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 1982

V. A. Johnson
Leader, Wheat Research

Lincoln, Nebraska
1983

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NORTH CENTRAL REGION

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By

V. A. Johnson[1]

CONTENTS

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REGIONAL NOTES

A number of significant changes among wheat research personnel associated with the cooperative hard red winter wheat regional research program occurred in 1982. Among retirements were:

Harry Young, Jr., Oklahoma State University, Stillwater, Oklahoma. Harry is succeeded in the Department of Plant Pathology by Robert Hunger.

Raymond Peck, Panhandle Experiment Station, Goodwell, Oklahoma.

Elmer Heyne, Kansas State University, Manhattan, Kansas.

Darrell Wells, South Dakota State University, Brookings, South Dakota. Darrell is succeeded as winter wheat breeder by Jeff Gellner.

Charles Fenster, wheat production specialist, Panhandle Station, Scottsblufff, Nebraska.

Robert Gallun (ARS), Purdue University, Lafayette, Indiana.

Other personnel changes included:

L. W. Briggle from the ARS National Program Staff, Beltsville, Maryland to germplasm research at Beltsville.

Jim Wilson from DeKalb AgResearch, Inc., Wichita, Kansas to Trio Research in Wichita.

Byrd Curtis from Cargill, Inc., Ft. Collins, Colorado, to CIMMYT as Director of Wheat Research. Byrd's duties at Cargill have been assumed by Bill Roberts.

John Erickson from DeKalb AgResearch, Inc., Wichita, Kansas to HybriTech Seed International, Inc., Wichita, Kansas.

Paul Sebesta from North Dakota State University, Fargo, North Dakota to HybriTech Seed International, Inc., Wichita, Kansas. Paul's successor at NDSU is Darrell Cox.

Robert Bequette from DeKalb AgResearch, Inc. to Rohm and Haas, Mt. Hope, Kansas.

Dallas Seifers to the Ft. Hays Experiment Station, Hays, Kansas for research on wheat streak mosaic.

Jim Stroike, Rohm and Haas Company, to Manager of Genetics and Production Research, Rohm and Haas, Lafayette, Indiana.

Brendan Donnelly from North American Plant Breeders to North Dakota State University, Fargo, as Director, Northern Crops Institute.

NEW VARIETIES

The Oklahoma Experiment Station is increasing seed of OK754615E (Early Sturdy/Nicoma) for release to growers in 1983 under the name 'Chisholm'.

The Kansas Agricultural Experiment Station distributed seed of KS79H69 (Sage/Arthur) under the name 'Arkan' in 1982. Arkan is particularly well adapted to South Central and Southeast Kansas. It is an early maturing semi-dwarf like Newton but possesses a long coleoptile. It is resistant to hessian fly, soilborne mosaic, and leaf rust but susceptible to wheat streak mosaic. It also carries a gene for mildew resistance. Its winterhardiness is similar to that of Centurk.

Kansas will repurify KS75210, a sister to Newton with higher test weight seed.

The Kansas Agricultural Experiment Station also will release KS80H4200 as germplasm. It is a selection from Salmon/Sage/3/Larned/Eagle//Sage with resistance to wheat curl mite, the vector of wheat streak mosaic, leaf rust, and hessian fly.

Colorado State University announced its intention to release CO778785 in 1982 under the name "Hail". Hail is from a complex cross involving CIMMYT wheats, Trapper and Parker. It is semi-dwarf, similar to Vona in height and appearance. Its advantages over Vona are tolerance to hail and better resistance to lodging.

The Nebraska Experiment Station is increasing three lines for probable release in 1983 or 1984. They are NE77682 (Wrr*5/Agent//NE68457/3/Centurk 78); NE78696 (Agate sib (NE69441)/TX65A1503-1); and NE78668 ((Wrr*5/Agent)*2/Kavkaz). NE77682 is moderately early and moderately tall with moderate resistance to leaf and stem rust, intermediate reaction to soilborne mosaic and some tolerance to wheat streak mosaic. NE78696 is a medium maturity, moderately winterhardy semidwarf with moderate resistance to leaf and stem rust and some resistance to the Great Plains race of hessian fly. NE78668 had exceptional performance under the severe disease conditions of 1982. It has excellent leaf rust resistance and moderate but broad-based resistance to stem rust. Resistance to foliar diseases and excellent winterhardiness contributed to its outstanding 1982 performance.

North American Plant Breeders is increasing seed of NA36155 (Sonora/Tpr//Wrr/3/II18889/Tpr//CO652643) tested as entry 28 in the SRPN in 1982.

Northrup King released N-K830 for commercial production in 1982. It was selected from Stt/BVPU/Mtr/NB68639 and tested in the 1980 and 1981 SRPN under the designation NK77W4430.

Cargill, Inc. released four Bounty wheat hybrids in 1982. They are BH100 (Exp 4117), BH200 (Exp 3214), BH300 (Exp 3418), and BH310 (Exp 4017). BH100 is comparable to Triumph in maturity but with shorter straw; BH200 has maturity similar to Vona and plant height like Centurk 78; BH300 is similar to Centurk 78 in height and maturity and has good tolerance to soilborne mosaic and leaf rust; BH310 is a semidwarf similar to Newton in height and maturity.

Rohm and Haas offered several winter wheat hybrids to producers in 1982. Among them are the hard winter hybrids HW1001, HW1010, HW1019, HW1020, HW1021, and HW1024. All were tested in the regional hybrid nursery under experimental designations.

THE 1982 CROP YEAR

U. S. wheat production in 1982 was another record. The 76.4 million metric tons was up slightly from the previous high production of 76.2 million metric tons in 1981. The area harvested for grain was 31.9 million hectares, down 3% from the 32.8 million hectares harvested in 1981. Higher yields more than offset the smaller hectarage. Yield in 1982 averaged 2375 kg/ha compared with 2301 kg/ha in 1981.

Despite the record yields problems of production, particularly diseases, in the hard red winter wheat region were numerous and in many areas severe. The most severe epidemic of Fusarium head blight (scab) of record occurred in eastern Nebraska and Kansas, and in Missouri. Leaf rust was widespread and heavy throughout the eastern portion of the region. Tan spot was also widespread and Cephalosporium stripe caused significant local damage in southwest Nebraska and north central Kansas. Winter injury and crown rot occurred in parts of northeast Kansas and in Nebraska. Wheat streak mosaic was present in Kansas but not severe. In contrast, soilborne mosaic was widespread and severe in several states. Septoria and powdery mildew became heavy in eastern Kansas and eastern Nebraska. The worst infestation of hessian fly since 1978 occurred in north central and northeastern South Dakota. The insect was widespread but not heavy in Kansas and Nebraska. Wheat disease losses in Kansas in 1982 were estimated at 13.8%, higher than the 5-year average loss of 12.8%.

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	312	212	32	16.6	361
Texas	3,280	2,400	27	16.0	3,919
Oklahoma	3,200	2,760	14	22.0	6,198
Colorado	1,372	1,200	13	18.7	2,286
Kansas	5,680	5,280	7	23.3	12,575
Nebraska	1,240	1,160	6	23.3	2,763
Wyoming	120	114	5	18.7	217
Montana	980	848	13	25.3	2,192
So. Dakota	540	440	19	22.7	1,018
No. Dakota	70	56	20	22.7	130

Source: Crop Production, 1982 Annual Summary, Crop Reporting Board, Statistical Reporting Service, U. S. D. A., Washington, DC. Cr Pr 2-1 (83).

1982
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**	Ey Sdy/Ncm	OK754615A	Oklahoma
5*	"	" 754615E	"
6*	Aurora/2*TAM W-101	" 79257	"
7*	"	" 79256	"
8*	"	" 79259	"
9	TAM W-103/KS73167	TX79A2729	Texas
10*	Sdy sib/Kaw (TX62A2522-1)//Ctk	" 78V3630	"
11*	TAM W-101/Ctk (TX71A58-3)//Amigo	" 80A5879	"
12*	Short Wheat/Sut (TX69A509-2)//Fox	" 78V2408	"
13*	TAM W-101/Ctk (TX71A58-3)//Amigo	" 80A5904	"
14*	Sdy sib/Triumph//Ctk	" 71A562-6-28	"
15*	Era/TAM W-101	" 78V3098	"
16*	TAM 105*4/Amigo	" GH2875	"
17**	Sage/Arthur	KS79H69	Kansas
18	72F30620/Baca	CO786741	Colorado
19*	CO723117/CO725856	" 796272	"
20*	"	" 796326	"
21*	"	" 796386	"
22*	Scout*5/Ag//Sdy/3/Centurk	NK77W4093	NK
23*	Scout*5/Ag//Sdy	" 77W4505	"
24*	Kavkaz/Centurk	" 77W4593	"
25	Wrr*5/Agent//NE68457/3/Ctk 78	NE77682	Nebraska
26	(Wrr*5/Agent)*2/Kavkaz	" 78668	"
27*	Sonora/Tpr//Wrr/3/II18889/Tpr//CO652643	NA-361 S5	NAPB
28*	CIMMYT/CO652643//Lcr/3/KS62/CO695552	NA-3679	"
29*	II18889/Tpr//CO652643/3/Baca	W-391 S4	"
30*	"	W-391 R11	"
31	Sage Outcross	LS No. 3	Schr.
32*	Ctk//KS6623/TX62A2522-8-2	IL76-3845	Illinois
33*	Kavkaz/TX69A330-1	" 77-4259	"
34*	Hard Winter Wheat Hybrid	RH790610	Rohm & Haas

* New entry in 1982. ** New seed provided.

SRPN Test Sites

Dallas, TX	Hutchinson, KS	Mead, NE
Chillicothe, TX	Hays, KS	Clay Center, NE
Bushland, TX	Garden City, KS	North Platte, NE
Clovis, NM	Colby, KS	Sidney, NE
Farmington, NM	Ft. Collins, CO	Alliance, NE
Stillwater, OK	Akron, CO	Brookings, SD
Lahoma, OK	Julesburg, CO	Presho, SD
Altus, OK	Burlington, CO	Highmore, SD
Goodwell, OK	Walsh, CO	Urbana, IL
Columbia, MO	Aberdeen, ID	Lind, WA
Ames, IA	Tetonia, ID	Beltsville, MD (single plots)
		St. Paul, MN (rust plots)

Test Site Information - SRPN

Clovis, NM -- Irrigated nursery seeded September 29. Fertilized 200-0-0 and sprayed once for greenbug control. Dryland nursery seeded on summer fallow ground with excellent moisture at seeding. Winter very dry with only 1.31 inches moisture October-April, 2.23 inches in May, and 1.88 inches in June. Sprayed once for greenbugs.

Farmington, NM -- A relatively mild winter with no winterkill. The spring was relatively cool.

Bushland, TX -- Irrigated nursery sown October 23 on fallowed land with good moisture. Received 150 lbs N/acre. No winter damage. Low precipitation during winter and spring necessitated four applications of 4.5 inches irrigation water each in April and May. Leaf rust was present during late grain-filling. Rain after the wheat was ripe resulted in considerable lodging and delay of harvest with resulting bleached grain and reduced test weight. Cool temperatures in April and May contributed to the high yields. Dryland nursery seeded October 13 on summer fallow land. No fertilizer applied. Weeds were controlled with NCP (Rhonox) in February and greenbugs with parathion in March. Below-average April and May rainfall caused yield variations within and among replications.

Chillicothe, TX -- Nursery seeded October 21 in good soil moisture following preplant application of 220 lbs/a of 16-20-0. Urea (80 lbs/a) topdressed in spring. Good fall stands and growth. Moderate winter temperatures and ample spring rain induced lush growth until April when very dry weather occurred accompanied by three days of excessively high temperatures and high winds. Heavy rains in late May and early June delayed harvest. Nursery sprayed in March to control greenbugs. Leaf rust came in too late to affect yields.

Dallas, TX -- Nursery planting delayed until November 19-20 due to excessive rainfall. Nursery sprayed December 21 for greenbugs. Fertilizer applied in the amount of 100 lbs 18-46-0 on October 2 and 60 lbs N on February 19. Tillering and topgrowth in winter were sparse and root systems shallow. Leaf rust first noted in late March and developed rapidly in April and May. Cloudy, damp weather in April and early May favored development of foliar diseases. BYDV symptoms were observed in the wheat and caused damage in oats and barley. Wheat streak mosaic identified in two commercial fields less than one mile from nursery.

Stillwater, OK -- Fair to good stand establishment. Near-record rainfall in May affected yields and test weights.

Lahoma, OK -- Production conditions were good throughout the season.

Altus, OK -- Stand establishment adequate, some drought stress in spring. Leaf rust appeared in late spring and became epidemic. Believed to have affected yields of some entries.

Goodwell, OK -- Good production conditions throughout the season. No problems with diseases or insects.

Hutchinson, KS -- Leaf rust, Septoria and tan spot caused differential reductions of yield depending on susceptibility. There was mild moisture stress in early spring that affected tillering. Yield potential good in nursery despite the heavy foliar diseases.

Hays, KS -- Fall stand establishment and growth excellent. Moisture was never in short supply. Leaf rust built up late and probably didn't affect yields. Taller varieties lodged. Rain when nursery was ripe reduced test weights.

Garden City, KS -- The nursery given a fall irrigation in October. This and a cool, wet spring contributed to the higher-than-normal yields.

Colby, KS -- Good moisture at first seeding but seeder malfunction required reseeding of nursery on October 1 in dry surface soil. Emergence slow and stands thin. No winter damage. May and June wet with over 5 inches rain in each month. Cool wet weather persisted through June and resulted in tall growth and lodging. Harvest delayed by wet weather and test weights were reduced. Considerable leaf rust prior to harvest may have reduced yields.

Fort Collins, CO -- Nursery lost from early winds, drought, and hail.

Walsh, CO -- Nursery lost from wind, drought, and hail.

Burlington, CO -- Early spring drought stress; no disease, insect or weed problems.

Akron, CO -- Drought stress in April but adequate precipitation thereafter. Stands excellent. No disease or insect problems.

Julesburg (Ovid), CO -- Overall excellent growing conditions with short periods of early drought stress and variable root rot damage. Leaf rust recorded. No weeds.

Mead, NE -- Good seeding conditions. Considerable winterkill but patchy. Heavy rain with extended period of precipitation from mid- to late-May. Leaf rust and scab developed.

Clay Center, NE -- Fall condition good. Winter severe with patchy killing due to irregular snow cover. Leaf rust became heavy. Other foliar diseases also were present.

North Platte, NE -- Moisture was satisfactory at seeding time and remained ample through the season. No winterkilling. Heavy foliar diseases -- especially Cephalosporium stripe.

Sidney, NE -- Fall seeding conditions good. Dry, windy, cold winter. Moisture sparse until late spring.

Alliance, NE -- Same as at Sidney, NE.

Brookings, SD -- Nursery seeded September 10 on fallowed land with good moisture. Severe but uneven winterkilling occurred depending on snow cover. Powdery mildew became severe on susceptible entries. Leaf rust also became heavy. A trace of BYDV was noted. Root lodging occurred July 15 after a 3.6-inch rain with high wind. Low test weights believed to be associated with diseases and root lodging in some instances. Weeds were a problem also.

Highmore, SD -- Nursery seeded September 11 on fallowed land with good moisture. Good stands obtained. Winter severe and irregular snow cover resulted in differential killing not related to inherent winterhardiness in adjacent nurseries. SRPN must have been protected by snow during critical periods because stand losses were minimal and more uniform. Rain was abundant. Leaf rust became heavy; tan spot was common.

Presho, SD -- Nursery seeded September 10 on fallowed land with good moisture. Good fall stands obtained. Snow cover protected the nursery during low temperatures in the severe winter. Rain abundant. A hard wind, possibly accompanied by some hail in mid-July, caused straw breakage. Leaf rust became severe. Much leaf spotting occurred.

Columbia, MO -- Wet fall; cold winter. Spring was continually wet from flowering through harvest. Mildew, leaf rust, scab, and hessian fly were larger problems than normal.

Ames, IA -- Nursery seeded September 21. Fall stands and growth were excellent. Despite a cold winter most entries survived well, probably due to snow cover. Growth was excellent in spring and early summer, June and early July cool. Ripening later than normal. Heavy leaf rust and leaf spotting diseases -- especially Septoria. Traces only of stem rust.

Urbana, IL -- Ample moisture throughout fall and spring growing seasons. Some powdery mildew present. Lodging severe and occurred sufficiently early to affect yields. Winter severe but with good snow cover and excellent survival.

Aberdeen, ID -- Conditions not reported.

Lind, WA -- Poor seed zone moisture and rains during planting caused erratic emergence. Some winter injury occurred in the least hardy selections in the Southern Regional nursery. Rainfall was below normal during the winter and spring. Yields were low with high CV's.

Table 1. YIELD AND AGRONOMIC DATA FOR 34 ENTRIES IN THE SOUTHERN REGIONAL PERFORMANCE NURSERY IN 1982.

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	LODGING %
W-391R11	30	8122	81.5	126	100	0
W-391S4	29	7152	76.3	130	97	0
TX79A2729	9	7136	79.4	127	92	0
RH790610	34	6774	80.6	126	97	0
TX78V3630	10	6449	80.5	126	91	0
NK77W4093	22	6340	79.9	129	103	0
TX71A562-6-28	14	6333	78	130	95	0
KS79H69	17	6230	78.6	124	90	0
NA-3679	28	6123	79.5	129	96	0
NA-361S5	27	6021	80.3	127	92	0
NK77W4593	24	5954	79	131	104	2
TXGH2875	16	5874	79.2	123	94	0
IL76-3845	32	5829	76.1	128	98	0
TX78V2408	12	5727	77.9	129	99	12
NK77W4505	23	5643	76.9	127	95	0
TX78V3098	15	5530	78.5	127	93	0
NE78668	26	5392	76.6	131	106	3
TX80A5879	11	5391	79.9	125	94	7
OK754615A	4	5314	80.5	124	96	0
TX80A5904	13	5271	80.2	125	92	0
CO796386	21	5222	80	126	108	12
OK754615E	5	5191	80.3	122	93	0
OK79257	6	5120	78.3	125	88	3
CI13996	2	5034	79.3	128	109	20
CO796326	20	5009	79.5	127	105	12
CI17277	3	4983	78.8	131	104	13
NE77682	25	4757	79.1	130	105	22
OK79259	8	4743	79.7	126	87	0
CO786741	18	4709	79.8	129	100	10
CO796272	19	4554	79.1	129	113	15
OK79256	7	4495	79.2	127	91	0
CI1442	1	4149	77.5	134	111	23
IL77-4259	33	4136	78.8	130	107	0
LS.NO.3	31	4135	81.2	129	109	12
MEAN		5554				
L.S.D.(.05)		1047				
C.V.		11.5				

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
W-391R11	30	3229	74.5	120	68
TX78V2408	12	3148	75.2	120	68
NE78668	26	3095	75.5	123	67
W-391S4	29	3092	70.5	126	64
CI17277	3	3028	73.9	124	71
CI13996	2	2966	75	121	73
TX71A562-6-28	14	2861	76.8	124	61
CI1442	1	2828	71.8	130	75
CO796272	19	2774	77.4	123	63
NK77W4593	24	2768	73.3	124	69
LS.NO.3	31	2741	79.2	124	73
NK77W4093	22	2701	71.8	125	59
CO796386	21	2682	75	122	67
NE77682	25	2603	78.9	123	62
RH790610	34	2549	76.2	120	57
CO786741	18	2530	76.1	121	62
NA-3679	28	2515	75.3	126	60
NA-361S5	27	2472	75.2	122	62
IL77-4259	33	2344	75.4	123	66
CO796326	20	2340	75	121	66
TX78V3098	15	2276	70.4	119	58
TXGH2875	16	2245	73.3	118	58
OK79257	6	2230	69.8	118	62
TX79A2729	9	2097	72	120	56
OK754615A	4	2034	74.1	119	63
TX80A5904	13	2032	74.9	119	58
OK79256	7	1987	63.1	119	60
NK77W4505	23	1982	70.9	122	56
TX78V3630	10	1843	74.5	120	58
KS79H69	17	1834	62.9	119	55
OK754615E	5	1764	71.7	118	68
IL76-3845	32	1736	73	122	58
OK79259	8	1697	61.4	119	55
TX80A5879	11	1549	63.9	120	56
MEAN		2429			
L.S.D.(.05)		712			
C.V.		18.0			

FARMINGTON, NEW MEXICO

FOUR REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	LODGING %
TXGH2875	16	10371	78	105	0
TX71A562-6-28	14	9883	77.1	94	15
CI17277	3	9785	78.4	100	0
W-391S4	29	9114	73.2	106	18
TX80A5879	11	9078	78.7	93	0
NA-361S5	27	8858	78.7	101	0
W-391R11	30	8834	81.3	98	0
NE78668	26	8797	78	97	13
NE77682	25	8663	79.3	98	0
NK77W4593	24	8626	79.7	110	0
RH790610	34	8541	80.6	87	3
OK754615E	5	8529	80	89	0
TX80A5904	13	8504	77.1	102	0
NK77W4093	22	8443	77.1	93	8
TX79A2729	9	8382	80	84	0
CO786741	18	8346	80.3	104	0
NK77W4505	23	8211	78.7	87	0
TX78V2408	12	8138	79	91	5
KS79H69	17	8041	80	97	0
IL77-4259	33	7919	79.7	112	0
TX78V3098	15	7809	77.7	93	0
CO796326	20	7736	80	96	23
OK754615A	4	7711	80	87	0
OK79257	6	7699	77.7	86	0
OK79259	8	7589	78.7	91	0
NA-3679	28	7479	77.1	88	1
OK79256	7	7382	76.8	84	0
CO796272	19	7357	79.7	104	10
CI13996	2	7260	80.9	109	23
CO796386	21	7113	79.7	104	1
LS.NO.3	31	7052	79.7	110	36
IL76-3845	32	7040	77.4	97	0
TX78V3630	10	6967	76.8	93	0
CI1442	1	6223	74.8	110	45
MEAN		8161			
L.S.D.(.05)		1568			
C.V.		13.6			

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	LODGING %
TX71A562-6-28	14	7440	74.1	129	86	47
TX80A5904	13	6691	75.7	126	80	47
TX78V3098	15	6691	76.2	127	85	40
TX78V3630	10	6679	75	127	80	30
TX78V2408	12	6668	75.7	127	83	43
RH790610	34	6643	77.4	125	84	40
TX79A2729	9	6641	76.5	125	78	28
OK79257	6	6623	75.7	124	80	43
NA-361S5	27	6581	77.7	124	78	40
TX80A5879	11	6556	77.4	125	80	50
OK754615A	4	6502	77.4	123	81	22
OK79256	7	6496	76.5	125	83	28
OK79259	8	6336	76.7	124	79	32
NK77W4093	22	6327	77.5	127	86	32
W-391R11	30	6296	76.8	126	83	43
W-391S4	29	6273	72.8	130	90	40
NA-3679	28	6141	77.5	128	85	38
NE77682	25	6136	77	128	91	47
KS79H69	17	6110	75	125	79	47
NE78668	26	6094	75.7	128	94	10
TXGH2875	16	6074	76.1	123	79	52
CI17277	3	6042	75.9	128	91	43
NK77W4593	24	6013	76.2	130	90	22
OK754615E	5	5959	77.7	122	81	28
CI13996	2	5914	75.9	125	97	52
LS.NO.3	31	5905	79	128	95	57
CO796326	20	5874	77	125	91	53
NK77W4505	23	5872	75.2	124	83	27
CO786741	18	5766	76.8	127	87	43
IL77-4259	33	5403	76.8	127	89	12
CO796386	21	5380	77.5	124	90	47
IL76-3845	32	5376	75.6	126	86	32
CO796272	19	5214	76.8	125	93	60
CI1442	1	4117	75.2	133	117	12
MEAN		6142				
L.S.D.(.05)		496				
C.V.		4.9				

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
TX71A562-6-28	14	2776	76.2	124	64
TX80A5904	13	2484	77.5	122	55
TX78V2408	12	2393	73.9	123	55
TX78V3098	15	2384	75.6	125	61
CO786741	18	2267	77	125	53
OK79256	7	2252	75	122	57
NA-3679	28	2227	77.9	125	52
TX79A2729	9	2221	76.2	124	53
CI13996	2	2201	76.1	123	64
NK77W4593	24	2188	77.2	127	56
TXGH2875	16	2174	75.7	121	61
CI17277	3	2172	76.5	126	59
LS.NO.3	31	2164	77.7	125	62
W-391S4	29	2151	75.3	126	58
OK79257	6	2130	74.1	122	58
NE77682	25	2114	77.9	126	60
CI1442	1	2051	76.5	130	77
RH790610	34	2021	76.8	121	52
NE78668	26	2004	74.1	127	63
OK79259	8	1999	75.3	122	54
NK77W4505	23	1988	75.2	121	60
TX80A5879	11	1982	78.1	121	53
NK77W4093	22	1971	78.1	126	56
TX78V3630	10	1947	75.9	122	50
W-391R11	30	1918	77.9	122	54
IL76-3845	32	1881	75.7	125	60
KS79H69	17	1850	74.3	120	52
OK754615A	4	1823	76.6	119	60
NA-361S5	27	1782	76.2	122	54
CO796272	19	1656	76.6	124	53
OK754615E	5	1632	77.2	119	58
IL77-4259	33	1627	76.6	125	55
CO796326	20	1616	77.2	122	58
CO796386	21	1558	77.5	121	59
MEAN		2047			
L.S.D.(.05)		403			
C.V.		13.9			

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	WINTER SURVIVAL 1-5
W-391R11	30	3927	76.3	110	55	1.8
TX71A562-6-28	14	3746	71.6	116	64	2
NE78668	26	3432	72.4	113	63	2.3
TX78V3630	10	3322	74.5	113	52	1.8
OK754615A	4	3183	76.2	109	63	1.7
NA-3679	28	3138	74.1	113	55	2
OK754615E	5	3060	76.3	109	60	1.8
TXGH2875	16	3049	74.6	109	58	1.5
TX80A5904	13	2961	76	109	55	1.8
TX78V2408	12	2955	73.1	115	60	2
W-391S4	29	2782	71.6	116	66	1.8
RH790610	34	2782	75.4	111	57	2
NK77W4593	24	2737	74.5	118	73	2
OK79259	8	2726	72.8	112	59	2
NE77682	25	2708	75	117	64	2
OK79256	7	2625	73.1	113	59	2
NA-361S5	27	2612	75.9	110	55	2
CO796386	21	2594	76.5	109	61	2.2
NK77W4505	23	2544	73	110	53	2
TX79A2729	9	2493	74.6	113	56	2
TX78V3098	15	2459	72.7	114	62	2
CI17277	3	2419	74.4	119	72	1.8
TX80A5879	11	2318	75.2	109	54	1.7
OK79257	6	2307	70.8	113	58	1.8
NK77W4093	22	2307	74.3	115	60	2
CI1442	1	2273	71.3	122	84	2
CO796326	20	2271	75.3	112	60	2.5
CO796272	19	2257	74.7	111	62	2
CI13996	2	2219	74.2	117	69	2
LS.NO.3	31	2116	75.8	120	78	2
KS79H69	17	1917	71.4	109	56	2.2
CO786741	18	1910	74	121	65	1.8
IL76-3845	32	1744	71.8	115	56	2
IL77-4259	33	1605	68.5	113	62	2
MEAN		2632				
L.S.D.(.05)		690				
C.V.		16.1				

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 4/14 SEV. %	LEAF RUST 4/14 RESP. 1-9	LEAF RUST 5/21 SEV. %	LEAF RUST 5/21 RESP. 1-9	MILDEW 3/24 0-9	MILDEW 4/12 0-9
NE78668	26	3190	78.7	115	89	1	0	60	8	0	0
TX80A5879	11	2816	78	110	71	15	7	60	8	1	4
NK77W4593	24	2708	76.8	122	97	1	0	40	7	0	0
OK754615A	4	2596	76.1	113	74	5	3	40	8	1	3
TX78V3630	10	2497	76.1	117	74	5	7	30	8	5	6
NE77682	25	2475	76.1	120	89	15	3	60	8	3	3
KS79H69	17	2461	76.1	114	71	0	0	15	7	1	1
OK79256	7	2374	74.8	119	89	5	3	40	8	0	1
RH790610	34	2369	76.1	113	71	10	7	60	8	2	3
OK79257	6	2365	73.5	118	84	20	8	40	8	3	3
NK77W4505	23	2347	79.3	111	69	1	0	20	7	2	4
OK754615E	5	2331	78	111	69	5	2	30	8	2	2
NK77W4093	22	2145	74.8	120	84	20	3	50	8	4	5
TX71A562-6-28	14	2116	68.4	125	81	40	8	60	8	1	2
OK79259	8	2031	74.8	121	81	10	7	40	7	0	2
NA-3679	28	1995	74.8	118	76	20	8	80	8	0	0
TX78V2408	12	1955	71.6	126	81	40	8	40	8	6	7
TXGH2875	16	1948	72.2	112	76	30	3	60	8	0	0
TX80A5904	13	1894	77.4	111	71	60	9	60	9	3	5
CO796272	19	1798	76.1	113	84	40	9	60	8	1	1
CO796386	21	1601	77.4	111	79	60	8	60	9	1	1
NA-361S5	27	1598	75.5	113	74	20	7	80	8	2	3
IL77-4259	33	1580	80	112	71	1	0	40	8	0	0
IL76-3845	32	1538	72.9	113	89	15	7	60	8	0	1
TX79A2729	9	1527	69.7	127	76	5	8	60	8	4	6
CI17277	3	1455	69.7	132	91	5	8	20	8	1	4
CO786741	18	1408	75.5	129	86	60	9	60	9	1	1
W-391S4	29	1383	71	126	86	5	3	30	7	0	0
TX78V3098	15	1341	65.1	129	86	1	8	30	7	0	0
W-391R11	30	1302	69.7	119	79	20	8	80	8	3	4
CO796326	20	1271	76.1	113	79	40	8	60	8	2	2
LS.NO.3	31	1042	74.8	129	94	50	8	60	9	4	6
CI13996	2	908	75.5	128	91	20	8	40	8	2	4
CI1442	1	.	.	136	99	40	9	40	9	3	6
MEAN		1950									
L.S.D.(.05)		382									
C.V.		12.0									

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	LEAF RUST SEV. %	RESP 1-9
OK79256	7	3085	72.9	125	79	5	8
TX71A562-6-28	14	2979	69.7	125	79	2	8
W-391S4	29	2939	69.8	125	85	5	8
OK79257	6	2869	71	125	79	5	8
OK79259	8	2813	71.2	126	75	5	8
NK77W4593	24	2715	73.1	125	85	20	8
TX79A2729	9	2712	69.7	125	74	5	8
OK754615E	5	2697	74.3	117	70	20	8
OK754615A	4	2688	73.7	118	74	2	8
TXGH2875	16	2683	70.6	120	72	2	8
NE78668	26	2659	72.5	122	85	2	8
TX80A5879	11	2632	72.4	123	73	20	8
TX78V2408	12	2607	68.6	127	77	.	2
NE77682	25	2578	72.1	127	88	1	8
NK77W4093	22	2576	75.1	125	83	2	8
NA-3679	28	2576	74.6	122	72	1	8
NK77W4505	23	2506	72.6	118	70	1	8
TX78V3098	15	2466	69.3	130	81	10	8
W-391R11	30	2446	72.2	123	77	10	8
KS79H69	17	2428	72.6	122	69	2	8
IL76-3845	32	2396	69.8	126	81	1	8
C0796272	19	2336	72.9	121	88	.	.
CI13996	2	2334	71.7	127	98	10	8
CI17277	3	2331	69.9	128	95	5	8
RH790610	34	2325	72.9	121	68	1	5
IL77-4259	33	2322	72.5	122	80	2	8
TX78V3630	10	2266	70	124	65	20	8
C0786741	18	2264	73	127	83	.	.
C0796386	21	2255	75.3	118	82	.	.
NA-361S5	27	2127	70.4	122	72	2	8
TX80A5904	13	2029	70.4	123	69	20	8
CI1442	1	1952	72	133	102	10	8
C0796326	20	1930	71.3	119	78	.	.
LS.NO.3	31	1861	71.7	129	102	10	8
MEAN		2482					
L.S.D.(.05)		471					
C.V.		11.6					

LAHOMA, OKLAHOMA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	LODGING %
NK77W4505	23	4968	77.8	91	2
OK79256	7	4719	79.2	91	0
NE78668	26	4642	77.5	105	0
RH790610	34	4559	78.4	93	2
OK754615E	5	4545	80.1	89	1
KS79H69	17	4533	77	94	0
OK79257	6	4532	77.9	87	5
TX71A562-6-28	14	4496	76.6	94	3
TXGH2875	16	4479	77.1	89	0
OK754615A	4	4399	79.6	92	0
IL77-4259	33	4352	77	106	5
OK79259	8	4285	79.2	92	0
TX79A2729	9	4265	77.8	88	0
NK77W4093	22	4258	78.8	103	1
NA-3679	28	4207	78.6	95	1
CO796272	19	4145	78.9	110	17
TX78V3098	15	4132	77.9	100	0
NK77W4593	24	4113	78.2	105	0
TX78V3630	10	4108	78.2	87	3
NE77682	25	4080	78.4	108	8
CO786741	18	4059	79.5	106	8
W-391S4	29	4005	75.1	102	8
NA-361S5	27	3934	78	89	0
IL76-3845	32	3931	75.9	100	17
TX78V2408	12	3904	77.7	96	10
CI17277	3	3819	75.6	104	10
CO796326	20	3744	78.8	102	23
W-391R11	30	3713	77.7	95	5
CO796386	21	3699	80	101	8
TX80A5879	11	3367	77.4	90	27
TX80A5904	13	3340	76.8	87	25
CI13996	2	3145	77.7	114	17
LS.NO.3	31	2989	76.4	113	40
CI1442	1	2264	74	123	18
MEAN		4051			
L.S.D.(.05)		393			
C.V.		5.9			

ALTUS, OKLAHOMA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	LODGING %
OK79257	6	4095	74.7	70	5
OK754615E	5	4074	77.5	71	28
TXGH2875	16	3945	73.9	68	40
OK79259	8	3865	76.4	71	10
OK79256	7	3838	75.7	73	5
TX71A562-6-28	14	3723	72	76	70
TX79A2729	9	3649	76.8	68	25
NE78668	26	3607	75.1	78	10
TX78V2408	12	3599	74.8	74	50
RH790610	34	3533	76	74	50
NE77682	25	3400	76.1	74	30
W-391R11	30	3345	75.2	69	5
CO796272	19	3341	76.8	85	90
TX78V3098	15	3323	.	73	10
NA-361S5	27	3269	75.9	65	.
NA-3679	28	3235	76.5	67	10
TX78V3630	10	3189	74.9	63	50
W-391S4	29	3181	72.2	73	50
NK77W4593	24	3172	74.3	74	30
KS79H69	17	3169	74.8	70	65
CI17277	3	3130	76.5	89	75
CO796326	20	3111	76.8	76	70
NK77W4093	22	3088	75.9	81	15
NK77W4505	23	3065	75.9	67	20
CO796386	21	3027	75.7	82	75
TX80A5879	11	2984	76.5	66	43
IL76-3845	32	2980	73.9	72	60
OK754615A	4	2964	77.4	77	50
TX80A5904	13	2954	75.5	65	80
CI13996	2	2887	76	82	65
CO786741	18	2751	76	79	50
IL77-4259	33	2681	74.3	76	8
LS.NO.3	31	2513	77.7	95	99
CI1442	1	2252	74.8	91	85
MEAN		3263			
L.S.D.(.05)		664			
C.V.		12.5			

GOODWELL, OKLAHOMA (IRR.)

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL
TXGH2875	16	7171	77
TX78V3630	10	6844	75.9
TX79A2729	9	6420	77
OK754615A	4	6401	78.7
NK77W4093	22	6395	76.9
RH790610	34	6368	76.6
KS79H69	17	6348	76.5
OK79256	7	6278	78.3
OK79257	6	6277	75.5
TX71A562-6-28	14	6177	72
OK754615E	5	6175	79.1
NK77W4505	23	6172	76.1
IL76-3845	32	6117	74.9
NK77W4593	24	6026	77.4
OK79259	8	5971	78.6
NA-361S5	27	5913	76.5
NE77682	25	5773	77.7
NE78668	26	5760	76.8
W-391R11	30	5753	75.7
CO796272	19	5724	76.9
W-391S4	29	5632	68.4
CO786741	18	5539	78.2
CI17277	3	5537	76.8
CO796386	21	5517	79.5
TX80A5904	13	5491	75.5
TX80A5879	11	5487	75.3
TX78V3098	15	5481	73.8
NA-3679	28	5443	75.3
CO796326	20	5371	77.9
IL77-4259	33	5338	78.2
CI13996	2	5317	77.5
TX78V2408	12	5040	70.8
LS.NO.3	31	4551	79.1
CI1442	1	3502	73.8
MEAN		5803	
L.S.D.(.05)		643	
C.V.		6.8	

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	LEAF RUST SEV. %	RESP 1-9	AGR. SCORE
NE78668	26	4460	78.4	132	94	1	8	3
NK77W4505	23	4285	77.8	128	80	1	2	3
TX78V2408	12	4278	78	133	86	20	8	1
NE77682	25	4274	78.6	132	91	1	7	4
CI17277	3	4180	78.4	134	99	30	7	2
KS79H69	17	4160	78.3	130	80	1	8	3
TX71A562-6-28	14	4103	73.3	134	82	1	8	1
NA-3679	28	4005	79.5	132	82	30	7	2
NK77W4093	22	3957	78.2	133	85	10	8	3
NK77W4593	24	3957	76.8	133	92	10	3	3
OK79256	7	3950	77.8	133	80	50	8	4
CO796272	19	3827	79.3	131	95	90	8	3
OK79257	6	3803	76.1	132	79	90	8	4
TX80A5879	11	3787	78.8	130	78	60	8	4
TX78V3630	10	3701	77.3	132	74	1	8	3
CI1442	1	3671	76.5	139	121	80	8	4
W-391S4	29	3618	72.8	135	88	30	8	3
CO796386	21	3609	80	129	88	90	8	3
CI13996	2	3608	77.5	132	98	80	8	3
OK754615E	5	3594	78.8	129	75	30	8	3
RH790610	34	3569	77.7	130	78	30	7	3
OK754615A	4	3497	77.8	129	80	20	3	3
IL77-4259	33	3480	76.9	132	82	1	8	4
TX78V3098	15	3471	76.4	134	81	10	8	3
CO796326	20	3468	79.7	130	87	99	8	3
TX80A5904	13	3394	77.4	131	79	50	5	3
LS.NO.3	31	3373	78.8	135	103	80	8	3
TX79A2729	9	3368	76.8	132	76	90	8	4
IL76-3845	32	3229	75.3	133	82	90	8	4
CO786741	18	3151	77.9	134	90	90	8	3
OK79259	8	3143	78.3	132	74	40	8	3
TXGH2875	16	2962	75.1	130	76	30	8	4
W-391R11	30	2953	76.9	131	84	80	8	5
NA-361S5	27	2789	73.9	132	79	90	8	4
MEAN		3667						
L.S.D.(.05)		548						
C.V.		9.2						

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	LODGING %	SHATTER %	LEAF RUST SEV. %
TX71A562-6-28	14	6021	72.9	138	89	0	0.1	1
TXGH2875	16	5624	76.4	133	85	0	0.1	5
W-391S4	29	5595	72	139	100	0	0.1	25
NA-3679	28	5571	75.7	136	88	0	0.1	10
OK79257	6	5532	73.9	136	86	0	0.1	10
OK754615E	5	5485	76.9	134	90	0	0.1	20
NK77W4093	22	5481	75.4	137	89	0	2	1
OK754615A	4	5420	76.7	135	93	0	0.1	20
OK79256	7	5391	75.4	136	87	0	0.1	35
RH790610	34	5311	76.2	135	90	0	0.1	5
TX79A2729	9	5293	74.5	135	84	0	0.1	40
W-391R11	30	5279	76.9	135	96	0	0.1	70
NK77W4505	23	5196	74.2	134	84	0	0.1	1
NE78568	26	5172	74.3	137	104	0	3	1
TX78V2408	12	5089	74.4	137	93	5	0.1	1
OK79259	8	5017	75.4	136	84	0	0.1	20
TX78V3630	10	4961	73.5	135	80	0	5	1
CO796326	20	4867	76.1	136	102	0	0.1	70
CO796272	19	4860	75.9	136	105	0	1	50
TX80A5879	11	4847	75.2	135	83	0	0.1	40
CO786741	18	4844	75.2	138	93	0	1	30
KS79H69	17	4820	73.3	134	92	0	5	1
TX78V3098	15	4784	74.9	138	87	0	0.1	18
CO796386	21	4779	77.2	133	100	0	1	70
TX80A5904	13	4775	74.2	136	83	0	0.1	70
CI17277	3	4752	73.1	139	106	23	0.1	10
NE77682	25	4620	75.5	138	99	3	3	1
NA-361S5	27	4618	75.2	135	88	0	0.1	50
IL76-3845	32	4542	73	139	95	0	2	50
CI13996	2	4196	75.5	138	108	53	0.1	70
IL77-4259	33	3959	75.7	138	95	0	2	1
LS.NO.3	31	3703	77.6	138	110	45	0.1	50
NK77W4593	24	3645	75.3	138	101	0	9.9	1
CI1442	1	2988	76.3	144	105	85	0.1	50
MEAN		4913						
L.S.D.(.05)		457						
C.V.		5.7						

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	LODGING %	SHATTER %
TX71A562-6-28	14	5748	74	144	91	2	1
NA-3679	28	5661	78.2	140	91	0	3
TXGH2875	16	5563	76.6	136	89	0	2
TX80A5879	11	5497	77.6	140	89	2	2
NA-361S5	27	5396	76.2	139	91	0	2
W-391S4	29	5379	71.1	142	98	3	1
OK79259	8	5367	75.8	141	87	13	1
OK79257	6	5285	74.3	142	86	4	1
TX78V2408	12	5267	75.9	140	94	19	1
TX79A2729	9	5248	76.8	141	89	4	3
NK77W4093	22	5163	76.6	142	92	5	1
OK79256	7	5149	75	141	90	8	1
CO786741	18	5115	73.3	143	99	8	1
OK754615A	4	5099	54.8	139	91	0	3
TX80A5904	13	5086	76.5	139	86	0	2
NE77682	25	5035	77.1	143	103	54	4
NE78668	26	5022	76.5	141	106	20	4
IL76-3845	32	4981	76.3	143	92	1	3
CO796272	19	4972	78.2	140	106	57	1
OK754615E	5	4933	78.9	136	88	0	3
RH790610	34	4908	77.6	137	92	1	4
W-391R11	30	4871	75.1	140	92	3	1
NK77W4505	23	4841	76.9	137	91	7	4
TX78V3630	10	4836	77.2	137	86	2	7
TX78V3098	15	4834	72.8	144	93	25	1
CO796326	20	4799	78.9	139	100	38	3
CI17277	3	4790	77.7	141	107	35	5
NK77W4593	24	4686	76.7	144	99	1	4
KS79H69	17	4568	77.4	138	89	3	8
CI13996	2	4522	76.4	141	104	87	1
CO796386	21	4491	75.3	137	101	23	5
LS.NO.3	31	4434	79.2	143	108	96	1
IL77-4259	33	3931	77.6	142	91	0	12
CI1442	1	3681	62.8	149	116	23	1
MEAN		4975					
L.S.D.(.05)		483					
C.V.		5.9					

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	LODGING %
NK77W4505	23	3743	76.8	144	87	10
TX78V2408	12	3503	75.3	147	91	25
NE77682	25	3476	75.8	148	106	50
NA-361S5	27	3449	73.9	146	90	22
TX78V3630	10	3371	72.8	146	81	32
OK754615E	5	3324	75.7	145	84	8
CO796272	19	3268	76.6	147	105	80
NK77W4093	22	3219	77.4	149	94	15
KS79H69	17	3163	75	146	90	27
TXGH2875	16	3138	71.8	143	86	12
NA-3679	28	3136	73.8	148	92	40
TX71A562-6-28	14	3132	68.3	149	88	35
OK79259	8	3130	74.8	147	86	15
OK79256	7	3072	74.4	147	91	15
W-391S4	29	3063	69.3	151	99	37
CI17277	3	3052	76.2	147	105	43
CI13996	2	3013	75.7	147	110	73
CO786741	18	2997	75.4	148	97	47
TX79A2729	9	2963	68.6	147	83	15
RH790610	34	2877	71.2	147	88	27
OK754615A	4	2857	73.4	147	83	7
CO796326	20	2796	76.5	146	102	80
TX78V3098	15	2787	72.2	151	89	15
TX80A5879	11	2783	72.2	149	88	30
LS.NO.3	31	2781	76	147	113	70
NK77W4593	24	2705	74.2	150	104	22
IL77-4259	33	2693	73.3	148	97	18
OK79257	6	2664	69.6	148	84	18
CO796386	21	2607	75.5	146	103	43
W-391R11	30	2505	70.9	146	91	33
IL76-3845	32	2485	69.6	149	94	47
TX80A5904	13	2464	68	149	84	33
NE78668	26	2059	72.2	149	108	20
CI1442	1	1585	76.8	153	130	70
MEAN		2937				
L.S.D.(.05)		527				
C.V.		11.0				

BURLINGTON, COLORADO

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	LODGING 1-9
TX71A562-6-28	14	5235	78.3	88	4
W-391R11	30	5226	80.2	89	3
TX79A2729	9	5133	82	83	1
NK77W4093	22	5081	83.3	102	1
OK754615A	4	4868	80.8	87	2
W-391S4	29	4791	80.2	92	2
TXGH2875	16	4723	80.2	86	2
NK77W4505	23	4706	79.9	88	1
TX80A5879	11	4612	82.3	86	3
NE77682	25	4552	81.1	94	6
RH790610	34	4501	80.8	92	2
CO796386	21	4458	83.6	100	6
OK754615E	5	4441	79.6	86	2
NA-3679	28	4432	81.4	90	3
CI17277	3	4244	80.2	96	5
TX78V3630	10	4202	80.5	80	1
TX78V2408	12	4159	79.6	85	4
NE78668	26	4159	80.8	108	2
OK79257	6	4082	81.1	83	1
TX80A5904	13	4082	79.9	83	4
CO786741	18	4048	81.1	91	5
CI13996	2	4031	79.9	93	6
TX78V3098	15	4022	81.1	86	4
NA-361S5	27	4022	80.8	87	2
CO796326	20	3971	81.8	95	5
OK79256	7	3945	82	83	1
IL77-4259	33	3928	80.5	103	1
CO796272	19	3869	82	102	5
IL76-3845	32	3852	80.5	91	2
NK77W4593	24	3775	82.7	102	2
LS.NO.3	31	3706	84.5	102	8
KS79H69	17	3630	77.7	81	3
OK79259	8	3467	84.2	80	2
CI1442	1	3407	83.3	107	6
MEAN		4275			
L.S.D.(.05)		1073			
C.V.		15.4			

AKRON, COLORADO

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM
RH790610	34	2750	81.8	76
W-391R11	30	2634	81.9	79
NK77W4593	24	2612	82.3	86
NA-3679	28	2608	82.6	75
NA-361S5	27	2571	81.3	76
CO796272	19	2563	82	88
NK77W4093	22	2541	83.9	80
TX71A562-6-28	14	2511	80.8	76
OK754615A	4	2504	80.8	79
NE77682	25	2489	81.8	83
IL77-4259	33	2444	81	81
CO786741	18	2436	82.6	83
CO796386	21	2425	82.4	84
NE78668	26	2399	80.8	93
OK754615E	5	2391	80.8	77
CI13996	2	2384	81.4	93
CI17277	3	2365	81.5	86
TXGH2875	16	2365	80.2	74
TX79A2729	9	2362	81.1	72
W-391S4	29	2362	77.5	81
CI1442	1	2350	79.2	113
OK79257	6	2328	81	72
TX80A5879	11	2324	81.4	75
TX78V3098	15	2294	81	76
CO796326	20	2264	82.6	85
TX78V2408	12	2238	80.5	72
TX80A5904	13	2227	80.2	74
LS.NO.3	31	2175	83.6	86
OK79256	7	2156	82	74
NK77W4505	23	2122	80.8	72
TX78V3630	10	2100	81.1	69
KS79H69	17	2048	80.5	72
IL76-3845	32	1988	77.4	77
OK79259	8	1973	81.3	70
MEAN		2362		
L.S.D.(.05)		N.S.		
C.V.		12.8		

JULESBURG, COLORADO

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	LODGING 1-9	LEAF SEV. %	RUST RESP 1-9
NK77W4093	22	4279	77.7	1	0	8
OK754615A	4	4210	78	2	10	8
TX80A5879	11	3894	77.7	2	20	8
W-391S4	29	3834	74.3	3	15	8
CO786741	18	3792	79.9	4	80	8
RH790610	34	3775	74.9	2	5	8
NE78668	26	3766	74.6	2	0	8
TXGH2875	16	3749	75.5	2	10	8
TX79A2729	9	3655	76.8	2	60	8
NA-3679	28	3647	78	3	5	8
CI17277	3	3612	77.4	4	5	8
OK754615E	5	3612	75.5	2	10	8
W-391R11	30	3587	75.9	3	60	8
NA-361S5	27	3578	75.9	1	70	8
NK77W4593	24	3561	76.1	3	5	8
TX71A562-6-28	14	3493	74.6	3	0	8
TX78V3630	10	3467	82.9	3	0	8
CO796326	20	3467	78.6	4	80	8
CO796272	19	3442	78	4	80	8
NE77682	25	3425	75.9	4	15	8
IL76-3845	32	3425	75.5	3	40	8
OK79256	7	3348	74.9	2	20	8
TX80A5904	13	3279	74.6	3	50	8
OK79257	6	3245	78	3	40	8
CI13996	2	3228	78	5	60	8
KS79H69	17	3185	75.5	4	0	8
NK77W4505	23	3185	76.1	2	0	8
IL77-4259	33	3177	75.5	2	0	8
TX78V3098	15	3117	75.5	3	5	8
OK79259	8	3100	76.8	3	20	8
CO796386	21	2938	81.4	4	80	8
TX78V2408	12	2887	75.2	4	5	8
LS.NO.3	31	2613	80.5	6	60	8
CI1442	1	2588	77.7	5	30	8
MEAN		3446				
L.S.D.(.05)		479				
C.V.		8.5				

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 1-9	LEAF RUST SEV. %	LEAF RUST RESP. 1-9	STEM RUST RESP. 1-9
NE78668	26	3950	76	153	105	1	0	1	8
IL77-4259	33	3432	75.3	153	92	1	10	2	8
KS79H69	17	3398	73.7	156	88	1	0	2	2
NK77W4505	23	3192	71.1	152	86	2	0	1	2
NE77682	25	3125	74.2	152	101	3	5	2	7
NK77W4593	24	3116	74.3	157	100	0	0	1	3
NK77W4093	22	2977	73.9	155	95	2	0	1	7
IL76-3845	32	2818	72.5	155	95	3	50	7	8
TXGH2875	16	2670	71.9	151	83	1	50	3	8
NA-3679	28	2623	73.7	154	93	3	60	7	8
OK79257	6	2616	71	157	84	0	5	2	8
TX71A562-6-28	14	2603	66.6	157	90	1	20	3	3
TX79A2729	9	2594	69.1	154	78	0	70	8	8
CI17277	3	2562	68.4	157	105	3	5	2	2
W-391S4	29	2551	67.3	154	100	5	0	1	7
OK754615E	5	2457	70.7	155	84	0	30	7	9
TX80A5879	11	2425	67.9	153	88	4	80	8	7
C0786741	18	2401	73.7	156	98	0	60	7	8
NA-361S5	27	2352	71	155	87	3	20	3	8
C0796272	19	2221	74.8	155	105	1	70	8	8
OK754615A	4	2192	69.7	155	84	0	20	3	9
TX78V3630	10	2107	69.7	153	79	4	1	2	7
CI13996	2	2080	66.2	154	106	6	60	8	2
RH790610	34	1995	69.7	156	85	2	20	2	7
TX78V2408	12	1896	67.1	160	92	1	20	3	8
OK79256	7	1885	69.7	158	89	0	40	7	8
C0796326	20	1740	76.2	155	95	1	80	8	2
CI1442	1	1650	71	162	122	6	40	7	8
C0796386	21	1634	74.6	153	99	2	80	8	3
TX78V3098	15	1529	71.1	161	92	0	.	.	8
LS.NO.3	31	1459	74.8	158	113	3	30	7	2
W-391R11	30	1215	68.4	153	89	2	99	9	7
TX80A5904	13	1179	66	155	82	5	90	8	7
OK79259	8	751	65.8	161	84	0	10	2	8
MEAN		2335							
L.S.D.(.05)		815							
C.V.		21.4							

CLAY CENTER, NEBRASKA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	PLANT HEIGHT CM	WINTER SURVIVAL 1-9	LEAF SEV. %	RUST RESP 1-9
NE78668	26	2885	103	9	0	1
NK77W4505	23	1865	84	8	0	1
NK77W4093	22	1778	91	8	10	3
CI17277	3	1679	98	6	5	2
TX80A5879	11	1423	83	5	99	9
W-391S4	29	1291	92	7	10	2
TX71A562-6-28	14	1170	78	5	5	3
TXGH2875	16	1047	76	3	50	8
IL76-3845	32	1036	89	4	60	8
NE77682	25	984	91	3	20	2
NA-3679	28	959	77	4	40	7
TX79A2729	9	948	71	3	90	8
CO786741	18	942	84	4	90	8
CI1442	1	933	120	7	60	8
CO796326	20	906	89	6	99	9
KS79H69	17	899	71	2	50	7
CI13996	2	894	99	3	90	8
NK77W4593	24	816	85	2	10	2
CO796272	19	791	95	3	70	8
RH790610	34	762	77	3	10	3
OK754615E	5	753	70	2	10	2
TX78V3630	10	704	68	3	10	2
CO796386	21	592	86	3	90	8
NA-361S5	27	587	76	2	30	7
OK79257	6	578	71	2	40	3
TX80A5904	13	525	72	4	70	8
IL77-4259	33	471	79	2	5	2
LS.NO.3	31	455	98	2	50	7
W-391R11	30	439	75	3	40	8
OK754615A	4	433	73	1	20	3
OK79256	7	265	76	2	90	3
TX78V2408	12	155	74	.	.	.
OK79259	8	119	73	1	20	2
TX78V3098	15	45	73	.	60	8
MEAN		886				
L.S.D.(.05)		584				
C.V.		40.3				

NORTH PLATTE, NEBRASKA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM
TX78V3630	10	2794	78.7	90
OK79256	7	2577	68.4	95
W-391S4	29	2490	71.9	97
TX79A2729	9	2447	77.4	85
NE78668	26	2429	74.8	101
W-391R11	30	2280	73	93
NK77W4093	22	2250	71	97
NK77W4593	24	2194	72.2	103
OK79257	6	2112	74.8	83
TX80A5879	11	2060	78.7	92
IL76-3845	32	1897	70.3	90
TX80A5904	13	1673	68.4	81
TXGH2875	16	1634	69.7	78
CO786741	18	1600	73.5	93
NA-3679	28	1596	76.1	88
NA-361S5	27	1581	70	86
TX71A562-6-28	14	1402	71	87
CO796272	19	1378	74.8	100
CI17277	3	1374	74.8	101
CI13996	2	1317	76.1	104
NE77682	25	1299	67.1	89
OK79259	8	1199	69.7	76
IL77-4259	33	1191	67.1	97
OK754615A	4	1151	72.2	85
CO796326	20	1151	71	97
TX78V3098	15	1087	73.5	83
RH790610	34	1028	67.5	88
TX78V2408	12	1016	67.1	73
KS79H69	17	907	61.9	86
NK77W4505	23	889	72.2	78
OK754615E	5	714	67.1	77
CI1442	1	673	71	96
CO796386	21	650	64.5	99
LS.NO.3	31	611	66.4	99
MEAN		1549		
L.S.D.(.05)		882		
C.V.		34.9		

SIDNEY, 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
NA-3679	28	4632	75.7	161	79
NE78668	26	4613	74.7	162	85
OK754615E	5	4590	77.4	160	80
NK77W4093	22	4588	76.8	160	78
CO796326	20	4475	77.4	161	93
CO796272	19	4456	76.8	162	94
RH790610	34	4355	78	161	77
NK77W4505	23	4277	75.9	160	73
TX71A562-6-28	14	4234	76.2	161	74
W-391S4	29	4216	73	163	82
TX78V3630	10	4185	76	158	74
CO796386	21	4150	78.7	160	96
W-391R11	30	4014	76.8	161	80
OK754615A	4	3955	77.1	159	80
CO786741	18	3952	77.3	160	81
TX80A5904	13	3934	77.4	161	75
NK77W4593	24	3925	76.4	162	88
NA-361S5	27	3921	76.6	160	73
NE77682	25	3911	77.4	161	82
TXGH2875	16	3897	75.5	158	74
IL76-3845	32	3882	74.6	160	80
OK79257	6	3772	75.1	161	74
OK79256	7	3767	75.1	161	77
TX78V3098	15	3736	77.1	161	75
TX79A2729	9	3644	76.8	160	74
IL77-4259	33	3501	76.1	162	82
TX80A5879	11	3477	76.5	162	74
CI17277	3	3443	75.2	160	83
OK79259	8	3366	76.8	160	73
KS79H69	17	3298	75.5	161	73
LS.NO.3	31	3175	78.7	162	89
TX78V2408	12	2791	75.5	160	70
CI1442	1	2762	76.1	164	99
CI13996	2	2625	77.4	159	89
MEAN		3868			
L.S.D.(.05)		765			
C.V.		12.1			

ALLIANCE, NEBRASKA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	DAYS TO HEADING FROM 1/1	PLANT HEIGHT CM
NK77W4093	22	4215	75.7	161	83
NA-3679	28	4186	75.5	163	79
NE78668	26	4032	74.2	164	92
RH790610	34	3836	77	162	77
TXGH2875	16	3780	76.4	161	74
IL77-4259	33	3714	76.1	163	86
CO796272	19	3619	75.5	162	89
NE77682	25	3576	76.9	162	82
TX80A5904	13	3546	.	162	74
CO796386	21	3502	78	162	86
TX78V3098	15	3498	75.5	163	78
OK754615A	4	3495	76.4	161	79
TX79A2729	9	3438	77.3	161	75
TX78V3630	10	3364	75.3	161	72
NK77W4505	23	3347	74.8	161	75
CO786741	18	3344	75.7	161	77
CO796326	20	3342	75.9	162	84
OK754615E	5	3339	76.1	161	75
LS.NO.3	31	3306	78.7	164	88
NK77W4593	24	3293	75.5	164	87
CI1442	1	3282	74.7	164	106
TX71A562-6-28	14	3278	.	162	73
CI13996	2	3220	77.1	161	88
TX80A5879	11	3208	.	162	77
W-391S4	29	3206	71.7	165	82
OK79257	6	3205	76.1	162	73
CI17277	3	3174	75.2	161	88
OK79256	7	3120	76.1	162	73
NA-361S5	27	3004	75.6	163	72
W-391R11	30	2801	75.5	161	74
TX78V2408	12	2792	73.5	161	70
KS79H69	17	2769	74.8	162	69
OK79259	8	2493	77.3	161	71
IL76-3845	32	2346	72.9	162	76
MEAN		3343			
L.S.D.(.05)		595			
C.V.		10.9			

BROOKINGS, SOUTH DAKOTA

TWO REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	WINTER SURVIVAL %
NE78668	26	6466	75.8	90	68
TX79A2729	9	4005	71.8	69	48
NK77W4093	22	3979	74.4	79	48
NA-3679	28	3943	74.5	85	75
W-391S4	29	3704	67.4	88	43
NE77682	25	3003	72.7	85	20
CI17277	3	2610	76.5	95	35
CO786741	18	2588	77.1	82	38
IL76-3845	32	2204	68.4	84	16
NK77W4593	24	1670	69.5	87	3
LS.NO.3	31	1552	76.5	106	18
OK754615E	5	1542	67.2	55	4
TX78V3630	10	1526	69.2	67	5
NK77W4505	23	1526	72.7	70	8
OK79257	6	1359	65.5	71	6
TX80A5904	13	1196	70.8	74	19
NA-361S5	27	907	68.4	78	6
TX80A5879	11	809	61.6	.	2
RH790610	34	737	66.2	.	3
CI1442	1	693	62.6	.	3
KS79H69	17	470	67.6	71	1
OK754615A	4	466	66.4	.	1
CO796386	21	460	68.2	.	1
IL77-4259	33	434	68	73	1
W-391R11	30	414	67.7	.	3
TXGH2875	16	357	61.2	.	2
CO796272	19	349	67.2	.	1
CO796326	20	323	67.1	.	1
CI13996	2	0	.	.	1
OK79256	7	0	.	.	0
OK79259	8	0	.	.	1
TX78V2408	12	0	.	.	0
TX71A562-6-28	14	0	.	.	1
TX78V3098	15	0	.	.	0
MEAN		1450			
L.S.D.(.05)		2306			
C.V.		78.0			

HIGHMORE, SOUTH DAKOTA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	WINTER SURVIVAL %
NK77W4093	22	4708	76.4	80	90
CI17277	3	4340	78.7	87	95
W-391S4	29	4318	71	86	62
TX79A2729	9	4124	75	72	70
NE78668	26	4110	76.5	86	83
TX71A562-6-28	14	4075	72.8	80	63
CI13996	2	4069	77.8	89	95
TX80A5879	11	4017	76.8	74	73
CO796272	19	3954	77.4	91	70
OK754615A	4	3936	78.3	71	63
RH790610	34	3846	76	71	65
NE77682	25	3742	75.6	86	73
KS79H69	17	3569	76	78	65
CI1442	1	3561	75.6	99	83
CO786741	18	3537	78.6	84	70
OK754615E	5	3452	76.9	68	73
NK77W4593	24	3422	77.7	86	80
NK77W4505	23	3391	75.1	73	60
TX78V3630	10	3338	76.8	70	77
CO796326	20	3313	77.1	90	88
IL77-4259	33	3236	76.2	79	78
IL76-3845	32	3175	74.8	81	67
TX80A5904	13	3147	76.2	76	70
CO796386	21	3029	78.7	88	72
LS.NO.3	31	2881	77.8	95	52
OK79257	6	2815	73.9	71	67
W-391R11	30	2751	75.3	78	67
TXGH2875	16	2685	74.2	74	73
NA-361S5	27	2674	75	78	80
NA-3679	28	2526	75.3	77	52
TX78V2408	12	2357	72.6	75	37
OK79256	7	1930	72.6	74	37
OK79259	8	1805	73.1	70	32
TX78V3098	15	1433	71.6	72	37
MEAN		3378			
L.S.D.(.05)		1095			
C.V.		19.8			

PRESHO, SOUTH 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	LODGING %	WINTER SURVIVAL %	LEAF RUST SEV. %	LEAF RUST RESP 1-9	LEAF SPOT 1-9	STRAW BREAKAGE %
W-391S4	29	4451	76.2	161	93	0	95	5	3	2	1
NA-3679	28	4450	81.7	160	81	0	88	10	3	4	1
NE78668	26	4409	82.3	160	102	0	82	0	2	2	5
TX78V3630	10	4191	79	159	71	0	62	1	3	2	1
RH790610	34	3787	76.4	159	82	0	82	.	.	.	1
NK77W4093	22	3691	81.3	159	84	0	88	1	3	5	3
CI17277	3	3675	78.6	158	93	8	92	1	2	5	5
LS.NO.3	31	3653	81	158	100	26	92	.	.	.	8
IL76-3845	32	3629	79.1	161	84	0	82	.	.	.	1
NE77682	25	3618	79.2	160	93	0	65	0	2	5	3
CO796272	19	3567	78.1	159	101	25	47	100	8	2	3
CI13996	2	3419	79.5	157	98	25	97	25	4	5	8
KS79H69	17	3415	75.6	157	70	0	90	1	3	3	1
OK754615A	4	3387	80	159	87	1	80	1	4	5	3
NA-361S5	27	3354	77.7	159	87	0	83	25	4	3	1
CO796326	20	3333	79.5	159	93	5	48	100	8	3	3
CO786741	18	3308	79.6	159	91	0	93	65	8	5	6
TX80A5879	11	3289	79.2	159	75	0	58	65	8	3	3
OK754615E	5	3172	79.5	158	84	0	90	1	4	4	1
OK79257	6	3103	75	159	77	0	62	1	3	4	13
CO796386	21	2995	79.2	158	93	0	32	100	8	4	3
NK77W4505	23	2933	76.5	158	80	0	85	0	2	3	25
TXGH2875	16	2914	77.1	158	81	0	87	20	4	1	5
TX79A2729	9	2877	77.1	158	75	0	57	5	4	5	10
TX71A562-6-28	14	2873	76.9	160	75	0	28	1	3	2	5
IL77-4259	33	2711	78.3	160	89	0	90	.	.	.	8
CI1442	1	2370	73.9	165	119	58	45	65	8	2	13
TX78V2408	12	2275	76.2	158	76	10	43	10	4	3	3
TX80A5904	13	2209	77.7	159	80	0	45	5	2	1	3
W-391R11	30	2181	76.4	157	82	0	34	100	8	5	3
NK77W4593	24	2116	72.2	.	89	0	23	0	2	3	1
OK79256	7	1945	75.5	160	76	0	17	5	4	3	13
TX78V3098	15	854	72.6	.	74	0	5	5	4	1	8
OK79259	8	462	70.4	.	.	0	4	1	3	3	1
MEAN		3082									
L.S.D.(.05)		1327									
C.V.		26.4									

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 %	WINTER SURVIVAL %	LEAF RUST SEV. %	MILDEW %	SEPTORIA TRITICI %
IL77-4259	33	3866	77.4	137	107	5	88	1	0	30
W-391S4	29	3402	71	141	100	3	87	0	1	30
TXGH2875	16	3343	73.5	136	82	5	73	50	3	25
NA-3679	28	3343	78	139	87	3	82	1	7	25
TX80A5879	11	3302	74.2	138	86	1	90	0	43	33
CO796272	19	3247	76.1	138	97	8	68	35	3	23
NE78668	26	3122	74.2	138	102	8	67	0	3	25
CO796386	21	3105	78	137	100	5	77	55	10	35
RH790610	34	3081	75.5	137	86	3	78	0	10	28
CO796326	20	3003	76.8	138	96	3	67	45	22	33
OK754615E	5	2996	75.5	136	86	1	86	10	28	50
NK77W4593	24	2984	73.5	141	105	6	74	5	3	28
IL76-3845	32	2894	72.9	140	95	9	86	2	2	38
W-391R11	30	2852	72.9	139	90	5	80	35	23	33
TX78V3630	10	2848	72.9	138	79	1	81	0	37	33
NK77W4505	23	2835	72.2	136	80	1	59	1	57	33
KS79H69	17	2818	75.5	136	81	3	85	0	25	23
OK754615A	4	2790	75.5	137	86	1	78	40	37	45
OK79257	6	2684	73.5	141	85	4	67	0	25	25
CI17277	3	2643	74.8	142	108	21	68	0	22	30
NK77W4093	22	2533	74.2	141	95	3	73	11	25	28
TX78V2408	12	2531	69	141	89	6	60	1	23	25
NA-361S5	27	2460	71	138	82	1	57	0	37	33
CI13996	2	2261	76.1	142	119	38	53	30	17	28
TX71A562-6-28	14	2243	71	142	84	7	38	0	25	25
NE77682	25	2131	70.3	142	100	5	60	0	10	25
OK79256	7	1761	70.3	143	88	4	23	0	20	25
LS.NO.3	31	1735	74.2	143	116	37	42	20	27	23
TX79A2729	9	1723	71	141	83	3	37	0	33	25
CI1442	1	1684	74.2	144	124	67	55	6	17	25
TX80A5904	13	1646	71.6	140	82	1	67	20	47	33
TX78V3098	15	1172	61.9	146	88	2	15	0	8	18
OK79259	8	866	65.8	144	81	5	10	0	20	30
CO786741	18	765	65.1	145	89	4	24	16	18	23
MEAN		2628								
L.S.D.(.05)		996								
C.V.		23.2								

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 %	WINTER SURVIVAL %	LEAF RUST SEV. %	RESP 1-3
NE78668	26	4956	76.2	151	197	94	6	99	5	2
KS79H69	17	4553	76	149	195	86	11	98	5	1
NK77W4505	23	4078	74.7	149	192	83	20	100	1	1
NK77W4593	24	3986	76	154	197	99	3	91	10	1
IL77-4259	33	3835	77	152	195	88	5	98	5	1
OK79257	6	3661	71.7	153	196	84	4	96	45	3
CI13996	2	3504	77.3	153	195	100	31	94	45	3
OK79256	7	3495	73.8	153	196	86	3	91	25	2
CI17277	3	3392	77.7	153	195	97	24	100	10	3
TXGH2875	16	3291	71.6	149	194	86	2	89	35	3
NE77682	25	3141	72.6	153	196	98	5	87	15	1
CO786741	18	3138	76	152	195	98	33	95	45	3
OK754615A	4	3111	70.8	150	195	84	3	88	45	3
TX71A562-6-28	14	3111	72.5	154	195	89	13	88	10	2
NA-361S5	27	3080	69.5	150	194	87	7	97	60	3
IL76-3845	32	3071	70.7	152	194	95	67	100	45	3
CO796272	19	3069	76.9	151	194	97	48	94	60	3
RH790610	34	3067	71.5	151	194	83	6	95	25	2
CO796386	21	2966	76.4	150	193	97	3	98	50	3
W-391S4	29	2946	66	153	196	97	47	98	35	2
TX79A2729	9	2896	72.5	152	196	78	3	93	50	3
TX78V2408	12	2876	72.2	153	196	87	3	77	15	2
NA-3679	28	2728	71.3	155	196	89	27	90	30	2
OK754615E	5	2726	73.7	149	192	82	2	71	40	3
TX78V3630	10	2600	71.5	151	195	74	8	83	10	1
NK77W4093	22	2596	69.5	152	195	92	85	100	35	2
CO796326	20	2547	74.6	150	193	92	7	95	55	3
TX80A5879	11	2217	63.6	151	193	82	28	92	55	3
LS.NO.3	31	2179	75.5	154	195	98	65	100	50	3
TX78V3098	15	2165	67.2	157	198	88	2	74	10	2
CI1442	1	1778	69.1	161	197	102	78	100	55	3
OK79259	8	1766	71	154	197	77	4	62	20	2
TX80A5904	13	1749	69	152	194	80	55	93	45	3
W-391R11	30	1686	58.2	152	193	88	55	91	55	3
MEAN		2999								
L.S.D.(.05)		824								
C.V.		16.8								

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 1-9
OK754615A	4	5426	79.7	138	92	0
TXGH2875	16	4772	74.3	141	91	1
OK754615E	5	4640	78.7	139	87	1
OK79257	6	4425	76.3	141	87	3
IL76-3845	32	4285	77	142	94	1
NA-361S5	27	4245	78	140	89	3
OK79256	7	3984	75.7	140	93	3
OK79259	8	3957	77	140	89	1
TX78V3630	10	3930	76.7	140	83	0
NK77W4505	23	3887	76	141	89	1
RH790610	34	3879	77.7	139	90	1
TX79A2729	9	3857	76	140	85	1
NA-3679	28	3796	78.3	141	92	3
TX78V2408	12	3734	74.3	142	89	6
NE78668	26	3650	76.3	140	96	3
KS79H69	17	3588	77.7	141	91	2
TX80A5879	11	3554	73.7	140	83	6
W-391R11	30	3513	74	142	94	3
CO796386	21	3311	77.3	139	100	6
W-391S4	29	3241	70	143	95	4
TX71A562-6-28	14	3128	70.3	142	92	2
CO786741	18	3048	76.3	143	95	6
NE77682	25	3002	75.7	141	96	6
CI13996	2	2935	73	141	98	7
NK77W4093	22	2892	74	141	92	3
TX80A5904	13	2889	69.3	141	83	2
CI17277	3	2830	75.7	142	96	7
TX78V3098	15	2658	72.3	142	88	3
IL77-4259	33	2599	78.3	141	95	1
CO796272	19	2558	76.3	141	97	7
NK77W4593	24	2491	76.7	142	101	0
CO796326	20	2483	75	141	93	7
CI1442	1	2330	72.3	146	103	6
LS.NO.3	31	1681	71.3	143	96	8
MEAN		3447				
L.S.D.(.05)		1015				
C.V.		18.0				

ABERDEEN, IDAHO

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	DAYS TO HEADING FROM 1/1	PLANT HEIGHT CM	LODGING 1-9
TX71A562-6-28	14	7343	165	100	3
RH790610	34	7190	162	102	1
TX78V3630	10	6748	161	93	1
IL76-3845	32	6665	165	107	1
W-391R11	30	6625	165	107	1
OK754615E	5	6519	162	97	2
OK79257	6	6461	162	89	1
OK79256	7	6461	162	90	1
OK754615A	4	6453	162	100	2
NA-361S5	27	6408	163	95	1
TX80A5904	13	6177	164	94	1
NA-3679	28	6176	166	102	2
NK77W4093	22	6079	163	99	1
NE77682	25	6023	162	114	4
NK77W4505	23	5991	161	95	1
TX79A2729	9	5973	162	86	1
TX78V2408	12	5871	161	102	4
OK79259	8	5811	161	84	1
W-391S4	29	5809	167	117	5
TX80A5879	11	5620	165	93	3
TXGH2875	16	5535	161	93	1
NE78668	26	5446	165	121	3
NK77W4593	24	5389	165	117	1
CI17277	3	5355	163	126	6
CO786741	18	5303	162	107	1
IL77-4259	33	5292	167	94	1
KS79H69	17	5151	162	93	1
CO796386	21	5148	160	117	2
TX78V3098	15	5034	162	91	1
CO796326	20	4967	164	119	6
CI13996	2	4883	163	123	8
CO796272	19	4827	165	130	8
LS.NO.3	31	4467	164	118	9
CI1442	1	3773	170	131	7
MEAN		5793			
L.S.D.(.05)		1202			
C.V.		12.7			

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	STAND %
NK77W4505	23	1574	77.8	148	57	87
TX78V3098	15	1545	78.6	149	59	77
TX80A5904	13	1457	80.6	149	56	63
TX78V2408	12	1443	77	148	61	80
CO796272	19	1383	80	149	65	72
OK79256	7	1349	78.9	148	58	76
W-391R11	30	1349	79.6	149	60	63
NE78668	26	1320	77.3	149	66	65
NA-3679	28	1320	80.4	148	56	76
NA-361S5	27	1269	79.3	148	53	78
TXGH2875	16	1258	77.8	148	58	80
OK79259	8	1255	77.7	148	56	66
RH790610	34	1246	79.9	148	59	65
NK77W4593	24	1231	78.8	149	59	69
NK77W4093	22	1224	80.5	149	61	75
CO796326	20	1215	79.3	148	59	74
W-391S4	29	1204	77.5	149	65	61
OK754615E	5	1197	78.6	148	56	65
OK79257	6	1166	77.1	148	59	68
KS79H69	17	1159	76.9	148	56	79
OK754615A	4	1141	78.7	148	62	57
TX71A562-6-28	14	1119	78.4	148	57	71
CI17277	3	1110	77.7	148	61	72
CI1442	1	1105	78.8	153	75	76
IL76-3845	32	1092	77.5	148	62	92
CI13996	2	1078	78.3	148	62	72
LS.NO.3	31	1065	80	149	62	73
NE77682	25	1004	78.9	148	59	76
CO786741	18	950	80	148	58	80
TX78V3630	10	924	80	148	52	75
CO796386	21	921	80	148	58	71
TX79A2729	9	908	79.5	148	55	59
IL77-4259	33	859	78.4	149	58	69
TX80A5879	11	773	79.2	148	57	63
MEAN		1181				
L.S.D.(.05)		323				
C.V.		16.8				

TABLE 2. SUMMARY OF MEAN YIELDS (kg/ha) OF THE 34 LINES GROWN IN THE 1982 SOUTHERN REGIONAL PERFORMANCE NURSERY AT 30 LOCATIONS, WITH STATE MEANS AND RANKS.

VARIETY OR PEDIGREE	C.I. OR SEL. NO.	ENTRY NO.	NEBRASKA MEAD	CLAY CENTER	NORTH PLATTE	SIDNEY	AL-LIANCE	MEAN	RANK	MISSOURI COLUM-BIA	RANK
(WRR*5/AGENT)*2/KAVKAZ	NE78668	26	3950	2885	2429	4613	4032	3582	1	3122	7
SDY.SIB/TRIUMPH//CTK	TX71A562-6-28	14	2603	1170	1402	4234	3278	2537	11	2243	25
SCOUT*5/AG//SDY/3/CENTURK	NK77W4093	22	2977	1778	2250	4588	4215	3162	2	2533	21
II18889/TPR//CO652643/3/BACA	W-391S4	29	2551	1291	2490	4216	3206	2751	4	3402	2
TAM105*4/AMIGO	TXGH2875	16	2670	1047	1634	3897	3780	2606	9	3343	3
HARD.WINTER.WHEAT.HYBRID	RH790610	34	1995	762	1028	4355	3836	2395	19	3081	9
CIMMYT/CO652643//LCR/3/KS62/CO695552	NA-3679	28	2623	959	1596	4632	4186	2799	3	3343	3
SCOUT*5/AG//SDY	NK77W4505	23	3192	1865	889	4277	3347	2714	5	2835	16
EY.SDY/NCM	OK754615A	4	2192	433	1151	3955	3495	2245	25	2790	18
TAMW-103/KS73167	TX79A2729	9	2594	948	2447	3644	3438	2614	8	1723	29
SDY.SIB/KAW(TX62A2522-1)//CTK	TX79V3630	10	2107	704	2794	4185	3364	2631	7	2848	15
EY.SDY/NCM	OK754615E	5	2457	753	714	4590	3339	2371	20	2996	11
AURORA/2*TAMW-101	OK79257	6	2616	578	2112	3772	3205	2457	15	2684	19
WRR*5/AGENT//NE68457/3/CTK78	NE77682	25	3125	984	1299	3911	3576	2579	10	2131	26
II18889/TPR//CO652643/3/BACA	W-391R11	30	1215	439	2280	4014	2801	2150	27	2852	14
SAGE	CI17277	3	2562	1679	1374	3443	3174	2446	17	2643	20
TAMW-101/CTK(TX71A58-3)//AMIGO	TX80A5879	11	2425	1423	2060	3477	3208	2519	12	3302	5
KAVKAZ/CENTURK	NK77W4593	24	3116	816	2194	3925	3293	2669	6	2984	12
SONORA/TPR//WRR/3/II18889/TPR//CO652643	NA-361S5	27	2352	587	1581	3921	3004	2289	23	2460	23
SAGE/ARTHUR	KS79H69	17	3398	899	907	3298	2769	2254	24	2818	17
AURORA/2*TAMW-101	OK79256	7	1885	265	2577	3767	3120	2323	21	1761	27
SHORT.WHEAT/SUT(TX69A509-2)//FOX	TX78V2408	12	1896	155	1016	2791	2792	1730	33	2531	22
CO723117/CO725856	CO796272	19	2221	791	1378	4456	3619	2493	13	3247	6
CTK//KS6623/TX62A2522-8-2	IL76-3845	32	2818	1036	1897	3882	2346	2396	18	2894	13
72F30620/BACA	CO786741	18	2401	942	1600	3952	3344	2447	16	765	34
TAMW-101/CTK(TX71A58-3)//AMIGO	TX80A5904	13	1179	525	1673	3934	3546	2171	26	1646	31
CO723117/CO725856	CO796326	20	1740	906	1151	4475	3342	2323	22	3003	10
CO723117/CO725856	CO796386	21	1634	592	650	4150	3502	2106	28	3105	8
KAVKAZ/TX69A330-1	IL77-4259	33	3432	471	1191	3501	3714	2462	14	3866	1
SCOUT66	CI13996	2	2080	894	1317	2625	3220	2027	29	2261	24
ERA/TAMW-101	TX78V3098	15	1529	45	1087	3736	3498	1979	30	1172	32
AURORA/2*TAMW-101	OK79259	8	751	119	1199	3366	2493	1586	34	866	33
SAGE.OUTCROSS	LS.NO.3	31	1459	455	611	3175	3306	1801	32	1735	28
KHARKOF	CI1442	1	1650	933	673	2762	3282	1860	31	1684	30
Mean			2335	886	1549	3868	3343	2396		2628	
L.S.D.(.05)			815	584	882	765	595	595		996	
C.V.			21.4	40.3	34.9	12.1	10.9	18.9		23.2	

TABLE 2.--(continued)

C.I. OR SEL. NO.	ENTRY NO.	TEXAS						OKLAHOMA						IOWA	
		DALLAS	CHILLI-COTHE	BUSHLAND (IRR.)	BUSHLAND (DRYL.)	MEAN	RANK	STILL-WATER	ALTUS	LAHOMA	GOODWELL (IRR.)	MEAN	RANK	AMES	RANK
NE78668	26	3190	3432	6094	2004	3680	2	2659	3607	4642	5760	4167	10	4956	1
TX71A562-6-28	14	2116	3746	7440	2776	4020	1	2979	3723	4496	6177	4344	5	3111	13
NK77W4093	22	2145	2307	6327	1971	3187	21	2576	3088	4258	6395	4079	14	2596	26
W-391S4	29	1383	2782	6273	2151	3147	22	2939	3181	4005	5632	3940	17	2946	20
TXGH2875	16	1948	3049	6074	2174	3311	15	2683	3945	4479	7171	4570	1	3291	10
RH790610	34	2369	2782	6643	2021	3454	7	2325	3533	4559	6368	4196	8	3067	18
NA-3679	28	1995	3138	6141	2227	3375	11	2576	3235	4207	5443	3865	19	2728	23
NK77W4505	23	2347	2544	5872	1988	3188	20	2506	3065	4968	6172	4178	9	4078	3
OK754615A	4	2596	3183	6502	1823	3526	4	2688	2964	4399	6401	4113	12	3111	13
TX79A2729	9	1527	2493	6641	2221	3220	18	2712	3649	4265	6420	4261	6	2896	21
TX78V3630	10	2497	3322	6679	1947	3611	3	2266	3189	4108	6844	4102	13	2600	25
OK754615E	5	2331	3060	5959	1632	3246	17	2697	4074	4545	6175	4373	4	2726	24
OK79257	6	2365	2307	6623	2130	3356	14	2869	4095	4532	6277	4443	3	3661	6
NE77682	25	2475	2708	6136	2114	3358	13	2578	3400	4080	5773	3958	16	3141	11
W-391R11	30	1302	3927	6296	1918	3361	12	2446	3345	3713	5753	3814	22	1686	34
CI17277	3	1455	2419	6042	2172	3022	25	2331	3130	3819	5537	3704	25	3392	9
TX80A5879	11	2816	2318	6556	1982	3418	9	2632	2984	3367	5487	3618	29	2217	28
NK77W4593	24	2708	2737	6013	2188	3411	10	2715	3172	4113	6026	4006	15	3986	4
NA-361S5	27	1598	2612	6581	1782	3143	23	2127	3269	3934	5913	3811	23	3080	15
KS79H69	17	2461	1917	6110	1850	3084	24	2428	3169	4533	6348	4119	11	4553	2
OK79256	7	2374	2625	6496	2252	3437	8	3085	3838	4719	6278	4480	2	3495	8
TX78V2408	12	1955	2955	6668	2393	3493	6	2607	3599	3904	5040	3788	24	2876	22
CO796272	19	1798	2257	5214	1656	2731	32	2336	3341	4145	5724	3886	18	3069	17
IL76-3845	32	1538	1744	5376	1881	2635	33	2396	2980	3931	6117	3856	20	3071	16
CO786741	18	1408	1910	5766	2267	2838	26	2264	2751	4059	5539	3653	27	3138	12
TX80A5904	13	1894	2961	6691	2484	3507	5	2029	2954	3340	5491	3453	31	1749	33
CO796326	20	1271	2271	5874	1616	2758	31	1930	3111	3744	5371	3539	30	2547	27
CO796386	21	1601	2594	5380	1558	2783	30	2255	3027	3699	5517	3624	28	2966	19
IL77-4259	33	1580	1605	5403	1627	2554	34	2322	2681	4352	5338	3673	26	3835	5
CI13996	2	908	2219	5914	2201	2811	28	2334	2887	3145	5317	3421	32	3504	7
TX78V3098	15	1341	2459	6691	2384	3219	19	2466	3323	4132	5481	3850	21	2165	30
OK79259	8	2031	2726	6336	1999	3273	16	2813	3865	4285	5971	4233	7	1766	32
LS.NO.3	31	1042	2116	5905	2164	2807	29	1861	2513	2989	4551	2978	33	2179	29
CI1442	1	.	2273	4117	2051	2814	27	1952	2252	2264	3502	2493	34	1778	31
Mean		1950	2632	6142	2047	3199		2482	3263	4051	5803	3900		2999	
L.S.D.(.05)		382	690	496	403	600		471	664	393	643	446		824	
C.V.		12.0	16.1	4.9	13.9	10.1		11.6	12.5	5.9	6.8	8.7		16.8	

TABLE 2.--(continued)

C.I. OR SEL. NO.	ENTRY NO.	KANSAS						COLORADO					IDAHO		WASHINGTON	
		HUTCH-INSON	HAYS	GARDEN CITY	COLBY	MEAN	RANK	BURLING-TON	AKRON	JULES-BURG	MEAN	RANK	ABER-DEEN	RANK	LIND	RANK
NE78568	26	4460	5172	5022	2059	4178	18	4159	2399	3766	3441	13	5446	22	1320	8
TX71A562-6-28	14	4103	6021	5748	3132	4751	1	5235	2511	3493	3746	4	7343	1	1119	22
NK77W4093	22	3957	5481	5163	3219	4455	5	5081	2541	4279	3967	1	6079	13	1224	15
W-391S4	29	3618	5595	5379	3063	4414	6	4791	2362	3834	3662	7	5809	19	1204	17
TXGH2875	16	2962	5624	5563	3138	4322	10	4723	2365	3749	3612	8	5535	21	1258	11
RH790610	34	3569	5311	4908	2877	4166	20	4591	2750	3775	3675	6	7190	2	1246	13
NA-3679	28	4005	5571	5661	3136	4593	2	4432	2608	3647	3562	10	6176	12	1320	8
NK77W4505	23	4285	5196	4841	3743	4516	4	4706	2122	3185	3338	17	5991	15	1574	1
OK754615A	4	3497	5420	5099	2857	4219	14	4868	2504	4210	3861	2	6453	9	1141	21
TX79A2729	9	3368	5293	5248	2963	4218	15	5133	2362	3655	3716	5	5973	16	908	32
TX78V3630	10	3701	4961	4836	3371	4217	16	4202	2100	3467	3256	21	6748	3	924	30
OK754615E	5	3594	5485	4933	3324	4334	9	4441	2391	3612	3482	12	6519	6	1197	18
OK79257	6	3803	5532	5285	2664	4321	11	4082	2328	3245	3218	23	6461	7	1166	19
NE77682	25	4274	4620	5035	3476	4351	8	4552	2489	3425	3488	11	6023	14	1004	28
W-391R11	30	2953	5279	4871	2505	3902	27	5226	2634	3587	3816	3	6625	5	1349	6
CI17277	3	4180	4752	4790	3052	4194	17	4244	2365	3612	3407	15	5355	24	1110	23
TX80A5879	11	3787	4847	5497	2783	4228	13	4612	2324	3894	3610	9	5620	20	773	34
NK77W4593	24	3957	3645	4686	2705	3748	31	3775	2612	3561	3316	18	5389	23	1231	14
NA-3615S	27	2789	4618	5396	3449	4063	22	4022	2571	3578	3390	16	6408	10	1269	10
KS79H69	17	4160	4820	4568	3163	4178	19	3630	2048	3185	2954	31	5151	27	1159	20
OK79256	7	3950	5391	5149	3072	4391	7	3945	2156	3348	3150	27	6461	7	1349	6
TX78V2408	12	4278	5089	5267	3503	4534	3	4159	2238	2887	3095	29	5871	17	1443	4
CO796272	19	3827	4860	4972	3268	4232	12	3869	2563	3442	3291	19	4827	32	1383	5
IL76-3845	32	3229	4542	4981	2485	3809	30	3852	1988	3425	3088	30	6665	4	1092	25
CO786741	18	3151	4844	5115	2997	4027	23	4048	2436	3792	3425	14	5303	25	950	29
TX80A5904	13	3394	4775	5086	2464	3930	26	4082	2227	3279	3196	25	6177	11	1457	3
CO796326	20	3468	4867	4799	2796	3982	24	3971	2264	3467	3234	22	4967	30	1215	16
CO796386	21	3609	4779	4491	2607	3872	28	4458	2425	2938	3274	20	5148	28	921	31
IL77-4259	33	3480	3959	3931	2693	3516	33	3928	2444	3177	3183	26	5292	26	859	33
CI13996	2	3608	4196	4522	3013	3835	29	4031	2384	3228	3214	24	4883	31	1078	26
TX78V3098	15	3471	4784	4834	2787	3969	25	4022	2294	3117	3145	28	5034	29	1545	2
OK79259	8	3143	5017	5367	3130	4164	21	3467	1973	3100	2847	32	5811	18	1255	12
LS.NO.3	31	3373	3703	4434	2781	3573	32	3706	2175	2613	2831	33	4467	33	1065	27
CI1442	1	3671	2988	3681	1585	2981	34	3407	2350	2588	2782	34	3773	34	1105	24
Mean		3567	4913	4975	2937	4123		4275	2362	3446	3361		5793		1181	
L.S.D.(.05)		548	457	483	527	561		1073	N.S.	479	457		1202		323	
C.V.		9.2	5.7	5.9	11.0	7.5		15.4	12.8	8.5	13.4		12.7		16.8	

TABLE 2.--(concluded)

C.I. OR SEL. NO.	ENTRY NO.	SOUTH DAKOTA BROOKINGS	HIGHMORE	PRESHO	MEAN*	RANK	NEW MEXICO FARMINGTON	CLOVIS (IRR.)	CLOVIS (DRY.)	MEAN	RANK	ILLINOIS URBANA	RANK	30 SITE MEAN *
NE78668	26	6466	4110	4409	4259	2	8797	5392	3095	5761	11	3650	15	4021
TX71A562-6-28	14	0	4075	2873	3474	15	9883	6333	2861	6359	3	3128	21	3978
NK77W4093	22	3979	4708	3691	4200	3	8443	6340	2701	5828	8	2892	25	3860
W-391S4	29	3704	4318	4451	4385	1	9114	7152	3092	6453	2	3241	20	3849
TXGH2875	16	357	2685	2914	2799	27	10371	5874	2245	6163	4	4772	2	3832
RH790610	34	737	3846	3787	3816	5	8541	6774	2549	5955	5	3879	11	3808
NA-3679	28	3943	2526	4450	3488	14	7479	6123	2515	5373	13	3796	13	3749
NK77W4505	23	1526	3391	2933	3162	21	8211	5643	1982	5279	17	3887	10	3721
CK754615A	4	466	3936	3387	3662	10	7711	5314	2034	5020	25	5426	1	3718
TX79A2729	9	4005	4124	2877	3501	12	8382	7136	2097	5872	7	3857	12	3700
TX78V3630	10	1526	3338	4191	3764	6	6967	6449	1843	5086	23	3930	9	3683
CK754615E	5	1542	3452	3172	3312	19	8529	5191	1764	5161	21	4640	3	3677
CK79257	6	1359	2815	3103	2959	26	7699	5120	2230	5016	26	4425	4	3659
NE77682	25	3003	3742	3618	3680	9	8663	4757	2603	5341	15	3002	23	3624
W-391R11	30	414	2751	2181	2466	30	8834	8122	3229	6728	1	3513	18	3588
CI17277	3	2610	4340	3675	4008	4	9785	4983	3028	5932	6	2830	27	3576
TX80A5879	11	809	4017	3289	3653	11	9078	5391	1549	5339	16	3554	17	3576
NK77W4593	24	1670	3422	2116	2769	28	8626	5954	2768	5783	10	2491	31	3564
NA-361S5	27	907	2674	3354	3014	22	8858	6021	2472	5784	9	4245	6	3551
KS79H69	17	470	3569	3415	3492	13	8041	6230	1834	5368	14	3588	16	3534
OK79256	7	0	1930	1945	1937	32	7382	4495	1987	4621	33	3984	7	3503
TX78V2408	12	0	2357	2275	2316	31	8138	5727	3148	5671	12	3734	14	3443
CO796272	19	349	3954	3567	3761	7	7357	4554	2774	4895	28	2558	30	3434
IL76-3845	32	2204	3175	3629	3402	17	7040	5829	1736	4868	29	4285	5	3395
CO786741	18	2588	3537	3308	3422	16	8346	4709	2530	5195	20	3048	22	3341
TX80A5904	13	1196	3147	2209	2678	29	8504	5271	2032	5269	18	2889	26	3303
CO796326	20	323	3313	3333	3323	18	7736	5009	2340	5028	24	2483	32	3279
CO796386	21	460	3029	2995	3012	23	7113	5222	2682	5006	27	3311	19	3265
IL77-4259	33	434	3236	2711	2973	24	7919	4136	2344	4799	30	2599	29	3254
CI13996	2	0	4069	3419	3744	8	7260	5034	2966	5087	22	2935	24	3248
TX78V3098	15	0	1433	854	1143	33	7809	5530	2276	5205	19	2658	28	3132
OK79259	8	0	1805	462	1134	34	7589	4743	1697	4676	31	3957	8	3104
LS.NO.3	31	1552	2881	3653	3267	20	7052	4135	2741	4643	32	1681	34	2884
CI1442	1	693	3561	2370	2965	25	6223	4149	2828	4400	34	2330	33	2682
Mean		1450	3378	3082	3228		8161	5554	2429	5381		3447		3516
L.S.D.(.05)		2306	1095	1327	949		1568	1047	712	1120		1015		269
C.V.		78.0	19.8	26.4	23.1		13.6	11.5	18.0	14.8		18.0		14.3

*Data from Brookings not included

TABLE 2A. SUMMARY OF MEAN YIELDS (kg/ha) AND RANKS OF 34 LINES GROWN IN THE 1982 SOUTHERN REGIONAL PERFORMANCE NURSERY AT LOCATIONS IN THE MIDWEST FROM WHICH A C.V. OF 17 OR LESS AND A SIGNIFICANT F TEST FOR ENTRIES WERE OBTAINED.

C. I. or Sel. No.	Entry no.	Nebraska				Texas								New Mexico				Colorado			
		Sidney		Alliance		Dallas		Chillicothe		Bushland (Irr.)		Bushland (Dryl.)		Clovis (Irr.)		Farmington		Burlington		Julesburg	
TX71A562-6-28	14	4234	9	3278	22	2116	14	3746	2	7440	1	2776	1	6333	7	9883	2	5235	1	3493	16
TXGH2875	16	3897	20	3780	5	1948	18	3049	8	6074	21	2174	11	5874	12	10371	1	4723	7	3749	8
NK77W4093	22	4588	4	4215	1	2145	13	2307	24	6327	14	1971	23	6340	6	8443	14	5081	4	4279	1
RH790610	34	4355	7	3836	4	2369	9	2782	11	6643	6	2021	18	6774	4	8541	11	4501	11	3775	6
NE78668	26	4613	2	4032	3	3190	1	3432	3	6094	20	2004	19	5392	17	8797	8	4159	17	3766	7
W-391S4	29	4216	10	3206	25	1383	28	2782	11	6273	16	2151	14	7152	2	9114	4	4791	6	3834	4
TX79A2729	9	3644	25	3438	13	1527	25	2493	20	6641	7	2221	8	7136	3	8382	15	5133	3	3655	9
NA-3679	28	4632	1	4186	2	1995	16	3138	6	6141	17	2227	7	6123	9	7479	26	4432	14	3647	10
OK754615E	5	4590	3	3339	18	2331	12	3060	7	5959	24	1632	31	5191	22	8529	12	4441	13	3612	11
OK754615A	4	3955	14	3495	12	2596	4	3183	5	6502	11	1823	28	5314	19	7711	23	4868	5	4210	2
NK77W4505	23	4277	8	3347	15	2347	11	2544	19	5872	28	1988	21	5643	15	8211	17	4706	8	3185	26
W-391R11	30	4014	13	2801	30	1302	30	3927	1	6296	15	1918	25	8122	1	8834	7	5226	2	3587	13
TX78V3630	10	4185	11	3364	14	2497	5	3322	4	6679	4	1947	24	6449	5	6967	33	4202	16	3467	17
OK79257	6	3772	22	3205	26	2365	10	2307	24	6623	8	2130	15	5120	23	7699	24	4082	19	3245	24
NE77682	25	3911	19	3576	8	2475	6	2708	15	6136	18	2114	16	4757	27	8663	9	4552	10	3425	20
OK79256	7	3767	23	3120	28	2374	8	2625	16	6496	12	2252	6	4495	31	7382	27	3945	26	3348	22
TX80A5879	11	3477	27	3208	24	2816	2	2318	23	6556	10	1982	22	5391	18	9078	5	4612	9	3894	3
NK77W4593	24	3925	17	3293	20	2708	3	2737	13	6013	23	2188	10	5954	11	8626	10	3775	30	3561	15
TX78V2408	12	2791	32	2792	31	1955	17	2955	10	6668	5	2393	3	5727	14	8138	18	4159	17	2887	32
NA-361S5	27	3921	18	3004	29	1598	22	2612	17	6581	9	1782	29	6021	10	8858	6	4022	23	3578	14
CI17277	3	3443	28	3174	27	1455	26	2419	22	6042	22	2172	12	4983	26	9785	3	4244	15	3612	11
KS79H69	17	3298	30	2769	32	2461	7	1917	31	6110	19	1850	27	6230	8	8041	19	3630	32	3185	26
TX80A5904	13	3934	16	3546	9	1894	19	2961	9	6691	3	2484	2	5271	20	8504	13	4082	19	3279	23
TX78V3098	15	3736	24	3498	11	1341	29	2459	21	6691	2	2384	4	5530	16	7809	21	4022	23	3117	29
OK79259	8	3366	29	2493	33	2031	15	2726	14	6336	13	1999	20	4743	28	7589	25	3467	33	3100	30
CO796272	19	4456	6	3619	7	1798	20	2257	28	5214	33	1656	30	4554	30	7357	28	3869	28	3442	19
CO786741	18	3952	15	3344	16	1408	27	1910	32	5766	29	2267	5	4709	29	8346	16	4048	21	3792	5
CO796326	20	4475	5	3342	17	1271	31	2271	27	5874	27	1616	33	5009	25	7736	22	3971	25	3467	17
CO796386	21	4150	12	3502	10	1601	21	2594	18	5380	31	1558	34	5222	21	7113	30	4458	12	2938	31
IL75-3845	32	3882	21	2346	34	1538	24	1744	33	5376	32	1881	26	5829	13	7040	32	3852	29	3425	20
CI13996	2	2625	34	3220	23	908	33	2219	29	5914	25	2201	9	5034	24	7260	29	4031	22	3228	25
IL77-4259	33	3501	26	3714	6	1580	23	1605	34	5403	30	1627	32	4136	33	7919	20	3928	27	3177	28
LS.NO.3	31	3175	31	3306	19	1042	32	2116	30	5905	26	2164	13	4135	34	7052	31	3706	31	2613	33
CI1442	1	2762	33	3282	21	.	.	2273	26	4117	34	2051	17	4149	32	6223	34	3407	34	2588	34
Mean		3868		3343		1950		2632		6142		2047		5554		8161		4275		3446	
L.S.D.(.05)		765		595		382		690		496		403		1047		1568		1073		479	
C.V.		12.1		10.9		12.0		16.1		4.9		13.9		11.5		13.6		15.4		8.5	

TABLE 2A --(concluded)

C. I. or	Entry	Oklahoma								Kansas								18-site
Sel. No.	no.	Stillwater		Altus		Lahoma		Goodwell		Hutchinson		Hays		Garden City		Colby		Mean
TX71A562-6-28	14	2979	2	3723	6	4496	8	6177	10	4103	7	6021	1	5748	1	3132	12	4717
TXGH2875	16	2683	10	3945	3	4479	9	7171	1	2962	32	5624	2	5563	3	3138	10	4511
NK77W4093	22	2576	15	3088	23	4258	14	6395	5	3957	9	5481	7	5163	11	3219	8	4435
RH790610	34	2325	25	3533	10	4559	4	6368	6	3569	21	5311	10	4908	21	2877	20	4391
NE78668	26	2659	11	3607	8	4642	3	5760	18	4460	1	5172	14	5022	17	2059	33	4381
W-391S4	29	2939	3	3181	18	4005	22	5632	21	3618	17	5595	3	5379	6	3063	15	4351
TX79A2729	9	2712	7	3649	7	4265	13	6420	3	3368	28	5293	11	5248	10	2963	19	4344
NA-3679	28	2576	15	3235	16	4207	15	5443	28	4005	8	5571	4	5661	2	3136	11	4324
OK754615E	5	2697	8	4074	2	4545	5	6175	11	3594	20	5485	6	4933	20	3324	6	4306
OK754615A	4	2688	9	2964	28	4399	10	6401	4	3497	22	5420	8	5099	14	2857	21	4277
NK77W4505	23	2506	17	3065	24	4968	1	6172	12	4285	2	5196	13	4841	23	3743	1	4272
W-391R11	30	2446	19	3345	12	3713	28	5753	19	2953	33	5279	12	4871	22	2505	30	4272
TX78V3630	10	2266	27	3189	17	4108	19	6844	2	3701	15	4961	17	4836	24	3371	5	4242
OK79257	6	2869	4	4095	1	4532	7	6277	9	3803	13	5532	5	5285	8	2664	28	4200
NE77682	25	2578	14	3400	11	4080	20	5773	17	4274	4	4620	27	5035	16	3476	3	4197
OK79256	7	3085	1	3838	5	4719	2	6278	8	3950	11	5391	9	5149	12	3072	14	4182
TX80A5879	11	2632	12	2984	26	3367	30	5487	26	3787	14	4847	20	5497	4	2783	24	4151
NK77W4593	24	2715	6	3172	19	4113	18	6026	14	3957	10	3645	33	4686	28	2705	26	4100
TX78V2408	12	2607	13	3599	9	3904	25	5040	32	4278	3	5089	15	5267	9	3503	2	4097
NA-361S5	27	2127	30	3269	15	3934	23	5913	16	2789	34	4618	28	5396	5	3449	4	4082
CI17277	3	2331	24	3130	21	3819	26	5537	23	4180	5	4752	26	4790	27	3052	16	4051
KS79H69	17	2428	20	3169	20	4533	6	6348	7	4160	6	4820	22	4568	29	3163	9	4038
TX80A5904	13	2029	31	2954	29	3340	31	5491	25	3394	26	4775	25	5086	15	2464	32	4010
TX78V3098	15	2466	18	3323	14	4132	17	5481	27	3471	24	4784	23	4834	25	2787	23	3992
OK79259	8	2813	5	3865	4	4285	12	5971	15	3143	31	5017	16	5367	7	3130	13	3969
CO796272	19	2336	22	3341	13	4145	16	5724	20	3827	12	4860	19	4972	19	3268	7	3927
CO786741	18	2264	28	2751	31	4059	21	5539	22	3151	30	4844	21	5115	13	2997	18	3903
CO796326	20	1930	33	3111	22	3744	27	5371	29	3468	25	4867	18	4799	26	2796	22	3840
CO796386	21	2255	29	3027	25	3699	29	5517	24	3609	18	4779	24	4491	31	2607	29	3806
IL76-3845	32	2396	21	2980	27	3931	24	6117	13	3229	29	4542	29	4981	18	2485	31	3754
CI13996	2	2334	23	2887	30	3145	32	5317	31	3608	19	4196	30	4522	30	3013	17	3648
IL77-4259	33	2322	26	2681	32	4352	11	5338	30	3480	23	3959	31	3931	33	2693	27	3630
LS.NO.3	31	1861	34	2513	33	2989	33	4551	33	3373	27	3703	32	4434	32	2781	25	3412
CI1442	1	1952	32	2252	34	2264	34	3502	34	3671	16	2988	34	3681	34	1585	34	3103
Mean		2482		3263		4051		5803		3667		4913		4975		2937		4086
L.S.D.(.05)		471		664		393		643		548		457		483		527		311
C.V.		11.6		12.5		5.9		6.8		9.2		5.7		5.9		11.0		11.7

TABLE 3. SUMMARY OF MEAN YIELDS (kg/ha) FOR 10 LINES GROWN IN THE SOUTHERN REGIONAL PERFORMANCE NURSERY AT 28 SITES IN 1981 AND 1982 WITH STATE MEANS AND RANKS.

VARIETY OR PEDIGREE	C.I. OR SEL. NO.	1982 ENTRY NO.	NEBRASKA MEAD	CLAY CENTER	NORTH PLATTE	SIDNEY	AL-LIANCE	MEAN	RANK	MISSOURI COLUM-BIA	RANK
(WRR*5/AGENT)*2/KAVKAZ	NE78668	26	4477	3810	2434	4169	3286	3635	1	3434	1
TAMW-103/KS73167	TX79A2729	9	4201	3098	2259	4156	2556	3254	2	2663	7
EY.SDY/NCM	OK754615A	4	3356	2538	1604	4422	2753	2934	6	2992	2
SAGE	CI17277	3	3759	3318	1921	3704	2693	3079	5	2833	4
WRR*5/AGENT//NE68457/3/CTK78	NE77682	25	3816	2560	1975	3900	3364	3123	4	2777	5
72F30620/BACA	C0786741	18	3415	2747	2086	4188	3186	3125	3	2344	9
SAGE/ARTHUR	KS79H69	17	3695	2577	1582	3686	2150	2738	7	2939	3
SCOUT66	CI13996	2	3371	2427	1760	3074	2855	2697	8	2756	6
SAGE.OUTCROSS	LS.NO.3	31	2826	1940	1283	3023	2947	2404	9	2366	8
KHARKOF	CI1442	1	2656	1967	1467	2778	2963	2366	10	1935	10
Mean			3557	2698	1837	3710	2875	2935		2738	
L.S.D.(.05)			N.S.	N.S.	N.S.	1000	N.S.	634		N.S.	
C.V.			12.7	13.2	21.9	13.0	13.7	14.3		18.0	

TABLE 3.--(continued)

C.I. OR SEL. NO.	1982 ENTRY NO.	TEXAS DALLAS	TEXAS CHILLI-COTHE	TEXAS BUSHLAND (IRR.)	TEXAS BUSHLAND (DRYL.)	TEXAS MEAN	TEXAS RANK	OKLAHOMA STILL-WATER	OKLAHOMA ALTUS	OKLAHOMA GOODWELL: LAHOMA	OKLAHOMA GOODWELL (IRR.)	OKLAHOMA MEAN	OKLAHOMA RANK
NE78668	26	3020	3303	5614	1738	3419	3	2865	3086	3706	4793	3613	5
TX79A2729	9	2434	3079	6771	1767	3513	1	2931	4003	4127	6743	4451	1
OK754615A	4	2820	3353	6298	1560	3508	2	2807	3482	3908	6638	4208	2
CI17277	3	2060	2377	5812	1692	2985	7	2707	3349	3275	5252	3646	3
NE77682	25	2618	2621	5702	1621	3141	4	2886	3368	3282	4460	3499	7
CO786741	18	2218	2414	5770	1821	3056	6	2567	3164	3545	5243	3630	4
KS79H69	17	2819	2506	5670	1548	3136	5	2643	3046	3349	5138	3544	6
CI13996	2	1781	2375	5607	1730	2873	9	2702	3008	3101	5136	3487	8
LS.NO.3	31	1779	2340	5615	1834	2892	8	2466	2942	3153	4529	3273	9
CI1442	1	1589	2060	3627	1483	2190	10	2047	2332	1462	3143	2246	10
Mean		2352	2643	5649	1680	3081		2662	3178	3291	5107	3560	
L.S.D.(.05)		N.S.	N.S.	667	N.S.	N.S.		N.S.	N.S.	N.S.	1833	1065	
C.V.		13.6	13.1	5.05	15.6	10.1		13.9	10.8	8.2	9.1	10.3	

TABLE 3.--(continued)

C.I. OR SEL. NO.	1982 ENTRY NO.	KANSAS HUTCHINSON	KANSAS HAYS	KANSAS GARDEN CITY	KANSAS COLBY	KANSAS MEAN	KANSAS RANK	COLORADO AKRON	COLORADO RANK	IDAHO ABERDEEN	IDAHO RANK	WASHINGTON LIND	WASHINGTON RANK	IOWA AMES	IOWA RANK
NE78668	26	3459	3903	3330	1964	3164	6	2266	6	4785	2	1837	1	5263	1
TX79A2729	9	3147	4356	3361	2595	3365	2	2266	7	4427	5	1663	3	4514	3
OK754615A	4	2895	4326	3275	2490	3246	5	2429	3	5023	1	1473	6	4155	6
CI17277	3	3630	3563	3454	2786	3358	3	2339	5	3615	7	1691	2	4274	5
NE77682	25	3604	3628	3275	3148	3414	1	2514	2	4650	3	1190	10	4367	4
C0786741	18	2650	4005	3651	2819	3281	4	2521	1	4519	4	1431	8	3959	8
KS79H69	17	3257	3745	2698	2600	3075	9	2146	9	4041	6	1457	7	4944	2
CI13996	2	3179	3449	3062	2891	3145	7	2399	4	3156	10	1623	5	4118	7
LS.NO.3	31	2996	3266	3450	2686	3100	8	2094	10	3232	8	1631	4	3505	9
CI1442	1	2841	2040	2766	1728	2344	10	2186	8	3180	9	1384	9	3178	10
Mean		3166	3628	3232	2571	3149		2316		4063		1533		4228	
L.S.D.(.05)		N.S.	764	N.S.	631	N.S.		N.S.		N.S.		N.S.		N.S.	
C.V.		12.4	7.1	8.7	11.5	9.9		11.3		13.8		20.5		7.6	

TABLE 3.--(concluded)

C.I. OR SEL. NO.	1982 ENTRY NO.	SOUTH DAKOTA BROOKINGS	SOUTH DAKOTA HIGHMORE	SOUTH DAKOTA PRESHO	SOUTH DAKOTA MEAN*	SOUTH DAKOTA RANK	NEW MEXICO FARMINGTON	NEW MEXICO CLOVIS (IRR.)	NEW MEXICO CLOVIS (DRY.)	NEW MEXICO MEAN	NEW MEXICO RANK	ILLINOIS URBANA	ILLINOIS RANK	28 SITE MEAN*
NE78668	26	4768	4154	3605	3879	1	6070	5071	2643	4595	5	3686	2	3635
TX79A2729	9	3231	3855	2270	3062	7	6000	6373	2349	4907	2	3251	3	3615
OK754615A	4	1014	3691	2820	3255	6	5688	5441	2339	4489	6	4080	1	3523
CI17277	3	2606	4195	3009	3602	2	6862	4981	3270	5038	1	2581	6	3393
NE77682	25	3113	4004	3016	3510	3	6633	4790	2605	4676	3	2594	5	3392
CO786741	18	2909	4044	2703	3373	4	6463	4829	2685	4659	4	2549	7	3341
KS79H69	17	874	3279	2319	2799	10	5738	5310	2071	4373	8	2937	4	3210
CI13996	2	1349	3890	2719	3305	5	5393	4834	2936	4388	7	2331	8	3131
LS.NO.3	31	2016	3106	2872	2989	9	5221	4593	3066	4293	9	1452	10	2936
CI1442	1	1716	3660	2332	2996	8	4657	3945	2477	3693	10	2230	9	2504
Mean		2402	3792	2877	3386		5872	5017	2644	4511		2769		3268
L.S.D.(.05)		N.S.	N.S.	659	N.S.		N.S.	N.S.	N.S.	N.S.		1234		474
C.V.		32.9	12.2	21.0	15.5		12.7	13.7	18.4	14.3		17.3		13.0

*Brookings not included

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 1982 Southern Regional Performance Nursery.

Entry no.	C. I. or Sel. No.	Mean yield over 30 Locations (kg/ha)	Regression Coefficient (by·x)	Correlation Coefficient (r)	Coefficient of Determination (r^2)
26	NE78668	4021	0.84	0.91	0.84
14	TX71A562-6-28	3978	1.22	0.98	0.96
22	NK77W4093	3860	1.03	0.97	0.94
29	W-39154	3849	1.06	0.96	0.93
16	TXGH2875	3832	1.17	0.97	0.93
34	RH790610	3808	1.14	0.98	0.97
28	NA-3679	3749	0.96	0.96	0.93
23	NK77W4505	3721	0.98	0.96	0.93
4	OK754615A	3718	1.04	0.96	0.92
9	TX79A2729	3700	1.11	0.97	0.94
10	TX78V3630	3683	1.00	0.95	0.90
5	OK754615E	3677	1.07	0.97	0.94
6	OK79257	3659	1.01	0.97	0.94
25	NE77682	3624	0.99	0.98	0.96
30	W-391R11	3588	1.16	0.93	0.87
3	17277	3576	1.02	0.96	0.92
11	TX80A5879	3576	1.03	0.96	0.93
24	NK77W4593	3564	0.94	0.95	0.90
27	NA-361S5	3551	1.11	0.98	0.96
17	KS79H69	3534	0.99	0.95	0.90
7	OK79256	3503	0.98	0.93	0.87
12	TX78V2408	3443	1.03	0.96	0.92
19	CO796272	3434	0.86	0.96	0.92
32	IL76-3485	3395	0.96	0.95	0.91
18	CO786741	3341	0.99	0.96	0.93
13	TX80A5904	3303	1.08	0.97	0.94
20	CO796326	3279	0.96	0.98	0.96
21	CO796386	3265	0.93	0.98	0.95
33	IL77-4259	3254	0.89	0.93	0.87
2	13996	3248	0.88	0.96	0.92
15	TX78V3098	3132	1.05	0.94	0.88
8	OK79259	3104	1.07	0.92	0.84
31	LS No. 3	2884	0.87	0.95	0.89
1	1442	2682	0.65	0.90	0.81

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 10 varieties grown in 28 locations in the 1981 and 1982 Southern Regional Performance Nursery.

1982 Entry no.	C. I. or Sel. No.	Mean Yield over 28 locations (kg/ha)	Regression Coefficient (by·x)	Correlation Coefficient (r)	Coefficient of Determination (r^2)
26	NE78668	3635	0.94	0.91	0.83
9	TX79A2729	3615	1.23	0.95	0.90
4	OK754615A	3523	1.13	0.94	0.89
3	17277	3393	1.09	0.97	0.95
25	NE77682	3392	1.02	0.96	0.93
18	CO786741	3341	1.03	0.96	0.92
17	KS79H69	3210	1.06	0.95	0.90
2	13996	3131	0.94	0.97	0.93
31	LS No. 3	2936	0.89	0.93	0.86
1	1442	2504	0.68	0.88	0.77

TABLE 6. SUMMARY OF AGRONOMIC AND YIELD DATA FOR THE 34 LINES GROWN IN THE 1982 SOUTHERN 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	STAND %	WINTER SURVIVAL %
NUMBER OF TRIALS			20	1	28	2	5
(WRR*5/AGENT)*2/KAVKAZ	NE78668	26	140	197	93	65	83
SDY.SIB/TRIUMPH//CTK	TX71A562-6-28	14	141	195	82	71	55
SCOUT*5/AG//SDY/3/CENTURK	NK77W4093	22	140	195	86	75	88
II18889/TPR//CO652643/3/BACA	W-391S4	29	142	196	89	61	85
TAM105*4/AMIGO	TXGH2875	16	137	194	79	80	81
HARD.WINTER.WHEAT.HYBRID	RH790610	34	138	194	80	65	80
CIMMYT/CO652643//LCR/3/KS62/CO695552	NA-3679	28	140	196	81	76	78
SCOUT*5/AG//SDY	NK77W4505	23	137	192	78	87	76
EY.SDY/NCM	OK754615A	4	137	195	81	57	77
TAMW-103/KS73167	TX79A2729	9	140	196	76	59	64
SDY.SIB/KAW(TX62A2522-1)//CTK	TX78V3630	10	138	195	74	75	76
EY.SDY/NCM	OK754615E	5	136	192	78	65	80
AURORA/2*TAMW-101	OK79257	6	139	196	78	68	73
WRR*5/AGENT//NE68457/3/CTK78	NE77682	25	141	196	89	76	71
II18889/TPR//CO652643/3/BACA	W-391R11	30	139	193	83	63	68
SAGE	CI17277	3	142	195	93	72	89
TAMW-101/CTK(TX71A58-3)//AMIGO	TX80A5879	11	138	193	78	63	78
KAVKAZ/CENTURK	NK77W4593	24	141	197	92	69	67
SONORA/TPR//WRR/3/II18889/TPR//CO652643	NA-361S5	27	138	194	79	78	79
SAGE/ARTHUR	KS79H69	17	138	195	78	79	84
AURORA/2*TAMW-101	OK79256	7	140	196	80	76	42
SHORT.WHEAT/SUT(TX69A509-2)//FOX	TX78V2408	12	140	196	81	80	54
CO723117/CO725856	CO796272	19	139	194	93	72	70
CTK//KS6623/TX62A2522-8-2	IL76-3845	32	140	194	85	92	84
72F30620/BACA	CO786741	18	141	195	87	80	71
TAMW-101/CTK(TX71A58-3)//AMIGO	TX80A5904	13	138	194	77	63	69
CO723117/CO725856	CO796326	20	138	193	89	74	75
CO723117/CO725856	CO796386	21	137	193	90	71	70
KAVKAZ/TX69A330-1	IL77-4259	33	140	195	86	69	89
SCOUT66	CI13996	2	140	195	96	72	85
ERA/TAMW-101	TX78V3098	15	141	198	81	77	33
AURORA/2*TAMW-101	OK79259	8	139	197	76	66	27
SAGE.OUTCROSS	LS.NO.3	31	142	195	97	73	71
KHARKOF	CI1442	1	147	197	106	76	71

TABLE 6.--(concluded)

C.I. OR SEL. NO.	ENTRY NO.	LEAF RUST SEV.	MILDEW	SEPTORIA TRITICI	LEAF SPOT	STRAW BREAKAGE	LODGING	SHATTER	VOLUME WEIGHT	YIELD
		%	0-9	%	1-9	%	%	%	KG/HL	KG/HA
NUMBER OF TRIALS		10	1	1	1	1	10	2	28	30
NE78668	26	7	0	25	2	5	8	4	76.2	4021
TX71A562-6-28	14	10	2	25	2	5	17	1	73.7	3978
NK77W4093	22	12	5	28	5	3	15	2	76.6	3860
W-391S4	29	16	0	30	2	1	19	1	72.5	3849
TXGH2875	16	31	0	25	1	5	10	1	75.2	3832
RH790610	34	17	3	28	.	1	12	2	76.3	3808
NA-3679	28	27	0	25	4	1	11	2	77	3749
NK77W4505	23	3	4	33	3	25	8	2	75.7	3721
OK754615A	4	22	3	45	5	3	8	2	76.1	3718
TX79A2729	9	47	6	25	5	10	7	1	75.6	3700
TX78V3630	10	7	6	33	2	1	11	6	76.2	3683
OK754615E	5	20	2	50	4	1	6	2	76.9	3677
OK79257	6	28	3	25	4	13	8	1	74.9	3659
NE77682	25	12	3	25	5	3	20	3	76.5	3624
W-391R11	30	63	4	33	5	3	14	1	75.2	3588
CI17277	3	9	4	30	5	5	27	2	76	3576
TX80A5879	11	50	4	33	3	3	17	1	75.8	3576
NK77W4593	24	10	0	28	3	1	8	7	76.3	3564
NA-361S5	27	43	3	33	3	1	7	1	75.8	3551
KS79H69	17	8	1	23	3	1	14	7	75	3534
OK79256	7	31	1	25	3	13	6	1	75.1	3503
TX78V2408	12	14	7	25	3	3	17	1	74.3	3443
CO796272	19	68	1	23	2	3	37	1	77.3	3434
IL76-3845	32	44	1	38	.	1	21	3	74.5	3395
CO786741	18	60	1	23	5	6	19	1	76.7	3341
TX80A5904	13	48	5	33	1	3	22	1	75	3303
CO796326	20	76	2	33	3	3	28	2	77.2	3279
CO796386	21	75	1	35	4	3	20	3	77.7	3265
IL77-4259	33	7	0	30	.	8	5	7	76.4	3254
CI13996	2	51	4	28	5	8	44	1	76.5	3248
TX78V3098	15	16	0	18	1	8	9	1	73.8	3132
OK79259	8	18	2	30	3	1	7	1	74.8	3104
LS.NO.3	31	46	6	23	.	8	53	1	77.5	2884
CI1442	1	44	6	25	2	13	51	1	74.5	2682

TABLE 7.

Seedling reaction of the 1982 Southern Regional Performance Nursery to Puccinia graminis tritici (by D. V. McVey, USDA, SEA, Cereal Rust Laboratory, University of Minnesota, St. Paul, MN).

Entry No.	Variety or Sel. No.	72-4-1A	74-11-1409A	72-00-1370C	72-44-703C	71-21-584B	72-25-639C	72-18-630B	72-14-504C
		15B-2		151		11-32-113			
		TNMH	TNMK	QFBS	QSHS	RHRS	RKQS	RSHS	RPQQ
1.	Kharkof	-	S	-	S	-	S	-	S
2.	Scout 66	-	S	S	S	S	S	S	XCN
3.	Sage	0;	2	2	2	2-	2	2-	0;
4.	OK 754615A	S	S	S	S	S	S	S	S
5.	OK 754615E	S	S	S	S	S	S	S	S
6.	OK 79257	S,1	S	2=,S	2-,S	S	S	2=,S	S
7.	OK 79256	S	S,0;	2=,S	1,S	S	S	2=,S	S
8.	OK 79259	2=,S	2=,S	2=,S	1,2	2	S	1,2	2
9.	TX 79A2729	S	S	2	2	2	2	2	S
10.	TX 78V3630	0;	0;	0;	2	S	2	2	0;
11.	TX 80A5879	0;	0;	0;	2-	2=	2-	2	0;
12.	TX 78V2408	S,2=	2,S	2=,S	2	2-	2-	2	S,2
13.	TX 80A5904	0;	0;	0;	2	2	0e	0,S	0;
14.	TX 71A562-6-28	0;	0;	0;	2	S	0;-1	2	0;
15.	TX 78V3C98	0;	2-	0;	0,S	0;-1	0;-1	0,S	0;
16.	TX GH2876	0;	2=	2=	2-	2-	1	2-	0;
17.	KS 79H69	0;	0;	0;	0	2=	0;-1	0	0;
18.	CO 786741	0;	0;	0;	2	0;-1	2	2+	0;
19.	CO 796272	0;	S	S	S	S	S	S	0;
20.	CO 796326	0;	S	0;,1,S	S	1,S	21	S	0;
21.	CO 796386	S	S	S	S	S	S	S	S
22.	NK 77W4093	0;	0;	0;	2-	S	S	2	0;
23.	NK 77W4505	0;	2	2-	2-	2-	2	2	0;
24.	NK 77W4593	0;	0;	0;	2-	0;	2-	2=	0;
25.	NE 77682	0;	0;	0;	2	2	2+	2	0;
26.	NE 78668	2=	2=	2=	2-	2=	2-	2-	0;-1
27.	NA-361S5	0;	0;	0;,2-	S	2-	2	S	0;
28.	NA-3679	0;	S	2=,S	2-	2=	2	2-	0;
29.	W-391S4	0;	0;	0;	2	0;-1	2-	2-	0;
30.	W-391R11	0;	0;	0;	2	2-	2	-	0;
31.	LS #3	0;	S	2	2+	S	S	2+	0;
32.	IL 76-3845	0;-1	S	2	2	2	2	2	0;-1N
33.	IL 77-4259	1	1	1	1	1	1	1	1

TABLE 8.
Adult plant reaction of the 1982 Uniform Southern Regional Hard Red Winter Wheat Performance Nursery inoculated to stem rust and to a natural infection of leaf rust and powdery mildew at St. Paul, MN. (AR-USDA, Cereal Rust Laboratory, by D. V. McVey).

Entry No.	Variety or Line	Leaf Rust 7/2/82	Stem Rust 7/9/82	% Powdery Mildew
1	Kharkof	20S	60S	50
2	Scout 66	40S	40MS-S	30
3	Sage	TS	5R-MR	30
4	OK 754615A	10S	90S	99
5	OK 754615E	10S	90S	99
6	OK 79257	TMS	60S	80,T
7	OK 79256	TS	60S	80,T
8	OK 79259	TS	60MS-S	80,T
9	TX 79A2729	5S	80S	60
10	TX 78V3630	5S	60S	80
11	TX 80A5879	60S	50MS-S	90
12	TX 78V2408	20S	80S	99
13	TX 80A5904	80S	60S	99
14	TX 71A562-6-28	TMS-S	20MS	20
15	TX 78V3098	TS	20MR-MS	50
16	TX GH2875	20S	40MR	Trace
17	KS 79H69	TS	0	20
18	CO 786741	60S	40MS-S	50
19	CO 79272	80S	60S	Trace
20	CO 796326	80S	60MS-S	80
21	CO 796386	80S	60S	80
22	N 77W4093	60S	60S	99
23	NK 77W4505	TS	20MR	99
24	NK 77W4593	TMS	5R	Trace
25	NE 77682	TS	60S	50
26	NE 78668	TS	30MR-MS	Trace
27	NA 36158	60S	40MS-S	60
28	NA 3679	40S	30MS	10
29	W-391 S4	5S	5R-MR	Trace
30	W-391 R11	60S	30MS-S	80
31	LS No. 3	60S	5MR-S	60
32	IL 76-3845	60S	50MS-S	Trace
33	IL 77-4259	TMS	40MS-S	Trace
34	RH 790610	10S	40MS-S	80

TABLE 9. 1982 SOUTHERN REGIONAL PERFORMANCE NURSERY HESSIAN FLY REACTION.

Entry no.	Great Plains Biotype[1]	B[2]	C[2]	D[2]
1	Susc.	Susc.	Susc.	Susc.
2	"	"	"	"
3	"	"	"	"
4	Seg.	"	"	"
5	"	"	"	"
6	Susc.	"	"	"
7	"	"	"	"
8	"	"	"	"
9	"	"	"	"
10	Seg.	"	"	"
11	Susc.	"	"	"
12	"	"	"	"
13	"	"	"	"
14	"	"	"	"
15	"	"	"	"
16	"	"	"	"
17	Resist.	"	"	"
18	Susc.	"	"	"
19	Seg.	"	"	"
20	"	"	"	"
21	"	"	"	"
22	Susc.	"	"	"
23	"	"	"	"
24	"	"	"	"
25	"	"	"	"
26	"	"	"	"
27	Seg.	"	"	"
28	Resist.	"	"	"
29	Seg.	"	"	"
30	"	"	"	"
31	Susc.	"	"	"
32	Seg.	"	"	"
33	Susc.	"	"	"
34	Seg.	"	"	"

1/ Data from J. H. Hatchett, Manhattan, Kansas.

2/ Data from R. L. Gallun, Lafayette, Indiana.

1982
NORTHERN REGIONAL PERFORMANCE NURSERY

Entry no.	Variety	C.I. or Sel. No.	Source
1	Kharkof	1442	Check
2	Warrior	13190	"
3	Roughrider	17439	"
4	Centurk*2/Hand	SD74221	So.Dak.
5	"	" 74209	"
6	Centurk*5/Hand	" 76705	"
7	Agent/*4Sut*2//Hand	" 75284	"
8	CI15322//Agent/4*Sut/3/Ctk	" 76598	"
9	"	" 76602	"
10*	Centurk*3/Hand	" 75244-2	"
11*	Centurk*4/Hand	" 75115-3	"
12*	Centurk*5/Hand	" 76694	"
13	Wrr*5/Agent//Ctk 78	NE77465	Nebraska
14	"	" 78659	"
15	Wrr*5/Agent//Agate Sib	" 76667	"
16	Sentinel/Centurk	" 78414	"
17	"	" 78415	"
18*	Agate Sib (NE69441)/TX65A1503-1	" 78696	"
19*	"	" 78698	"
20*	Pau 45/Cheyenne	WT166	Lethbridge
21*	Wrr/III-54-12//Sdy/3/Wnk/Ark	NK78W296	NK
22*	NB68639//Wrr/III-54-12/3/ Wnk/CI14059	NK78W283	NK
23	Sn/Tpr//Wrr/3/Ctk (Archer)	NA201	NAPB
24	Rego/Cnn//Winalta	MT7428	Montana
25	YGSS, Sel 4662/4*Cnn (White Chaff)	" 77062	"
26	" (Brown Chaff)	" 77063	"
27*	Froid/Wnk//MT6	" 7811	"

* New entry in 1982.

NRPN Test Sites

Clovis, NM	Archer, WY
Mead, NE	Sheridan, WY
North Platte, NE	St. Paul, MN
Sidney, NE	Waseca, MN
Alliance, NE	Mocoasin, MT
Brookings, SD	Sidney, MT
Presho, SD	Conrad, MT
Highmore, SD	Lind, WA
Casselton, ND	Lethbridge, Alta.
Hettinger, ND	Tetonia, ID
Williston, ND	Aberdeen, ID (single plots)

Test Site Information - NRPN

Clovis, NM -- Irrigated nursery seeded September 29. Received 200-0-0 fertilizer. Sprayed once for greenbug control. Dryland nursery seeded on summer fallow land with excellent moisture. Winter dry with only 1.31 inches October-April, 2.23 inches in May and 1.88 inches in June. Sprayed once for greenbug control.

Mead, NE -- Good seedbed with adequate moisture. A cold winter resulted in some winterkill. Wet conditions during blooming resulted in leaf diseases and scab.

North Platte, NE -- See information for SRPN.

Sidney, NE -- Fall seeding conditions good. Dry, windy, cold winter. Moisture sparse until late spring.

Alliance, NE -- Same as those at Sidney, NE.

Brookings, SD -- See information for SRPN.

Highmore, SD -- See information for SRPN.

Presho, SD -- See information for SRPN.

Casselton, ND -- Moisture adequate at seeding on September 4. Moisture remained adequate throughout growing season. Spring cool and wet. Some powdery mildew, heavy leaf rust but no stem rust.

Hettinger, ND -- Nursery abandoned due to poor fall stand establishment for lack of adequate soil moisture followed by winterkill and weed infestation.

Williston, ND -- Nursery seeded September 9 on summer fallowed land. Emergence and fall growth excellent. Winter was cold but with above-average snow fall which provided protection against heavy winterkill. April cool and nursery didn't break dormancy until early May. Precipitation through growing season was timely and above-average. Diseases and insects were not problems.

Rosemont, MN -- Nursery moved from St. Paul to avoid bird damage. Gophers were troublesome in some plots. Winter was severe but record snowfall provided protection and permitted generally good survival. Cool, wet spring through mid-June promoted good tillering. Leaf rust plentiful and read on June 28. Growing conditions overall were favorable despite a dry July. Yields may have been reduced by 100° temperatures on July 4 and 5.

Waseca, MN -- Excellent fall stands obtained. Moderate winter injury. Spring wet and cool. Leaf rust came early but developed slowly and didn't become heavy until soft dough stage. Little or no injury. Heavy loose smut and some ergot present.

Archer, WY -- Winter and early spring moisture below average but precipitation from mid-April to harvest was 3.5 inches above normal. More leaf and stem rust observed than had been noted in several years.

Sheridan, WY -- Winter and early spring moisture slightly below average. From mid-April to harvest precipitation was 3 inches above normal. No disease or insect problems. Seed of MT7811 and WT166 received too late to plant.

Sidney, MT -- Heavy winterkill forced abandonment of the nursery.

Moccasin, MT -- Some soil blowing in November and low temperatures without snow cover resulted in differential winterkill in nursery. In early April further stand loss occurred during cold weather after some entries had broken dormancy. Further damage was sustained in a blizzard in last week of May in which 28 inches of snow fell while wheat was elongating. June wet and cool; July warm and dry. Winter wheat ripened 2 weeks later than normal. Rep III abandoned due to severe winterkill.

Conrad, MT -- Nursery survived the winter but severe hail prior to ripening forced abandonment of nursery.

Aberdeen and Tetonia, ID -- Conditions not reported.

Lind, WA -- Lack of surface moisture at seeding caused erratic emergence. Rainfall below normal during winter and spring.

Lethbridge, Alberta -- Seed received too late for planting.

TABLE 10. YIELD AND AGRONOMIC DATA FOR 27 ENTRIES IN THE NORTHERN REGIONAL PERFORMANCE NURSERY IN 1982.

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	LODGING %
MT77062	25	6198	76.4	134	103	10
NA201	23	6167	75.7	128	89	0
SD75115-3	11	6098	76.6	131	96	3
SD76705	6	6090	76.3	129	93	10
NE78415	17	5936	77.2	129	96	0
NE78659	14	5823	76	131	104	12
NE78698	19	5792	75.6	132	94	5
NK78W296	21	5644	75.1	133	90	0
NE77465	13	5614	77.1	129	100	0
NE78414	16	5441	77.1	130	90	0
NK78W283	22	5362	75.7	133	90	0
MT77063	26	5325	76	134	102	5
NE78696	18	5164	77	128	80	0
SD76598	8	5154	77.4	131	98	5
SD76602	9	5113	76.4	130	101	15
SD76694	12	4945	76.3	129	93	10
NE76667	15	4913	76.1	131	101	10
SD74209	5	4822	78	130	102	10
SD75284	7	4787	75.1	129	99	13
SD75244-2	10	4491	76	131	103	13
CI17439	3	4449	76.6	134	108	5
CI13190	2	4434	75.5	131	105	5
MT7428	24	4392	75.3	134	99	0
SD74221	4	4028	76.8	130	98	30
CI1442	1	3852	74.7	134	109	13
MEAN		5201				
L.S.D.(.05)		1349				
C.V.		15.8				

CLOVIS,NEW MEXICO (DRYL.)

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	DAYS TO HEADING FROM 7/1	PLANT HEIGHT CM
SD76602	9	2922	79.7	122	70
MT77062	25	2908	79.2	130	69
SD75284	7	2783	75.9	122	68
NE76667	15	2761	77.3	126	69
CI13190	2	2644	78.5	125	69
SD76705	6	2614	76.1	124	60
MT7428	24	2574	75.5	131	64
MT77063	26	2563	81.2	129	69
NE78415	17	2492	75.7	123	58
NE78659	14	2428	77.5	125	64
NA201	23	2423	78.3	124	62
NE77465	13	2367	77.8	124	61
NE78698	19	2335	76.8	126	64
SD75115-3	11	2257	78.1	125	59
NK78W296	21	2250	77.3	129	60
SD76598	8	2181	76.2	128	63
SD75244-2	10	2164	77.9	125	64
NE78696	18	2151	79.1	121	58
SD74209	5	2148	79.1	125	61
CI1442	1	2143	77.6	130	67
SD74221	4	2077	79.1	123	58
NE78414	16	2041	78.2	125	57
CI17439	3	2018	78.5	128	64
SD76694	12	1938	75.8	125	58
NK78W283	22	1904	75.3	129	58
MEAN		2363			
L.S.D.(.05)		556			
C.V.		14.3			

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 1-9
NK78W283	22	3569	76.8	158	96	1
NK78W296	21	3078	72.2	158	95	1
NE78698	19	2842	74.6	156	91	1
NE76667	15	2822	75.9	156	104	3
NE78696	18	2697	72.2	155	84	1
SD75284	7	2551	74.8	154	99	2
SD76705	6	2508	73.5	154	93	5
NE78659	14	2495	72.8	154	95	3
SD75244-2	10	2493	72.5	154	103	6
SD76598	8	2486	74.6	156	105	2
SD76694	12	2417	72.9	155	96	4
SD74221	4	2300	75.5	154	98	5
SD75115-3	11	2213	72.2	156	100	5
NE77465	13	2181	71	153	102	5
SD74209	5	2174	72.5	155	104	4
NE78414	16	2087	70.7	158	94	3
NA201	23	2074	65.8	154	85	6
SD76602	9	2044	72	155	103	6
MT7428	24	1892	72.2	160	112	3
NE78415	17	1874	68.4	156	95	3
MT77062	25	1829	74.8	160	105	6
CI13190	2	1735	69.9	157	106	5
MT77063	26	1715	72.9	159	108	6
CI1442	1	1636	72.5	160	122	7
CI17439	3	1623	74.8	158	112	3
MEAN		2293				
L.S.D.(.05)		522				
C.V.		13.9				

NORTH PLATTE, NEBRASKA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM
NE77465	13	2587	74.8	105
NK78W296	21	2254	73.8	89
NE78414	16	2224	74.8	97
SD76598	8	2205	77.4	106
NE76667	15	2131	76	101
MT7428	24	2011	76.1	108
NA201	23	1979	69.7	85
NE78659	14	1856	73.1	100
NE78696	18	1801	75.6	81
SD75284	7	1712	72	101
NK78W283	22	1649	73.1	94
NE78698	19	1627	72.6	90
NE78415	17	1613	68.1	95
SD75115-3	11	1542	68.9	96
SD76694	12	1489	69.1	95
SD74209	5	1360	68.8	89
SD76705	6	1318	68.4	90
CI13190	2	1305	72.8	100
MT77063	26	1298	76.6	105
SD75244-2	10	1287	71.6	98
CI1442	1	1133	71.2	104
MT77062	25	1123	73.5	96
SD76602	9	933	73.5	103
CI17439	3	893	68.4	102
SD74221	4	768	70.3	94
MEAN		1604		
L.S.D.(.05)		666		
C.V.		25.3		

SIDNEY, 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
NK78W296	21	4369	76.2	164	74
NK78W283	22	4268	75.5	163	80
SD75244-2	10	4140	76.6	161	84
NE78415	17	4097	76.1	160	74
SD76598	8	4095	76.5	162	85
NE77465	13	4067	76.1	161	82
NE78696	18	3965	76.1	160	72
SD76705	6	3946	76.8	161	77
SD74221	4	3932	77.8	162	85
MT7428	24	3928	75.5	164	88
SD74209	5	3910	77.4	161	85
SD75115-3	11	3898	76.5	161	78
MT77063	26	3895	76.2	165	91
NE78698	19	3878	76.8	161	76
NE76667	15	3860	76	163	85
NA201	23	3857	74.4	161	75
CI13190	2	3854	77	162	87
SD75284	7	3846	77	160	84
SD76694	12	3829	75.7	161	78
NE78659	14	3749	75.5	162	79
CI17439	3	3639	78.7	164	88
NE78414	16	3604	75.3	161	75
SD76602	9	3356	77.3	161	90
MT77062	25	3341	76.6	165	96
CI1442	1	2930	76.1	163	98
MEAN		3850			
L.S.D.(.05)		679			
C.V.		10.8			

ALLIANCE, 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
SD76598	8	3730	74.9	162	89
MT77063	26	3725	75.6	166	102
NE78659	14	3579	73.5	164	89
NE76667	15	3569	75.3	163	91
SD75115-3	11	3493	75.3	163	86
SD76694	12	3486	73.9	163	78
NA201	23	3383	73	164	76
CI13190	2	3355	75.5	163	90
MT77062	25	3296	77.4	166	101
SD74209	5	3281	75.7	162	85
SD76705	6	3276	73.5	162	74
SD75284	7	3234	75.5	161	84
SD74221	4	3227	76.1	162	79
NK78W296	21	3208	76.1	166	81
SD75244-2	10	3203	74.4	163	85
NE77465	13	3193	75.2	162	87
NK78W283	22	3172	74.4	164	81
SD76602	9	3157	75.5	161	90
MT7428	24	3152	73.9	166	94
NE78415	17	3118	75.1	163	76
NE78698	19	3089	74.8	163	80
NE78696	18	2911	76.1	161	75
CI17439	3	2857	77.4	164	87
NE78414	16	2739	73.9	163	74
CI1442	1	2685	74.8	165	110
MEAN		3245			
L.S.D.(.05)		398			
C.V.		7.5			

BROOKINGS, SOUTH DAKOTA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	WINTER SURVIVAL %
NE78659	14	4734	72.1	95	61
NE77465	13	4316	73.1	102	62
NE76667	15	4216	73.5	101	45
NK78W283	22	3966	76.8	90	62
CI13190	2	3940	74.6	113	38
NK78W296	21	3920	72.8	87	50
ROSE		3706	75.3	96	53
SD76598	8	3422	71.6	98	37
CI17439	3	3346	76.5	109	97
NE78696	18	3156	69.9	75	7
SD75244-2	10	3142	73.1	101	30
SD76694	12	2833	71.7	97	47
SD74221	4	2582	71	89	5
MT7428	24	2480	70	105	63
CI1442	1	2403	73.5	118	45
SD76602	9	2380	70.4	96	15
SUT66		2351	72.8	104	34
MT77063	26	2282	71.2	106	29
SD74209	5	2224	71.9	97	27
NE78415	17	2120	67.6	93	32
SD75115-3	11	1955	71.2	96	40
MT77062	25	1923	73.3	110	52
SD75284	7	1670	69.1	96	2
NA201	23	1400	62.8	76	17
SD76705	6	1253	64	86	1
NE78698	19	1235	67.2	73	5
NE78414	16	1130	66.4	90	10
MEAN		2750			
L.S.D.(.05)		1950			
C.V.		43.0			

HIGHMORE, SOUTH DAKOTA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	LODGING 1-9	WINTER SURVIVAL %
NE78659	14	4547	75.8	91	1	57
NE78698	19	4399	77.4	82	2	43
NK78W296	21	4354	76	81	0	63
NE78414	16	4209	75.3	86	1	88
SD76694	12	4107	75	91	2	42
NE78415	17	4024	75.3	86	1	77
CI13190	2	3953	77.4	89	1	87
NE78696	18	3820	75.5	83	0	60
SD74221	4	3642	76.5	78	2	85
CI17439	3	3632	76.4	94	2	95
NE76667	15	3527	75.9	99	1	77
MT77063	26	3515	75.3	100	2	90
CI1442	1	3474	75.5	104	2	88
NE77465	13	3276	74.6	92	1	67
ROSE		3264	76.8	90	1	47
NK78W283	22	3253	73.6	93	0	57
MT7428	24	3196	75	92	2	83
MT77062	25	3179	77.3	96	1	70
SD76705	6	3128	73	83	2	55
SD75244-2	10	3115	75.3	93	1	47
SD76598	8	2953	75.5	90	1	40
SUT66		2825	76	93	3	46
SD75284	7	2755	76.5	85	2	57
SD74209	5	2732	73	91	2	38
SD76602	9	2642	74.2	97	1	45
SD75115-3	11	2363	74.2	93	1	28
NA201	23	1971	71.2	83	1	40
MEAN		3388				
L.S.D.(.05)		1324				
C.V.		23.8				

PRESHO, SOUTH 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	LODGING %	WINTER SURVIVAL %	LEAF RUST SEV. %	LEAF RUST RESP 1-9	LEAF SPOT 1-9	STRAW BREAKAGE %
CI13190	2	3944	78.6	163	103	10	83	65	8	4	8
NE76667	15	3892	78.1	162	103	20	95	1	2	4	3
SUT66		3876	79.9	157	100	40	93	25	4	5	5
NE78414	16	3625	77.1	161	92	30	85	10	3	3	1
NE78415	17	3584	77.4	160	88	0	90	10	4	3	1
SD74209	5	3439	77.7	161	95	30	77	5	4	5	3
NK78W296	21	3335	79.2	163	80	18	95	0	2	4	18
ROSE		3296	77.8	163	92	0	90	15	4	2	13
NE78659	14	3256	76.9	162	91	70	60	1	4	5	1
SD74221	4	3215	79.2	161	88	80	83	1	3	5	3
SD76705	6	3199	76.4	161	82	5	63	0	2	5	1
SD76602	9	2945	76	159	91	0	87	1	3	5	5
SD76694	12	2928	78.1	161	83	0	77	1	3	5	3
SD76598	8	2871	77.1	162	94	0	58	1	3	4	10
SD75284	7	2792	78.3	159	85	0	82	100	8	2	13
NE77465	13	2710	76.2	161	90	0	63	1	4	3	5
SD75244-2	10	2683	78.2	161	93	0	52	0	2	5	8
CI17439	3	2460	79	166	106	0	75	65	8	5	8
MT77063	26	2396	77.4	166	107	75	55	65	8	2	5
MT77062	25	2380	79	166	106	75	67	100	8	3	13
NA201	23	2350	73.3	162	79	0	25	15	4	5	5
NE78698	19	2281	76.4	162	78	0	57	1	2	4	6
CI1442	1	2202	78.1	166	110	95	90	5	4	3	8
SD75115-3	11	2151	73.1	163	85	0	32	1	3	4	1
NK78W283	22	2071	72.8	165	89	0	67	0	2	3	8
NE78696	18	2068	77.8	162	75	0	24	5	4	2	1
MT7428	24	1688	73	166	87	5	30	100	8	4	5
MEAN		2819									
L.S.D.(.05)		1083									
C.V.		23.4									

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	LODGING 1-9	WINTER SURVIVAL %
NE78698	19	6082	78.7	167	109	4	60
NE77465	13	5335	79.3	167	115	3	53
SD76694	12	5234	78.7	167	112	5	60
NK78W283	22	4990	80	170	109	0	33
NE78414	16	4920	80	169	112	1	55
NK78W296	21	4750	77.4	170	107	2	43
SD76598	8	4403	78.7	170	127	3	47
SD76705	6	4378	79.3	168	109	4	52
SD76602	9	4373	79.3	166	118	2	28
NE78659	14	4232	77.4	168	116	4	65
NE78696	18	4194	79.3	167	95	0	43
NE78415	17	4170	76.1	169	117	2	33
SD75284	7	4096	80	167	118	2	45
NE76667	15	4075	79.3	169	119	4	47
SD75115-3	11	4019	77.4	169	119	2	38
MT77063	26	3591	76.8	172	131	4	40
SD74209	5	3562	76.1	167	113	2	23
CI13190	2	3488	75.5	169	126	5	63
MT77062	25	3459	77.4	172	129	4	48
CI17439	3	3338	80	171	130	2	70
CI1442	1	3306	76.8	174	126	5	37
NA201	23	3273	72.2	168	93	2	42
SD74221	4	3134	79.3	170	109	3	27
MT7428	24	2872	73.5	172	125	3	42
SD75244-2	10	1975	76.1	170	110	3	20
MEAN		4050					
L.S.D.(.05)		1664					
C.V.		25.0					

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 %
NE78414	16	3173	79.2	169	79	53
ROSE	27	3048	77.8	168	86	48
MT7428	24	2815	78	172	93	47
CI1442	1	2788	78.4	172	100	35
CI17439	3	2612	79.2	170	88	40
NK78W283	22	2549	78	170	72	45
SD76705	6	2510	78.7	168	82	28
NK78W296	21	2339	78.6	171	77	25
SD76694	12	2321	78.2	169	81	27
MT77063	26	2252	80	171	94	35
SD76598	8	2198	79.9	169	87	28
NE78659	14	1950	79.5	169	95	25
SD74221	4	1945	80.8	169	84	23
NA201	23	1806	79.6	169	78	37
MT77062	25	1806	79.2	172	90	22
NE78696	18	1644	79.1	169	67	30
SD75115-3	11	1643	78.4	169	81	22
SD75284	7	1634	80.2	167	88	32
SD76602	9	1593	79.5	168	83	22
SD75244-2	10	1406	78.6	169	87	17
NE76667	15	1309	79.6	169	87	15
CI13190	2	1292	78.7	169	89	10
SD74209	5	1255	78.9	169	87	19
NE78698	19	1229	79.7	168	72	9
DAWN	20	1103	80.4	168	77	7
NE78415	17	743	76.5	169	75	2
NE77465	13	595	77.5	168	83	2
MEAN		1896				
L.S.D.(.05)		1280				
C.V.		41.1				

BEGIN

ST. PAUL, 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 1-9	WINTER SURVIVAL %	LEAF RUST SEV. %	RUST RESP 1-9
SD76694	12	1791	76.1	160	98	1	95	1	7
NE78698	19	1784	76.1	161	93	1	90	1	3
NE78414	16	1615	76.6	163	95	1	90	1	7
SD75244-2	10	1608	76.5	161	107	1	90	1	3
NK78W283	22	1584	74.6	163	96	1	95	1	3
NE78415	17	1570	75.1	161	99	1	98	1	7
NE78696	18	1533	74.7	162	83	1	82	1	8
MT77063	26	1451	77.9	166	115	1	93	30	7
NE77465	13	1448	77.4	160	106	1	90	5	7
NA201	23	1417	72.9	160	89	1	83	5	7
NE78659	14	1414	77.1	162	101	1	88	1	7
MT77062	25	1400	80.4	166	115	1	90	40	7
SD74209	5	1395	77.8	161	104	1	77	5	7
SD75284	7	1387	77.4	157	97	1	77	20	8
SD74221	4	1381	78.9	161	109	1	77	1	7
CI17439	3	1376	79.3	165	112	1	93	20	8
NK78W296	21	1374	75.5	162	89	1	98	20	7
MT7428	24	1374	77.4	166	111	1	93	30	8
SD76598	8	1364	80	163	107	1	97	1	7
SD76705	6	1362	78.6	161	97	1	68	1	3
NE76667	15	1360	78.7	161	108	1	92	1	7
SD75115-3	11	1338	76.5	161	103	1	87	5	7
CI13190	2	1243	77.4	162	111	1	87	40	8
CI1442	1	1199	78.4	166	123	1	77	5	8
SD76602	9	1088	77.9	159	102	3	93	20	7
MEAN		1434							
L.S.D.(.05)		255							
C.V.		10.8							

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 1-9
NE78415	17	2069	78.7	161	103	1
SD76598	8	2016	80	165	112	2
CI13190	2	2011	78	163	113	4
NE76667	15	1976	80	162	109	2
NA201	23	1971	76.8	163	92	2
NK78W283	22	1942	80	167	94	1
NE77465	13	1902	79.3	163	108	2
NE78659	14	1850	78	163	107	2
SD74221	4	1849	80.6	162	96	6
SD75244-2	10	1844	79.3	165	112	3
NE78696	18	1837	78.7	162	87	1
SD76694	12	1833	78	166	96	3
SD76705	6	1828	77.4	164	96	2
SD74209	5	1755	78.7	163	110	2
SD75284	7	1730	78.7	161	106	2
SD76602	9	1674	79.3	163	103	2
NE78414	16	1648	78	164	103	2
MT77063	26	1581	79.3	169	112	4
CI17439	3	1563	78	164	109	3
MT7428	24	1541	78.7	167	114	4
NE78698	19	1536	79.3	165	93	2
SD75115-3	11	1490	78.7	168	107	2
CI1442	1	1478	78.7	168	113	5
NK78W296	21	1472	76.8	169	91	1
MT77062	25	1425	80.6	169	114	5
MEAN		1753				
L.S.D.(.05)		496				
C.V.		17.2				

ARCHER, WYOMING

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM
NE76667	15	3125	78.5	69
NK78W296	21	3098	77.5	57
SD74209	5	3067	77.3	69
NE78659	14	3042	76.8	67
SD76694	12	2981	76.8	60
MT7428	24	2965	76.5	72
SD75244-2	10	2950	77.8	70
NA201	23	2931	75.6	56
NE77465	13	2927	76.9	69
NE78414	16	2926	76	60
NE78698	19	2923	79.7	60
SD75115-3	11	2872	76.2	62
NK78W283	22	2867	76.8	61
CI13190	2	2857	76.4	84
SD74221	4	2841	78.6	62
MT77063	26	2805	78.6	74
MT77062	25	2799	78.5	74
CI17439	3	2762	77.7	74
NE78415	17	2759	78	61
NE78696	18	2736	79	53
SD76705	6	2713	76.2	60
SD76598	8	2709	78.4	70
CI1442	1	2691	77.9	89
SD76602	9	2675	79.2	69
SD75284	7	2576	78.4	64
MEAN		2864		
L.S.D.(.05)		572		
C.V.		12.2		

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
CI13190	2	3780	80.1	169	104
MT77063	26	3686	79.7	169	104
SD75115-3	11	3614	79.6	167	89
MT77062	25	3608	80.6	169	104
SD76598	8	3545	79.2	166	91
MT7428	24	3542	78	169	99
SD74209	5	3504	80	165	89
SD76694	12	3445	79.2	167	84
NA201	23	3419	78.6	165	76
NK78W296	21	3410	78.9	171	79
SD75244-2	10	3350	79.7	166	94
CI17439	3	3338	80.1	169	112
NE78659	14	3334	79.7	165	91
SD74221	4	3318	80.4	166	89
SD76705	6	3190	79.2	165	79
CI1442	1	3164	80.1	169	117
NE76667	15	3152	80.2	166	89
SD76602	9	3136	80.1	164	100
NE77465	13	3132	79.3	165	91
NE78414	16	3081	79.2	165	79
NE78698	19	3058	80.4	164	79
NE78415	17	3050	78.6	165	81
NK78W283	22	2977	79.5	168	76
SD75284	7	2916	80	164	81
NE78696	18	2790	80.6	164	69
MEAN		3302			
L.S.D.(.05)		467			
C.V.		8.6			

MOCCASIN, MONTANA

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	WINTER SURVIVAL %
SD74209	5	3352	79.6	180	80	63
MT7811	27	3157	77.9	183	84	83
NE78698	19	3009	79.6	179	63	75
NE77465	13	2996	78.2	181	87	83
NA201	23	2986	78.3	181	65	73
NE78659	14	2972	79.5	181	78	83
SD76705	6	2922	78.4	182	66	60
NE76667	15	2902	77.8	181	74	83
SD75115-3	11	2898	78.4	181	69	65
MT77063	26	2888	79.7	184	87	45
SD75244-2	10	2811	78.7	181	82	65
SD76598	8	2801	78.9	180	72	80
MT77062	25	2798	81	184	78	78
MT7877	20	2764	81.8	184	61	90
SD74221	4	2737	79.7	182	74	80
NK78W283	22	2683	78.9	182	69	73
MT7428	24	2677	76.6	183	81	35
SD76694	12	2673	78.9	181	76	70
NE78415	17	2623	78.4	181	77	70
NE78414	16	2606	78.7	181	63	75
SD76602	9	2599	80.8	179	71	75
NK78W296	21	2525	80	182	56	75
CI17439	3	2508	79.5	183	82	68
CI13190	2	2485	79.2	180	85	85
SD75284	7	2394	79.7	176	75	70
CI1442	1	2381	78.9	184	89	73
NE78696	18	2088	79.5	179	64	48
MEAN		2733				
L.S.D.(.05)		N.S.				
C.V.		10.1				

ABERDEEN, IDAHO

TWO REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	DAYS TO HEADING FROM 1/1	PLANT HEIGHT CM	LODGING 1-9
WT166	20	6583	168	102	1
SD76705	6	6322	166	109	6
NE78696	18	6248	163	90	1
NK78W283	22	6177	166	112	1
MT7811	27	6160	169	102	1
NA201	23	6084	166	97	1
NE78415	17	6015	164	114	4
NE78414	16	6001	165	108	2
SD74209	5	5789	165	119	8
SD75284	7	5590	164	116	7
NE77465	13	5576	165	124	5
NK78W296	21	5507	169	103	2
SD75115-3	11	5456	166	118	7
NE78659	14	5419	166	122	7
SD76694	12	5403	166	113	7
SD74221	4	5054	167	119	8
CI13190	2	5024	165	145	8
SD76602	9	5013	164	118	9
SD76598	8	4969	166	131	9
MT7428	24	4914	168	132	7
NE78698	19	4886	165	100	2
CI17439	3	4800	166	133	8
MT77062	25	4713	168	142	8
SD75244-2	10	4646	167	117	7
CI1442	1	4459	172	141	8
MT77063	26	4297	170	142	7
NE76667	15	4006	166	123	6
MEAN		5295			
L.S.D.(.05)		1225			
C.V.		11.5			

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	STAND %
CI13190	2	1596	78.6	149	57	88
NE77465	13	1469	79.1	151	63	63
NE78414	16	1392	78.3	151	59	69
CI1442	1	1379	79.1	152	75	82
SD74209	5	1358	80.2	150	64	64
SD74221	4	1318	78.7	152	62	61
MT7428	24	1293	77.8	153	65	74
NE78698	19	1264	78.7	149	58	74
NE78696	18	1186	76.5	148	57	74
SD75284	7	1179	77.8	148	58	81
NK78W283	22	1172	77.5	152	59	83
SD76602	9	1163	78.4	149	64	68
NE78659	14	1150	78.7	152	62	53
NE76667	15	1148	78	152	60	78
MT77062	25	1141	78.9	154	65	74
SD76705	6	1139	79.5	151	52	63
NK78W296	21	1105	78.7	153	52	81
WT166	20	1060	74.3	155	62	65
SD76598	8	1058	79.5	152	63	67
SD75244-2	10	1031	78	150	61	68
CI17439	3	1022	77.3	152	69	61
SD76694	12	968	79.2	152	56	62
SD75115-3	11	955	79.6	152	57	65
MT77063	26	908	76	154	67	60
NE78415	17	612	77.7	152	59	58
NA201	23	588	77.5	152	54	46
MEAN		1154				
L.S.D.(.05)		414				
C.V.		21.9				

LETHBRIDGE, ALBERTA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	WINTER SURVIVAL %	1000-K.WT. GM
NE77465	13	4473	81.8	72	63	38
SD75244-2	10	4244	82.4	75	63	35.6
NE78659	14	4112	81.2	71	67	39.6
MT77062	25	4098	83	81	67	40
NORSTAR		4031	81.4	98	83	36.8
MT7428	24	3963	78.8	80	57	43.2
MT77063	26	3943	82.5	83	70	40
SD74209	5	3892	80.9	68	53	37.6
CI17439	3	3882	81.8	81	80	36.8
SD75115-3	11	3876	78.5	71	60	33.6
WT166	20	3858	80.7	73	63	46
CI1442	1	3857	82.2	89	63	40.2
NE78415	17	3856	81	64	67	42.4
NK78W283	22	3787	79.8	64	73	41.2
CI13190	2	3785	80.3	89	63	40
SD76598	8	3770	80.1	72	60	40
SD76694	12	3761	80.6	63	53	33.6
NK78W296	21	3719	82.5	59	67	42.4
NE78414	16	3583	80.6	65	63	41.6
NE78698	19	3455	82.2	61	70	42
NE76667	15	3426	81.1	73	63	40
NE78696	18	3422	81.9	58	67	38.4
SD76705	6	3309	78.8	63	40	34.8
SD75284	7	3300	81.7	65	57	38.8
NA201	23	3287	78.8	60	50	34
SD74221	4	3225	81.8	69	63	34.2
SD76602	9	3173	81.5	72	60	37.6
MEAN		3728				
L.S.D.(.05)		723				
C.V.		11.8				

TABLE 11. SUMMARY OF MEAN YIELDS (kg/ha) OF THE 27 LINES GROWN IN THE 1982 NORTHERN REGIONAL PERFORMANCE NURSERY AT 18 LOCATIONS WITH STATE MEANS AND RANKS.

VARIETY OR PEDIGREE	C.I. OR SEL. NO.	ENTRY NO.	NEBRASKA						ALBERTA	
			MEAD	NORTH PLATTE	SIDNEY	AL-LIANCE	MEAN	RANK	LETH-BRIDGE	RANK
WRR/III-54-12//SDY/3/WNK/ARK	NK78W296	21	3078	2254	4369	3208	3227	1	3719	16
WRR*5/AGENT//CTK78	NE78659	14	2495	1856	3749	3579	2920	6	4112	3
SENTINEL/CENTURK	NE78414	16	2087	2224	3604	2739	2663	18	3583	17
NB68639//WRR/III-54-12/3/WNK/CI14059	NK78W283	22	3569	1649	4268	3172	3164	2	3787	12
WRR*5/AGENT//CTK78	NE77465	13	2181	2587	4067	3193	3007	5	4473	1
CENTURK*5/HAND	SD76705	6	2508	1318	3946	3276	2762	14	3309	21
CENTURK*5/HAND	SD76694	12	2417	1489	3829	3486	2805	11	3761	15
AGATE SIB(NE69441)/TX65A1503-1	NE78698	19	2842	1627	3878	3089	2859	7	3455	18
CI15322//AGENT/4*SUT/3/CTK	SD76598	8	2486	2205	4095	3730	3129	3	3770	14
SENTINEL/CENTURK	NE78415	17	1874	1613	4097	3118	2675	17	3856	11
WRR*5/AGENT//AGATE SIB	NE76667	15	2822	2131	3860	3569	3096	4	3426	19
CENTURK*2/HAND	SD74209	5	2174	1360	3910	3281	2681	16	3892	7
WARRIOR	CI13190	2	1735	1305	3854	3355	2562	20	3785	13
AGATE SIB(NE69441)/TX65A1503-1	NE78696	18	2697	1801	3965	2911	2844	8	3422	20
CENTURK*4/HAND	SD75115-3	11	2213	1542	3898	3493	2786	12	3876	9
SN/TPR//WRR/3/CTK.(ARCHER)	NA201	23	2074	1979	3857	3383	2823	10	3287	23
YGSS,SEL4662/4*CNN(BROWN.CHAFF)	MT77063	26	1715	1298	3895	3725	2658	19	3943	6
YGSS,SEL4662/4*CNN(WHITE.CHAFF)	MT77062	25	1829	1123	3341	3296	2397	22	4098	4
AGENT/*4SUT*2//HAND	SD75284	7	2551	1712	3846	3234	2836	9	3300	22
REGO/CNN//WINALTA	MT7428	24	1892	2011	3928	3152	2746	15	3963	5
CENTURK*2/HAND	SD74221	4	2300	768	3932	3227	2557	21	3225	24
CI15322//AGENT/4*SUT/3/CTK	SD76602	9	2044	933	3356	3157	2373	23	3173	25
CENTURK*3/HAND	SD75244-2	10	2493	1287	4140	3203	2781	13	4244	2
ROUGHRIDER	CI17439	3	1623	893	3639	2857	2253	24	3882	8
KHARKOF	CI1442	1	1636	1133	2930	2685	2096	25	3857	10
Mean			2293	1604	3850	3245	2748		3728	
L.S.D.(.05)			522	666	679	398	456		723	
C.V.			13.9	25.3	10.8	7.5	12.8		11.8	

TABLE 11.-- (continued)

C.I. OR SEL. NO.	ENTRY NO.	SOUTH DAKOTA BROOKINGS	HIGHMORE	PRESHO	MEAN*	RANK	NORTH DAKOTA CASSELTON	WILLISTON	MEAN	RANK	WYOMING ARCHER	SHERIDAN	MEAN	RANK	MONTANA MOCASSIN	RANK
NK78W296	21	3920	4354	3335	3845	4	4750	2339	3544	5	3098	3410	3254	3	2525	20
NE78659	14	4734	4547	3256	3901	3	4232	1950	3091	8	3042	3334	3188	9	2972	5
NE78414	16	1130	4209	3625	3917	2	4920	3173	4047	1	2926	3081	3003	17	2606	18
NK78W283	22	3966	3253	2071	2662	22	4990	2549	3770	3	2867	2977	2922	21	2683	14
NE77465	13	4316	3276	2710	2993	13	5335	595	2965	12	2927	3132	3029	16	2996	3
SD76705	6	1253	3128	3199	3163	10	4378	2510	3444	6	2713	3190	2952	19	2922	6
SD76694	12	2833	4107	2928	3517	7	5234	2321	3778	2	2981	3445	3213	7	2673	16
NE78698	19	1235	4399	2281	3340	9	6082	1229	3655	4	2923	3058	2990	18	3009	2
SD76598	8	3422	2953	2871	2912	16	4403	2198	3300	7	2709	3545	3127	13	2801	11
NE78415	17	2120	4024	3584	3804	5	4170	743	2456	22	2759	3050	2905	23	2623	17
NE76667	15	4216	3527	3892	3709	6	4075	1309	2692	18	3125	3152	3138	12	2902	7
SD74209	5	2224	2732	3439	3085	11	3562	1255	2408	23	3067	3504	3285	2	3352	1
CI13190	2	3940	3953	3944	3948	1	3488	1292	2390	24	2857	3780	3319	1	2485	22
NE78696	18	3156	3820	2068	2944	15	4194	1644	2919	14	2736	2790	2763	24	2088	25
SD75115-3	11	1955	2363	2151	2257	24	4019	1643	2831	17	2872	3614	3243	6	2898	8
NA201	23	1400	1971	2350	2161	25	3273	1806	2539	20	2931	3419	3175	10	2986	4
MT77063	26	2282	3515	2396	2956	14	3591	2252	2922	13	2805	3686	3246	5	2888	9
MT77062	25	1923	3179	2380	2780	20	3459	1806	2633	19	2799	3608	3203	8	2798	12
SD75284	7	1670	2755	2792	2774	21	4096	1634	2865	15	2576	2916	2746	25	2394	23
MT7428	24	2480	3196	1688	2442	23	2872	2815	2843	16	2965	3542	3254	4	2677	15
SD74221	4	2582	3642	3215	3428	8	3134	1945	2539	21	2841	3318	3079	14	2737	13
SD76602	9	2380	2642	2945	2793	19	4373	1593	2983	10	2675	3136	2906	22	2599	19
SD75244-2	10	3142	3115	2683	2899	17	1975	1406	1690	25	2950	3350	3150	11	2811	10
CI17439	3	3346	3632	2460	3046	12	3338	2612	2975	11	2762	3338	3050	15	2508	21
CI1442	1	2403	3474	2202	2838	18	3306	2788	3047	9	2691	3164	2927	20	2381	24
Mean		2750	3388	2819	3089		4050	1896	2973		2864	3302	3083		2733	
L.S.D.(.05)		1950	1324	1083	N.S.		1664	1280	N.S.		572	467	N.S.		N.S.	
C.V.		43.0	23.8	23.4	23.7		25.0	41.1	30.4		12.2	8.6	10.3		10.1	

TABLE 11.-- (concluded).

C.I. OR SEL. NO.	ENTRY NO.	MINNESOTA WASECA	MINNESOTA ST. PAUL	MINNESOTA MEAN	MINNESOTA RANK	NEW MEXICO CLOVIS (IRR.)	NEW MEXICO CLOVIS (DRY)	NEW MEXICO MEAN	NEW MEXICO RANK	IDAHO ABER-DEEN	IDAHO RANK	WASHINGTON LIND	WASHINGTON RANK	18 SITE MEAN*
NK78W296	21	1472	1374	1423	21	5644	2250	3947	10	5507	10	1105	17	3211
NE78659	14	1850	1414	1632	11	5823	2428	4126	6	5419	12	1150	13	3178
NE78414	16	1648	1615	1631	12	5441	2041	3741	14	6001	6	1392	3	3162
NK78W283	22	1942	1584	1763	3	5362	1904	3633	17	6177	3	1172	11	3110
NE77465	13	1902	1448	1675	8	5614	2367	3991	9	5576	9	1469	2	3103
SD76705	6	1828	1362	1595	15	6090	2614	4352	2	6322	1	1139	16	3097
SD76694	12	1833	1791	1812	2	4945	1938	3441	21	5403	13	968	21	3086
NE78698	19	1536	1784	1660	10	5792	2335	4064	7	4886	19	1264	8	3082
SD76598	8	2016	1364	1690	6	5154	2181	3668	15	4969	17	1058	18	3028
NE78415	17	2069	1570	1819	1	5936	2492	4214	4	6015	5	612	24	3011
NE76667	15	1976	1360	1668	9	4913	2761	3837	12	4006	25	1148	14	2997
SD74209	5	1755	1395	1575	16	4822	2148	3485	19	5789	7	1358	5	2933
CI13190	2	2011	1243	1627	13	4434	2644	3539	18	5024	15	1596	1	2932
NE78696	18	1837	1533	1685	7	5164	2151	3658	16	6248	2	1186	9	2903
SD75115-3	11	1490	1338	1414	22	6098	2257	4177	5	5456	11	955	22	2899
NA201	23	1971	1417	1694	5	6167	2423	4295	3	6084	4	588	25	2887
MT77063	26	1581	1451	1516	18	5325	2563	3944	11	4297	24	908	23	2880
MT77062	25	1425	1400	1412	23	6198	2908	4553	1	4713	21	1141	15	2861
SD75284	7	1730	1387	1558	17	4787	2783	3785	13	5590	8	1179	10	2848
MT7428	24	1541	1374	1458	20	4392	2574	3483	20	4914	18	1293	7	2822
SD74221	4	1849	1381	1615	14	4028	2077	3053	24	5054	14	1318	6	2777
SD76602	9	1674	1088	1381	24	5113	2922	4018	8	5013	16	1163	12	2756
SD75244-2	10	1844	1608	1726	4	4491	2164	3327	22	4646	22	1031	19	2747
CI17439	3	1563	1376	1469	19	4449	2018	3233	23	4800	20	1022	20	2710
CI1442	1	1478	1199	1338	25	3852	2143	2997	25	4459	23	1379	4	2598
Mean		1753	1434	1594		5201	2363	3782		5295		1154		2945
L.S.D.(.05)		496	255	N.S.		1349	556	986		1225		414		299
C.V.		17.2	10.8	15.1		15.8	14.3	16.6		11.5		21.9		18.2

*Data from Brookings not included.

TABLE 11A. SUMMARY OF MEAN YIELDS (kg/ha) AND RANKS OF 25 LINES GROWN IN THE 1982 NORTHERN REGIONAL PERFORMANCE NURSERY IN CENTRAL AND NORTHERN LOCATIONS FROM WHICH A C.V. OF 18 OR LESS AND A SIGNIFICANT F TEST FOR ENTRIES WERE OBTAINED.

C. I. or:	Entry:	Nebraska						Wyoming				Minnesota				Idaho		Alberta		9-site
Sel. No.	no.	Mead		Sidney		Alliance		Archer		Sheridan		Waseca		St. Paul		Aberdeen		Lethbridge		Mean
NK78W283	22	3569	1	4268	2	3172	17	2867	13	2977	23	1942	6	1584	5	6177	3	3787	12	3371
NK78W296	21	3078	2	4369	1	3208	14	3098	2	3410	10	1472	24	1374	17	5507	10	3719	16	3248
NE78659	14	2495	8	3749	20	3579	3	3042	4	3334	13	1850	8	1414	11	5419	12	4112	3	3222
SD76694	12	2417	11	3829	19	3486	6	2981	5	3445	8	1833	12	1791	1	5403	13	3761	15	3216
NE77465	13	2181	14	4067	6	3193	16	2927	9	3132	19	1902	7	1448	9	5576	9	4473	1	3211
SD74209	5	2174	15	3910	11	3281	10	3067	3	3504	7	1755	14	1395	13	5789	7	3892	7	3196
SD76598	8	2486	10	4095	5	3730	1	2709	22	3545	5	2016	2	1364	19	4969	17	3770	14	3187
SD75244-2	10	2493	9	4140	3	3203	15	2950	7	3350	11	1844	10	1608	4	4646	22	4244	2	3164
SD76705	6	2508	7	3946	8	3276	11	2713	21	3190	15	1828	13	1362	20	6322	1	3309	21	3162
NA201	23	2074	17	3857	16	3383	7	2931	8	3419	9	1971	5	1417	10	6084	4	3287	23	3158
NE78415	17	1874	20	4097	4	3118	20	2759	19	3050	22	2069	1	1570	6	6015	5	3856	11	3156
SD75115-3	11	2213	13	3898	12	3493	5	2872	12	3614	3	1490	22	1338	22	5456	11	3876	9	3139
NE78696	18	2697	5	3965	7	2911	22	2736	20	2790	25	1837	11	1533	7	6248	2	3422	20	3127
CI13190	2	1735	22	3854	17	3355	8	2857	14	3780	1	2011	3	1243	23	5024	15	3785	13	3072
NE78698	19	2842	3	3878	14	3089	21	2923	11	3058	21	1536	21	1784	2	4886	19	3455	18	3050
NE76667	15	2822	4	3860	15	3569	4	3125	1	3152	17	1976	4	1360	21	4006	25	3426	19	3033
NE78414	16	2087	16	3604	22	2739	24	2926	10	3081	20	1648	17	1615	3	6001	6	3583	17	3031
MT7428	24	1892	19	3928	10	3152	19	2965	6	3542	6	1541	20	1374	17	4914	18	3963	5	3030
SD75284	7	2551	6	3846	18	3234	12	2576	25	2916	24	1730	15	1387	14	5590	8	3300	22	3015
SD74221	4	2300	12	3932	9	3227	13	2841	15	3318	14	1849	9	1381	15	5054	14	3225	24	3014
MT77063	26	1715	23	3895	13	3725	2	2805	16	3686	2	1581	18	1451	8	4297	24	3943	6	3011
MT77062	25	1829	21	3341	24	3296	9	2799	17	3608	4	1425	25	1400	12	4713	21	4098	4	2945
CI17439	3	1623	25	3639	21	2857	23	2762	18	3338	12	1563	19	1376	16	4800	20	3882	8	2871
SD76602	9	2044	18	3356	23	3157	18	2675	24	3136	18	1674	16	1088	25	5013	16	3173	25	2813
CI1442	1	1636	24	2930	25	2685	25	2691	23	3164	16	1478	23	1199	24	4459	23	3857	10	2678
Mean		2293		3850		3245		2864		3302		1753		1434		5295		3728		3085
L.S.D.(.05)		522		679		398		572		467		496		255		1225		723		284
C.V.		13.9		10.8		7.5		12.2		8.6		17.2		10.8		11.5		11.8		11.6

TABLE 12. SUMMARY OF MEAN YIELDS (kg/ha) FOR 18 LINES GROWN IN THE NORTHERN REGIONAL PERFORMANCE NURSERY AT 17 SITES IN 1981 AND 1982 WITH STATE MEANS AND RANKS.

VARIETY OR PEDIGREE	C.I. OR SEL. NO.	1982 ENTRY NO.	NEBRASKA MEAD	NORTH PLATTE	SIDNEY	AL-LIANCE	MEAN	RANK	ALBERTA LETH-BRIDGE	RANK
WRR*5/AGENT//CTK78	NE78659	14	3512	2188	3888	2838	3106	5	5034	6
WRR*5/AGENT//CTK78	NE77465	13	3526	2494	3769	2763	3138	3	5679	1
SENTINEL/CENTURK	NE78414	16	3428	2776	3728	2182	3029	6	5128	5
CENTURK*5/HAND	SD76705	6	3802	2025	3687	2584	3024	7	4916	8
SN/TPR//WRR/3/CTK.(ARCHER)	NA201	23	3624	2341	3927	2625	3129	4	5384	3
SENTINEL/CENTURK	NE78415	17	3363	2013	4033	2510	2979	8	5439	2
WRR*5/AGENT//AGATE SIB	NE76667	15	3803	2232	3759	2903	3174	2	4663	13
CI15322//AGENT/4*SUT/3/CTK	SD76598	8	3745	2240	3965	2840	3198	1	4752	10
CENTURK*2/HAND	SD74209	5	3314	2008	3797	2758	2969	10	5155	4
YGSS,SEL4662/4*CNN(BROWN.CHAFF)	MT77063	26	2756	1893	3639	3100	2847	12	4865	9
YGSS,SEL4662/4*CNN(WHITE.CHAFF)	MT77062	25	2800	1710	3026	2916	2613	16	4673	12
REGO/CNN//WINALTA	MT7428	24	2571	1980	3658	2635	2711	15	4974	7
AGENT/*4SUT*2//HAND	SD75284	7	3773	1999	3642	2485	2975	9	4706	11
WARRIOR	CI13190	2	2822	1894	3966	2711	2848	11	3981	18
CI15322//AGENT/4*SUT/3/CTK	SD76602	9	3202	1694	3147	2934	2744	14	4410	15
CENTURK*2/HAND	SD74221	4	3342	1669	3746	2439	2799	13	4314	17
KHARKOF	CI1442	1	2498	1412	3342	2416	2417	17	4325	16
ROUGHRIDER	CI17439	3	2530	1541	3130	1979	2295	18	4438	14
Mean			3245	2006	3658	2645	2889		4824	
L.S.D.(.05)			668	N.S.	N.S.	N.S.	421		N.S.	
C.V.			10.0	17.8	12.6	10.0	12.4		9.9	

TABLE 12.--(continued)

C.I. OR SEL. NO.	1982 ENTRY NO.	SOUTH DAKOTA BROOKINGS	SOUTH DAKOTA HIGHMORE	SOUTH DAKOTA PRESHO	SOUTH DAKOTA MEAN*	SOUTH DAKOTA RANK	NORTH DAKOTA CASSELTON	NORTH DAKOTA WILLISTON	NORTH DAKOTA MEAN	NORTH DAKOTA RANK	WYOMING ARCHER	WYOMING SHERIDAN	WYOMING MEAN	WYOMING RANK
NE78659	14	3368	4282	2431	3357	3	3536	2337	2937	3	1999	3975	2987	3
NE77465	13	3308	3798	2114	2956	7	4199	1557	2878	5	1968	4007	2988	2
NE78414	16	1468	4098	2675	3386	2	3851	2853	3352	1	1880	3655	2768	12
SD76705	6	1794	3320	2261	2790	10	3554	2431	2992	2	1800	3923	2861	10
NA201	23	2077	3013	1760	2386	17	2906	2153	2530	15	1917	4033	2975	4
NE78415	17	2210	4055	2767	3411	1	3526	1771	2648	10	1771	3624	2698	16
NE76667	15	3249	3640	2628	3134	4	3609	1875	2742	8	1952	3829	2890	9
SD76598	8	2786	3398	2265	2831	9	2972	2403	2687	9	1737	4114	2926	6
SD74209	5	2135	3331	2370	2850	8	2890	1841	2365	18	1982	4166	3074	1
MT77063	26	2174	3599	1954	2777	11	3044	2472	2758	7	1794	3987	2891	8
MT77062	25	2054	3276	1981	2629	14	3046	2214	2630	11	1752	3749	2751	13
MT7428	24	2116	3171	1488	2329	18	2427	2788	2608	12	1858	4088	2973	5
SD75284	7	2223	3233	2086	2659	13	3048	1975	2511	16	1695	3352	2523	18
CI13190	2	2993	3568	2637	3102	5	2894	1868	2381	17	1760	4041	2901	7
SD76602	9	2314	3234	2141	2688	12	3202	1972	2587	14	1716	3733	2724	14
SD74221	4	2510	3738	2262	3000	6	2964	2227	2595	13	1816	3782	2799	11
CI1442	1	2182	3159	1825	2492	16	3070	2735	2903	4	1767	3455	2611	17
CI17439	3	2776	3192	1805	2499	15	2864	2657	2761	6	1728	3691	2710	15
Mean		2395	3509	2192	2841		3200	2229	2715		1827	3845	2836	
L.S.D.(.05)		N.S.	N.S.	N.S.	N.S.		N.S.	N.S.	N.S.		N.S.	N.S.	N.S.	
C.V.		38.6	19.1	22.9	20.8		22.9	23.6	23.5		14.8	8.8	10.8	

TABLE 12.--(concluded)

C.I. OR SEL. NO.	1982 ENTRY NO.	MINNESOTA WASECA	RANK	NEW MEXICO CLOVIS (IRR.)	CLOVIS (DRY)	MEAN	RANK	IDAHO ABERDEEN	RANK	WASHINGTON LIND	RANK	MONTANA MOCASSIN	RANK	17 SITE MEAN*
NE78659	14	3216	2	5349	2676	4012	6	4830	3	1454	12	3230	8	3340
NE77465	13	2856	7	5504	2888	4196	2	4251	7	1593	4	3445	2	3318
NE78414	16	2744	9	4715	2442	3579	14	4332	6	1652	2	3366	5	3265
SD76705	6	3103	4	5638	2641	4139	3	5093	2	1223	16	3411	3	3259
NA201	23	2818	8	5541	2363	3952	8	5280	1	1123	18	3934	1	3220
NE78415	17	3112	3	5690	2471	4080	4	4040	13	1260	14	3290	6	3220
NE76667	15	3370	1	5149	2782	3966	7	3199	18	1579	6	3055	11	3178
SD76598	8	2941	6	5231	2462	3846	10	4189	9	1531	9	3232	7	3177
SD74209	5	2665	10	4878	2781	3829	11	4751	4	1573	7	3375	4	3155
MT77063	26	2551	14	5009	2793	3901	9	4153	10	1454	12	2771	15	3049
MT77062	25	2478	16	5502	3185	4343	1	4196	8	1592	5	2994	13	3005
MT7428	24	2250	18	4501	2691	3596	13	4680	5	1746	1	3048	12	2974
SD75284	7	2664	11	4537	2788	3663	12	4139	12	1254	15	3164	9	2973
CI13190	2	2623	13	4344	2530	3437	15	4150	11	1623	3	2786	14	2953
SD76602	9	2661	12	5301	2767	4034	5	3715	15	1552	8	2761	16	2950
SD74221	4	2960	5	3779	2238	3008	17	3279	17	1509	10	3090	10	2891
CI1442	1	2521	15	3796	2134	2965	18	3778	14	1486	11	2604	18	2725
CI17439	3	2389	17	4319	2236	3277	16	3432	16	1152	17	2720	17	2694
Mean		2773		4932	2604	3768		4194		1481		3200		3075
L.S.D.(.05)		N.S.		882	N.S.	N.S.		N.S.		N.S.		N.S.		227
C.V.		10.5		15.0	16.2	16.0		16.5		14.1		9.0		15.5

*Data from Brookings not included.

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 25 entries in the 1982 Northern Regional Performance Nursery.

Entry no.	C.I. or Sel. No.	Mean yield over 18 locations (kg/ha)	Regression Coefficient (by·x)	Correlation Coefficient (r)	Coefficient of Determination (r^2)
21	NK78W296	3211	1.08	0.96	0.93
14	NE78659	3178	1.08	0.98	0.96
16	NE78414	3162	1.02	0.92	0.85
22	NK78W283	3109	1.08	0.93	0.87
13	NE77465	3103	1.12	0.93	0.87
6	SD76705	3097	1.16	0.97	0.94
12	SD76694	3086	1.04	0.96	0.92
19	NE78698	3082	1.11	0.91	0.82
8	SD76598	3028	0.94	0.97	0.95
17	NE78415	3011	1.23	0.96	0.93
15	NE76667	2997	0.80	0.91	0.82
5	SD74209	2933	1.02	0.95	0.91
2	13190	2932	0.91	0.92	0.84
18	NE78696	2903	1.08	0.95	0.91
11	SD75115-3	2899	1.15	0.97	0.94
23	NA201	2887	1.11	0.93	0.86
26	MT77063	2880	0.96	0.95	0.90
25	MT77062	2861	1.05	0.95	0.90
7	SD75284	2848	0.96	0.97	0.94
24	MT7428	2822	0.80	0.90	0.81
4	SD74221	2777	0.85	0.93	0.87
9	SD76602	2756	0.99	0.96	0.93
10	SD75244-2	2747	0.83	0.88	0.78
3	17439	2710	0.91	0.95	0.90
1	1442	2598	0.75	0.91	0.83

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 17 locations in the 1981 and 1982 Northern Regional Performance Nursery.

Entry no.	C.I. or Sel.No.	Mean yield over 17 locations (kg/ha)	Regression Coefficient (by·x)	Correlation Coefficient (r)	Coefficient of Determination (r^2)
14	NE78659	3340	1.05	0.98	0.95
13	NE77465	3318	1.15	0.95	0.91
16	NE78414	3265	1.03	0.93	0.87
6	SD76705	3259	1.18	0.98	0.95
23	NA201	3220	1.23	0.94	0.88
17	NE78415	3220	1.22	0.96	0.93
15	NE76667	3178	0.94	0.93	0.87
8	SD76598	3177	1.02	0.97	0.94
5	SD74209	3155	1.07	0.97	0.94
26	MT77063	3049	0.94	0.95	0.91
25	MT77062	3005	0.94	0.94	0.88
24	MT7428	2974	0.88	0.90	0.82
7	SD75284	2973	1.02	0.97	0.94
2	13190	2953	0.84	0.92	0.85
9	SD76602	2950	1.00	0.96	0.92
4	SD74221	2891	0.89	0.93	0.86
1	1442	2725	0.75	0.92	0.86
3	17439	2694	0.89	0.95	0.89

TABLE 15. SUMMARY OF AGRONOMIC AND YIELD DATA FOR 25 LINES IN THE 1982 NORTHERN REGIONAL PERFORMANCE NURSERY.

VARIETY OR PEDIGREE	C.I. OR SEL. NO.	ENTRY NO.	DAYS TO HEADING FROM 1/1	PLANT HEIGHT CM	LODGING 1-9	WINTER SURVIVAL %
NUMBER OF TRIALS			14	19	6	8
WRR/III-54-12//SDY/3/WNK/ARK	NK78W296	21	162	79	1	67
WRR*5/AGENT//CTK78	NE78659	14	159	90	3	64
SENTINEL/CENTURK	NE78414	16	159	82	2	73
NB68639//WRR/III-54-12/3/WNK/CI14059	NK78W283	22	161	83	1	63
WRR*5/AGENT//CTK78	NE77465	13	158	91	3	60
CENTURK*5/HAND	SD76705	6	158	81	3	52
CENTURK*5/HAND	SD76694	12	159	84	4	61
AGATE SIB(NE69441)/TX65A1503-1	NE78698	19	158	80	2	58
CI15322//AGENT/4*SUT/3/CTK	SD76598	8	159	92	3	59
SENTINEL/CENTURK	NE78415	17	158	84	2	62
WRR*5/AGENT//AGATE SIB	NE76667	15	159	92	3	67
CENTURK*2/HAND	SD74209	5	158	90	3	50
WARRIOR	CI13190	2	159	97	4	68
AGATE SIB(NE69441)/TX65A1503-1	NE78696	18	157	74	1	51
CENTURK*4/HAND	SD75115-3	11	160	87	3	47
SN/TPR//WRR/3/CTK.(ARCHER)	NA201	23	158	77	2	50
YGSS,SEL4662/4*CNN(BROWN.CHAFF)	MT77063	26	162	100	4	61
YGSS,SEL4662/4*CNN(WHITE.CHAFF)	MT77062	25	162	98	4	63
AGENT/*4SUT*2//HAND	SD75284	7	156	87	3	60
REGO/CNN//WINALTA	MT7428	24	162	95	3	55
CENTURK*2/HAND	SD74221	4	158	86	4	63
CI15322//AGENT/4*SUT/3/CTK	SD76602	9	157	91	4	59
CENTURK*3/HAND	SD75244-2	10	159	91	3	50
ROUGHRIDER	CI17439	3	161	97	3	74
KHARKOF	CI1442	1	162	105	5	66

TABLE 15.--(concluded).

C.I. OR SEL. NO.	ENTRY NO.	LEAF RUST SEV. %	LEAF SPOT 1-9	STRAW BREAKAGE %	STAND %	1000-K.WT. GM	VOLUME WEIGHT KG/HL	YIELD KG/HA
NUMBER OF TRIALS		2	1	2	2	1	17	18
NK78W296	21	10	4	18	87	42.4	77.2	3211
NE78659	14	1	5	1	69	39.6	77	3178
NE78414	16	6	3	1	83	41.6	77	3162
NK78W283	22	1	3	8	74	41.2	76.6	3110
NE77465	13	3	3	5	57	38	77.2	3103
SD76705	6	1	5	1	67	34.8	76.5	3097
SD76694	12	1	5	3	66	33.6	76.6	3086
NE78698	19	1	4	6	72	42	77.6	3082
SD76598	8	1	4	10	52	40	77.9	3028
NE78415	17	6	3	1	74	42.4	76.1	3011
NE76667	15	1	4	3	76	40	77.9	2997
SD74209	5	5	5	3	58	37.6	77.2	2933
CI13190	2	53	4	8	89	40	77	2932
NE78696	18	3	2	1	80	38.4	77.6	2903
SD75115-3	11	3	4	1	58	33.6	76.4	2899
NA201	23	10	5	5	47	34	74.8	2887
MT77063	26	48	2	5	80	40	77.8	2880
MT77062	25	70	3	13	72	40	78.5	2861
SD75284	7	60	2	13	86	38.8	77.6	2848
MT7428	24	65	4	5	75	43.2	76	2822
SD74221	4	1	5	3	79	34.2	78.2	2777
SD76602	9	11	5	5	59	37.6	77.7	2756
SD75244-2	10	1	5	8	72	35.6	77	2747
CI17439	3	43	5	8	75	36.8	77.8	2710
CI1442	1	5	3	8	88	40.2	77.1	2598

TABLE 16. SEEDLING REACTION OF THE 1982 NORTHERN REGIONAL PERFORMANCE NURSERY TO PUCCINIA GRAMINIS TRITICI (BY D. V. McVEY, USDA, CEREAL RUST LABORATORY, UNIVERSITY OF MINNESOTA, ST. PAUL, MN.)

		72-4-1A	74-21-1409A	72-00-1370C	72-44-703C	71-21-584B	72-25-639C	72-18-630B	72-14-504C
Entry	Variety or	15B-2		151		11-32-113			
No.	Sel. No.	TNMH	TNMK	QFBS	QSHS	RHRS	RKQS	RSHS	RPQQ
1.	Kharkof	S	S	S	S,2	S	S	S,2	S
2.	Warrior	S	S	S	S	S	S	S	S
3.	Roughrider	-	S	0;-1	0	S	S	0	S
4.	SD 74221	S,0;	0;	2	0;	2-,S	S	0;S	0;S
5.	SD 74209	0;	0;,S	0;	2	2	S	2	0;
6.	SD 76705	-	0;	-	0	-	S-	-	0;
7.	SD 75284	0;-1N	S	2	2,S	2	S	2,S	0;-1N
8.	SD 76598	0;	0;	0;	2-	2-	2=,S	2=	0;
9.	SD 76602	0;-1	0;,S	S,0;	2,S	S	S	2-,S	0;-1N
10	SD 75244-2	0;	0;,2	0;,2	2	2,S	S	2-	0;
11.	SD 75115-3	0;	0;	0;	0	2	S	0,S	0;
12.	SD 76694	0;	0;	0;	0	2	2	0	0;
13.	NE 77465	0;	0;	0;	S	2	2	2,S	0;
14.	NE 78659	0;	0;	0;	2	2	2	2	0;
15.	NE 76667	0;	0;	0;	2-	2-	2-	2-	0;
16,	NE 78414	0;	0;	0;	23	S	23CN	23	0;
17.	NE 78415	0;	0;	0;	S	S	23CN	S	0;
18.	NE 78696	-	0;	-	2-	-	2	-	0;
19.	NE 78698	0;	0;	0;	2-	2	2	2-	0;
20.	WT 166(no Seed)	-	-	-	-	-	-	-	-
21.	NK 78W296	-	S	-	0;	-	S	-	S
22.	NK 78W283	0;-1	S	S	S	S	S	S	0;
23.	NA 201	-	0;	-	23	-	S	-	0;
24.	MT 7428	S	S	S	S	S	S	S	S
25.	MT 77062	-	S	-	S	-	S	-	S
26.	MT 77063	S	S	S	S	S	S	S	S
27.	MT 7811(no seed)	-	-	-	-	-	-	-	-

TABLE 17.

Adult plant reaction of the 1982 Uniform Northern Regional Hard Red Winter Wheat Performance Nursery inoculated to stem rust and to a natural infection of leaf rust and powdery mildew at St. Paul, MN. (AR-USDA, Cereal Rust Laboratory, by D. V. McVey).

Entry No.	Variety or Line	Leaf Rust 7/2/82	Stem Rust 7/9/82	% Powdery Mildew
1	Kharkof	20S	60S	50
2	Warrior	60S	60S	50
3	Roughrider	40S	TR	50
4	SD 74221	TS	TR	50
5	SD 74209	40S	60MS-S	50
6	SD 76705	TS	TR	50
7	SD 75284	80S	40MR-MS	80
8	SD 76589	TS	5R-MR	80
9	SD 76602	40S	20MS-S	10
10	SD 75244-2	10S	TR	50
11	SD 75115-3	20S	20MS-S	50
12	SD 76694	10S	40MS-S	50
13	NE 77465	20S	20MS-S	10
14	NE 78659	5S	20MR-MS	50
15	NE 76667	TS	20MS-S	50
16	NE 78414	20S	20MS-S	50
17	NE 78415	10S	40MS-S	Trace
18	NE 78696	5S	20MR	20
19	NE 78698	TS	20MR-MS	20
20	WT 166	---	---	---
21	NK 78W296	60S	TS	60
22	NK 78W283	TS	60S	10
23	NA 201	5MS	60S	50
24	MT 7428	40S	60S	50
25	MT 77062	60S	60S	Trace
26	MT 77063	60S	60S	50
27	MT 7811	---	---	---

Table 18. 1982 Northern Regional Performance Nursery hessian fly reaction. (Data from R. L. Gallun, Lafayette, Indiana.)

Entry no.	C. I. or Sel. No.	B 3 reps R-S	C 2 reps R-S	D 3 reps R-S
1	1442	6-22	9-31	1-87
2	13190	1-84	5-37	0-112
3	17439	0-75	4-43	1-94
4	SD74221	1-80	0-51	0-83
5	SD74209	0-83	8-46	0-93
6	SD76705	3-80	15-33	0-85
7	SD75284	0-71	0-48	1-92
8	SD76598	0-75	0-46	0-79
9	SD76602	0-72	4-40	1-80
10	SD75244-2	3-63	6-48	0-85
11	SD75115-3	0-87	1-51	1-90
12	SD76694	0-82	11-41	1-92
13	NE77465	0-83	1-54	1-82
14	NE78659	0-83	2-47	2-88
15	NE76667	0-77	10-32	0-79
16	NE78414	0-90	51-7	0-93
17	NE78415	0-72	30-4	0-79
18	NE78696	0-83	28-36	19-74
19	NE78698	0-86	16-36	12-76
20	WT166	-	-	-
21	NK78W296	5-72	5-55	0-92
22	NK78W283	1-85	4-53	0-80
23	NA201	0-63	0-53	0-77
24	MT7428	1-86	4-53	0-90
25	MT77062	2-78	22-8	0-89
26	MT77063	2-73	7-42	0-82
27	MT7811	-	-	-

1982
REGIONAL HYBRID WHEAT NURSERY

Entry No.	Designation	CI or Sel. No.	Source
1	Centurk 78	17724	Check
2	TAM W-105	17826	"
3	Newton	17715	"
4	Rohm & Haas Hybrid	RH810971	Rohm & Haas
5	"	RH811122	"
6	"	RH811222	"
7	"	RH811422	"
8	"	RH811433	"
9	"	RH811522	"
10	"	RH811626	"
11	"	RH811633	"
12	"	RH811722	"
13	"	RH811922	"
14	"	RH812122	"
15	"	RH812129	"
16	"	RH812458	"
17	"	RH812581	"
18	"	RH812586	"
19	"	RH812758	"
20	"	RH800902	"
21	"	RH800905	"
22	"	RH800913	"
23	"	RH803143	"
24	"	RH790410	"
25	"	RH790509	"
26	"	RH790609	"
27	"	RH790710	"
28	"	RH792329	"

Test Sites

Dallas, Texas
Chillicothe, Texas
Bushland, Texas
Stillwater, Oklahoma
Lahoma, Oklahoma
Hutchinson, Kansas
Hays, Kansas
Colby, Kansas
Mead, Nebraska
North Platte, Nebraska

Test Site Information - Regional Hybrid Nursery

Bushland, TX -- Nursery seeded on fallowed ground fertilized with 150 lbs N/acre. Excellent moisture for seeding. Seeding rate 65 lb/acre. Good winter survival. Lack of precipitation during winter and spring required four irrigations of 4.5 inches each in April and May. Except for leaf rust that came in late, diseases and insects were minor. Late rains when wheat was ripe caused lodging, bleaching and reduced test weights.

Chillicothe, TX -- See information for SRPN.

Dallas, TX -- See information for SRPN.

Stillwater, OK -- Fair to good stand establishment. Near-record rainfall in May affected yields and test weights.

Lahoma, OK -- Good production prospects throughout season.

Hutchinson, KS -- See information for SRPN.

Hays, KS -- Good stand establishment and excellent fall growth. Moisture never in short supply during season. Heavy but late build-up of leaf rust. Nursery rained on after it was combine ripe.

Colby, KS -- See information for SRPN.

Mead, NE -- Good fall stand establishment. Cold winter caused some stand loss. Prolonged wet period in late May and early June caused scab infection.

North Platte, NE -- Satisfactory moisture at seeding time. No winterkill. Severe but erratic damage from foliar diseases -- especially Cephalosporium stripe.

TABLE 19. YIELD AND AGRONOMIC DATA FOR 28 ENTRIES IN THE REGIONAL HYBRID WINTER WHEAT PERFORMANCE NURSERY GROWN IN 1982.

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	LODGING %
RH811122	5	7577	77.5	125	47
RH812122	14	7527	77.2	126	43
RH811222	6	7368	77.9	125	50
RH800905	21	7321	78.3	123	42
RH811522	9	7287	77.9	125	50
RH812129	15	7278	77.5	127	43
RH812586	18	7263	78.3	126	43
RH811722	12	7200	78.1	125	40
RH811626	10	7139	77.5	125	48
RH811633	11	7128	77.7	125	67
RH800913	22	7119	78.1	124	42
RH790609	26	7072	77.4	123	45
RH812581	17	7025	77.5	126	42
CI17715	3	7021	76.8	126	38
RH810971	4	6985	77.7	125	40
RH792329	28	6980	76.2	124	55
RH811422	7	6933	77.7	125	43
RH811922	13	6899	75.3	125	40
RH790410	24	6883	77.7	124	52
RH790509	25	6803	75.3	124	57
RH790710	27	6783	78.3	124	42
CI17826	2	6760	76.5	125	33
RH812458	16	6727	76.1	128	38
RH803143	23	6643	77.7	126	55
CI17724	1	6625	75.9	127	48
RH811433	8	6556	77.5	125	60
RH800902	20	6464	76.8	123	45
RH812758	19	5465	74.3	129	43
MEAN		6958			
L.S.D.(.05)		491			
C.V.		4.3			

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	WINTER SURVIVAL 1-5
RH811522	9	3371	74.5	114	64	2
RH811222	6	3107	75.4	114	65	1.7
RH800905	21	2858	76.3	110	57	2
RH812122	14	2775	75	115	64	2
CI17826	2	2755	75.4	113	59	1.7
RH812758	19	2710	71.7	119	74	2
RH812129	15	2634	74.1	120	73	2
RH810971	4	2569	75.4	114	64	1.8
RH800902	20	2569	75.9	109	54	2
RH811422	7	2567	75	114	64	2
RH792329	28	2567	74.7	111	62	2
RH811722	12	2553	75.9	115	66	2
RH811922	13	2529	74.5	114	64	1.7
RH811433	8	2455	75.3	114	62	2
RH800913	22	2331	76.8	111	58	1.7
RH811122	5	2251	73.2	115	60	1.8
RH812458	16	2177	72.5	119	75	1.5
RH803143	23	2172	74.5	114	60	2.3
RH811633	11	2071	75.2	115	64	2
RH790509	25	1993	74.9	111	56	2
RH812581	17	1979	74.7	115	64	1.8
RH790710	27	1858	72.6	112	58	2
RH811626	10	1775	72.5	116	73	2
CI17724	1	1636	73.2	119	63	2
RH790410	24	1587	73.2	110	60	2.3
CI17715	3	1289	75.3	117	59	2
RH790609	26	1287	73.8	110	57	2
RH812586	18	1152	72.9	115	64	2
MEAN		2271				
L.S.D.(.05)		503				
C.V.		13.8				

BEGIN

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 4/23 SEV. %	LEAF RUST 4/23 RESP. 1-9	LEAF RUST 5/21 SEV. %	LEAF RUST 5/21 RESP. 1-9	MILDEW 3/24 0-9	MILDEW 4/12 0-9
RH800905	21	2168	74.8	112	71	60	8	60	8	1	2
RH811522	9	2067	71.6	126	91	30	7	10	3	4	6
CI17724	1	2018	75.5	120	91	30	7	60	8	1	1
RH792329	28	2015	76.1	113	84	10	7	60	8	0	3
RH800902	20	1970	74.8	110	74	60	8	60	8	3	4
RH812122	14	1941	71	127	86	40	7	30	3	3	5
RH790410	24	1838	76.1	119	79	60	8	60	8	0	3
RH812586	18	1775	73.5	122	94	60	9	60	9	3	3
RH810971	4	1699	70.3	122	91	40	8	40	8	3	4
RH812581	17	1699	72.2	125	94	60	8	60	8	4	5
RH803143	23	1686	76.1	118	84	60	8	60	8	4	5
RH812129	15	1657	71	130	89	30	7	30	3	1	2
RH811922	13	1605	68.4	127	86	40	8	60	8	4	5
RH790710	27	1601	70.3	123	84	30	7	60	8	2	5
RH811722	12	1589	72.2	126	74	40	8	40	8	2	3
RH811122	5	1583	69	113	69	40	8	.	.	1	1
RH811422	7	1576	71.6	120	89	40	8	40	8	3	4
RH800913	22	1574	69.7	121	84	60	8	60	8	5	5
RH790509	25	1560	71.6	113	74	60	9	60	8	2	3
RH790609	26	1522	74.2	111	74	60	8	60	8	4	5
RH811222	6	1486	69	124	89	40	8	60	8	4	4
RH811626	10	1435	74.8	125	94	50	8	40	8	4	6
RH811433	8	1417	72.9	119	91	50	9	60	9	3	4
RH811633	11	1320	71.6	126	89	60	9	60	9	4	7
CI17826	2	1253	63.2	125	84	30	8	50	8	6	6
RH812758	19	1116	69	.	94	40	8	30	7	2	4
CI17715	3	1047	69.7	125	84	60	9	60	9	4	5
RH812458	16	980	69.7	.	91	50	8	60	8	2	2
MEAN		1614									
L.S.D.(.05)		303									
C.V.		11.5									

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
RH812458	16	2789	74.6	130	102
RH812122	14	2638	74.6	128	85
CI17724	1	2437	74.4	126	87
RH812586	18	2403	73.7	126	91
RH812129	15	2396	74.9	129	91
RH811522	9	2390	75.1	128	93
RH811422	7	2343	75.6	127	83
RH800913	22	2313	74	126	80
RH811626	10	2302	74	129	91
RH811222	6	2295	72.1	127	86
RH811122	5	2255	74.2	127	86
RH811722	12	2246	74.9	127	87
RH810971	4	2237	71.6	128	82
RH811633	11	2210	75.2	127	95
RH812581	17	2204	75.9	126	89
RH811922	13	2186	72.2	128	85
RH811433	8	2150	72.1	126	86
RH790710	27	2116	72.1	128	74
CI17826	2	2044	71.2	128	73
RH800902	20	2033	73.7	121	68
RH790410	24	2026	75.5	122	80
RH790609	26	1957	73.7	122	66
CI17715	3	1955	71.3	128	82
RH803143	23	1937	73.5	123	87
RH792329	28	1874	74.9	123	78
RH800905	21	1800	74	122	71
RH790509	25	1740	72.1	123	73
RH812758	19	1645	70.8	131	93
MEAN		2176			
L.S.D.(.05)		357			
C.V.		10.0			

LAHOMA, OKLAHOMA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	LODGING %
RH812122	14	4556	77.7	104	12
RH800913	22	4482	76.8	98	6
RH792329	28	4405	79.2	103	13
RH811922	13	4391	77.5	106	8
RH803143	23	4301	79.3	107	23
RH800905	21	4294	77.7	89	17
RH812581	17	4259	77	109	17
RH800902	20	4258	76	90	33
RH810971	4	4234	77.1	105	17
RH811422	7	4196	77.9	107	18
RH812129	15	4187	75.2	109	12
RH811522	9	4186	77.9	111	20
CI17715	3	4155	76.9	96	5
RH811122	5	4121	78	108	12
RH790609	26	4091	77.3	91	18
RH811633	11	4076	75.9	112	37
CI17826	2	4041	76.5	97	3
RH790509	25	4026	76.9	91	15
RH811222	6	4024	77.3	103	15
RH812586	18	3974	76.8	108	20
RH811626	10	3935	76	111	17
RH790410	24	3883	78.9	104	20
RH811722	12	3865	77.1	108	13
RH812458	16	3838	74.8	117	15
CI17724	1	3769	75.6	112	33
RH811433	8	3735	75.3	110	37
RH790710	27	3692	77.9	89	5
RH812758	19	3073	75.3	110	12
MEAN		4073			
L.S.D.(.05)		472			
C.V.		7.1			

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	LEAF RUST SEV. %	RESP 1-9
RH812122	14	4446	80.4	131	86	1	8
RH811522	9	4320	79.2	130	89	1	2
RH811222	6	4091	78.7	130	89	10	8
RH812129	15	3944	78.3	132	91	60	8
RH803143	23	3883	79.7	131	84	80	8
RH811922	13	3880	78.8	131	86	30	7
RH812458	16	3867	78	133	99	80	8
RH811633	11	3862	80.4	131	91	80	8
RH812586	18	3829	79.1	132	91	80	8
CI17724	1	3825	78	132	91	20	3
RH812581	17	3790	80.1	131	89	30	8
RH792329	28	3759	79.2	130	81	1	8
RH811626	10	3750	79.6	131	91	70	8
CI17826	2	3739	77	130	84	20	7
RH811122	5	3739	79.3	130	86	20	8
RH800902	20	3723	78.3	129	76	60	8
RH811722	12	3660	79.9	130	89	70	8
RH811422	7	3651	79.2	130	86	20	8
RH800905	21	3650	77.7	129	76	30	8
RH800913	22	3647	79.1	131	81	20	8
CI17715	3	3641	76.2	130	84	90	8
RH790609	26	3561	77.8	129	74	80	8
RH811433	8	3553	79.9	130	91	70	8
RH810971	4	3506	78.4	130	84	10	8
RH790410	24	3493	79.3	130	84	10	8
RH790509	25	3327	78.2	129	76	80	8
RH790710	27	2861	76.5	133	76	90	8
RH812758	19	2547	75.6	134	94	70	8
MEAN		3698					
L.S.D.(.05)		363					
C.V.		6.9					

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
RH812122	14	5911	76.4	135	100
RH811922	13	5707	77	137	98
RH811522	9	5371	77.3	136	105
RH812129	15	5322	75.6	137	103
CI17826	2	5284	76	134	87
RH800913	22	5216	77.1	135	90
RH812581	17	5154	77	136	105
RH810971	4	5151	76.8	135	95
RH811222	6	5147	77.1	135	105
RH811122	5	5118	76.8	135	100
RH811722	12	5107	77.7	136	103
RH803143	23	5100	76.4	137	103
RH800905	21	5098	76.3	134	85
RH811626	10	5037	76.8	137	102
RH811422	7	5028	77.1	135	100
RH790710	27	5017	75.4	135	84
RH812458	16	4983	75.1	138	110
RH792329	28	4936	77.2	134	104
RH811633	11	4918	77	136	105
RH790410	24	4855	77	134	96
RH812586	18	4851	76	137	95
RH790509	25	4804	75.5	134	90
CI17715	3	4643	75.7	136	84
RH811433	8	4598	76.1	135	105
CI17724	1	4580	74.4	137	100
RH800902	20	4546	75.6	133	85
RH790609	26	4192	75.9	133	82
RH812758	19	4107	75.3	139	106
MEAN		4992			
L.S.D.(.05)		450			
C.V.		5.5			

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	LODGING %
RH812129	15	3999	77.4	147	110	53
RH812122	14	3815	76.2	147	98	37
RH811522	9	3673	78	145	103	50
RH811122	5	3443	77.1	145	101	30
RH800913	22	3433	74.1	144	91	27
RH811626	10	3430	78.6	146	108	38
RH812458	16	3429	75.9	149	115	40
RH792329	28	3427	78	145	102	47
RH800905	21	3403	75.5	145	90	37
RH811222	6	3387	75.7	145	102	25
RH803143	23	3382	78.4	147	108	50
RH790410	24	3317	77	145	103	57
RH811722	12	3301	77.8	146	105	60
RH790609	26	3252	75.8	144	91	40
RH811922	13	3239	75.5	148	102	27
CI17715	3	3206	76.1	147	95	27
RH812581	17	3176	75.5	147	107	43
RH810971	4	3173	75.5	146	100	27
RH812586	18	3126	76.2	147	107	53
CI17826	2	3108	73.8	146	88	27
RH811633	11	3075	77.1	147	108	60
RH790509	25	3018	75.5	145	93	67
RH811433	8	3017	75.6	145	107	77
CI17724	1	2952	74.6	149	109	70
RH811422	7	2946	75.9	147	102	43
RH800902	20	2929	73.2	144	91	50
RH790710	27	2766	75.7	146	86	30
RH812758	19	2063	74.3	151	108	25
MEAN		3232				
L.S.D.(.05)		513				
C.V.		9.7				

MEAD, NEBRASKA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	DAYS TO HEADING FROM 1/1	PLANT HEIGHT CM	LODGING 1-9
RH811122	5	2995	151	102	2
RH792329	28	2898	153	104	2
RH811522	9	2883	152	108	4
RH812458	16	2816	157	117	1
RH812581	17	2632	152	107	3
RH812129	15	2582	156	110	3
RH811422	7	2569	153	105	2
RH811222	6	2564	152	105	4
CI17826	2	2504	151	91	0
RH790410	24	2490	152	104	3
RH810971	4	2414	153	101	2
RH811626	10	2414	155	106	4
RH812122	14	2367	155	102	2
RH803143	23	2354	154	104	2
RH811722	12	2345	153	106	3
RH812758	19	2213	157	114	0
CI17724	1	2201	156	107	1
RH811922	13	2170	155	102	1
RH800913	22	2103	154	96	3
RH790710	27	2018	153	89	0
RH811633	11	1961	154	112	4
RH800905	21	1937	153	86	1
RH812586	18	1816	155	103	2
RH790509	25	1677	152	93	1
RH811433	8	1657	155	105	3
RH790609	26	1524	152	88	1
RH800902	20	1282	152	81	6
CI17715	3	966	161	89	0
MEAN		2227			
L.S.D.(.05)		593			
C.V.		16.3			

NORTH PLATTE, NEBRASKA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL
RH800905	21	2940	74.9
RH800902	20	2871	75.1
RH811422	7	2852	77.3
RH800913	22	2542	76.1
RH812586	18	2528	76.1
RH810971	4	2383	75.7
RH812129	15	2375	75.9
RH812458	16	2230	71.7
RH792329	28	2077	75.9
RH811433	8	2075	75.1
RH811722	12	2060	76.1
RH803143	23	2004	76.2
CI17715	3	1891	74.8
RH812758	19	1854	72.5
RH790410	24	1829	78
RH811633	11	1771	75.3
RH812581	17	1766	74
CI17826	2	1762	75.3
RH811626	10	1685	76.6
RH790609	26	1590	68.2
RH812122	14	1555	69.9
RH811922	13	1532	73.4
RH811522	9	1270	70.4
RH790509	25	1259	71.5
RH790710	27	1214	65.4
RH811222	6	1100	71.5
RH811122	5	1088	68.1
CI17724	1	915	69
MEAN		1894	
L.S.D.(.05)		N.S.	
C.V.		53.5	
BEGIN			

TABLE 20. SUMMARY OF MEAN YIELDS (kg/ha) OF THE 28 ENTRIES GROWN IN THE 1982 HYBRID PERFORMANCE NURSERY AT 10 SITES, WITH STATE MEANS AND RANKS.

		KANSAS					NEBRASKA			
C.I. OR SEL. NO.	ENTRY NO.	HUTCH-INSON	HAYS	COLBY	MEAN	RANK	MEAD	NORTH PLATTE	MEAN	RANK
RH812122	14	4446	5911	3815	4724	1	2367	1555	1961	19
RH811522	9	4320	5371	3673	4455	2	2883	1270	2076	15
RH812129	15	3944	5322	3999	4422	3	2582	2375	2479	4
RH800905	21	3650	5098	3403	4050	11	1937	2940	2439	5
RH792329	28	3759	4936	3427	4041	13	2898	2077	2488	3
RH800913	22	3647	5216	3433	4099	8	2103	2542	2323	7
RH811422	7	3651	5028	2946	3875	20	2569	2852	2710	1
RH811222	6	4091	5147	3387	4208	5	2564	1100	1832	23
RH810971	4	3506	5151	3173	3943	17	2414	2383	2399	6
RH811122	5	3739	5118	3443	4100	7	2995	1088	2042	17
RH811922	13	3880	5707	3239	4275	4	2170	1532	1851	22
RH811722	12	3660	5107	3301	4022	15	2345	2060	2203	8
RH812458	16	3867	4983	3429	4093	9	2816	2230	2523	2
RH812581	17	3790	5154	3176	4040	14	2632	1766	2199	9
RH803143	23	3883	5100	3382	4122	6	2354	2004	2179	10
CI17826	2	3739	5284	3108	4044	12	2504	1762	2133	13
RH811626	10	3750	5037	3430	4072	10	2414	1685	2050	16
RH812586	18	3829	4851	3126	3936	18	1816	2528	2172	11
RH800902	20	3723	4546	2929	3733	23	1282	2871	2077	14
RH811633	11	3862	4918	3075	3952	16	1961	1771	1866	20
RH790410	24	3493	4855	3317	3889	19	2490	1829	2160	12
RH811433	8	3553	4598	3017	3723	24	1657	2075	1866	21
CI17724	1	3825	4580	2952	3786	22	2201	915	1558	25
RH790509	25	3327	4804	3018	3716	25	1677	1259	1468	27
RH790609	26	3561	4192	3252	3668	26	1524	1590	1557	26
RH790710	27	2861	5017	2766	3548	27	2018	1214	1616	24
CI17715	3	3641	4643	3206	3830	21	966	1891	1429	28
RH812758	19	2547	4107	2063	2906	28	2213	1854	2033	18
Mean		3698	4992	3232	3974		2227	1894	2060	
L.S.D.(.05)		363	450	513	334		593	N.S.	N.S.	
C.V.		6.9	5.5	9.7	7.1		16.3	53.5	36.9	

TABLE 20.--(concluded)

C.I. OR SEL. NO.	ENTRY NO.	TEXAS DALLAS	TEXAS CHILLI-COTHE	TEXAS BUSHLAND (IRR.)	TEXAS MEAN	TEXAS RANK	OKLAHOMA STILL-WATER	OKLAHOMA LAHOMA	OKLAHOMA MEAN	OKLAHOMA RANK	10 SITE MEAN
RH812122	14	1941	2775	7527	4081	3	2638	4556	3597	1	3753
RH811522	9	2067	3371	7287	4242	1	2390	4186	3288	6	3682
RH812129	15	1657	2634	7278	3856	5	2396	4187	3291	4	3638
RH800905	21	2168	2858	7321	4116	2	1800	4294	3047	21	3547
RH792329	28	2015	2567	6980	3854	6	1874	4405	3140	15	3494
RH800913	22	1574	2331	7119	3675	12	2313	4482	3397	2	3476
RH811422	7	1576	2567	6933	3692	10	2343	4196	3269	7	3466
RH811222	6	1486	3107	7368	3987	4	2295	4024	3160	12	3457
RH810971	4	1699	2569	6985	3751	9	2237	4234	3236	8	3435
RH811122	5	1583	2251	7577	3803	7	2255	4121	3188	11	3417
RH811922	13	1605	2529	6899	3678	11	2186	4391	3288	5	3414
RH811722	12	1589	2553	7200	3781	8	2246	3865	3055	19	3393
RH812458	16	980	2177	6727	3294	25	2789	3838	3313	3	3383
RH812581	17	1699	1979	7025	3568	15	2204	4259	3231	9	3368
RH803143	23	1686	2172	6643	3500	17	1937	4301	3119	16	3346
CI17826	2	1253	2755	6760	3589	14	2044	4041	3043	22	3325
RH811626	10	1435	1775	7139	3450	20	2302	3935	3118	17	3290
RH812586	18	1775	1152	7263	3397	24	2403	3974	3189	10	3272
RH800902	20	1970	2569	6464	3668	13	2033	4258	3146	13	3265
RH811633	11	1320	2071	7128	3507	16	2210	4076	3143	14	3239
RH790410	24	1838	1587	6883	3436	21	2026	3883	2955	24	3220
RH811433	8	1417	2455	6556	3476	18	2150	3735	2942	25	3121
CI17724	1	2018	1636	6625	3426	22	2437	3769	3103	18	3096
RH790509	25	1560	1993	6803	3452	19	1740	4026	2883	27	3021
RH790609	26	1522	1287	7072	3294	26	1957	4091	3024	23	3005
RH790710	27	1601	1858	6783	3414	23	2116	3692	2904	26	2993
CI17715	3	1047	1289	7021	3119	27	1955	4155	3055	20	2981
RH812758	19	1116	2710	5465	3097	28	1645	3073	2359	28	2679
Mean		1614	2271	6958	3614		2176	4073	3124		3313
L.S.D.(.05)		303	503	491	N.S.		357	472	N.S.		309
C.V.		11.5	13.8	4.3	7.5		10.0	7.1	8.2		12.4

TABLE 21. SUMMARY OF AGRONOMIC AND YIELD DATA FOR THE 28 ENTRIES IN THE 1982 HYBRID PERFORMANCE NURSERY.

C.I. OR SEL. NO.	ENTRY NO.	DAYS TO HEADING FROM 1/1	PLANT HEIGHT CM	LODGING %	WINTER SURVIVAL 1-5	LEAF RUST SEV. %	MILDEW 0-9	VOLUME WEIGHT KG/HL	YIELD KG/HA
NUMBER OF TRIALS		8	8	3	1	2	1	9	10
RH812122	14	133	91	31	2	16	5	75.4	3753
RH811522	9	132	95	40	2	6	6	75.8	3682
RH812129	15	135	97	36	2	45	2	75.5	3638
RH800905	21	129	78	32	2	45	2	76.2	3547
RH792329	28	129	90	38	2	31	3	76.8	3494
RH800913	22	131	85	25	1.7	40	5	75.8	3476
RH811422	7	131	92	35	2	30	4	76.4	3466
RH811222	6	132	93	30	1.7	35	4	75	3457
RH810971	4	132	90	28	1.8	25	4	75.4	3435
RH811122	5	130	89	29	1.8	20	1	74.8	3417
RH811922	13	133	91	25	1.7	45	5	74.7	3414
RH811722	12	132	92	38	2	55	3	76.6	3393
RH812458	16	136	103	31	1.5	70	2	74.3	3383
RH812581	17	132	95	34	1.8	45	5	76	3368
RH803143	23	131	92	43	2.3	70	5	76.9	3346
CI17826	2	132	83	21	1.7	35	6	73.9	3325
RH811626	10	133	97	34	2	55	6	76.3	3290
RH812586	18	133	94	39	2	70	3	75.8	3272
RH800902	20	128	77	43	2	60	4	75.5	3265
RH811633	11	133	97	54	2	70	7	76.2	3239
RH790410	24	130	89	43	2.3	35	3	77	3220
RH811433	8	131	95	58	2	65	4	75.5	3121
CI17724	1	133	95	51	2	40	1	74.5	3096
RH790509	25	129	81	46	2	70	3	74.6	3021
RH790609	26	128	78	34	2	70	5	74.9	3005
RH790710	27	132	80	25	2	75	5	73.8	2993
CI17715	3	134	84	23	2	75	5	74.8	2981
RH812758	19	137	99	27	2	50	4	73.2	2679

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 1982 Regional Hybrid Performance Nursery.

Entry no.	C.I. or Sel.No.	Mean yield over 10 locations (kg/ha)	Regression Coefficient ($b_{y \cdot x}$)	Correlation Coefficient (r)	Coefficient of Determination (r^2)
14	RH812122	3753	1.12	0.99	0.98
9	RH811522	3682	1.01	0.97	0.94
15	RH812129	3638	1.00	0.99	0.99
21	RH800905	3547	0.97	0.97	0.94
28	RH792329	3494	0.94	0.99	0.98
22	RH800913	3476	1.01	0.99	0.98
7	RH811422	3466	0.92	0.98	0.96
6	RH811222	3457	1.07	0.98	0.95
4	RH810971	3435	0.96	0.99	0.99
5	RH811122	3417	1.11	0.98	0.96
13	RH811922	3414	1.06	0.99	0.98
12	RH811722	3393	1.01	1.00	0.99
16	RH812458	3383	0.94	0.97	0.95
17	RH812581	3368	1.02	0.99	0.99
23	RH803143	3346	0.97	0.99	0.99
2	17826	3325	1.00	0.99	0.98
10	RH811626	3290	1.06	0.99	0.99
18	RH812586	3272	1.04	0.97	0.93
20	RH800902	3265	0.86	0.95	0.90
11	RH811633	3239	1.07	1.00	1.00
24	RH790410	3220	0.98	0.99	0.97
8	RH811433	3121	0.93	0.99	0.98
1	17724	3096	0.96	0.97	0.94
25	RH790509	3021	1.05	0.99	0.99
26	RH790609	3005	1.07	0.98	0.96
27	RH790710	2993	1.02	0.99	0.97
3	17715	2981	1.13	0.98	0.95
19	RH812758	2679	0.72	0.95	0.90

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 203 entries and the Northern Section 230 entries in 1982. 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 114 entries in 1982. Four nursery sites (Urbana, IL; Lincoln, NE; Oxford, KS; and Manhattan, KS) were used in 1982. The nursery list and reaction data are included in this report.

1982
Uniform Winterhardiness Nursery
Southern Materials Section

Entry no.	Variety or Pedigree	C.I. or Sel. No.	Source
1	Warrior	13190	Check
2	NE68723/NE68719//Gage Sel.	NE75414	Nebraska
3	NE69457//Ctk/Gage Sel.	" 75424	"
4	NE68446//NE68723/Ctk	" 76404	"
5	Wrr*5/Agent//Agate Sib	" 76667	"
6	Bezostaya 1/2*Ctk 78	" 76706	"
7	Wrr*5/Agent//Ctk 78	" 77465	"
8	Wrr*5/Agent//NE68457/Ctk 78	" 77682	"
9	Sentinel/Ctk	" 78414	"
10	Scout 66	13996	Check
11	Sentinel/Ctk	NE78415	Nebraska
12	NE68719/Buckskin//NE68719/ NB66430	" 78466	"
13	Wrr*5/Agent//Aurora/3/Ctk 78	" 78488	"
14	Wrr*5/Agent//Ctk 78	" 78659	"
15	(Wrr*5/Agent)*2/Kavkaz	" 78668	"
16	Agate Sib (NE69441)/TX65A1503-1	" 78696	"
17	"	" 78698	"
18	"	" 78702	"
19	NE69581/Buckskin	" 78798	"
20	Tascosa	13023	Check
21	Wrr/Minn III-54-12//NE69559	NE78868	Nebraska
22	CO702269/CO701473	CO710125	"
23	Lancota Sel.	NE78911	"
24	NE68463/Sage	" 79517	"
25	Eagle//391-56-D8/Kaw	" 79524	"
26	Sage/3/Fertodi/Lcr//Homestead	" 79553	"
27	"	" 79554	"
28	Sage/3/Sh. Wheat/Sut//HiPlains	" 79561	"
29	Sh. Wheat/Sut//NE68463	" 80424	"
30	Warrior	13190	Check
31	Lovrin 13/2*Ctk 78	NE80413	Nebraska
32	Sage/3/Fertodi/Lcr//Homestead	" 80426	"
33	Fertodi/Lcr//Sage	" 80428	"
34	NE69613/Sage	" 80431	"
35	Tp/Bsn/Cns*2/Ae/Pn/Ko// 391-56-D1-8/Tsc//NE68463	" 80435	"
36	Sage/Agate Sib	" 80457	"
37	Dwf. Bez/Lancota	" 80471	"
38	At 66/Cmn/3/NE78709//Zg1480-69	" 80473	"
39	NE69559/Dacia	" 80475	"
40	Scout 66	13996	Check

1982 UWHN (Southern Materials Section) continued

Entry no.	Variety or Pedigree	C.I. or Sel. No.	Source
41	NE69559/NE701134	NE80476	Nebraska
42	"	" 80477	"
43	"	" 80478	"
44	(Agent/4*Sut)*2/Hand	SD75284	"
45	C0702078/C0701631	C0778785	Colorado
46	Ndd-2643//8889-Tpr//2643	" 779274	"
47	TX4793/Son//NB404/3/Baca	" 786741	"
48	C0723117/C0725856	" 796272	"
49	"	" 796326	"
50	Tascosa	13023	Check
51	C0723117/C0725856	C0796386	Colorado
52	ECM470/Baca//Lindon	" 801674	"
53	"	" 806317	"
54	"	" 806416	"
55	"	" 806659	"
56	MV69-12/TAM W-103	TX78A3345	Texas
57	TX69A509-1//BBII/Fox	" 78V2304	"
58	TX69A509-2/Fox	" 78V2355	"
59	"	" 78V2430	"
60	Warrior	13190	Check
61	Era/TAM W-101	TX78V2783	Texas
62	TX71A1039/TAM W-101	" 78V3828	"
63	"	" 78V3882	"
64	"	" 78V3673	"
65	TAM W-101/Lancota	" 78V4123	"
66	KS74H48/Plainsman V	KS81H1332	Kansas
67	"	" 81H2334	"
68	"	" 81H1336	"
69	KS73H530//Sage/Arthur	" 81H8079	"
70	Scout 66	13996	Check
71	KS73H530//Sage/Arthur	KS81H8169	Kansas
72	"	" 81H8182	"
73	"	" 81H8230	"
74	"	" 81W3063	"
75	"	" 81W3067	"
76	SBM Sage/3/Larned/Eagle//Sage	" 81H1300	"
77	"	" 81H1301	"
78	"	" 81H1304	"
79	Sage/Kavkaz	" 81H1306	"
80	Tascosa	13023	Check
81	Sage/Kavkaz	KS81H1307	Kansas
82	Bsn/Sterling//3*Sut/3/Eagle/4/ Larned/Eagle//Sage	" 81H1264	"
83	"	" 81H1267	"
84	KS74H48/Homestead	" 81H1310	"
85	"	" 81H1312	"
86	Homestead/2*KS74H48	" 81H1273	"
87	KS74H123/3/Larned/Eagle//Sage	" 81H1294	"
88	"	" 81H1295	"
89	"	" 81H1296	"
90	Warrior	13190	Check

1982 UWHN (Southern Materials Section) continued

Entry no.	Variety or Pedigree	C.I. or Sel. No.	Source
91	KS74H123/3/Larned/Eagle//Sage	KS81H1297	Kansas
92	Cheney/Lancota	" 81H1315	"
93	Ea Sdy/Ncm	OK754615A	SRPN
94	"	" 754615E	"
95	Aurora/2*TAM W-101	" 79257	"
96	"	" 79256	"
97	"	" 79259	"
98	TAM W-103/KS73167	TX79A2729	"
99	Sdy sib/Kaw (TX62A2522-1)//Ctk	" 78V3630	"
100	Scout 66	13996	Check
101	TAM W-101/Ctk (TX71A58-3)//Amigo	TX80A5879	SRPN
102	Short Wheat/Sut (TX69A509-2)// Fox	" 78V2408	"
103	TAM W-101/Ctk (TX71A58-3)//Amigo	" 80A5904	"
104	Sdy sib/Triumph//Ctk	" 71A562-6-28	"
105	Era/TAM W-101	" 78V3098	"
106	TAM 105*4/Amigo	" GH2875	"
107	Sage/Arthur	KS79H69	"
108	Scout*5/Ag//Sdy/3/Ctk	NK77W4093	"
109	Scout*5/Ag//Sdy	" 77W4505	"
110	Tascosa	13023	Check
111	Kavkaz/Ctk	NK77W4593	SRPN
112	Sonora/Tpr//Wrr/3/II18889/Tpr// CO652643	NA-361 S5	"
113	CIMMYT/CO652643//Lcr/3/KS62/ CO695552	NA-3679	"
114	II18889/Tpr//CO652643/3/Baca	NA-391 S4	"
115	"	NA391 R11	"
116	Sage Outcross	LS No. 3	"
117	Ctk//KS6623/TX62A2522-8-2	IL76-3845	"
118	Kavkaz/TX69A330-1	IL77-4259	"
119	Sdy sib/Triumph//Ctk	TX71A562-6	Texas
120	Warrior	13190	Check
121	Sdy sib/Triumph//Ctk	TX71A562-6-6	Texas
122	"	" -6-18	"
123	"	" -6-22	"
124	"	" -6-34	"
125	"	" -6-37	"
126	"	" -6-70	"
127	"	" -6-74	"
128	"	" -6-89	"
129	"	" -6-97	"
130	Scout 66	13996	Check
131	TAM-105	17826	Texas
132	TAM-105 Reselection	TX69A569-1-24	"
133	"	" -1-27	"
134	"	" -1-37	"
135	"	" -1-48	"

1982 UWHN (Southern Materials Section) continued

Entry no.	Variety or Pedigree	C.I. or Sel. No.	Source
136	TAM-105 Reselection	TX69A569-1-69	Texas
137	"	" -1-90	"
138	"	" -1-128	"
139	"	" -1-158	"
140	Tascosa	13023	Check
141	CIMMYT/Scout	KS78597	Kansas
142	Newton sel.	" 79205	"
143	KS73165/3/Sdy//Atlas 50/Kaw	" 80301	"
144	Eagle/Newton	" 81742	"
145	Newton	17715	"
146	Eagle/Newton	KS81743	"
147	"	" 79498	"
148	Trison/4/Cch/2*Tmp//Scout/3/ CIMMYT/Scout	" 79507	"
149	"	" 79519	"
150	Warrior	13190	Check
151	Trison/4/Cch/2*Tmp//Scout/3/ CIMMYT/Scout	KS79529	Kansas
152	"	" 81697	"
153	"	" 81698	"
154	"	" 81702	"
155	"	" 81703	"
156	"	" 81704	"
157	"	" 81706	"
158	"	" 81716	"
159	"	" 81719	"
160	Scout 66	13996	Check
161	Trison/4/Cch/2*Tmp//Scout/3/ CIMMYT/Scout	KS81720	Kansas
162	Trison//CIMMYT/Scout	" 81684	"
163	"	" 81686	"
164	Newton/Wings	" 79371	"
165	Newton/Lindon	" 79427	"
166	"	" 79441	"
167	Pkr 76//CIMMYT/Scout	" 79238	"
168	"	" 80334	"
169	"	" 80336	"
170	Tascosa	13023	Check
171	Pkr 76//CIMMYT/Scout	KS81304	Kansas
172	"	" 81306	"
173	"	" 81307	"
174	"	" 81308	"
175	Newton/Pkr 76	" 81546	"
176	"	" 81547	"
177	"	" 81561	"
178	"	" 81566	"
179	"	" 81574	"
180	Warrior	13190	Check

1982 UWHN (Southern Materials Section) concluded

Entry no.	Variety or Pedigree	C.I. or Sel. No.	Source
181	Newton/Pkr 76	KS81578	Kansas
182	"	" 81579	"
183	"	" 81580	"
184	"	" 81582	"
185	"	" 81592	"
186	"	" 81603	"
187	"	" 81614	"
188	"	" 81634	"
189	"	" 81640	"
190	Scout 66	13996	Check
191	Newton/Pkr 76	KS81647	Kansas
192	"	" 81652	"
193	"	" 81654	"
194	"	" 81661	"
195	"	" 81676	"
196	Tascosa	13023	Check
197	Sn/Tpr//Wrr/3/IL18889/Tpr/ C0652643	NA361S4	NAPB
198	"	NA361S19	"
199	Sn/Tpr//Wrr/3/Centurk	NA322R14	"
200	Bulk Selection	NA299-80	"
201	IL18889/Tpr//C0652643/3/Centurk	NA179-79	"
202	Bulk Selection	NA296-80	"
203	Ndd/C0652643/3/IL2103/Tpr// C0652643	NA347-79	"

Test Sites

Mead, Nebraska
Brookings, South Dakota
Casselton, North Dakota
St. Paul, Minnesota
Lethbridge, Alberta

1982 Uniform Winterhardiness Nursery
Southern Materials Section
Survival Data (%)

Entry no.	Nebraska Mead			North Dakota Fargo			Minnesota Rosemount		
	Rep I	Rep II	Mean	Rep I	Rep II	Mean	Rep I	Rep II	Mean
1	80	75	78	40	75	58	100	95	97
2	90	85	88	25	60	43	100	100	100
3	90	85	88	30	70	50	100	80	90
4	85	70	78	20	50	35	100	70	85
5	85	80	83	45	40	43	95	95	95
6	80	80	80	25	20	23	80	90	85
7	85	90	88	40	30	35	90	95	92
8	80	90	85	35	20	28	50	90	70
9	70	90	80	75	15	45	100	95	97
10	80	90	85	65	10	38	75	90	82
11	80	90	85	80	50	65	100	100	100
12	60	90	75	20	35	28	95	75	85
13	70	80	75	60	55	58	90	75	82
14	80	85	83	60	65	63	100	90	95
15	95	90	93	75	60	68	100	85	92
16	90	90	90	60	55	58	100	70	85
17	70	90	80	45	55	50	100	70	85
18	90	90	90	60	60	60	85	90	87
19	85	70	78	40	35	38	85	65	75
20	70	40	55	25	25	25	0	0	0
21	95	70	83	60	55	58	35	90	62
22	50	50	50	35	45	40	0	85	42
23	70	85	78	40	50	45	25	90	57
24	65	80	73	75	40	58	100	90	95
25	80	90	85	70	55	63	95	85	90
26	70	80	85	65	50	58	100	100	100
27	85	85	85	65	50	58	100	100	100
28	75	75	75	60	50	55	95	90	92
29	80	70	75	70	50	60	95	95	95
30	80	80	80	80	55	68	50	--	50
31	70	80	75	80	55	68	95	85	90
32	80	75	78	80	50	65	100	95	97
33	80	85	83	65	55	60	100	80	90
34	90	85	88	50	50	50	85	90	87
35	80	80	80	80	60	70	60	95	77
36	70	85	78	55	45	50	95	90	92
37	60	80	70	45	45	45	90	85	87
38	60	75	68	55	55	55	90	70	80
39	70	75	73	55	35	45	65	80	72
40	75	80	78	55	50	53	80	100	90
41	70	50	60	10	10	10	0	5	3
42	75	65	70	20	35	28	75	20	47
43	85	70	78	45	45	45	100	10	55

1982 UWHN Survival Data (Southern Materials Section) continued:

Entry no.	Nebraska Mead Rep I	Nebraska Mead Rep II	Nebraska Mead Mean	North Dakota Fargo Rep I	North Dakota Fargo Rep II	North Dakota Fargo Mean	Minnesota Rosemount Rep I	Minnesota Rosemount Rep II	Minnesota Rosemount Mean
44	70	40	55	55	50	53	80	10	45
45	70	50	60	25	45	35	100	0	50
46	60	30	45	15	40	28	95	5	50
47	80	60	70	25	40	33	90	60	75
48	75	50	63	20	30	25	100	25	62
49	80	60	70	10	30	20	95	10	52
50	75	50	63	0	0	0	25	0	12
51	90	70	80	0	10	5	90	60	75
52	80	80	80	25	60	43	100	65	82
53	65	70	68	5	10	8	40	10	25
54	70	90	80	5	5	5	95	30	62
55	80	85	83	5	60	33	95	25	60
56	70	70	70	15	65	40	95	75	85
57	75	80	78	5	50	28	40	0	20
58	20	20	20	0	0	0	0	0	0
59	20	20	20	0	5	3	5	0	2
60	80	85	83	15	80	48	100	90	95
61	10	10	10	0	0	0	20	0	10
62	50	30	40	0	15	8	85	40	62
63	70	40	55	0	10	5	95	55	75
64	65	50	58	0	0	0	80	30	55
65	75	65	70	0	10	5	90	60	75
66	80	75	78	0	10	5	100	90	95
67	75	80	78	0	20	10	90	85	87
68	80	80	80	0	15	8	100	75	87
69	75	85	80	0	5	3	40	5	22
70	80	85	83	15	70	43	90	95	92
71	95	90	93	15	45	30	95	95	95
72	80	80	80	0	15	8	90	60	75
73	40	30	35	0	5	3	0	5	2
74	30	40	35	0	5	3	5	5	5
75	50	40	45	0	0	0	0	0	0
76	90	80	85	15	45	30	100	90	95
77	80	85	83	5	20	13	90	80	85
78	85	90	88	25	65	45	100	95	97
79	85	90	88	5	25	15	95	90	92
80	50	60	55	0	5	3	25	10	17
81	70	80	75	10	20	15	60	85	72
82	80	80	80	15	55	35	70	90	80
83	85	90	88	25	45	35	80	95	87
84	75	75	75	35	65	50	95	90	92
85	80	85	83	45	55	50	95	100	97
86	80	70	75	10	60	35	95	90	92
87	80	65	73	45	60	53	95	95	95
88	70	70	70	35	60	48	90	95	92
89	70	75	73	25	60	43	95	100	97
90	80	80	80	80	75	78	100	100	100

1982 UWHN Survival Data (Southern Materials Section) continued:

Entry no.	Nebraska Mead			North Dakota Fargo			Minnesota Rosemount		
	Rep I	Rep II	Mean	Rep I	Rep II	Mean	Rep I	Rep II	Mean
91	75	80	78	20	60	40	50	95	72
92	70	75	73	10	35	23	100	90	95
93	75	70	73	15	55	35	95	90	92
94	65	70	68	25	55	40	95	95	95
95	70	75	73	10	50	30	65	95	80
96	20	70	45	5	25	15	15	50	32
97	30	65	48	0	5	3	5	15	10
98	70	75	73	50	45	48	95	90	92
99	85	80	83	35	55	45	95	90	92
100	80	75	78	50	60	55	100	100	100
101	80	80	80	40	60	50	100	100	100
102	30	50	40	5	25	15	95	75	85
103	75	80	78	55	40	48	100	90	95
104	80	80	80	55	30	43	100	100	100
105	10	30	20	10	0	5	90	75	82
106	65	80	73	80	75	78	100	100	100
107	90	90	90	75	40	58	100	85	92
108	95	90	93	75	50	63	100	100	100
109	90	95	93	15	5	10	95	95	95
110	60	70	65	5	0	3	20	40	30
111	70	90	80	10	35	23	100	100	100
112	60	80	70	5	10	8	100	80	90
113	80	90	85	0	20	10	100	100	100
114	80	90	85	0	40	20	100	95	97
115	80	85	83	0	30	15	90	100	95
116	75	85	80	0	45	23	95	95	95
117	85	90	88	5	50	28	100	90	95
118	80	80	80	5	40	23	95	100	97
119	70	80	75	0	40	20	100	100	100
120	85	85	85	20	50	35	100	100	100
121	75	75	75	0	60	30	100	90	95
122	70	75	73	0	55	28	100	90	95
123	70	75	73	0	65	33	100	70	85
124	80	70	75	5	65	35	100	100	100
125	85	60	73	0	55	28	100	80	90
126	80	65	73	0	60	30	95	80	87
127	90	70	80	0	60	30	95	75	85
128	90	60	75	0	55	28	100	80	90
129	95	60	78	0	50	25	100	100	100
130	85	80	83	10	55	33	100	90	95
131	85	80	83	25	45	35	95	90	92
132	80	80	80	65	45	55	100	100	100
133	90	75	83	50	45	48	100	100	100
134	80	75	78	65	50	58	95	100	97
135	80	80	80	65	45	55	100	90	95

1982 UWHN Survival Data (Southern Materials Section) continued:

Entry no.	Nebraska Mead Rep I	Nebraska Mead Rep II	Nebraska Mead Mean	North Dakota Fargo Rep I	North Dakota Fargo Rep II	North Dakota Fargo Mean	Minnesota Rosemount Rep I	Minnesota Rosemount Rep II	Minnesota Rosemount Mean
136	70	80	75	75	40	58	100	100	100
137	70	80	75	75	50	63	100	100	100
138	85	80	83	60	55	58	100	100	100
139	80	85	83	60	50	55	100	100	100
140	50	70	60	5	10	8	60	90	75
141	60	80	70	10	5	8	85	85	85
142	60	75	68	5	5	5	70	80	75
143	80	75	78	10	5	8	40	90	65
144	90	80	85	45	10	28	80	100	90
145	70	80	75	35	15	25	95	100	97
146	80	85	83	55	25	40	90	100	95
147	90	90	90	65	70	68	95	95	95
148	90	95	93	75	55	65	95	95	95
149	95	95	95	80	25	53	100	100	100
150	85	85	85	80	50	65	100	100	100
151	80	90	85	75	35	55	95	100	97
152	85	90	88	65	55	60	100	100	100
153	90	95	93	70	35	53	100	100	100
154	80	85	83	55	30	43	90	95	92
155	90	90	90	50	10	30	95	100	97
156	80	85	83	70	25	48	95	90	92
157	80	95	88	65	20	43	100	95	97
158	85	95	90	55	15	35	90	100	95
159	90	95	93	80	25	53	100	95	97
160	85	85	85	75	15	45	95	90	92
161	80	85	83	75	15	45	100	100	100
162	80	85	83	80	25	53	100	100	100
163	85	85	85	70	10	40	100	90	95
164	80	80	80	40	5	23	100	95	97
165	90	80	85	60	15	38	90	95	92
166	80	85	83	55	5	30	95	95	95
167	85	75	80	75	5	40	70	90	80
168	75	80	78	35	5	20	85	95	90
169	80	80	80	40	5	23	95	95	95
170	40	60	50	20	0	10	50	50	50
171	60	70	65	25	5	15	90	90	90
172	50	75	63	25	0	13	40	85	72
173	60	80	70	15	0	8	90	80	85
174	50	85	68	10	0	5	80	90	85
175	75	80	78	35	0	18	90	90	90
176	60	75	68	10	0	5	85	90	87
177	50	80	65	15	0	8	90	95	92
178	50	80	65	30	0	15	65	90	77
179	30	75	53	35	0	18	100	90	95
180	65	85	75	75	10	43	100	100	100

1982 UWHN Survival Data (Southern Materials Section) concluded:

Entry no.	Nebraska Mead Rep I	Nebraska Mead Rep II	Nebraska Mead Mean	North Dakota Fargo Rep I	North Dakota Fargo Rep II	North Dakota Fargo Mean	Minnesota Rosemount Rep I	Minnesota Rosemount Rep II	Minnesota Rosemount Mean
181	30	60	45	50	0	25	100	90	95
182	60	70	65	65	5	35	100	100	100
183	70	80	75	65	10	38	100	95	97
184	50	70	60	40	0	20	95	90	92
185	40	70	55	5	0	3	55	65	60
186	70	80	75	25	0	13	90	100	95
187	20	75	48	10	0	5	70	80	75
188	30	80	55	30	0	15	100	100	100
189	50	80	65	10	0	5	75	65	70
190	75	90	83	55	10	33	95	100	97
191	40	80	60	10	0	5	70	90	80
192	50	75	63	15	0	8	95	80	87
193	40	70	55	45	0	23	50	25	37
194	60	75	68	60	5	33	100	100	100
195	80	70	75	70	5	40	90	95	92
196	50	60	55	45	5	25	60	70	65
197	60	70	65	40	5	23	90	90	90
198	70	80	75	35	15	25	100	95	97
199	70	40	55	5	0	3	0	0	0
200	70	80	75	15	5	10	90	95	92
201	75	85	80	30	15	23	95	95	95
202	65	90	78	35	10	23	85	90	87
203	80	95	88	55	20	38	100	95	97

Brookings, South Dakota -- Trace survivals only. Data not reported.

Lethbridge, Alberta -- Nursery seed held up in Canadian Customs due to new seed entry regulations. The nursery was planted late.

1982 Uniform Winterhardiness Nursery
Southern Materials Section
Lethbridge, Alberta
(%)

Entry no.	Rep I	Rep II	Mean	Entry no.	Rep I	Rep II	Mean
1	60	50	55	51	40	15	28
2	60	40	50	52	40	10	25
3	50	40	45	53	50	25	38
4	60	20	40	54	10	10	10
5	60	50	55	55	20	10	15
6	40	15	28	56	40	20	30
7	50	30	40	57	30	15	23
8	50	20	35	58	20	5	13
9	60	30	45	59	5	5	5
10	50	30	40	60	40	25	33
11	60	15	38	61	5	5	5
12	60	20	40	62	10	10	10
13	70	35	53	63	20	15	18
14	60	20	40	64	15	15	15
15	60	30	45	65	50	40	45
16	60	25	43	66	20	15	18
17	50	35	43	67	40	15	28
18	50	30	40	68	30	5	18
19	40	25	33	69	60	15	38
20	20	10	15	70	70	20	45
21	80	50	65	71	40	10	25
22	20	20	20	72	20	5	13
23	50	20	35	73	30	15	23
24	60	30	45	74	20	10	15
25	60	40	50	75	20	10	15
26	70	40	55	76	30	20	25
27	70	40	55	77	40	25	33
28	40	25	32	78	30	30	30
29	80	50	65	79	40	20	30
30	50	20	35	80	15	15	15
31	30	15	23	81	40	40	40
32	60	20	40	82	20	30	25
33	50	30	40	83	30	30	30
34	40	30	35	84	40	25	33
35	40	30	35	85	40	20	30
36	40	20	30	86	30	20	25
37	60	40	50	87	30	15	23
38	30	10	20	88	30	15	23
39	40	15	28	89	50	20	35
40	50	15	33	90	30	20	25
41	50	20	35	91	20	15	18
42	40	20	30	92	10	15	13
43	40	30	35	93	20	25	23
44	50	20	35	94	10	5	8
45	60	50	55	95	20	5	13
46	30	20	25	96	5	5	5
47	30	20	25	97	10	10	10
48	40	20	30	98	20	25	23
49	30	25	28	99	20	25	23
50	20	15	18	100	40	40	40

1982 UWHN (Southern Materials Section), Lethbridge, Alberta concluded:

Entry no.	Rep I	Rep II	Mean
101	40	40	40
102	20	20	20
103	30	30	30
104	20	25	23
105	15	30	18
106	10	30	20
107	40	40	40
108	20	20	20
109	15	20	18
110	5	10	8
111	5	5	5
112	5	10	8
113	30	20	25
114	10	15	13
115	5	15	10
116	10	30	20
117	10	40	25
118	5	5	5
119	10	30	20
120	15	20	18
121	30	30	30
122	20	15	18
123	15	30	23
124	20	15	18
125	20	15	12
126	15	15	15
127	15	10	13
128	10	15	13
129	40	30	35
130	30	15	23
131	20	15	18
132	20	20	20
133	15	30	23
134	15	20	18
135	20	20	20
136	10	20	15
137	50	50	50
138	30	50	40
139	40	50	45
140	5	15	10
141	30	40	35
142	10	15	13
143	10	20	15
144	30	30	30
145	30	30	30
146	20	40	30
147	30	40	35
148	20	30	25
149	50	60	55
150	40	40	40
151	20	50	35
152	20	20	20
153	20	30	25
154	5	20	13
155	20	25	23
156	20	20	20
157	25	40	33
158	10	25	18
159	20	30	25
160	30	30	30
161	40	30	35
162	20	30	25
163	20	30	25
164	10	20	15
165	30	30	30
166	10	20	15
167	15	30	23
168	10	15	13
169	10	30	20
170	5	15	10
171	10	30	20
172	10	20	15
173	30	60	45
174	15	40	28
175	10	40	25
176	15	30	23
177	10	40	25
178	10	50	30
179	10	40	25
180	15	40	28
181	20	40	30
182	5	30	18
183	30	35	33
184	15	25	20
185	10	25	18
186	10	40	25
187	10	35	23
188	15	25	20
189	30	35	33
190	40	45	43
191	15	40	28
192	10	25	18
193	25	40	33
194	50	50	50
195	30	35	33
196	20	5	13
197	25	40	33
198	20	20	20
199	5	15	10
200	15	15	15
201	20	40	30
202	30	30	30
203	20	30	25

1982
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/NE63243/ 61528/64323	SD715-10	So.Dak.
3	Ctk/2*Hand	" 74209-10	"
4	Ctk*4/Nap Hal//Ctk*3/Hand	" 74218-12	"
5	Ctk*4/Hand	" 75124-1	"
6	CI15092/Speltoides//Wheat/3/ 5*Ctk	" 76189	"
7	Ctk*4/Nap Hal//Ctk*3/Hand	" 76203-4	"
8	Ctk*5/Hand	" 76709	"
9	SD75314/Bennett	" 79529	"
10	Winoka	14000	Check
11	SD75314/Bennett	SD79559	So.Dak.
12	"	" 79560	"
13	Sage/SD73375	" 79613	"
14	Sage/SD75314	" 791034	"
15	"	" 791036	"
16	"	" 791041	"
17	"	" 791042	"
18	"	" 791043	"
19	"	" 791048	"
20	Warrior	13190	Check
21	Sage/SD75314	SD791051	So.Dak.
22	"	" 791052	"
23	"	" 791053	"
24	Sage/Hand/Bennett	" 791054	"
25	"	" 791058	"
26	SD75375/OK711248-1	" 791112	"
27	CO673410/CO695427	CO745094	"
28	CO695625/Ctk	" 745775-4	"
29	CO695552/Ctk	" 745649	"
30	Froid	14486	Check
31	Wnk//Rogue 66/TX65A1304	SD72311	So.Dak.
32	Sut Sel/Capitan	" 73176	"
33	Ctk*2/Hand	" 75244-2	"
34	Agt/4*Sut*2//Hand	" 75272-1	"
35	CI15322//Agt/4*Sut/3/Ctk*4, Nap Hal	" 76367	"
36	"	" 76369	"
37	CI15322//3*Agt/4*Sut	" 76463	"
38	CO695552/Ctk	CO745622	"
39	Scoutland*4/3/Ctk//Crim/ WSMV-immune Triticale	SD76667	"
40	Winoka	14000	Check

1982 UWHN (Northern Materials Section) continued

Entry no.	Variety or Pedigree	C.I. or Sel. No.	Source
41	SD75314/Bennett	SD79420	So.Dak.
42	"	" 79426	"
43	"	" 79428	"
44	"	" 79430	"
45	"	" 79432	"
46	"	" 79438	"
47	"	" 79529	"
48	SD75248/SD75375	" 79358	"
49	"	" 79342	"
50	Warrior	13190	Check
51	Sage/SD75314	SD79374	So.Dak.
52	"	" 79376	"
53	"	" 791338	"
54	"	" 79380	"
55	"	" 791339	"
56	"	" 79383	"
57	"	" 79460	"
58	"	" 79516	"
59	SD75314/Bennett	" 79543	"
60	Froid	14486	Check
61	SD75314/Bennett	SD79545	So.Dak.
62	"	" 79547	"
63	"	" 79561	"
64	"	" 79566	"
65	"	" 791064	"
66	Sage/SD75314	" 79391	"
67	"	" 79473	"
68	"	" 79501	"
69	"	" 79504	"
70	Winoka	14000	Check
71	Sage/SD75314	" 79512	So.Dak.
72	"	" 79514	"
73	"	" 791034	"
74	"	" 791035	"
75	"	" 791048	"
76	"	" 791290	"
77	"	" 791295	"
78	"	" 791346	"
79	Sage/SD75375	" 80119	"
80	Warrior	13190	Check
81	Sage/SD75375	SD80124	So.Dak.
82	"	" 79618	"
83	SD73176//TX73A2798/SD75284	" 79756	"
84	"	" 791348	"
85	SD75375/OK711248-1	" 79664	"
86	"	" 79671	"
87	"	" 79672	"
88	"	" 79677	"
89	"	" 791109	"
90	Froid	14486	Check

1982 UWHN (Northern Materials Section) continued

Entry no.	Variety or Pedigree	C.I. or Sel. No.	Source
91	SD75375/OK711248-1	SD791115	So.Dak.
92	"	" 79117	"
93	SD75375*2/Plainsman V	" 79723	"
94	SD75400-1/SD75375	" 791352	"
95	"	" 79655	"
96	"	" 791099	"
97	"	" 79638	"
98	"	" 79639	"
99	"	" 79899	"
100	Winoka	14000	Check
101	SD75400-1/SD75375	SD79905	So.Dak.
102	"	" 79631	"
103	C073816*2/SD75375	" 791279	"
104	C0738316*2/TX73A2798	" 791281	"
105	Wnk/Ctk	" 80102	"
106	"	" 80103	"
107	"	" 80104	"
108	"	" 80127	"
109	"	" 80128	"
110	Warrior	13190	Check
111	Wnk/Ctk	SD80129	So.Dak.
112	"	" 80135	"
113	"	" 80136	"
114	"	" 80140	"
115	"	" 80142	"
116	Wnk*2/TX71A30	" 80143	"
117	Roughrider/SD74209	" 80147	"
118	"	" 80149	"
119	"	" 80156	"
120	Froid	14486	Check
121	Roughrider/SD74209	SD80162	So.Dak.
122	"	" 80163	"
123	Roughrider/TX71A30	" 80165	"
124	Eagle/2*Minter	" 79112	"
125	"	" 79121	"
126	CI15322//3*Ag/4*Sut	" 76146-107	"
127	"	" 76463-2	"
128	"	" 76463-5	"
129	"	" 76463-7	"
130	Winoka	14000	Check
131	CI15322//3*Ag/4*Sut	SD76463-15	So.Dak.
132	"	" 76463-16	"
133	"	" 76463-19	"
134	"	" 76463-20	"
135	"	" 76463-24	"
136	"	" 76463-25	"
137	CI15322//Ag/4*Sut/3/SD713-11	" 76501-101	"
138	CI15322//Ag/4*Sut/3/Ctk	" 76560-101	"
139	"	" 76560-102	"
140	Warrior	13190	Check

1982 UWHN (Northern Materials Section) continued

Entry no.	Variety or Pedigree	C.I. or Sel. No.	Source
141	CI15322//Ag/4*Sut/3/Ctk	SD76591-101	So.Dak.
142	SD76411/Sage	" 79892	"
143	SD75400-1//Ctk*3/Hand	" 79800	"
144	Sel. from SD75375	" 75375-103	"
145	"	" 75375-106	"
146	CI15092/Speltoides//Fletcher/3/ 6*Ctk	" 80110	"
147	" "	" 80113	"
148	" "	" 79129	"
149	" "	" 791359	"
150	Froid	14486	Check
151	Lancota/TB	SD79289	So.Dak.
152	"	" 791366	"
153	"	" 79303	"
154	"	" 79299	"
155	"	" 79276	"
156	Sut Sel/NE66403	" 73176	"
157	Ctk*2/Hand	" 74209-105	"
158	"	" 74209-106	"
159	"	" 74217-1-1	"
160	Winoka	14000	Check
161	Ctk*2/Hand	SD74220-103	So.Dak.
162	"	" 74221-3	"
163	"	" 74221-4	"
164	"	" 74221-6	"
165	"	" 74221-9	"
166	"	" 74221-12	"
167	"	" 74221-14	"
168	"	" 74221-15	"
169	"	" 74221-18	"
170	Warrior	13190	Check
171	Ctk*2/Hand	SD74221-19	So.Dak.
172	"	" 74221-13	"
173	"	" 74221-1	"
174	"	" 74221-2	"
175	"	" 74221-4	"
176	"	" 74221-6	"
177	"	" 74224-108	"
178	Ag/4*Sut*2//Hand	" 75269-7	"
179	"	" 75269-19	"
180	Froid	14486	Check
181	Ag/4*Sut*2//Hand	SD75269-20	So.Dak.
182	Minter/PI124819//SS-D8-Wmt	" 75464-102	"
183	Sut/Tsc//CI15322/Sage	" 75465-101	"
184	"	" 75465-102	"
185	"	" 75465-108	"
186	Rr/2*TX71A30	" 80116	"
187	"	" 80117	"
188	C0695552/Ctk	C0745620-3	"
189	C0673410/C0695427	" 745094-1	"
190	Winoka	14000	Check

1982 UWHN (Northern Materials Section) concluded

Entry no.	Variety or Pedigree	C.I. or Sel. No.	Source
191	Wnk/II23528//Pkr	CO743909-6	So.Dak.
192	CO673410/CO695427	" 745100-2	"
193	"	" 745100-4	"
194	CO695552/Ctk	" 745597-4	"
195	"	" 745597-7	"
196	"	" 745597-18	"
197	CI15322//3*Ag/4*Sut	SD76169-10	"
198	"	" 76169-17	"
199	"	" 76177-3	"
200	Warrior	13190	Check
201	CI15322//3*Ag/4*Sut	SD76177-5	So.Dak.
202	"	" 76177-36	"
203	"	" 76177-38	"
204	"	" 76177-39	"
205	"	" 76177-46	"
206	"	" 76177-47	"
207	CI15322//Ag/4*Sut/3/Ctk*4/NH	" 76369-2	"
208	"	" 76369-5	"
209	"	" 76369-10	"
210	Froid	14486	Check
211	SD75375/OK711248-1	SD791350	So.Dak.
212	Centurk*2/Hand	" 74221	NRPN
213	"	" 74209	"
214	Centurk*5/Hand	" 76705	"
215	Agent/*4Sut*2//Hand	" 75284	"
216	CI15322//Agent/4*Sut/3/Ctk	" 76598	"
217	"	" 76602	"
218	Centurk*3/Hand	" 75244-2	"
219	Centurk*4/Hand	" 75115-3	"
220	Winoka	14000	Check
221	Centurk*5/Hand	SD76694	NRPN
222	Pau 45/Cheyenne	WT166	"
223	Wrr/III-54-12//Sdy/3/Wnk/Ark	NK78W296	"
224	NB68639//Wrr/III-54-12/3/Wnk/CI14059	" 78W283	"
225	Sn/Tpr//Wrr/3/Ctk (Archer)	NA201	"
226	Rego/Cnn//Winalta	MT7428	"
227	YGSS, Sel 4662/4*Cnn (White Chaff)	" 77062	"
228	" (Brown Chaff)	" 77063	"
229	Froid/Wnk//MT6	" 7811	"
230	Warrior	13190	Check

Test Sites

Brookings, South Dakota	Lethbridge, Alberta
Casselton, North Dakota	St. Paul, Minnesota
Williston, North Dakota	Winnipeg, Manitoba

1982 Uniform Winterhardiness Nursery
Northern Materials Section
Survival Data (%)

Entry no.	North Dakota						Manitoba	Minnesota			Alberta			Overall Mean
	Fargo			Williston			Winnipeg	Rosemount			Lethbridge			
	Rep I	Rep II	Mean	Rep I	Rep II	Mean	Rep I	Rep I	Rep II	Mean	Rep I	Rep II	Mean	
1	80	65	73	60	65	63	90	100	100	100	90	70	80	81
2	65	60	63	15	69	38	30	100	100	100	50	20	35	53
3	75	70	73	65	75	70	50	100	100	100	60	40	50	69
4	70	70	70	75	75	75	70	100	100	100	60	30	45	72
5	70	70	70	60	75	68	40	90	100	95	60	40	50	65
6	65	55	60	25	70	48	40	100	100	100	40	30	35	57
7	70	55	63	5	65	35	30	60	100	80	40	40	40	50
8	55	55	55	55	65	60	40	85	100	93	40	20	30	56
9	45	55	50	45	65	55	40	85	90	88	70	30	50	57
10	55	55	55	60	55	58	80	100	100	100	80	20	50	69
11	55	50	53	55	65	60	50	100	100	100	60	20	40	61
12	50	50	50	60	55	58	40	100	95	98	80	40	60	61
13	60	55	58	50	65	58	10	90	100	95	80	50	65	57
14	65	60	63	50	65	58	70	100	100	100	80	70	75	73
15	55	55	55	40	60	50	50	100	100	100	80	50	65	64
16	55	65	60	60	50	55	50	100	75	88	90	70	80	67
17	60	65	63	65	65	65	40	100	100	100	80	60	70	68
18	60	60	60	65	70	68	50	100	100	100	70	50	60	68
19	50	70	60	70	50	60	30	95	100	98	80	50	65	61
20	55	55	55	80	60	70	50	100	95	98	60	30	45	64
21	55	65	60	70	55	63	80	100	100	100	80	60	70	75
22	55	65	60	70	45	58	70	100	75	88	80	50	65	66
23	60	65	63	75	40	58	60	100	90	95	70	60	65	68
24	60	65	63	80	45	63	60	70	95	83	50	40	45	63
25	70	65	68	75	60	68	60	100	100	100	80	80	80	71
26	65	65	65	75	60	68	40	100	100	100	90	50	70	67
27	65	65	65	70	75	73	30	100	95	97	80	70	75	72
28	50	70	60	60	55	58	50	100	80	90	60	40	50	62
29	65	65	65	65	55	60	50	100	100	100	70	80	75	74
30	70	55	63	75	65	70	70	100	100	100	70	60	65	74
31	75	60	68	80	60	70	70	100	80	90	80	60	70	74
32	60	55	58	75	45	60	20	100	85	92	60	20	40	54
33	55	60	58	65	40	53	30	100	90	95	90	60	75	62
34	45	60	53	60	75	68	80	85	100	93	70	50	60	71
35	60	55	58	50	65	58	50	95	100	98	80	50	65	66
36	65	60	63	40	65	53	80	100	100	100	80	60	70	73
37	70	60	65	65	70	68	30	100	100	100	90	80	85	70
38	60	55	58	55	15	35	20	100	100	100	70	40	55	54
39	65	60	63	70	55	63	40	95	100	98	80	60	70	67
40	55	55	55	65	55	60	60	85	100	93	70	50	60	66
41	55	60	58	70	70	70	60	100	95	98	80	70	75	72
42	60	55	63	75	80	78	30	100	95	98	80	60	70	68
43	60	70	65	85	75	80	50	100	95	98	80	70	75	74
44	55	55	55	80	75	78	70	95	80	88	70	40	55	69
45	55	65	60	85	75	80	80	100	90	95	70	70	70	77

1982 UWHN Survival Data (Northern Materials Section) continued:

Entry no.	North Dakota						Manitoba	Minnesota			Alberta			Overall Mean
	Fargo			Williston			Winnipeg	Rosemount			Lethbridge			
	Rep I	Rep II	Mean	Rep I	Rep II	Mean	Rep I	Rep I	Rep II	Mean	Rep I	Rep II	Mean	
46	55	60	58	70	80	75	30	100	75	88	60	50	55	60
47	55	60	58	65	75	70	50	85	55	70	60	50	55	61
48	35	65	50	60	70	65	60	100	85	92	70	50	60	65
49	30	70	50	60	70	65	50	100	100	100	50	60	55	64
50	30	65	48	65	75	70	70	100	80	90	80	30	55	67
51	55	75	65	50	70	60	60	100	95	98	70	70	70	71
52	55	70	63	65	70	68	80	100	100	100	90	60	75	77
53	60	65	63	60	75	68	90	100	100	100	80	80	80	80
54	55	60	58	55	75	65	90	100	100	100	80	60	70	77
55	65	70	68	75	75	75	70	100	100	100	80	60	70	77
56	65	65	65	85	75	80	80	100	100	100	80	70	75	80
57	70	70	70	70	65	68	70	100	100	100	80	60	70	76
58	75	65	70	65	70	68	70	100	100	100	90	50	70	76
59	65	60	63	65	70	68	60	100	100	100	80	50	65	71
60	65	50	58	65	60	63	90	100	100	100	80	60	70	76
61	65	55	60	65	70	68	60	100	100	100	80	60	70	72
62	55	50	53	65	65	65	40	60	90	75	80	50	65	60
63	55	55	55	65	60	63	40	95	95	95	60	30	45	60
64	60	40	50	60	65	63	30	90	100	95	80	40	60	60
65	55	50	53	70	50	60	70	95	100	98	80	40	60	68
66	60	45	53	65	65	65	50	100	95	98	70	50	60	65
67	55	55	55	65	70	68	80	90	100	95	80	60	70	74
68	75	60	68	65	60	63	80	100	100	100	90	50	70	76
69	55	60	58	75	60	68	90	90	95	93	90	70	80	78
70	65	55	60	70	50	60	70	75	100	88	70	30	50	66
71	60	65	63	65	45	55	50	100	100	100	80	60	70	68
72	70	65	68	65	40	53	50	95	100	98	80	60	70	68
73	65	65	65	75	30	53	80	100	100	100	80	80	80	76
74	70	65	68	75	25	50	60	100	100	100	70	40	55	67
75	80	50	65	70	15	43	40	100	100	100	70	50	60	62
76	50	65	58	55	15	35	70	100	100	100	80	60	70	65
77	75	65	68	55	25	40	40	85	100	93	90	60	75	63
78	60	70	65	60	5	33	60	90	95	93	80	80	80	67
79	60	60	60	25	5	15	20	100	95	98	30	10	20	43
80	60	60	60	60	10	35	60	100	95	98	50	40	45	60
81	60	65	63	50	20	35	70	100	95	98	40	40	40	61
82	50	65	58	50	10	30	30	100	95	98	60	30	45	52
83	60	60	60	55	65	60	40	95	85	90	50	20	35	57
84	65	65	65	55	15	35	50	60	100	80	40	30	35	53
85	60	60	60	50	25	38	70	70	100	85	70	20	45	60
86	60	50	55	25	55	40	60	100	100	100	50	30	40	59
87	50	65	58	55	60	58	50	100	100	100	50	30	40	61
88	65	65	65	40	15	28	10	65	80	73	50	30	40	43
89	60	65	63	45	15	30	40	100	90	95	60	40	50	56
90	65	70	68	70	55	63	80	100	100	100	60	60	60	74
91	55	65	60	70	60	65	20	100	100	100	50	50	50	59
92	70	65	68	70	65	68	40	95	100	98	60	40	50	65
93	50	70	60	40	65	53	30	100	95	98	15	10	13	51

1982 UWHN Survival Data (Northern Materials Section) continued:

Entry no.	North Dakota						Manitoba	Minnesota			Alberta			Overall Mean
	Fargo			Williston			Winnipeg	Rosemount			Lethbridge			
	Rep I	Rep II	Mean	Rep I	Rep II	Mean	Rep I	Rep I	Rep II	Mean	Rep I	Rep II	Mean	
94	60	65	63	45	70	68	50	100	100	100	50	40	45	65
95	40	40	40	55	50	53	10	30	85	58	50	20	35	39
96	50	60	55	45	45	45	60	100	100	100	50	30	40	60
97	60	55	58	60	60	60	40	40	100	70	30	20	25	51
98	60	60	60	75	35	55	30	80	100	90	80	35	58	59
99	45	40	43	45	15	30	30	30	60	45	40	20	30	36
100	60	70	65	75	15	45	90	100	100	100	40	50	45	69
101	40	25	33	75	35	55	30	25	40	33	30	20	25	35
102	65	65	65	80	25	53	50	95	90	92	70	60	65	65
103	60	70	65	65	65	65	80	100	95	97	80	50	65	74
104	60	65	63	70	55	63	50	100	100	100	70	60	50	68
105	70	70	70	70	65	68	70	100	100	100	60	50	55	73
106	70	70	70	70	55	63	70	100	100	100	80	70	75	70
107	65	80	73	90	45	68	70	100	95	97	70	70	70	76
108	60	75	68	65	40	53	60	95	100	97	80	50	65	69
109	60	60	60	60	55	58	70	95	100	97	60	60	60	69
110	65	65	65	65	15	40	60	100	100	100	60	40	50	63
111	60	65	63	65	15	40	80	90	100	95	60	50	55	67
112	65	60	63	75	20	48	80	100	95	97	60	40	50	60
113	60	65	63	85	45	65	90	100	95	97	60	25	43	72
114	65	75	70	80	10	45	90	70	100	85	90	80	85	75
115	55	75	65	75	5	40	80	90	90	90	80	50	65	68
116	25	40	33	40	30	35	40	40	75	58	70	50	60	45
117	45	40	43	40	60	50	50	65	85	75	60	50	55	55
118	50	65	58	75	65	70	80	80	80	80	60	60	60	70
119	45	70	58	80	60	70	80	100	90	95	50	50	50	71
120	50	70	60	75	70	73	90	100	95	97	60	50	55	75
121	75	75	75	80	75	78	50	100	70	85	50	50	50	68
122	65	65	65	80	75	78	70	100	70	85	70	60	65	73
123	70	70	70	75	75	75	40	100	80	90	60	60	60	67
124	60	70	65	40	65	53	30	95	80	87	50	70	60	59
125	75	65	70	75	55	65	60	100	100	100	60	70	65	72
126	45	50	48	60	55	58	20	100	60	80	60	80	70	55
127	35	50	43	70	65	68	10	100	30	65	60	50	55	48
128	30	50	40	75	65	70	20	100	40	70	50	50	50	48
129	30	55	43	60	65	63	20	100	80	90	50	30	40	51
130	45	60	53	65	50	58	70	100	100	100	70	50	60	68
131	20	55	38	65	45	55	40	95	80	87	70	30	50	54
132	15	50	33	60	65	63	30	95	95	95	80	40	60	56
133	15	55	35	60	65	63	40	90	90	90	70	50	60	58
134	15	45	30	65	55	60	20	100	80	90	70	50	60	52
135	5	50	28	60	60	60	20	100	80	90	60	30	45	49
136	5	45	25	60	50	55	10	100	100	100	70	50	60	50
137	5	50	28	70	60	65	20	95	100	97	20	20	20	46
138	20	60	40	75	70	73	60	100	80	90	60	60	60	65
139	45	65	55	75	65	70	50	100	90	95	60	30	45	63
140	60	70	65	80	60	70	70	100	95	97	60	40	50	70

1982 UWHN Survival Data (Northern Materials Section) continued:

Entry no.	North Dakota						Manitoba	Minnesota			Alberta			Overall Mean
	Fargo			Williston			Winnipeg	Rosemount			Lethbridge			
	Rep I	Rep II	Mean	Rep I	Rep II	Mean	Rep I	Rep I	Rep II	Mean	Rep I	Rep II	Mean	
141	55	70	63	75	65	70	30	100	50	75	50	30	40	56
142	50	80	65	65	50	58	60	85	20	52	60	70	65	60
143	40	80	60	80	25	53	40	85	30	57	30	30	30	48
144	50	70	60	65	35	50	60	95	10	52	60	40	50	54
145	65	75	70	75	20	48	60	95	40	67	60	40	50	59
146	45	65	55	60	50	55	30	80	40	60	60	30	45	49
147	55	75	65	75	70	73	40	80	20	50	40	30	35	53
148	60	70	65	75	40	58	30	80	75	77	50	20	35	53
149	25	65	45	80	25	53	30	85	95	90	40	20	30	50
150	75	65	70	75	40	58	80	100	100	100	50	60	55	73
151	15	70	43	85	30	58	30	100	95	97	20	20	20	50
152	20	75	48	90	45	68	20	100	95	97	40	30	35	54
153	30	65	48	80	15	48	20	100	100	100	30	20	25	48
154	25	60	43	80	5	43	50	100	100	100	60	40	50	57
155	55	65	70	85	20	53	10	100	85	92	30	60	45	54
156	40	70	55	75	5	40	70	100	85	92	20	50	35	58
157	45	55	50	79	35	53	60	100	90	95	30	50	40	60
158	65	70	68	65	20	43	40	100	75	87	10	30	20	52
159	60	65	63	70	10	40	50	100	95	97	40	60	50	60
160	65	60	63	60	10	35	80	95	100	97	30	50	40	63
161	65	60	63	65	5	35	70	100	90	95	30	30	30	59
162	65	65	65	75	10	43	50	100	70	85	5	20	13	51
163	65	65	65	75	15	45	30	100	100	100	10	40	25	53
164	70	65	68	80	20	50	60	100	100	100	10	40	25	61
165	65	50	58	65	25	45	70	100	100	100	15	20	18	58
166	70	65	68	65	55	60	50	100	100	100	15	30	23	60
167	65	60	63	70	60	65	40	95	100	97	30	30	30	59
168	65	65	65	65	60	63	50	100	100	100	15	20	18	61
169	70	65	68	70	65	68	60	100	100	100	15	30	23	64
170	70	70	70	85	65	70	60	100	100	100	30	50	40	68
171	60	65	63	70	60	65	60	100	95	97	30	50	40	65
172	60	65	63	75	65	70	60	100	95	97	40	40	40	66
173	60	60	60	80	40	60	60	100	95	97	30	30	30	61
174	65	60	63	80	30	55	70	100	100	100	30	20	25	63
175	60	65	63	85	60	73	70	100	100	100	80	60	70	75
176	65	65	65	80	35	58	80	100	100	100	30	20	25	66
177	70	70	70	70	55	63	30	100	90	95	30	40	35	59
178	65	65	65	75	60	68	20	100	100	100	40	50	45	60
179	50	70	60	80	65	73	10	95	90	92	20	30	25	52
180	70	60	65	70	65	68	80	100	95	97	40	40	40	70
181	60	55	58	55	70	63	40	100	100	100	60	50	55	63
182	65	55	60	55	75	65	20	100	100	100	50	40	45	58
183	65	50	58	45	85	65	10	95	90	92	80	60	70	59
184	60	40	50	15	75	45	10	95	100	97	60	60	60	52
185	45	30	38	55	60	58	50	100	100	100	60	20	40	57
186	55	45	50	70	70	70	60	100	100	100	70	30	50	66
187	45	25	35	65	65	65	30	100	100	100	60	50	55	57
188	60	25	43	60	65	63	20	100	60	80	40	30	35	48

1982 UWHN Survival Data (Northern Materials Section) concluded:

Entry no.	North Dakota						Manitoba	Minnesota			Alberta			Overall Mean
	Fargo			Williston			Winnipeg	Rosemount			Lethbridge			
	Rep I	Rep II	Mean	Rep I	Rep II	Mean	Rep I	Rep I	Rep II	Mean	Rep I	Rep II	Mean	
189	70	40	55	65	50	58	20	100	60	80	40	40	40	51
190	65	55	60	65	50	58	70	95	70	82	30	30	30	60
191	70	40	55	55	40	48	20	100	100	100	60	40	50	55
192	65	45	55	35	65	50	10	100	100	100	30	30	30	49
193	55	35	45	30	55	43	20	100	100	100	30	30	30	48
194	65	55	60	55	55	55	60	100	100	100	40	30	35	62
195	65	60	63	35	45	40	50	100	95	97	40	40	40	58
196	60	50	55	60	5	33	70	100	90	95	30	40	35	58
197	50	45	48	30	70	50	30	100	85	92	50	50	50	54
198	60	60	60	45	25	35	0	100	90	95	30	60	45	47
199	55	65	60	55	65	60	0	100	90	95	60	70	65	56
200	65	55	60	65	25	45	50	100	60	80	30	30	30	53
201	55	60	58	65	45	55	60	100	85	92	60	60	60	65
202	55	65	60	75	30	53	60	100	95	97	60	60	60	66
203	40	60	50	75	45	60	50	100	100	100	70	60	65	65
204	40	65	53	65	15	40	60	100	100	100	60	40	50	61
205	50	70	60	80	20	50	70	100	100	100	70	50	60	68
206	45	65	55	80	30	55	50	100	100	100	50	50	50	62
207	55	60	58	75	65	70	50	100	95	97	70	40	55	66
208	50	60	55	70	65	68	50	100	85	92	40	40	40	61
209	60	60	60	70	65	68	50	95	90	92	40	30	70	68
210	65	60	63	75	60	68	90	100	100	100	60	30	45	73
211	35	65	50	80	55	68	30	100	95	97	60	20	40	57
212	45	65	55	75	45	60	70	100	90	95	30	20	25	61
213	50	70	60	75	45	60	40	100	90	95	40	20	30	57
214	40	65	53	70	45	58	40	95	100	97	10	10	10	52
215	40	70	55	75	40	58	30	100	100	100	60	50	55	60
216	50	60	55	65	40	53	50	100	95	97	40	30	35	58
217	60	55	58	60	70	65	40	100	95	97	50	30	40	60
218	60	50	55	70	65	68	40	100	100	100	40	30	35	60
219	60	55	58	70	65	68	50	100	100	100	50	50	50	65
220	60	65	63	70	65	68	70	100	100	100	40	40	40	68
221	65	60	63	70	60	65	60	100	100	100	20	30	25	63
222	65	65	65	75	60	68	50	100	100	100	30	40	35	64
223	60	75	68	75	60	68	70	100	100	100	70	50	60	73
224	65	60	63	70	55	63	60	100	100	100	40	40	40	65
225	55	55	55	65	55	60	40	100	95	97	50	50	50	60
226	65	60	63	70	55	63	50	100	100	100	60	50	55	66
227	50	65	58	75	50	63	40	100	100	100	80	60	70	66
228	55	65	60	70	55	63	30	100	100	100	60	50	55	62
229	60	70	65	65	60	63	90	100	100	100	50	40	45	73
230	60	75	68	65	55	60	60	95	95	95	50	30	40	65

1982
SOILBORNE MOSAIC NURSERY

Entry No.	Variety or Pedigree	CI or Sel. No.	Source
1	Pawnee	11669	Check
2	CIMMYT/Scout	KS78597	Kans.
3	Newton Sel.	KS79205	"
4	KS73165/3/Sdy//Atl 50/Kaw	KS80301	"
5	Eagle/Newton	KS81736	"
6	Newton	17715	"
7	Eagle/Newton	KS81741	"
8	" "	KS81742	"
9	" "	KS81743	"
10	Concho	12517	Check
11	Trison/4/Cch/2*Tmp//Scout/3/CIMMYT/ Sut	KS79498	Kans.
12	" "	KS79507	"
13	" "	KS79519	"
14	" "	KS79529	"
15	" "	KS81697	"
16	" "	KS81698	"
17	" "	KS81702	"
18	" "	KS81703	"
19	" "	KS81704	"
20	Bison	12518	Check
21	Trison/4/Cch/2*Tmp//Scout/3/CIMMYT/ Sut	KS81706	Kans.
22	" "	KS81716	"
23	" "	KS81719	"
24	" "	KS81720	"
25	Trison//CIMMYT/Sut	KS81684	"
26	" "	KS81686	"
27	Newton/Wings	KS79371	"
28	Newton/Lindon	KS79427	"
29	" "	KS79441	"
30	Pawnee	11669	Check
31	Pkr 76//CIMMYT/Sut	KS79238	Kans.
32	" "	KS80334	"
33	" "	KS80336	"
34	" "	KS81304	"
35	" "	KS81306	"
36	Newton/Pkr 76	KS81547	"
37	" "	KS81554	"
38	" "	KS81561	"
39	" "	KS81566	"
40	Concho	12517	Check
41	Newton/Pkr 76	KS81574	Kans.
42	" "	KS81578	"
43	" "	KS81580	"
44	" "	KS81582	"
45	" "	KS81591	"
46	" "	KS81614	"
47	" "	KS81616	"

1982 Soilborne Mosaic Nursery (continued)

Entry No.	Variety or Pedigree	CI or Sel. No.	Source
48	Newton/Pkr 76	KS81634	Kans.
49	" "	KS81637	"
50	Bison	12518	Check
51	Newton/Pkr 76	KS81640	Kans.
52	" "	KS81647	"
53	" "	KS81652	"
54	" "	KS81654	"
55	" "	KS81661	"
56	" "	KS81676	"
57	" "	KS81681	"
58	Sdy sib/Triumph//Ctk	Tx71A562-6	Texas
59	" "	Tx71A562-6-6	"
60	Pawnee	11669	Check
61	Sdy sib/Triumph//Ctk	Tx71A562-6-18	Texas
62	" "	" -6-22	"
63	" "	" -6-34	"
64	" "	" -6-37	"
65	" "	" -6-70	"
66	" "	" -6-74	"
67	" "	" -6-89	"
68	" "	" -6-97	"
69	TAM 105	17826	"
70	Concho	12517	Check
71	TAM 105 Reselection	Tx69A569-1-24	Texas
72	" "	" -1-27	"
73	" "	" -1-37	"
74	" "	" -1-48	"
75	" "	" -1-69	"
76	" "	" -1-90	"
77	" "	" -1-128	"
78	" "	" -1-158	"
79	NE68723/NE68719//Gage Sel.	NE75414	Nebr.
80	Bison	12518	Check
81	NE69457//Ctk/Gage Sel.	NE75424	Nebr.
82	Wrr*5/Agent//Ctk 78	NE77465	"
83	Wrr*5/Agent//NE68457/Ctk 78	NE77682	"
84	Sentinel/Ctk	NE78414	"
85	Sentinel/Ctk	NE78415	"
86	NE68719/Buckskin//NE68719/NB66430	NE78466	"
87	Wrr*5/Agent//Aurora/3/Ctk 78	NE78488	"
88	Wrr*5/Agent//Ctk 78	NE78659	"
89	(Wrr*5/Agent)*2/Kavkaz	NE78668	"
90	Pawnee	11669	Check
91	Agate Sib (NE69441)/Tx65A1503-1	NE78696	Nebr.
92	" "	NE78698	"
93	" "	NE78702	"
94	NE69581/Buckskin	NE78798	"
95	Wrr/Minn III-54-12//NE69559	NE78868	"
96	Lancota Sel.	NE78911	"
97	Sage/3/Fertodi/Lcr//Homestead	NE79553	"
98	" "	NE79554	"
99	Lovrin 13/2*Ctk 78	NE80413	"
100	Concho	12517	Check

1982 Soilborne Mosaic Nursery (concluded)

Entry No.	Variety or Pedigree	CI or Sel. No.	Source
101	Sage/3/Fertodi/Lcr//Homestead	NE80426	Nebr.
102	Dwarf Bezostaya/Lancota	NE80471	"
103	Atl 66/Cmn/2/NE68709//Zg. 1480-69	NE80473	"
104	NE69559/NE701134	NE80476	"
105	" "	NE80477	"
106	" "	NE80478	"
107	Sn/Tpr//Wrr/3/IL18889/Tpr/CO652643	NA361S4	NAPB
108	"	NA361S19	"
109	Sn/Tpr//Wrr/3/Centurk	NA322R14	"
110	Bulk Selection	NA299-80	"
111	IL18889/Tpr//CO652643/3/Centurk	NA179-79	"
112	Bulk selection	NA296-80	"
113	Ndd/CO652643/3/IL2103/Tpr/CO652643	NA347-79	"
114	Bison	12518	Check

Test sites

Manhattan, Kansas
Hesston, Kansas
Lincoln, Nebraska
Urbana, Illinois

Field Infection Data
1982 Hard Red Winter Wheat Regional Soil-Borne Mosaic Nursery

Entry no.	Kansas			Nebraska		Illinois[5]	
	Oxford	Manhattan		Lincoln		Urbana	
	Reaction[1]	Reaction[1]	Severity rating[2]	Incidence[3]	Severity rating[4]	Disease Severity Rep I	Disease Severity Rep II
				%			
1	S	S	7	90	2	VS	VS
2	R	R	2	0	0	MR	MR
3	MR	R	2	0	0	R	MR
4	R	R	3	1	1	R	R
5	R	R	2+	0	0	R	R
6	R	R	2+	0	0	MR-MS	MR-MS
7	R	R	3	1	1	R	R
8	R	R	2+	1	1	R	R
9	R	R	5+	0	0	R	R
10	R	R	4+	0	0	R	R
11	R	R	3	5	1.5	R-MR	R-MR
12	R	R	2+	5	1.5	R	R
13	R	R	2+	5	1.5	R	R
14	R	R	3	0	0	R	R
15	R	R	2+	0	0	R	R
16	R	R	3	0	0	R	R
17	R	R	3	0	0	MR	MR
18	R	R	3	0	0	R	MR
19	R	R	3	0	0	R	R
20	S	S	8	90	2.5	60 S-MS; 40 ROS	50 MS-50 ROS
21	R	R	3	10	1.5	R	R
22	R	R	3	0	0	R	R
23	R	R	2+	0	0	R	MR
24	R	R	2+	5	1.5	R	R
25	R	R	4+	0	0	R	R
26	R	R	4	5	2	R	R
27	R	R	2+	0	0	R	R
28	R	R	3+	0	0	R	R
29	R	R	2+	0	0	R	R
30	S	S	7+	90	2.5	S	VS
31	R	R	4	10	2	R	R
32	R	R	3	0	0	R	R
33	R	R	3	1	1	R	R
34	R	R	3	5	1.5	MR	MR
35	R	R	3	0	0	MR	MR
36	R	R	3	0	0	R	R
37	R	R	2	5	1.5	MR	MR
38	R	R	2+	5	2	MR	MR
39	R	R	2+	10	2	MR	MR
40	R	R	4+	0	0	R	R
41	R	R	4+	0	0	R	R
42	R	R	4+	0	0	MR	MR
43	R	R	3	0	0	MR	MR
44	R	R	3+	1	1	R	R
45	R	R	3	0	0	R	R

Field Infection Data, 1982 Regional Soil-Borne Mosaic Nursery (continued)

Entry no.	Kansas			Nebraska		Illinois	
	Oxford	Manhattan		Lincoln		Urbana	
	Reaction	Reaction	Severity rating	Incidence	Severity rating	Disease Severity Rep I	Disease Severity Rep II
46	R	R	3	0	0	R	R
47	R	R	3	0	0	R	R
48	R	R	4	0	0	R	R
49	R	R	4+	1	1	R	R
50	S	S	8	50	2	50 MS-50 ROS	30 MS-70 ROS
51	R	R	3+	0	0	R	R
52	R	R	4	0	0	R	R
53	R	R	4	1	1	R	R
54	R	R	3+	0	0	R	R
55	R	R	3+	5	2	R	MR
56	R	R	3+	0	0	R	R
57	R	R	3+	0	0	R	R
58	MS	R	5	10	2	R	MR
59	S	S	7	75	2	S	S
60	S	S	7	90	2.5	VS	VS
61	R	R	4	0	0	VR	VR
62	R	R	4	0	0	VR	VR
63	S	S	6+	75	2	S	S
64	S	S	7	90	2	S	S
65	MR	R	3	0	0	VR	VR
66	S	S	7	90	2.5	S	S
67	R	R	3+	1	1	R	R
68	S	S	7	90	2	MS	S
69	S	S	7+	90	2	VS	VS
70	R	R	5	0	0	R	R
71	S	S	7	90	2	S	VS
72	S	S	7	90	2	S	S
73	MS	S	7	90	2	MS	S
74	S	S	7	75	2	S	S
75	S	S	7	90	2	S	S
76	S	S	7	90	2	S	S
77	S	S	7	90	2	VS	VS
78	S	S	7	90	2	VS	VS
79	S	S	7+	90	2	VS	VS
80	S	S	7	90	2	ROS	20 MS-80 ROS
81	R-S	R-S	4	0	0	VR	VR
82	S	R-S	5+	5	1.5	MS-MR	MS-MR
83	S	MS	6+	25	2	MS	MS
84	S	S	6+	10	2	VS	VS
85	S	S	7	10	1.5	VS	VS
86	MS	R	3	0	0	R	R
87	S	S	7	50	2	S	S
88	S	S	7	25	2	VS	VS
89	S	S	7	75	2	S	VS
90	S	S	7+	75	2.5	VS	VS

Field Infection Data, 1982 Regional Soil-Borne Mosaic Nursery (concluded)

Entry no.	Kansas			Nebraska		Illinois	
	Oxford	Manhattan		Lincoln		Urbana	
	Reaction	Reaction	Severity rating	Incidence	Severity rating	Disease Severity Rep I	Disease Severity Rep II
91	S	S	7+	50	2.5	S	S
92	S	S	7+	50	2.5	S	S
93	S	S	7+	50	2	S	S
94	S	S	7	90	2.5	VS	VS
95	S	S	7	90	2	S	S
96	R	R	4	0	0	R	R
97	S	S	6+	75	1.5	VS	VS
98	S	S	6	50	2	S	S
99	R	R	3+	0	0	R	R
100	R	R	4+	1	1	MR	MR
101	S	S	7	5	1.5	VS	VS
102	S	S	7	50	2	S	S
103	S	S	7	90	2	VS	VS
104	S	S	7	90	2	VS	VS
105	S	S	7	75	2	VS	VS
106	R-S	R-S	5+	10	1	VS	VS
107	R	R	2+	5	1	MS-MR	MS-MR
108	R	R	3+	0	0	R	R
109	R-S	S	7+	75	2.5	VS	VS
110	R	R	5	0	0	VR	VR
111	R	R	4	0	0	R	R
112	R	R	3+	1	1	VR	VR
113	S	S	7	90	1.5	VS	VS
114	S	S	6	90	2	40 MS-60 ROS	90 MS-10 ROS

[1]R=resistant; MR=some symptoms; MS=better than S; S=susceptible; R-S=apparently segregating or mixtures.
[2]1, 2, 3 = good; 4, 5, 6 = fair; 7, 8, 9 = poor.
[3]Incidence = % of plants showing symptoms.
[4]0-5 scale where 0 = no symptoms and 5 = severe symptoms.
[5]Disease severity rating scale is the same as that in previous years; ROS=rosetting.

Kansas: Readings from Manhattan were positive, ie/ not too much interference from other growing conditions. The nursery was read on April 12 when symptoms were optimal. By April 16 all entries were nearly green but differences in vigor were recorded which generally agreed well with the April 12 WSBM reading. Seed of the Concho and Bison checks germinated poorly.

The nursery was seeded on October 23 at Oxford (located near Winfield, KS). Not much fall growth. Nursery looked uniform on March 18 when WSBM symptoms first began to show. When the nursery was read on April 6 it had a ragged appearance and some lines showed yellowing which could not be identified as WSBM. These conditions made readings difficult. A fungus that invaded the crowns may have been involved but was not identified. Readings on entries 58, 86 and 109 did not agree with Manhattan readings. Cooperator: E. G. Heyne.

Nebraska: A relatively mild WSBM infection at Lincoln made reading difficult. Cooperators: M. K. Brakke and W. G. Langenberg.

Illinois: Cooperators: H. Jedlinski and C. M. Brown.