97 | " | " 791050 | " |
| 98 | " | " 791051 | " |
| 99 | " | " 791052 | " |
| 100 | Winoka | 14000 | Check |
| 101 | Sage/SD75314 | SD791053 | So.Dak. |
| 102 | Sage/Hand//Bennett | " 791054 | " |
| 103 | Ctk/2*Hand | " 74209-10 | " |
| 104 | " | " 74224-3 | " |
| 105 | Sage/Hand//Bennett | " 791329 | " |
| 106 | " | " 791058 | " |
| 107 | " | " 791091 | " |
| 108 | SD75375/OK711248-1 | " 791112 | " |
| 109 | Sage/Hand//Bennett | " 791056 | " |
| 110 | Warrior | 13190 | Check |
| 111 | SD75314/Bennett | SD79559 | So.Dak. |
| 112 | " | " 79560 | " |
| 113 | " | " 79562 | " |
| 114 | " | " 79569 | " |
| 115 | Sage/SD75315 | " 79612 | " |
| 116 | " | " 79613 | " |
| 117 | SD76560/SD75375 | " 79622 | " |
| 118 | SD75400-1/SD75375 | " 79642 | " |
| 119 | " | " 79643 | " |
| 120 | Froid | 14486 | Check |
| 121 | SD75400-1/3/YTO-117//C18/Ctk | SD79811 | So.Dak. |
| 122 | SD75284/SD75375 | " 79982 | " |
| 123 | Ctk*2/Hand | " 79128 | " |
| 124 | " | " 79129 | " |
| 125 | " | " 79131 | " |
| 126 | Ctk*4/Hand | " 79152 | " |
| 127 | " | " 79159 | " |
| 128 | SD75284/SD75375 | " 79317 | " |
| 129 | " | " 79322 | " |
| 130 | Winoka | 14000 | Check |
| 131 | SD75314/Bennett | SD79529 | So.Dak. |
| 132 | " | " 79530 | " |
| 133 | Eagle/2*Minter | " 79115 | " |
| 134 | " | " 79116 | " |
| 135 | " | " 79117 | " |

1981 UWHN (Northern Materials Section) continued:

| Entry no. | Variety or Pedigree | C. I. or Sel. No. | Source |
|---|---|---|---|
| 136 | Eagle/2*Minter | SD79118 | So.Dak. |
| 137 | " | " 79119 | " |
| 138 | " | " 79120 | " |
| 139 | " | " 79121 | " |
| 140 | Warrior | 13190 | Check |
| 141 | Eagle/2*Minter | SD79122 | So.Dak. |
| 142 | Kharkof | 1442 | NRPN |
| 143 | Roughrider | 17439 | " |
| 144 | NE68723/NE68719//Gage Sel. | NE75414 | " |
| 145 | Wrr*5/Agt//Ctk 78 | " 78465 | " |
| 146 | " | " 78659 | " |
| 147 | Wrr*5/Agt//Agate Sib | " 76667 | " |
| 148 | Sentinel/Centurk | " 78414 | " |
| 149 | " | " 78415 | " |
| 150 | Froid | 14486 | Check |
| 151 | Sn/Tpr//Wrr/3/Ctk | NAPB201 | NRPN |
| 152 | Rego/Cnn//Winalta | MT7428 | " |
| 153 | Froid/Bezostaya | " 77003 | " |
| 154 | C61-9/Winalta//Crest | " 77077 | " |
| 155 | YGSS, Sel. 4662/4*Cnn (white chaff) | " 77062 | " |
| 156 | " (brown chaff) | " 77063 | " |
| 157 | MT6930, Sel. 002 | MT6930-2 | Montana |
| 158 | MT6930, Sel. 009 | " 6930-9 | " |
| 159 | SS632683/6*Cnn | " 80119 | " |
| 160 | Winoka | 14000 | Check |
| 161 | SS632683/6*Cnn | MT80120 | Montana |
| 162 | " | " 80126 | " |
| 163 | " | " 80127 | " |
| 164 | " | " 80133 | " |
| 165 | " | " 80131 | " |
| 166 | " | " 80140 | " |
| 167 | " | " 80141 | " |
| 168 | YG1231/6*Cnn | " 80149 | " |
| 169 | " | " 80153 | " |
| 170 | Warrior | 13190 | Check |
| 171 | YG1231/6*Cnn | MT80146 | Montana |
| 172 | " | " 80150 | " |
| 173 | " | " 80145 | " |
| 174 | " | " 80151 | " |
| 175 | " | " 80156 | " |
| 176 | " | " 80164 | " |
| 177 | " | " 80159 | " |
| 178 | " | " 80163 | " |
| 179 | ID5006/5*Cnn | " 80165 | " |
| 180 | Froid | 14486 | Check |
| 181 | ID5006/5*Cnn | MT80171 | Montana |
| 182 | " | " 80170 | " |
| 183 | " | " 80167 | " |
| 184 | " | " 80174 | " |

1981 UWHN (Northern Materials Section) continued:

| Entry no. | Variety or Pedigree | C. I. or Sel. No. | Source |
|---|---|---|---|
| 185 | ID5006/5*Cnn | MT80177 | Montana |
| 186 | " | " 80184 | " |
| 187 | " | " 80186 | " |
| 188 | " | " 80192 | " |
| 189 | " | " 80193 | " |
| 190 | Winoka | 14000 | Check |
| 191 | ID5006/5*Cnn | MT80190 | Montana |
| 192 | " | " 80191 | " |
| 193 | Cheyenne | 8885 | " |
| 194 | YGSS2458/6*Wn | MT80194 | " |
| 195 | " | " 80199 | " |
| 196 | " | " 80202 | " |
| 197 | " | " 80197 | " |
| 198 | " | " 80198 | " |
| 199 | " | " 80204 | " |
| 200 | Warrior | 13190 | Check |
| 201 | YGSS2458/6*Wn | MT80195 | Montana |
| 202 | " | " 80208 | " |
| 203 | " | " 80211 | " |
| 204 | " | " 80212 | " |
| 205 | Winalta | 13670 | " |
| 206 | YGSS2458/3*YG | MT80214 | " |
| 207 | " | " 80215 | " |
| 208 | " | " 80216 | " |
| 209 | " | " 80219 | " |
| 210 | Froid | 14486 | Check |
| 211 | YGSS2458/3*YG | MT80222 | Montana |
| 212 | " | " 80223 | " |
| 213 | " | " 80224 | " |
| 214 | " | " 80225 | " |
| 215 | " | " 80235 | " |
| 216 | " | " 80228 | " |
| 217 | " | " 80230 | " |
| 218 | " | " 80233 | " |
| 219 | " | " 80229 | " |
| 220 | Winoka | 14000 | Check |
| 221 | YGSS2458/3*YG | MT80232 | Montana |
| 222 | " | " 80239 | " |
| 223 | " | " 80242 | " |
| 224 | " | " 80238 | " |
| 225 | " | " 80240 | " |
| 226 | " | " 80237 | " |
| 227 | Yogo | 8033 | " |
| 228 | Winalta/YGSS | MT7115 | " |
| 229 | " | " 7252 | " |
| 230 | Warrior | 13190 | Check |

1981 UWHN (Northern Materials Section) concluded:

| Entry no. | Variety or Pedigree | C. I. or Sel. No. | Source |
|---|---|---|---|
| 231 | Redwin Sel. | MT80273 | Montana |
| 232 | " | " 80274 | " |
| 233 | " | " 80275 | " |
| 234 | " | " 80276 | " |
| 235 | " | " 80277 | " |
| 236 | " | " 80278 | " |
| 237 | " | " 80279 | " |
| 238 | " | " 80280 | " |
| 239 | YGOSS1231/3*YG | " 80244 | " |
| 240 | Froid | 14486 | Check |
| 241 | YGSS1231/3*YG | MT80250 | Montana |
| 242 | " | " 80256 | " |
| 243 | " | " 80258 | " |
| 244 | " | " 80269 | " |
| 245 | " | " 80271 | " |
| 246 | " | " 80272 | " |
| 247 | " | " 80267 | " |
| 248 | Winoka | 14000 | Check |

Survival Data
Northern Materials Section
1980-81 Uniform Winterhardiness Nursery 1/

| Entry No. | Casselton, ND | | Williston, ND | |
|---|---|---|---|---|
| | Rep I | Rep II | Rep I | Rep II |
| 1 | 95 | 80 | 100 | 40 |
| 2 | 90 | 75 | 50 | 5 |
| 3 | 90 | 80 | 75 | 5 |
| 4 | 85 | 80 | 25 | 0 |
| 5 | 80 | 70 | 80 | 10 |
| 6 | 80 | 80 | 100 | 20 |
| 7 | 90 | 70 | 100 | 80 |
| 8 | 80 | 70 | 90 | 20 |
| 9 | 90 | 70 | 70 | 10 |
| 10 | 90 | 75 | 85 | 20 |
| 11 | 90 | 80 | 70 | 5 |
| 12 | 85 | 60 | 70 | 1 |
| 13 | 90 | 75 | 100 | 10 |
| 14 | 90 | 75 | 20 | 10 |
| 15 | 75 | 75 | 30 | 10 |
| 16 | 70 | 70 | 40 | 30 |
| 17 | 75 | 60 | 90 | 70 |
| 18 | 70 | 70 | 60 | 40 |
| 19 | 75 | 75 | 15 | 50 |
| 20 | 75 | 70 | 30 | 10 |
| 21 | 70 | 50 | 80 | 90 |
| 22 | 75 | 70 | 5 | 70 |
| 23 | 60 | 80 | 0 | 10 |
| 24 | 60 | 70 | 0 | 10 |
| 25 | 40 | 80 | 0 | 5 |
| 26 | 50 | 70 | 0 | 10 |
| 27 | 80 | 50 | 0 | 10 |
| 28 | 80 | 50 | 10 | 60 |
| 29 | 60 | 80 | 15 | 50 |
| 30 | 75 | 70 | 100 | 90 |
| 31 | 70 | 80 | 25 | 15 |
| 32 | 65 | 80 | 30 | 50 |
| 33 | 75 | 50 | 50 | 30 |
| 34 | 75 | 70 | 85 | 60 |
| 35 | 80 | 65 | 60 | 20 |
| 36 | 50 | 30 | 70 | 20 |
| 37 | 70 | 30 | 60 | 10 |
| 38 | 70 | 30 | 30 | 20 |
| 39 | 80 | 45 | 80 | 10 |
| 40 | 80 | 50 | 80 | 40 |
| 41 | 75 | 50 | 60 | 20 |
| 42 | 70 | 40 | 50 | 10 |
| 43 | 80 | 50 | 40 | 40 |
| 44 | 80 | 50 | 60 | 50 |
| 45 | 80 | 50 | 30 | 80 |
| 46 | 80 | 45 | 10 | 70 |
| 47 | 80 | 55 | 10 | 50 |
| 48 | 75 | 50 | 10 | 90 |
| 49 | 75 | 40 | 40 | 10 |
| [illegible] | [illegible] | 50 | 40 | 30 |

1980-81 UWHN (Northern Materials Section) Survival Data (continued)

| Entry No. | Casselton, ND | | Williston, ND | |
|---|---|---|---|---|
| | Rep I | Rep II | Rep I | Rep II |
| 51 | 75 | 60 | 50 | 10 |
| 52 | 80 | 70 | 50 | 10 |
| 53 | 80 | 60 | 80 | 20 |
| 54 | 80 | 50 | 70 | 20 |
| 55 | 75 | 50 | 50 | 0 |
| 56 | 75 | 60 | 50 | 5 |
| 57 | 75 | 40 | 50 | 0 |
| 58 | 75 | 60 | 30 | 0 |
| 59 | 80 | 60 | 40 | 0 |
| 60 | 80 | 70 | 100 | 100 |
| 61 | 75 | 50 | 10 | 30 |
| 62 | 75 | 55 | 0 | 0 |
| 63 | 80 | 60 | 80 | 20 |
| 64 | 80 | 70 | 100 | 20 |
| 65 | 60 | 80 | 50 | 5 |
| 66 | 60 | 85 | 90 | 20 |
| 67 | 60 | 80 | 60 | 5 |
| 68 | 50 | 70 | 60 | 5 |
| 69 | 40 | 60 | 60 | 5 |
| 70 | 60 | 75 | 100 | 10 |
| 71 | 40 | 70 | 100 | 5 |
| 72 | 70 | 50 | 100 | 5 |
| 73 | 70 | 50 | 80 | 0 |
| 74 | 70 | 70 | 90 | 10 |
| 75 | 75 | 70 | 70 | 0 |
| 76 | 70 | 40 | 90 | 10 |
| 77 | 70 | 40 | 90 | 5 |
| 78 | 70 | 40 | 25 | 1 |
| 79 | 70 | 60 | 15 | 1 |
| 80 | 70 | 60 | 40 | 10 |
| 81 | 80 | 45 | 40 | 15 |
| 82 | 85 | 55 | 30 | 10 |
| 83 | 80 | 45 | 5 | 5 |
| 84 | 60 | 35 | 5 | 0 |
| 85 | 80 | 35 | 5 | 0 |
| 86 | 80 | 25 | 5 | 0 |
| 87 | 75 | 35 | 0 | 0 |
| 88 | 75 | 40 | 10 | 10 |
| 89 | 70 | 80 | 50 | 80 |
| 90 | 70 | 75 | 90 | 90 |
| 91 | 50 | 65 | 70 | 70 |
| 92 | 50 | 65 | 90 | 80 |
| 93 | 50 | 70 | 90 | 80 |
| 94 | 70 | 80 | 80 | 90 |
| 95 | 50 | 70 | 70 | 70 |
| 96 | 70 | 50 | 100 | 90 |
| 97 | 80 | 40 | 100 | 70 |
| 98 | 80 | 45 | 90 | 60 |
| 99 | 80 | 65 | 100 | 50 |
| 100 | 55 | 75 | 90 | 90 |

1980-81 UWHN (Northern Materials Section) Survival Data (continued)

| Entry No. | Casselton, ND | | Williston, ND | |
|---|---|---|---|---|
| | Rep I | Rep II | Rep I | Rep II |
| 101 | 65 | 70 | 100 | 90 |
| 102 | 65 | 70 | 50 | 70 |
| 103 | 50 | 70 | 90 | 70 |
| 104 | 54 | 80 | 100 | 100 |
| 105 | 65 | 65 | 100 | 100 |
| 106 | 65 | 75 | 100 | 80 |
| 107 | 45 | 50 | 70 | 90 |
| 108 | 45 | 70 | 80 | 80 |
| 109 | 30 | 60 | 60 | 90 |
| 110 | 55 | 75 | 20 | 50 |
| 111 | 55 | 60 | 20 | 70 |
| 112 | 55 | 60 | 10 | 50 |
| 113 | 40 | 60 | 10 | 80 |
| 114 | 35 | 50 | 10 | 70 |
| 115 | 20 | 60 | 30 | 50 |
| 116 | 30 | 60 | 30 | 70 |
| 117 | 60 | 60 | 30 | 90 |
| 118 | 60 | 50 | 30 | 20 |
| 119 | 60 | 40 | 10 | 20 |
| 120 | 80 | 70 | 60 | 70 |
| 121 | 50 | 65 | 50 | 40 |
| 122 | 70 | 70 | 0 | 10 |
| 123 | 50 | 65 | 0 | 20 |
| 124 | 60 | 65 | 20 | 40 |
| 125 | 50 | 60 | 60 | 10 |
| 126 | 60 | 60 | 60 | 10 |
| 127 | 65 | 50 | 50 | 5 |
| 128 | 60 | 60 | 50 | 5 |
| 129 | 75 | 60 | 70 | 10 |
| 130 | 75 | 60 | 90 | 20 |
| 131 | 65 | 60 | 90 | 5 |
| 132 | 50 | 40 | 80 | 0 |
| 133 | 70 | 70 | 100 | 80 |
| 134 | 80 | 70 | 100 | 60 |
| 135 | 80 | 70 | 100 | 90 |
| 136 | 80 | 70 | 100 | 70 |
| 137 | 70 | 70 | 100 | 100 |
| 138 | 75 | 70 | 100 | 80 |
| 139 | 65 | 75 | 100 | 40 |
| 140 | 40 | 60 | 60 | 0 |
| 141 | 55 | 60 | 80 | 10 |
| 142 | 60 | 60 | 90 | 10 |
| 143 | 55 | 50 | 90 | 30 |
| 144 | 70 | 70 | 70 | 10 |
| 145 | 70 | 70 | 30 | 10 |
| 146 | 70 | 75 | 60 | 40 |
| 147 | 60 | 70 | 50 | 10 |
| 148 | 65 | 70 | 60 | 10 |
| 149 | 60 | 70 | 50 | 20 |
| 150 | 80 | 75 | 90 | 50 |

1980-81 UWHN (Northern Materials Section) Survival Data (continued)

| Entry No. | Casselton, ND | | Williston, ND | |
|---|---|---|---|---|
| | Rep I | Rep II | Rep I | Rep II |
| 151 | 40 | 70 | 30 | 5 |
| 152 | 50 | 65 | 40 | 10 |
| 153 | 65 | 65 | 40 | 15 |
| 154 | 65 | 50 | 60 | 15 |
| 155 | 60 | 70 | 90 | 10 |
| 156 | 60 | 80 | 80 | 60 |
| 157 | 50 | 80 | 10 | 5 |
| 158 | 40 | 70 | 10 | 10 |
| 159 | 60 | 75 | 5 | 20 |
| 160 | 60 | 70 | 30 | 70 |
| 161 | 55 | 60 | 50 | 20 |
| 162 | 60 | 60 | 30 | 10 |
| 163 | 65 | 60 | 40 | 15 |
| 164 | 70 | 70 | 20 | 20 |
| 165 | 65 | 70 | 10 | 10 |
| 166 | 75 | 65 | 50 | 20 |
| 167 | 70 | 65 | 20 | 30 |
| 168 | 70 | 70 | 60 | 50 |
| 169 | 70 | 70 | 30 | 50 |
| 170 | 75 | 70 | 20 | 50 |
| 171 | 70 | 70 | 10 | 10 |
| 172 | 70 | 60 | 10 | 30 |
| 173 | 60 | 70 | 40 | 20 |
| 174 | 80 | 70 | 40 | 30 |
| 175 | 80 | 75 | 40 | 10 |
| 176 | 75 | 75 | 20 | 5 |
| 177 | 70 | 60 | 20 | 0 |
| 178 | 80 | 50 | 70 | 15 |
| 179 | 70 | 85 | 80 | 40 |
| 180 | 80 | 70 | 90 | 90 |
| 181 | 75 | 70 | 5 | 0 |
| 182 | 70 | 70 | 1 | 10 |
| 183 | 70 | 80 | 0 | 10 |
| 184 | 65 | 80 | 0 | 0 |
| 185 | 65 | 80 | 0 | 0 |
| 186 | 70 | 75 | 0 | 0 |
| 187 | 75 | 75 | 50 | 0 |
| 188 | 75 | 75 | 90 | 5 |
| 189 | 60 | 75 | 80 | 10 |
| 190 | 75 | 75 | 100 | 50 |
| 191 | 75 | 80 | 50 | 10 |
| 192 | 80 | 85 | 50 | 15 |
| 193 | 80 | 80 | 60 | 10 |
| 194 | 60 | 75 | 20 | 0 |
| 195 | 80 | 75 | 80 | 30 |
| 196 | 65 | 70 | 50 | 5 |
| 197 | 65 | 70 | 50 | 20 |
| 198 | 65 | 75 | 90 | 50 |
| 199 | 70 | 70 | 40 | 10 |
| 200 | 65 | 80 | 50 | 5 |

1980-81 UWHN (Northern Materials Section) Survival Data (concluded)

| Entry No. | Casselton, ND | | Williston, ND | |
|---|---|---|---|---|
| | Rep I | Rep II | Rep I | Rep II |
| 201 | 65 | 50 | 70 | 0 |
| 202 | 65 | 55 | 30 | 0 |
| 203 | 70 | 40 | 90 | 30 |
| 204 | 75 | 50 | 60 | 10 |
| 205 | 75 | 70 | 90 | 50 |
| 206 | 70 | 70 | 100 | 50 |
| 207 | 75 | 70 | 100 | 60 |
| 208 | 70 | 65 | 60 | 40 |
| 209 | 75 | 65 | 30 | 10 |
| 210 | 70 | 75 | 90 | 40 |
| 211 | 75 | 70 | 80 | 30 |
| 212 | 65 | 70 | 80 | 50 |
| 213 | 75 | 80 | 70 | 40 |
| 214 | 80 | 60 | 70 | 40 |
| 215 | 85 | 75 | 60 | 50 |
| 216 | 80 | 75 | 70 | 50 |
| 217 | 80 | 75 | 80 | 20 |
| 218 | 80 | 80 | 50 | 0 |
| 219 | 85 | 80 | 60 | 10 |
| 220 | 70 | 75 | 80 | 10 |
| 221 | 65 | 75 | 30 | 50 |
| 222 | 70 | 80 | 70 | 80 |
| 223 | 70 | 80 | 100 | 100 |
| 224 | 70 | 75 | 60 | 60 |
| 225 | 75 | 75 | 100 | 50 |
| 226 | 75 | 75 | 50 | 90 |
| 227 | 70 | 80 | 50 | 20 |
| 228 | 70 | 80 | 50 | 40 |
| 229 | 65 | 70 | 20 | 80 |
| 230 | 70 | 70 | 10 | 30 |
| 231 | 60 | 70 | 40 | 60 |
| 232 | 70 | 70 | 60 | 40 |
| 233 | 40 | 70 | 50 | 10 |
| 234 | 45 | 70 | 30 | 0 |
| 235 | 75 | 75 | 30 | 30 |
| 236 | 65 | 75 | 30 | 20 |
| 237 | 70 | 60 | 20 | 100 |
| 238 | 80 | 60 | 20 | 60 |
| 239 | 80 | 75 | 30 | 90 |
| 240 | 80 | 75 | 90 | 80 |
| 241 | 65 | 60 | 80 | 70 |
| 242 | 65 | 60 | 100 | 100 |
| 243 | 75 | 70 | 80 | 100 |
| 244 | 75 | 70 | 70 | 100 |
| 245 | 75 | 70 | 10 | 100 |
| 246 | 80 | 50 | 10 | 100 |
| 247 | 75 | 50 | 1 | 100 |
| 248 | 65 | 60 | 1 | 30 |

Survival data (%) of the 248 entries in the 1981 Uniform Winter-hardiness Nursery (Northern Materials Section), Winnipeg, Manitoba.

| Entry no. | % | Entry no. | % | Entry no. | % | Entry no. | % | Entry no. | % |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 70 | 51 | 60 | 101 | 90 | 151 | 90 | 201 | 80 |
| 2 | 10 | 52 | 50 | 102 | 90 | 152 | 80 | 202 | 90 |
| 3 | 70 | 53 | 60 | 103 | 90 | 153 | 90 | 203 | 90 |
| 4 | 80 | 54 | 10 | 104 | 90 | 154 | 80 | 204 | 80 |
| 5 | 70 | 55 | 10 | 105 | 90 | 155 | 80 | 205 | 90 |
| 6 | 70 | 56 | 20 | 106 | 90 | 156 | 70 | 206 | 90 |
| 7 | 80 | 57 | 10 | 107 | 80 | 157 | 80 | 207 | 90 |
| 8 | 90 | 58 | 5 | 108 | 80 | 158 | 90 | 208 | 60 |
| 9 | 50 | 59 | 20 | 109 | 90 | 159 | 70 | 209 | 80 |
| 10 | 80 | 60 | 90 | 110 | 90 | 160 | 90 | 210 | 90 |
| 11 | 70 | 61 | 80 | 111 | 80 | 161 | 50 | 211 | 90 |
| 12 | 80 | 62 | 60 | 112 | 70 | 162 | 50 | 212 | 80 |
| 13 | 90 | 63 | 80 | 113 | 90 | 163 | 70 | 213 | 90 |
| 14 | 60 | 64 | 90 | 114 | 60 | 164 | 80 | 214 | 90 |
| 15 | 70 | 65 | 50 | 115 | 50 | 165 | 70 | 215 | 90 |
| 16 | 80 | 66 | 70 | 116 | 60 | 166 | 90 | 216 | 90 |
| 17 | 80 | 67 | 80 | 117 | 80 | 167 | 90 | 217 | 90 |
| 18 | 80 | 68 | 70 | 118 | 90 | 168 | 80 | 218 | 90 |
| 19 | 70 | 69 | 50 | 119 | 80 | 169 | 90 | 219 | 70 |
| 20 | 90 | 70 | 80 | 120 | 90 | 170 | 90 | 220 | 90 |
| 21 | 90 | 71 | 40 | 121 | 90 | 171 | 90 | 221 | 90 |
| 22 | 80 | 72 | 50 | 122 | 70 | 172 | 90 | 222 | 90 |
| 23 | 80 | 73 | 20 | 123 | 70 | 173 | 90 | 223 | 90 |
| 24 | 80 | 74 | 50 | 124 | 70 | 174 | 80 | 224 | 90 |
| 25 | 70 | 75 | 30 | 125 | 80 | 175 | 80 | 225 | 90 |
| 26 | 90 | 76 | 40 | 126 | 60 | 176 | 70 | 226 | 90 |
| 27 | 80 | 77 | 20 | 127 | 40 | 177 | 70 | 227 | 90 |
| 28 | 80 | 78 | 10 | 128 | 60 | 178 | 70 | 228 | 90 |
| 29 | 70 | 79 | 5 | 129 | 70 | 179 | 70 | 229 | 70 |
| 30 | 90 | 80 | 70 | 130 | 80 | 180 | 70 | 230 | 60 |
| 31 | 70 | 81 | 90 | 131 | 70 | 181 | 20 | 231 | 70 |
| 32 | 70 | 82 | 80 | 132 | 70 | 182 | 60 | 232 | 70 |
| 33 | 70 | 83 | 70 | 133 | 90 | 183 | 60 | 233 | 70 |
| 34 | 50 | 84 | 70 | 134 | 90 | 184 | 50 | 234 | 50 |
| 35 | 60 | 85 | 5 | 135 | 90 | 185 | 60 | 235 | 60 |
| 36 | 50 | 86 | 70 | 136 | 90 | 186 | 60 | 236 | 70 |
| 37 | 30 | 87 | 10 | 137 | 90 | 187 | 70 | 237 | 80 |
| 38 | 30 | 88 | 70 | 138 | 90 | 188 | 50 | 238 | 60 |
| 39 | 60 | 89 | 90 | 139 | 90 | 189 | 50 | 239 | 60 |
| 40 | 90 | 90 | 90 | 140 | 80 | 190 | 60 | 240 | 90 |
| 41 | 60 | 91 | 90 | 141 | 90 | 191 | 60 | 241 | 90 |
| 42 | 60 | 92 | 90 | 142 | 90 | 192 | 30 | 242 | 90 |
| 43 | 60 | 93 | 90 | 143 | 90 | 193 | 70 | 243 | 90 |
| 44 | 80 | 94 | 90 | 144 | 70 | 194 | 80 | 244 | 90 |
| 45 | 70 | 95 | 80 | 145 | 70 | 195 | 90 | 245 | 70 |
| 46 | 80 | 96 | 80 | 146 | 90 | 196 | 90 | 246 | 90 |
| 47 | 60 | 97 | 80 | 147 | 80 | 197 | 70 | 247 | 90 |
| 48 | 90 | 98 | 80 | 148 | 90 | 198 | 90 | 248 | 90 |
| 49 | 60 | 99 | 90 | 149 | 90 | 199 | 90 | | |
| 50 | 80 | 100 | 90 | 150 | 80 | 200 | 90 | | |

1981
Soil-Borne Mosaic Nursery

| Entry no. | Variety or Pedigree | C. I. or Sel. No. | Source |
|---|---|---|---|
| 1 | Pawnee | 11669 | Check |
| 2 | Newton | 17715 | Kansas |
| 3 | CIMMYT/Scout | KS75210 | " |
| 4 | " | " 78597 | " |
| 5 | " | " 780602 | " |
| 6 | Newton Sel. | " 79205 | " |
| 7 | Pkr 76//CIMMYT/Scout | " 79239 | " |
| 8 | " | " 79249 | " |
| 9 | " | " 80334 | " |
| 10 | Concho | 12517 | Check |
| 11 | Pkr 76//CIMMYT/Scout | KS80336 | Kansas |
| 12 | Centurk//CIMMYT/Scout | " 79257 | " |
| 13 | Trison/4/Cch/2*Tmp//Scout/3/ CIMMYT/Scout | " 79498 | " |
| 14 | " | " 79507 | " |
| 15 | " | " 79518 | " |
| 16 | " | " 79529 | " |
| 17 | KS71315//CIMMYT/Scout | " 80340 | " |
| 18 | " | " 80341 | " |
| 19 | " | " 80342 | " |
| 20 | Bison | 12518 | Check |
| 21 | KS71315//CIMMYT/Scout | KS80343 | Kansas |
| 22 | Arthur/Scout Sel. | " 79467 | " |
| 23 | " | " 79474 | " |
| 24 | " | " 79478 | " |
| 25 | " | " 79483 | " |
| 26 | Newton/TAM W-101 | " 79350 | " |
| 27 | " | " 79356 | " |
| 28 | Newton/Wings | " 79362 | " |
| 29 | " | " 79364 | " |
| 30 | Pawnee | 11669 | Check |
| 31 | Newton/Wings | KS79371 | Kansas |
| 32 | " | " 79372 | " |
| 33 | " | " 79379 | " |
| 34 | " | " 79387 | " |
| 35 | " | " 79388 | " |
| 36 | " | " 79391 | " |
| 37 | " | " 79397 | " |
| 38 | Newton/Lindon | " 79410 | " |
| 39 | " | " 79413 | " |
| 40 | Concho | 12517 | Check |
| 41 | Newton/Lindon | KS79417 | Kansas |
| 42 | " | " 79427 | " |
| 43 | " | " 79428 | " |
| 44 | " | " 79431 | " |
| 45 | " | " 79439 | " |

1981 Soil-Borne Mosaic Nursery (continued):

| Entry no. | Variety or Pedigree | C. I. or Sel. No. | Source |
|---|---|---|---|
| 46 | Newton/Lindon | KS79441 | Kansas |
| 47 | " | " 79444 | " |
| 48 | " | " 79446 | " |
| 49 | KS73148/Plainsman V | " 79279 | " |
| 50 | Bison | 12518 | Check |
| 51 | KS73148/Plainsman V | KS79283 | Kansas |
| 52 | " | " 79289 | " |
| 53 | KS73159/Plainsman V | " 79298 | " |
| 54 | Plainsman V/KS73159 | " 79301 | " |
| 55 | Plainsman V/KS73253 | " 80248 | " |
| 56 | " | " 80251 | " |
| 57 | Plainsman V/KS73H530 | " 80252 | " |
| 58 | Plainsman V/Lindon | " 80257 | " |
| 59 | " | " 80259 | " |
| 60 | Pawnee | 11669 | Check |
| 61 | Newton/3/Sdy//Atlas 50/Kaw | KS80280 | Kansas |
| 62 | " | " 80292 | " |
| 63 | " | " 80293 | " |
| 64 | " | " 80296 | " |
| 65 | " | " 80299 | " |
| 66 | KS73165/3/Sdy//Atlas 50/Kaw | " 80301 | " |
| 67 | II18889/Tpr//C0652643/3/Baca | NAPB 200 | NAPB |
| 68 | Sn/Tpr//Wrr/3/Ctk | " 201 | " |
| 69 | Sn/Tpr//Wrr/3/II18889/Tpr// C0652643 | " 203 | " |
| 70 | Concho | 12517 | Check |
| 71 | Sn/Tpr//Wrr/3/II18889/Tpr// C0652643 | NAPB 204 | NAPB |
| 72 | II18889/Tpr//C0652643/3/Baca | " 205 | " |
| 73 | II18889/Tpr//C0652643/3/Ctk | " 206 | " |
| 74 | Sn/Tpr//Wrr/3/II18889/Tpr// C0652643 | " 207 | " |
| 75 | " | " 208 | " |
| 76 | " | " 209 | " |
| 77 | " | " 210 | " |
| 78 | " | " 211 | " |
| 79 | NE69457//Ctk/Gage Sel. | NE75424 | Nebraska |
| 80 | Bison | 12518 | Check |
| 81 | NE68446//NE68723/Ctk | NE76404 | Nebraska |
| 82 | Wrr*5/Agent//Agate Sib (NE69441) | " 76667 | " |
| 83 | NE68719/C.I.13864 | " 77404 | " |
| 84 | Wrr*5/Agent//Ctk 78 | " 77465 | " |
| 85 | Wrr*5/Agent//NE68457//Ctk 78 | " 77682 | " |
| 86 | Aiv/Nbr/Bola1//Skorospelka 3//Ctk 78 | " 77696 | " |
| 87 | NE69581/Buckskin | " 78798 | " |
| 88 | Lancota Sel. | " 78892 | " |
| 89 | NE69412/NE68723//Ctk 78 | " 79424 | " |
| 90 | Pawnee | 11669 | Check |

1981 Soil-Borne Mosaic Nursery (concluded):

| Entry no. | Variety or Pedigree | C. I. or Sel. No. | Source |
|---|---|---|---|
| 91 | Lancota/Wrr*5/Agent//NE69412 | NE79452 | Nebraska |
| 92 | NE68457/NE66497//Agate Sib// Ftn/Cnn/Lcr | " 79473 | " |
| 93 | Homestead/BBII//HiPlains/Predgornia | " 79484 | " |
| 94 | Sh. Wh/Sut//Sentinel | " 79507 | " |
| 95 | Lovrin 13/Ctk 78//NE68463 | " 79509 | " |
| 96 | Buckskin//Guide/Scoutland | " 79512 | " |
| 97 | Eagle//391-56-D8/Kaw | " 79524 | " |
| 98 | Burgas 2/HiPlains | " 79527 | " |
| 99 | Ftn/Cnn//Lcr//NE70510 | " 79536 | " |
| 100 | Concho | 12517 | Check |
| 101 | Sage/3/Fertodi/Lcr//Homestead | NE79548 | Nebraska |
| 102 | " | " 79553 | " |
| 103 | " | " 79554 | " |
| 104 | Fertodi/Lcr//Sage | " 79562 | " |
| 105 | Ftn/Mi/Hope//Pn/2*Cnn//Pnc/ 3*Cnn//Capitan | " 79569 | " |
| 106 | NE69613/HiPlains | " 79581 | " |
| 107 | Buckskin/NE73835 | " 79589 | " |
| 108 | Bison | 12518 | Check |
| 109 | TAM W-101 | 15324 | Oklahoma |
| 110 | TAM W-105 | 17826 | " |
| 111 | TAM W-106 | 17827 | " |
| 112 | Bezostaya | 15158 | " |

Field Infection Data
1981 Hard Red Winter Wheat Regional Soil-borne Mosaic Nursery

| Entry no. | Urbana, Illinois[1] Rep I | Rep II | Manhattan[2] Kansas | Hesston[3] Kansas |
|---|---|---|---|---|
| 1 | S | VS | S | MS |
| 2 | MR | MR | R | R |
| 3 | MS | MS | R | R |
| 4 | MR | MR | few S R | R |
| 5 | MR | MR | few S R | R |
| 6 | MR | MR | R | R |
| 7 | MR | MR | few S R | R |
| 8 | MR | MR | R | R |
| 9 | MR | MR | R | R |
| 10 | R | R | R | R |
| 11 | MR | MR | R | R |
| 12 | R | R | few S R | MR |
| 13 | R | R | R | R |
| 14 | R | R | few S R | R |
| 15 | R | R | few S R | R |
| 16 | R | R | few S R | R |
| 17 | MS | MS | few S R | R |
| 18 | MS | MS | few S R | R |
| 19 | R | R | few S R | R |
| 20 | S;10-ROS | S-20 ROS | MS | MR |
| 21 | MR | R | few S R | R |
| 22 | R | R | R | R |
| 23 | R | R | few S R | R |
| 24 | R | R | R | R |
| 25 | R | R | R | R |
| 26 | R | MR | R-S | R-S |
| 27 | R | R | R | R |
| 28 | MR | R | R-S | R-S |
| 29 | MS | MR | R-S | R-S |
| 30 | S | VS | MS | MS |
| 31 | MR | R | few S R | R |
| 32 | MR | R | R-S | R-S |
| 33 | R | R | few S R | R |
| 34 | R | R | R | R |
| 35 | MS | MS | R-S | MR |
| 36 | MR | R | R-S | MR |
| 37 | R | R | R | R |
| 38 | MS | MR | R-S | R-S |
| 39 | MR | MS | R-S | R-S |
| 40 | R | R | R | R |
| 41 | MS | MS | R-S | R-S |
| 42 | R | R | few S R | R |
| 43 | MR | MR | R | R |
| 44 | R | R | R | R |
| 45 | MS | MS | R-S | MR |

Field Infection Data (continued)
1981 Hard Red Winter Wheat Regional Soil-borne Mosaic Nursery

| Entry no. | Urbana, Illinois Rep I | Urbana, Illinois Rep II | Manhattan Kansas | Hesston Kansas |
|---|---|---|---|---|
| 46 | R | R | R | R |
| 47 | MS | MS | R-S | R-S |
| 48 | MS | MS | R-S | R-S |
| 49 | MR | R | R-S | R |
| 50 | S-20 ROS | S-10 ROS | few S MS | MR |
| 51 | R | R | few S R | R |
| 52 | MR | R | few S R | R |
| 53 | MR | R | R | R |
| 54 | R | R | R | R |
| 55 | MR | MR | R | R |
| 56 | R | R | R | R |
| 57 | VR | VR | R | R |
| 58 | MS | MS | R-S | R-S |
| 59 | R | R | few S R | R |
| 60 | S | S | few S MS | MS |
| 61 | MR | MS | few S R | R |
| 62 | MS | MS | few S R | R |
| 63 | MS | MS | few S R | R |
| 64 | MR | MS | R | R |
| 65 | MR | MR | few S R | R |
| 66 | R | R | R | R |
| 67 | VR | VR | R | R |
| 68 | MS | MR | few S R | R |
| 69 | MR | MR | few S R | R |
| 70 | VR | VR | R | R |
| 71 | R | R | R | R |
| 72 | R | R | R | R |
| 73 | MR | R | few S R | R |
| 74 | R | R | R | R |
| 75 | R | R | R | R |
| 76 | MR | MR | few S R | R |
| 77 | MR | MR | few S R | R |
| 78 | R | R | R | R |
| 79 | R | R | R-S | R-S |
| 80 | VS-60 ROS | VS-30 ROS | MS | MS |
| 81 | MS | MS | R-S | R-S |
| 82 | S | S | MS | MR |
| 83 | S | S | MS | R-S |
| 84 | S | S | MS | MR |
| 85 | S | S | MS | MR |
| 86 | MR | MR | few S R | R |
| 87 | VS | VS | MS | MR |
| 88 | MR | MR | few S R | R |
| 89 | R | R | few S R | MR |
| 90 | VS | VS | MS | MR |

Field Infection Data (concluded)
1981 Hard Red Winter Wheat Regional Soil-borne Mosaic Nursery

| Entry no. | Urbana, Illinois Rep I | Rep II | Manhattan Kansas | Hesston Kansas |
|---|---|---|---|---|
| 91 | MR | MR | few S R | R |
| 92 | S | S | R-S | R-S |
| 93 | MS | MS | few S R | MR |
| 94 | VS | VS | S | MR |
| 95 | VR | VR | R | R-S |
| 96 | S | S | S | MS |
| 97 | VS | VS | S | MS |
| 98 | VS | VS | S | MS |
| 99 | VS | VS | S | MR |
| 100 | VR | R | R | R |
| 101 | S | S | S | R-S |
| 102 | VS | VS | S | S |
| 103 | S | S | MS | MS |
| 104 | S | S | MS | R-S |
| 105 | VS | VS | S | S |
| 106 | S | S | S | R-S |
| 107 | MS | MS | R | R |
| 108 | VS-30 ROS | VS-10 ROS | MS | MS |
| 109 | VS-40 ROS | S-10 ROS | MS | S |
| 110 | VS | VS | MS | MS |
| 111 | VS | VS | S | S |
| 112 | S | S | few R S | R-S |

[1]The nursery was planted in soil-borne mosaic nursery on September 30, 1980. Final notes on disease severity were taken on April 18, 1981. Fall conditions were favorable for infection and unless otherwise stated, the disease incidence was about 100%. Disease severity ratings are the same as those in previous years; Ros.=rosetting.
Cooperators: H. Jedlinski and C. M. Brown

[2]First reading made on March 13 (Rep I) and 17 (Rep II). Rechecked on April 2. Ratings are averages of two readings. Dr. Heyne suggests that one major may be involved. Lines previously read as MR probably were segregating and, this year, were read as R-S. Some MS readings also may reflect segregation. When susceptible plants were noted in plots with resistant plants, the readings were as follows:

| | | |
|---|---|---|
| few S R | = | probable homozygous R with one or two mixtures |
| R-S | = | most of plants R ) |
| R-S | = | approximately 1/2 R and 1/2 S) segregating |
| R-S | = | most of plants S ) |
| MR | = | line with symptoms on some plants but with no stunting and essentially no yellowing |
| MS | = | nearly all plants showing yellowing, some stunting but with fair vigor |
| S | = | susceptible with yellowing and reduced vigor |

[3]Severity symptoms rated on March 27. Symptoms not well expressed. Neither Pawnee or Bison gave good S readings.
Readings by E. G. Heyne and Gary Day