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 WINTER WHEAT REGION IN 1994

C. J. Peterson
Research Agronomist

Lincoln, Nebraska
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NORTHERN PLAINS AREA

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Regional Notes

The 1994 Hard Red Winter Wheat Breeders Field Day was held in May at Stillwater, OK, hosted by USDA-ARS and Oklahoma State University wheat researchers. The 1995 Breeders Field Day is scheduled for May 31 at Hutchinson, KS, hosted by Kansas State University researchers.

The 20th Hard Red Winter Wheat Workers Workshop was held on January 16-18 in Oklahoma City. The workshop was hosted by the Oklahoma State University and USDA-ARS wheat researchers at Stillwater. The workshop was attended by over 130 wheat researchers. The 21st Workshop is tentatively scheduled for January of 1998, to be hosted by Colorado State University.

New officers of the Hard Winter Wheat Improvement Committee were elected and announced at the 20th Hard Red Winter Wheat Workers Workshop in January. Joe Martin was elected Chair of the regional committee and Stephen Baenziger, Brett Carver, and David Worrall were elected as regional representatives to the National Wheat Improvement Committee for the next three years. Our appreciation is expressed to past Chair Rob Bruns and past NWIC representatives Stan Cox, David Porter, and David Worrall for their efforts on behalf of the regional committee.

NOTE: The response reaction of entries to leaf and stem rust infection has been coded on a 1-9 scale to facilitate generation of this report. This same scale has been used in past reports. The response data can be interpreted as follows:

Response scale		Reaction type
1	-	VR
2	-	R
3	-	MR
4	-	M
5	-	M
6	-	M
7	-	MS
8	-	S
9	-	VS

New Varieties and Germplasms

The following is only a partial list of new wheat varieties and germplasms available in the region. Included are those for which we have current information.

VARIETIES

The Colorado Agricultural Experiment Station announced the release of 'Akron' hard red winter wheat. Akron has the pedigree 'TAM-107/Hail' and was tested in the SRPN in 1993 and 1994 as CO880169. It is a semidwarf cultivar, slightly later and taller than TAM-107 or Yuma. Akron is superior to TAM-107 in leaf rust resistance and inferior in resistance to the wheat curl mite. Akron has been similar to TAM-107, Yuma, and TAM-200 in grain yield averaged over eastern Colorado trials.

The Colorado Agricultural Experiment Station also announced the release of 'Halt' hard red winter wheat. Halt has the pedigree 'Sumner/CO820026, F1//PI372129,F1/3/TAM-107' and was tested in the SRPN in 1993 and 1994 as CO910927. It is the first cultivar developed in the U.S. with resistance to the Russian wheat aphid. Halt is a semidwarf cultivar and has been similar to TAM-107 in maturity and plant height. Halt has averaged about 5% less grain yield than TAM-107 in Colorado trials. Leaf rust resistance has been lower than most cultivars, but higher than TAM-107. Milling and baking quality has been superior to Lamar.

The Nebraska Agricultural Experiment Station and USDA-ARS announced the release of 'Niobrara' hard red winter wheat. Niobrara (PI584996) has the pedigree 'TAM-105*4/Amigo//Brule sel.' and was tested in the Northern Regional Performance Nursery in 1992 and 1993 as NE89522. It is targeted for production in southwest Nebraska and the Nebraska panhandle. Niobrara is a semidwarf cultivar, similar in height to Redland, with intermediate coleoptile length. Winterhardiness is similar to Scout 66 and it matures 2 days earlier than Redland. Niobrara is heterogeneous for the 1A/1R translocation and carries Sr6. It is moderately susceptible to leaf rust. Average grain protein content is lower than Arapahoe and Scout 66 with mixing properties similar to Arapahoe.

The South Dakota Agricultural Experiment Station, Nebraska Agricultural Experiment Station, and USDA-ARS announced the release of 'Nekota' hard red winter wheat. Nekota (PI584997) has the pedigree 'Bennett/TAM-107' and was tested in the SRPN in 1991 and 1992 as NE88427. It is targeted for winter wheat growing areas of South Dakota and south central and southwest Nebraska. It is a semidwarf cultivar with intermediately long coleoptile. Winterhardiness is similar to Scout 66 and maturity is similar to Alliance. Nekota is heterogeneous for the 1A/1R translocation and carries Sr6. It is moderately susceptible to leaf rust. Nekota has superior test weight patterns in South Dakota trials. Average grain protein content is lower than for Arapahoe and dough mixing properties are similar to Scout 66.

The Oklahoma Agricultural Experiment Station announced the release of two cultivars in spring of 1994. 'Custer' has the pedigree 'F29-

76/TAM-105//Chisholm' and was tested in the 1993 and 1994 SRPN as OK88767-11. It is a medium early semidwarf with plant height similar to Chisholm. Custer has good resistance to leaf rust, tan spot and mildew and is expected to do well in all areas of Oklahoma, except where soilborne mosaic is severe. 'Tonkawa' has the same pedigree as Custer and was tested in the 1993 and 1994 SRPN as OK88767-02. Tonkawa has similar characteristics to Custer, except that Tonkawa carries good resistance to soilborne mosaic virus. It is expected to perform best in northcentral Oklahoma.

The Kansas Agricultural Experiment Station announced the release of 'Jagger' hard red winter wheat in 1994. Jagger has the pedigree 'KS82W418/Stephens' and was tested in the 1994 SRPN as KS84063-9-39-3. Jagger has excellent general disease protection. It is comparable to Karl 92 in overall quality, with similar grain protein levels.

Agripro Seeds, Inc. announced the release of three new winter wheat varieties. 'Coronado' is a hard red winter wheat derived from the cross 'W85-084/W85-225' and is entered in the 1995 SRPN as W91-287. Coronado is a short semidwarf with mid-strong straw and early maturity. It offers good resistance to leaf rust, soilborne mosaic virus, and wheat streak mosaic virus. 'Rowdy' is a hard red winter wheat derived from the cross '854552#3/Mesa sib' and is entered in the 1995 SRPN as W91-091. Rowdy is a short semidwarf with strong straw and medium-early maturity. Rowdy is resistant to leaf rust and spindle streak virus. 'Oro Blanco' is a hard white winter wheat derived from the cross 'W81-133-2/Rio Blanco' and is entered in the 1995 SRPN as W88-2619W' Oro Blanco has been released for exclusive production through the American White Wheat Producers Association.

GERMPLASMS

The Kansas Agricultural Experiment Station announced the release of three Russian wheat aphid resistant wheats. KS94WGRC29 and KS94WGRC30 are both derived from the cross 'PI220127/P5//TAM-200/KS87H66'. KS94WGRC30 is derived from the cross 'PI220350/KS87H57//TAM-200/KS87H66/3/KS87H325'. PI220127 and PI220350 are RWA resistant accessions from Afghanistan. Both accessions are winter habit, but mature very late and are tall under Kansas conditions. KS94WGRC29 is a white seeded, semidwarf cultivar and carries effective levels of resistance to stem and leaf rust. It is susceptible to Hessian fly and WSMV. KS94WGRC30 is a red seeded, semidwarf cultivar and also carries effective resistance to stem and leaf rust. It is heterogeneous in response to Hessian fly and susceptible to WSMV. KS94WGRC31 is a red seeded, semidwarf line with effective resistance to stem and leaf rust and Hessian fly. It has been rated as moderately susceptible to WSMV.

The USDA-ARS and Kansas Agricultural Experiment Station announced the release of KS94WGRC32 leaf rust-resistant hard red winter wheat. It is derived from the cross 'TAM-107*2//KS8010-1-4-1/TA 359' where TA359 is an accession of T. Boeoticum, a wild diploid species. KS94WGRC32 heads three days later than TAM-107 and is slightly taller. Its reactions to diseases other than leaf rust are similar to TAM-107. It does not carry either 1RS translocation. Resistance is governed by a single dominant gene that segregates independently of genes previously tranferred from T. Monococcum.

1994
Southern Regional Performance Nursery

Entry No.	Variety or Pedigree	Sel. No.	Source
1	Kharkof	CI1442	Check
2**	Scout 66	CI13996	"
3**	TAM-107	PI495594	"
4	F29-76/TAM-105//Chisholm (Custer)	OK88767-11	Oklahoma
5	" " (Tonkawa)	OK88767-02	"
6*	Ogosta/Csm//TAM-107	OK90604	"
7*	Csm/OK79256	OK90649	"
8*	Yantar/TAM-101//Mustang	OK91783	"
9*	IL71-5662/PL145//2165	HBZ374C	"
10	TAM-200//Sxl/Tan 's'	TX90D9277	Texas
11	TAM-105/10334	TX89A7137	"
12	TAM-200//TX38949-2/TAM-107	TX91V4931	"
13	TX81V6603/TX78A3345-V34	TX90V8410	"
14	TX78V2430-2/TX86V1540	TX90V7911	"
15	TAM-108/Vee's'//TX84V2029	TX91V3308	"
16	TAM-105/10334	TX89A7141	"
17*	TX81V6603/TX78A3345-V34	TX90V6313	"
18*	Brule//Buc 's'/Bjy 's'/3/TX78V3924-5-3	TX92V4135	"
19*	HRE LT-11(OR)/4/Homestead/3/Ctk// IN4946A4-18-2-/MOW7470	HBE0726-1	"
20	TAM-107/Hail (Akron)	CO880169	Colorado
21	TAM-107/TX3006	CO880210	"
22*	Sumner/CO820026,F1//PI372129,F1/3/T-107 (Halt)	CO910927	"
23	TAM-101//IN4946A4-18-2-/MOW7470/5/2165/6/Ctk// IN4946A4-18-2-/MOW7470	KS92PO59E	Kansas
24	(Sturdy/2/Coker 68-15/Mow7510/3/TAM-101)/5/ (In494A4-18-2/Mow7718/4/Sturdy/Kaw)/6/2163	KS92PO263-137	"
25	WX12907/4/TAM-108/5/(Sturdy/2/Coker 68-15/ Mow7510/3/TAM-101)	KS92PO363-134	"
26	Ctk//IN4946A4-18-2-/MOW7470/5/IN4946A4-18-2- /MOW7470/2/PL145/3/NB/Scout/4/IN4946A4-18-2-/ MOW7470/PL145/3/NB/Scout	KS92PO425-155	"
27*	KS82W418/Stephens (Jagger)	KS84063-9-39-3	"
28*	TAM-107*3/TA2460	KS93U206	KS, USDA
29**	NE69565//NE65671/NE69655/3/Homestead/4/ Ctk/3/At66/Cmn//TX2607-6	N87V106	NE, USDA
30	KS83H2510/Brule composite	NE90479	Nebraska
31	Brule seln/4/Bez 1/3/Ctk//Arthur/Ctk78	NE90524	"
32*	Arapahoe/TAM-107	NE91608	"
33*	NE82761/NE82599	NE91635	"
34*	NE82671/NE80413	NE91651	"
35**	Quantum Hybrid Wheat	XH1520	HybriTech
36**	" "	XH1529	"
37*	" "	XH1689	"
38*	" "	XH1693	"
39*	" "	XH1706	"
40*	TX81V6610/W82-163 (Hickok)	WI89-273-13	AgriPro
41*	TAM-200/W81-296	WI89-189-14	"
42	T11//Brule/TAM-108	T4731	Trio
43*	T11//Brule/TAM-108	T4732	"
44*	TAM-107/T213 sib	T81	"
45*	T213 sib *2/HRW	T83	"

* New Entry
** New Seed Provided

Test Site Information - SRPN

Clovis, NM -- The irrigated nursery was planted on 9/21/93 in fallow land that was in sorghum during 1991. Plots were irrigated on 9/20/93, 11/91/93, 12/10/93, 1/17/94, 3/21/94, 4/18/94, 5/20/94 and 6/2/94. Fertilizer rates consisted of 180 lbs/a N and 30 lbs/a P_2O_5. Seeding rate was 90 lbs/a. Harvested on June 21, 1994. The dryland nursery was planted on 9/15/93 at a rate of 40 lbs/a. Fertilizer rates were 6 lb/a N and 30 lb/a P_2O_5. Harvested on June 16. A freeze on April 6 resulted in lower yields in both dryland and irrigated trials.

Farmington, NM -- Electrical problems with a center pivot irrigation system during heading resulted in highly variable plots. Yield data was considered unusable and is not included in the report.

Bushland, TX -- No additional information.

Chillicothe, TX -- No additional information.

Prosper, TX -- No additional information.

Oklahoma Sites -- No additional information.

Hutchinson, KS -- Good fall stands with no winter damage. Spring temperatures and moisture allowed for average development and minimal disease pressure. Hot winds on June 2nd prematurely shortened the grain filling period and hastened ripening.

Manhattan, KS -- Good fall stands with no winter damage. Spring conditions were good with average development and yield potential. A late infection of leaf rust was adequate for notes but likely did not reduce yields. Lodging was a problem for taller, weak strawed selections. Hot winds on June 2-3 prematurely ripened the wheat and reduced an otherwise promising crop.

Hays, KS -- No additional information.

Garden City, KS -- No additional information.

Colby, KS -- No additional information.

Colorado Sites -- Data were not very 'normal' due to extreme drought during grain fill. Test weights were very low and yields unusually low at Akron and Julesburg. Later entries were at a considerable disadvantage.

Nebraska Sites -- Winterkilling was minimal throughout the state. The growing season was considered cooler in fall and early spring, followed by warmer than normal conditions with less moisture. Drought and heat, especially in early June, were primary limitations to production. Insect and disease pressures were minor. Wind damaged the nursery at Sidney and rep 3 of the SRPN was dropped from analyses.

Brookings, SD -- (Brookings County, Aurora Farm)
Planted on 9/23/93 and harvested on 8/2/94. The nursery was planted into chem-fallow ground with above-optimal soil moisture. No supplemental fertilizer was applied. Fall stands were excellent but insufficient snow cover caused significant winter-kill in both the NRPN and SRPN. Unseasonably warm, dry, and windy weather from approximately 5/16-5/27 hastened heading and caused some sterility problems. Excessive weed pressure from reduced stands also contributed to excessive variability within the nurseries.

Pierre, SD -- (Hughes County, Dakota Lakes No-Till Research Farm)
Planted on 9/15/93 and harvested on 7/12/94. The nursery was planted into lentil stubble on no-till ground. Soil moisture at planting was below optimal, yet light rains were experienced one day after planting. Fertilizer applications, for a 60 bushel yield goal, included 70 lbs 18-46-0 (diammonium phoshpate) at seeding and 200 lbs 46-0-0 (urea) in late fall. Fall stands were excellent and no differential winter-kill was recorded. Unseasonably warm, dry, and windy weather from approximately 5/16-5/27 hastened heading and caused some sterility problems. Seasonal precipitation (from April-June) at the site was about 50% of the long-term average, which resulted in significantly depressed yield levels in both the NRPN and SRPN.

Winner, SD -- (Tripp County, Farmer-Cooperator)
Planted on 9/16/93 and harvested on 7/19/94. The nursery was planted into summer fallow ground with extremely good soil moisture. No supplemental fertilizer was applied. Fall stands were excellent. Blowing soil caused some damage in certain parts of the field, especially that portion of the field where the NRPN and SRPN were sown. Unseasonably warm, dry, and windy weather from approximately 5/16-5/27 hastened heading and caused some sterility problems. Damage from this pre-anthesis stress was partially offset with good rains in early June that carried the crop toward maturity

Columbia, MO -- Relatively mild winter and cool early spring. Septoria leaf blotch and BYDV was present in mid-spring. Some scab and Septoria glume blotch occured late. Planted on 10/13/93 with seeding rate of 1.5 bu/a. Fall fertilizer consisted of 40-40-40, with additional 80 lbs/a N applied in spring. Harvested on 6/30/94.

Lind, WA -- The nursery was abandoned.

Aberdeen, ID -- Entries from private companies were excluded from the trial due to a shortage of irrigated nursery land. The SRPN was irrigated to full replacement of evapo-transpiration and received a total of 28.9 inches of moisture. Planted on 9/10/93 and harvested on 7/16/94.

Table 1. Yield and agronomic data for 45 wheats in the Southern Regional Performance Nursery in 1994.

CLOVIS (IRR.), NEW MEXICO

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	LODGING %
XH1706	39	6168	74.8	74	123	0
HBE0726-1	19	5433	71.9	65	129	0
KS92PO363-134	25	5318	72.9	74	124	0
KS84063-939-3	27	4981	73.5	66	124	0
XH1693	38	4977	75.5	70	123	0
XH1520	35	4820	73.3	69	126	0
KS92PO263-137	24	4575	73.3	65	123	0
HBZ374C	9	4522	76	69	129	0
WI89-273-13	40	4506	72.7	58	123	0
CO880169	20	4491	72.3	62	122	0
XH1529	36	4411	74.9	64	123	0
TX91V4931	12	4392	76.2	64	121	0
NE91651	34	4281	71.2	64	123	0
CO880210	21	4242	72.9	73	123	2
NE90524	31	4185	74.9	66	126	0
KS92PO425-155	26	4058	70.7	71	129	0
TX90D9277	10	4009	68.5	78	122	0
TX91V3308	15	3936	72.3	66	126	0
NE91608	32	3909	70.7	64	125	0
KS93U206	28	3905	73.5	63	124	0
T81	44	3898	73.9	64	121	0
OK91783	8	3848	71.7	64	124	0
CO910927	22	3844	73.5	63	127	0
XH1689	37	3829	72.9	66	122	0
TX89A7137	11	3725	71.4	66	122	0
OK90604	6	3714	74	65	121	0
TX90V7911	14	3618	73.6	65	119	0
CI1442	1	3561	73.9	88	123	12
KS92PO59E	23	3538	73.7	75	123	0
TX90V8410	13	3507	73.1	64	122	0
OK88767-11	4	3446	73.4	64	121	0
TX90V6313	17	3431	73.1	60	123	3
WI89-189-14	41	3404	72.3	58	125	0
OK88767-02	5	3385	72.5	69	123	0
TX89A7141	16	3297	71	66	121	0
T4731	42	3289	66.6	64	122	0
N87V106	29	3231	71.3	64	127	0
PI495594	3	3097	73.3	58	123	0
OK90649	7	3029	73.1	73	121	0
T4732	43	3013	71.3	68	119	0
T83	45	2726	69.4	62	123	0
NE90479	30	2638	72.5	76	127	0
NE91635	33	2508	70	68	126	0
TX92V4135	18	2431	71.6	61	123	0
CI13996	2	2274	72.1	65	124	0
MEAN		3853				
LSD(.05)		1477				
C.V.		23.6				

CLOVIS (DRYL.)

NEW MEXICO

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1
WI89-273-13	40	961	71.5	32	123
KS92PO59E	23	688	65.9	37	122
XH1689	37	661	70	34	120
NE90479	30	658	70.4	43	119
WI89-189-14	41	649	70.8	29	118
KS93U206	28	645	61	30	119
XH1693	38	631	73.5	31	122
OK88767-11	4	629	65.5	34	119
PI495594	3	605	72.6	30	117
TX90D9277	10	605	69.5	37	121
T4731	42	589	64.6	33	119
KS92PO363-134	25	585	70	38	122
XH1520	35	579	55.7	35	123
OK91783	8	557	68	30	120
KS84063-939-3	27	546	62.1	34	122
XH1706	39	539	71.7	36	117
TX89A7141	16	522	68.9	30	122
TX89A7137	11	477	54.3	31	117
CI13996	2	468	60.5	38	121
TX91V4931	12	468	66.6	33	118
TX90V8410	13	468	66.7	27	121
CO880210	21	462	65.4	36	120
XH1529	36	457	58.4	28	116
KS92PO425-155	26	440	63.6	31	117
KS92PO263-137	24	429	69.3	27	123
CO880169	20	426	65.5	29	120
TX90V6313	17	424	68.6	31	124
T4732	43	410	61	31	123
NE90524	31	406	67.1	32	118
TX90V7911	14	374	67	26	122
OK90649	7	373	65.4	33	119
NE91608	32	364	65.8	33	118
NE91651	34	354	61.9	29	120
HBE0726-1	19	336	60.8	30	123
T81	44	333	61.9	30	120
T83	45	315	58.3	30	120
TX92V4135	18	305	37.2	27	124
CI1442	1	297	55.7	40	129
NE91635	33	287	35.9	29	120
HBZ374C	9	280	52.5	30	119
N87V106	29	264	49.8	28	123
CO910927	22	261	47.2	27	116
TX91V3308	15	210	40.1	22	117
OK90604	6	209	34.3	26	119
OK88767-02	5	179	33.3	27	122
MEAN		461			
LSD(.05)		319			
C.V.		42.6			

BUSHLAND (IRR.)

TEXAS

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	DAYS TO FLOWERING FROM 1/1	LODGING %
T81	44	6622	77	87	122	123	27
KS84063-939-3	27	6541	77.1	90	124	127	60
XH1520	35	6530	78.4	94	125	127	13
XH1529	36	6443	79.3	88	119	124	17
CO880210	21	6436	78	89	126	128	43
OK88767-11	4	6384	78.8	83	123	124	0
TX89A7137	11	6384	77	87	121	124	30
KS92PO59E	23	6371	73.5	90	127	128	7
TX91V4931	12	6330	80.5	87	123	124	50
TX89A7141	16	6326	77.2	89	121	124	20
XH1693	38	6326	76.8	92	125	127	13
KS93U206	28	6313	78.5	89	120	124	30
PI495594	3	6243	77.9	90	119	124	23
WI89-189-14	41	6162	78.3	81	118	123	23
T83	45	6149	75.9	89	123	124	63
HBE0726-1	19	6122	75.9	86	128	129	7
OK90604	6	6120	78	90	125	128	13
KS92PO425-155	26	6109	73.7	84	128	130	37
CO880169	20	6104	77.4	96	126	128	33
XH1706	39	6077	79.9	91	124	128	33
OK90649	7	6075	79	91	124	128	10
XH1689	37	5972	75.8	96	129	130	47
NE91651	34	5967	76.3	95	124	127	53
HBZ374C	9	5920	80.3	92	127	128	3
TX92V4135	18	5745	77.5	80	122	124	17
WI89-273-13	40	5705	77.9	79	126	128	20
KS92PO263-137	24	5591	78.9	89	126	127	3
CO910927	22	5548	76.7	84	124	124	27
N87V106	29	5546	75.8	93	126	129	37
OK88767-02	5	5539	79.9	90	125	128	0
NE90524	31	5506	78.6	95	126	129	27
NE90479	30	5463	78.6	92	127	129	33
T4731	42	5425	70.9	80	125	130	40
T4732	43	5315	70.5	93	125	130	77
TX90V7911	14	5295	75.9	88	120	123	47
TX90V8410	13	5268	77.6	85	125	125	63
TX90V6313	17	5221	74.8	82	126	128	73
KS92PO363-134	25	5198	76.1	87	126	127	13
TX90D9277	10	5189	75.5	101	127	130	37
OK91783	8	5120	76	92	124	127	3
TX91V3308	15	5001	73.7	85	127	129	3
CI13996	2	4618	78	97	127	129	83
NE91608	32	4479	77.3	89	129	132	37
NE91635	33	3481	76.8	93	126	129	23
CI1442	1	2739	75.1	105	137	139	87
MEAN		5712					
LSD(.05)		882					
C.V.		9.5					

BUSHLAND (DRYL.)

TEXAS

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	DAYS TO FLOWERING FROM 1/1
XH1693	38	2937	80.5	65	128	130
KS92PO59E	23	2912	76.3	62	129	130
TX90V8410	13	2903	78.5	61	130	131
XH1689	37	2887	77.4	66	130	131
XH1520	35	2845	78.8	67	128	130
XH1706	39	2831	79.6	66	128	129
CO880210	21	2822	78.2	60	129	131
KS92PO425-155	26	2820	74.8	57	131	133
CO880169	20	2793	78	66	129	130
HBE0726-1	19	2777	74.5	59	130	131
KS84063-939-3	27	2735	78.6	63	127	129
TX90V6313	17	2706	78.9	58	128	130
T81	44	2703	78.3	64	129	131
WI89-273-13	40	2694	79.5	58	129	131
XH1529	36	2674	80	57	128	130
KS92PO363-134	25	2656	76.3	66	129	130
TX90D9277	10	2618	74.7	66	130	131
TX91V4931	12	2612	81.5	63	129	130
NE91608	32	2612	76.7	71	131	133
T83	45	2600	77.6	65	128	131
T4732	43	2589	74.9	65	129	130
NE90479	30	2585	78.7	68	131	135
KS92PO263-137	24	2582	79	64	129	131
NE90524	31	2562	78.5	66	129	131
TX89A7141	16	2551	77	57	128	130
TX91V3308	15	2549	75.5	62	130	130
TX90V7911	14	2540	77.7	61	130	131
TX92V4135	18	2533	78.3	61	128	130
T4731	42	2524	75	59	129	130
OK90604	6	2522	77.5	59	129	131
OK91783	8	2506	76.4	60	129	130
KS93U206	28	2504	78.5	60	128	130
TX89A7137	11	2493	77.1	62	128	130
NE91651	34	2486	75.9	66	128	131
NE91635	33	2452	74.6	71	130	131
CI13996	2	2448	77.6	71	132	133
PI495594	3	2441	77.4	59	128	131
CO910927	22	2439	77.4	61	128	130
OK90649	7	2405	77.6	64	128	129
WI89-189-14	41	2401	79.9	53	128	130
HBZ374C	9	2352	78.8	65	129	131
N87V106	29	2349	74.9	65	130	131
OK88767-11	4	2287	78.4	57	129	131
OK88767-02	5	2163	78.8	59	129	131
CI1442	1	2156	75.6	84	134	139
MEAN		2590				
LSD(.05)		282				
C.V.		6.7				

CHILLICOTHE

TEXAS

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1
XH1689	37	4524	79.6	96	129
KS92PO425-155	26	4468	77.5	64	112
XH1693	38	4369	80.7	92	125
T83	45	4331	77.6	89	123
T81	44	4302	79.6	87	122
XH1529	36	4277	82.1	88	119
XH1520	35	4268	79.3	78	110
T4731	42	4261	77.1	80	125
HBE0726-1	19	4190	78.3	68	111
NE91651	34	4156	77.7	72	110
TX90D9277	10	4147	78.7	72	111
XH1706	39	4138	77.9	91	124
CO880210	21	4109	80.6	66	112
NE90524	31	4082	79.9	80	113
KS92PO363-134	25	4042	77.7	70	112
WI89-273-13	40	4039	80.9	79	126
KS92PO263-137	24	4013	79.6	72	112
PI495594	3	4004	78.4	60	109
TX91V3308	15	3957	78.1	73	112
KS92PO59E	23	3932	77.9	70	111
T4732	43	3925	77.2	93	125
TX90V6313	17	3903	79.7	71	108
TX90V7911	14	3894	77.8	68	113
KS84063-939-3	27	3887	79.3	83	110
CO880169	20	3869	77.9	75	111
KS93U206	28	3806	78.6	80	109
TX92V4135	18	3795	79.5	72	108
HBZ374C	9	3788	80.4	71	111
OK90604	6	3766	79.9	71	112
TX91V4931	12	3735	82.2	71	111
NE90479	30	3732	79.7	85	113
OK91783	8	3730	77.9	76	110
TX89A7141	16	3730	77	72	108
CO910927	22	3723	77.3	70	108
TX90V8410	13	3611	80	64	113
WI89-189-14	41	3607	79.8	81	118
OK90649	7	3535	80.4	76	110
N87V106	29	3524	78.5	80	110
NE91608	32	3477	78.5	83	113
TX89A7137	11	3459	77.5	71	108
NE91635	33	3441	78.2	75	111
OK88767-11	4	3351	78.6	62	110
OK88767-02	5	3082	80	70	112
CI13996	2	2688	77.3	87	115
CI1442	1	2284	71.8	105	121
MEAN		3843			
LSD(.05)		544			
C.V.		8.7			

PROSPER

TEXAS

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	LEAF SEV. %	RUST RESP 0-9	BYD VIRUS 0-9
XH1689	37	3369	59.4	27	107	7	8	3.7
TX90D9277	10	3363	58.9	25	103	0	.	6.2
NE90524	31	3206	60.6	30	108	2	8	2.7
HBZ374C	9	3201	60.7	28	106	27	8	1.2
XH1529	36	3167	59.6	25	102	17	7	3.7
T4732	43	3125	56.1	30	107	23	8	3.3
T81	44	3125	59.5	27	104	8	8	5.8
T4731	42	3105	55.8	27	108	33	8	6.2
XH1693	38	3069	59.4	28	102	63	8	2.5
T83	45	3002	56.6	28	106	8	8	2.8
XH1520	35	2995	59.3	29	102	13	8	2.3
WI89-273-13	40	2990	59.6	23	107	5	7	4
WI89-189-14	41	2979	60.3	26	101	8	7	3.7
OK91783	8	2975	58.5	25	102	4	7	6.3
XH1706	39	2923	57.8	26	103	30	8	2.5
OK90649	7	2919	58.8	28	102	8	7	6.3
OK88767-02	5	2896	59	28	103	5	8	3.3
KS92PO425-155	26	2887	55.2	22	107	2	7	4.2
CO880210	21	2836	58.2	27	106	67	8	4.2
KS84063-939-3	27	2829	58.5	26	102	0	.	5.2
NE90479	30	2822	60.3	28	114	7	7	3.2
KS93U206	28	2807	59.7	28	102	1	8	6.2
KS92PO263-137	24	2775	59.8	29	107	8	7	2.8
HBE0726-1	19	2773	58.7	26	106	0	.	1.8
KS92PO59E	23	2715	58	26	106	0	.	4.3
OK90604	6	2663	58.4	24	103	20	8	4.7
N87V106	29	2638	60.4	26	104	8	8	2.7
NE91608	32	2634	59.4	28	109	7	8	3.2
TX91V3308	15	2598	57.9	25	104	1	7	5.7
NE91651	34	2589	57.2	27	103	13	8	5.3
TX92V4135	18	2553	58.9	26	100	8	7	4.3
KS92PO363-134	25	2464	58.3	25	106	0	.	4
OK88767-11	4	2430	59	26	103	1	8	5.2
PI495594	3	2408	56.7	28	103	77	8	6
TX90V6313	17	2349	58.7	27	102	7	8	5.2
CO880169	20	2242	57.7	26	108	33	8	5.5
TX91V4931	12	2233	61.7	26	105	17	8	6
TX89A7137	11	2208	56.5	25	102	67	8	5.8
TX90V7911	14	2132	56.1	27	114	13	8	7.5
TX90V8410	13	2060	59.4	26	109	4	8	6.3
TX89A7141	16	2058	56.3	26	101	80	8	5.7
NE91635	33	2047	57.6	28	105	47	8	4.3
CO910927	22	1984	55.3	23	102	80	8	8
CI13996	2	1542	56.1	30	117	70	8	6
CI1442	1	769	.	30	122	73	8	5.3

MEAN	2654
LSD(.05)	448
C.V.	10.4

STILLWATER

OKLAHOMA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1
XH1529	36	4909	76.4	68	112
XH1689	37	4822	77.9	82	116
XH1706	39	4635	75.5	75	113
XH1520	35	4587	76.8	73	112
XH1693	38	4572	78.3	72	112
KS92PO59E	23	4569	72.8	73	115
HBZ374C	9	4536	77.8	70	114
HBE0726-1	19	4510	72	73	116
KS92PO263-137	24	4490	75.7	77	115
TX91V3308	15	4396	73.4	77	114
KS92PO363-134	25	4394	74.4	73	115
T4732	43	4359	71	75	115
KS92PO425-155	26	4299	73	68	116
TX92V4135	18	4225	77.5	70	112
OK90649	7	4104	78.2	75	113
KS93U206	28	4097	76.4	73	112
T81	44	4083	75.6	75	114
WI89-273-13	40	4058	75.7	72	114
T4731	42	4039	70.3	70	114
T83	45	4022	72.9	78	114
TX90D9277	10	4014	74.2	73	114
KS84063-939-3	27	3905	75.5	73	112
OK91783	8	3838	76.2	75	112
TX90V6313	17	3778	74	62	113
OK88767-02	5	3683	77.9	72	113
NE91651	34	3681	75.7	73	113
WI89-189-14	41	3681	72.9	70	111
NE90479	30	3674	78.2	87	120
OK88767-11	4	3652	76.5	68	112
TX89A7141	16	3631	74.3	68	113
NE90524	31	3623	77	82	116
CO880210	21	3541	75.7	73	115
TX91V4931	12	3538	78.7	68	114
TX89A7137	11	3519	74.7	70	113
OK90604	6	3453	76.5	70	113
PI495594	3	3412	74.2	75	115
CO880169	20	3327	73.8	68	115
TX90V8410	13	3312	72.4	68	116
TX90V7911	14	3292	72.2	77	124
NE91608	32	3292	77.3	87	118
CO910927	22	3166	72.1	67	113
NE91635	33	3058	74.8	78	114
N87V106	29	2871	74	70	115
CI13996	2	2361	75.3	92	126
CI1442	1	1853	75.6	100	.
MEAN		3841			
LSD(.05)		519			
C.V.		8.3			

ALTUS

OKLAHOMA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM
KS84063-939-3	27	5637	79.1	87
XH1693	38	5248	79.7	85
WI89-273-13	40	5163	80.2	75
TX91V3308	15	5157	76.1	77
T81	44	5003	80	82
XH1529	36	4999	80.8	77
NE91651	34	4967	78.9	82
XH1520	35	4953	79.5	80
KS92PO363-134	25	4930	75.2	77
KS93U206	28	4903	78.7	83
HBE0726-1	19	4886	74.3	68
KS92PO59E	23	4871	72.6	77
XH1706	39	4846	77.5	80
T83	45	4821	77.4	82
OK88767-11	4	4810	79.9	77
OK90604	6	4761	79.7	83
TX91V4931	12	4758	82.2	82
TX92V4135	18	4726	79.2	75
OK91783	8	4713	78	88
TX90V7911	14	4708	76.8	80
TX89A7141	16	4692	77.8	77
XH1689	37	4680	78.7	83
TX90V6313	17	4675	79.9	78
N87V106	29	4637	77.1	83
KS92PO425-155	26	4634	72.2	65
TX89A7137	11	4625	78.7	75
TX90D9277	10	4593	78.2	80
OK90649	7	4576	79.3	83
KS92PO263-137	24	4551	76.6	73
WI89-189-14	41	4503	80.6	72
TX90V8410	13	4463	79.1	80
NE90479	30	4460	79.3	93
NE90524	31	4452	79.1	85
HBZ374C	9	4436	78	78
T4731	42	4339	75.7	75
PI495594	3	4294	78.3	75
CO880210	21	4256	75.9	75
T4732	43	4186	73.9	78
OK88767-02	5	4170	79.6	77
CO880169	20	4132	75.2	82
CO910927	22	4100	74.7	75
NE91608	32	3892	78.6	88
NE91635	33	3498	76.1	87
CI13996	2	3153	78.3	97
CI1442	1	2044	75.1	108
MEAN		4553		
LSD(.05)		494		
C.V.		6.7		

LAHOMA

OKLAHOMA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1
XH1706	39	5865	76	77	115
HBE0726-1	19	5408	73.1	73	117
XH1693	38	5306	76.9	73	114
KS93U206	28	5303	76.1	72	113
XH1520	35	5107	74	80	115
T83	45	5083	74.8	72	114
KS92PO263-137	24	5029	73.4	78	116
KS84063-939-3	27	4975	73.5	75	114
WI89-189-14	41	4955	77.4	65	111
NE91651	34	4895	74.7	72	115
T81	44	4809	74.2	70	114
HBZ374C	9	4779	75.7	77	115
TX91V4931	12	4743	80.1	77	115
KS92PO425-155	26	4673	70.7	68	118
KS92PO59E	23	4661	71.7	73	117
OK88767-11	4	4643	76.1	72	115
WI89-273-13	40	4581	76.1	67	117
NE90524	31	4558	74.8	85	120
TX89A7141	16	4328	72.8	72	113
XH1689	37	4324	75.9	82	116
TX90V7911	14	4320	74.8	80	117
OK90649	7	4302	76.2	75	115
TX92V4135	18	4284	74.9	67	112
TX90D9277	10	4271	74.4	78	115
OK91783	8	4244	70.2	75	114
XH1529	36	4229	75.5	70	111
CO880169	20	4148	72.2	80	116
OK90604	6	4111	75.1	70	115
TX90V6313	17	4103	73.7	67	114
T4732	43	3964	69.5	73	115
TX89A7137	11	3933	72.5	70	115
PI495594	3	3918	72.1	72	113
NE90479	30	3887	75.9	85	119
T4731	42	3851	68.9	73	116
OK88767-02	5	3813	74.9	67	115
CO880210	21	3742	74.9	73	117
KS92PO363-134	25	3695	72.6	75	115
TX90V8410	13	3583	75.3	75	116
TX91V3308	15	3526	72.6	75	117
NE91608	32	3460	75.2	83	120
CO910927	22	3371	68.5	68	114
N87V106	29	3345	70.3	72	115
NE91635	33	2657	69.9	80	115
CI13996	2	2585	72	97	125
CI1442	1	1342	63.5	108	.
MEAN		4238			
LSD(.05)		797			
C.V.		11.6			

GOODWELL

OKLAHOMA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1
OK88767-11	4	5082	78.9	89	127
XH1706	39	4882	78.7	93	127
WI89-273-13	40	4859	78	82	128
KS92PO425-155	26	4853	75.6	86	130
KS92PO59E	23	4813	74.8	92	129
XH1693	38	4776	79.6	91	127
HBZ374C	9	4689	81.1	92	128
XH1529	36	4665	77.5	89	126
HBE0726-1	19	4534	72.8	90	130
KS93U206	28	4513	78	91	126
XH1520	35	4425	78.9	95	127
OK90604	6	4308	78.4	79	127
KS92PO263-137	24	4298	79.7	96	129
TX92V4135	18	4290	77.8	85	127
KS84063-939-3	27	4285	77.4	86	127
T81	44	4225	77.7	88	126
CO880169	20	4193	77.5	95	129
OK88767-02	5	4187	79.7	86	127
NE90479	30	4172	78.8	101	130
TX89A7141	16	4171	77.4	87	127
WI89-189-14	41	4115	77.9	77	126
TX90V7911	14	4092	76.4	89	130
XH1689	37	4086	76.6	99	130
CO880210	21	4066	76	86	129
OK91783	8	4042	76.5	93	127
TX89A7137	11	4005	75.3	86	128
TX91V3308	15	3942	75.1	89	129
OK90649	7	3902	79.1	86	127
NE90524	31	3866	78.3	100	130
PI495594	3	3854	76	90	126
TX90V6313	17	3830	78.8	82	128
N87V106	29	3752	77	90	127
TX91V4931	12	3750	79.9	87	127
T83	45	3747	76.1	90	126
CO910927	22	3645	74.9	81	127
NE91651	34	3486	76.8	94	128
TX90D9277	10	3417	77.7	87	128
KS92PO363-134	25	3313	76.9	92	128
NE91608	32	3311	77	95	131
TX90V8410	13	3297	76.9	87	128
T4732	43	3042	71.5	93	128
T4731	42	3039	71.1	88	130
CI13996	2	2749	77.1	98	131
CI1442	1	2280	73.5	106	131
NE91635	33	2146	76.9	95	128
MEAN		3978			
LSD(.05)		498			
C.V.		7.7			

HUTCHINSON

KANSAS

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	LODGING %	GRN LEAF DURATION 0-9
XH1520	35	4049	78	85	0	9
XH1706	39	3939	77.5	83	0	9
KS92PO263-137	24	3873	78.4	81	0	9
NE90479	30	3867	78.5	92	0	4
OK88767-11	4	3789	77.9	78	0	8
XH1693	38	3750	77.9	84	0	9
KS93U206	28	3743	76.2	82	0	9
T4731	42	3704	71.2	79	0	9
HBZ374C	9	3698	78.2	83	0	4
OK88767-02	5	3665	80.2	76	0	6
OK90604	6	3652	78	78	0	7
NE91651	34	3639	75.7	83	0	9
WI89-189-14	41	3626	78.6	74	0	9
XH1689	37	3587	76.5	91	0	9
KS84063-939-3	27	3581	73.6	77	0	7
CO880210	21	3567	75.3	81	0	8
TX91V4931	12	3561	78.3	77	0	8
PI495594	3	3548	75.4	82	0	9
WI89-273-13	40	3496	76.7	75	0	9
T81	44	3476	76.7	76	0	9
OK90649	7	3450	77.6	83	0	8
XH1529	36	3431	77.7	78	0	9
T83	45	3431	74.5	85	0	9
KS92PO59E	23	3385	70.6	79	0	8
TX90V6313	17	3379	75.4	76	0	9
TX90V7911	14	3372	77.2	80	0	6
TX90D9277	10	3352	74.5	81	0	7
KS92PO425-155	26	3346	73.3	78	0	9
TX90V8410	13	3326	73.7	79	0	6
TX91V3308	15	3307	76.5	79	0	7
TX89A7141	16	3294	78	77	0	9
KS92PO363-134	25	3287	75	77	0	9
NE91635	33	3249	77.4	92	0	7
HBE0726-1	19	3222	71.6	76	0	8
NE90524	31	3222	53.9	92	0	8
T4732	43	3216	74.6	82	0	9
CO880169	20	3209	70.1	82	0	9
OK91783	8	3177	76.3	81	0	5
CO910927	22	3131	76.6	77	0	9
NE91608	32	3131	55.3	92	0	9
TX89A7137	11	3060	75.4	80	0	8
N87V106	29	2962	76.3	80	0	8
TX92V4135	18	2897	77.4	70	0	8
CI13996	2	2415	73.4	106	97	9
CI1442	1	2024	71.1	108	100	7
MEAN		3402				
LSD(.05)		483				
C.V.		8.7				

HAYS

KANSAS

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1
XH1706	39	4425	79.2	81	132
XH1693	38	4412	82.6	85	132
CO880210	21	4315	79.2	80	135
WI89-273-13	40	4308	80.1	75	134
HBE0726-1	19	4230	77.7	78	136
XH1689	37	4226	77.8	84	136
KS93U206	28	4203	79.8	85	131
KS92PO59E	23	4165	76	81	135
T81	44	4145	80.4	79	133
TX91V4931	12	4046	82.1	76	135
WI89-189-14	41	3981	82.2	72	131
XH1520	35	3925	80.2	88	132
TX90V8410	13	3909	79.4	79	136
OK88767-11	4	3849	79.7	78	133
CO880169	20	3842	78.7	83	136
T83	45	3824	78.4	85	135
TX92V4135	18	3773	80.5	80	132
XH1529	36	3730	80	77	131
KS92PO425-155	26	3708	75.2	75	138
OK88767-02	5	3685	80	81	133
TX90V7911	14	3674	78.3	81	136
HBZ374C	9	3602	81	83	134
TX90V6313	17	3584	81.6	75	134
CO910927	22	3537	79.7	81	133
OK90604	6	3535	78.6	80	134
PI495594	3	3508	79	80	132
KS92PO263-137	24	3259	80.5	79	134
TX89A7137	11	3255	78.7	81	132
TX89A7141	16	3230	79.3	81	132
CI13996	2	3183	80.1	102	137
N87V106	29	3132	77.4	85	134
TX90D9277	10	3109	77.6	77	136
NE90479	30	3033	80.1	82	136
OK90649	7	3006	77.6	85	133
NE90524	31	2984	79.6	93	136
KS84063-939-3	27	2910	78.3	83	132
OK91783	8	2831	78.7	85	133
NE91651	34	2762	75	81	133
TX91V3308	15	2488	76.4	80	136
NE91608	32	2320	77.2	88	136
T4732	43	2304	75.9	80	135
T4731	42	2156	74.9	79	135
CI1442	1	2080	71	103	145
KS92PO363-134	25	1787	73.8	80	135
NE91635	33	1459	75.4	83	133
MEAN		3410			
LSD(.05)		608			
C.V.		11.0			

MANHATTAN, KANSAS, THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	LODGING %	LEAF RUST: SEV. %	LEAF RUST: RESP 0-9	SBM VIRUS 0-9	GRN LEAF DURATION 0-9
WI89-189-14	41	4297	74.5	83	132	40	0	2	7	7
XH1693	38	4166	75.2	91	132	23	10	8	8	8
OK88767-02	5	3935	76.6	92	133	0	0	2	6	5
XH1520	35	3898	73	97	132	13	20	8	8	8
KS92PO59E	23	3862	70.6	90	134	0	20	8	4	4
HBE0726-1	19	3848	69.7	90	135	27	0	2	5	3
XH1706	39	3761	70	97	132	0	0	2	7	6
HBZ374C	9	3624	75.6	92	134	0	10	7	3	3
XH1529	36	3609	67.4	87	131	0	1	3	5	4
T4731	42	3580	67.1	90	134	13	60	8	5	5
KS92PO425-155	26	3537	66.6	87	136	43	20	7	5	5
NE91635	33	3530	71.7	104	134	37	40	8	5	7
OK90649	7	3508	70.8	91	132	3	0	2	6	6
KS92PO263-137	24	3508	67.3	92	134	30	0	2	2	2
OK90604	6	3501	65.1	90	133	3	0	2	4	3
PI495594	3	3494	73.1	91	131	7	60	8	6	8
T81	44	3465	73.8	91	134	7	1	3	7	7
OK88767-11	4	3436	74.9	88	132	3	0	2	6	4
T83	45	3429	68.3	93	134	27	10	8	5	5
TX91V3308	15	3428	71	94	135	77	10	8	4	5
KS93U206	28	3399	74.2	94	131	33	0	2	5	5
WI89-273-13	40	3342	70.6	83	135	23	0	2	7	5
KS84063-939-3	27	3320	72.8	90	131	17	0	2	2	3
NE91651	34	3262	66.4	97	133	60	30	8	7	6
OK91783	8	3240	69.1	97	132	3	0	2	4	4
XH1689	37	3233	71.5	102	135	30	0	2	8	7
CO880210	21	3226	64.7	93	134	10	40	8	9	9
KS92PO363-134	25	3226	67.8	90	134	43	0	2	5	5
TX89A7141	16	3212	71	88	132	20	60	8	9	9
T4732	43	3212	63.4	92	134	77	60	8	6	6
N87V106	29	3204	73.2	93	134	30	1	8	7	6
TX90D9277	10	3110	71.8	94	135	37	0	2	5	4
TX90V6313	17	3096	68.4	83	132	7	40	8	8	8
NE90479	30	3023	68.5	98	136	83	20	8	7	6
TX92V4135	18	3016	76.2	87	131	0	20	8	6	6
TX90V8410	13	2763	59.3	89	135	40	1	7	5	7
CO910927	22	2763	67.2	92	132	0	90	8	8	9
TX90V7911	14	2756	67.3	95	136	30	20	8	6	6
TX89A7137	11	2701	70.9	92	132	10	20	8	8	6
NE90524	31	2676	68.2	102	136	67	1	3	9	7
NE91608	32	2394	70.3	109	136	87	1	3	4	4
TX91V4931	12	2257	67.6	85	135	60	20	8	7	6
CO880169	20	2105	67.1	93	135	27	20	8	9	8
CI13996	2	1099	72.2	122	137	100	40	8	8	8
CI1442	1	528	58	129	140	100	30	8	8	7
MEAN		3191								
LSD(.05)		587								
C.V.		11.3								

COLBY

KANSAS

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	LODGING %
TX89A7137	11	3971	72.6	75	138	0
KS93U206	28	3881	73.8	75	137	7
T83	45	3872	72.3	76	137	0
CO880210	21	3777	71.4	78	139	3
T81	44	3763	72.1	77	137	3
WI89-273-13	40	3744	74	73	137	0
HBE0726-1	19	3673	70.6	78	139	0
KS92PO59E	23	3629	72.4	71	138	0
CO910927	22	3610	73.2	78	139	3
CO880169	20	3603	72.2	71	138	0
XH1520	35	3594	70.9	74	138	3
TX90V6313	17	3578	71.6	76	138	3
KS92PO263-137	24	3566	69.7	76	139	3
XH1689	37	3558	70.4	79	139	0
TX91V3308	15	3497	69.7	75	137	0
KS92PO425-155	26	3494	73.5	75	139	3
NE90524	31	3421	71.2	80	138	0
PI495594	3	3403	72.2	75	137	0
KS84063-939-3	27	3365	71.7	73	137	3
HBZ374C	9	3345	71.3	74	138	0
TX91V4931	12	3342	74	74	137	3
TX90V8410	13	3320	73	75	138	3
XH1706	39	3313	72.3	74	138	17
TX89A7141	16	3308	68.1	72	139	0
TX90V7911	14	3307	72.5	74	138	0
KS92PO363-134	25	3283	70.8	73	137	3
NE91608	32	3258	72.3	73	138	3
WI89-189-14	41	3231	73.9	72	138	7
NE90479	30	3230	72.9	77	138	0
XH1693	38	3207	70.6	78	138	0
XH1529	36	3205	72.2	75	138	3
OK88767-11	4	3193	71.9	72	138	0
T4732	43	3181	69.7	80	139	0
NE91635	33	3152	71.1	74	138	3
NE91651	34	3151	70.3	73	139	0
OK90649	7	3016	72.2	75	138	0
T4731	42	3006	69.5	74	139	7
N87V106	29	2993	71.4	84	138	0
OK91783	8	2984	72.3	72	138	0
TX90D9277	10	2967	69	73	138	3
OK90604	6	2888	69.7	72	138	3
OK88767-02	5	2885	70	75	138	3
TX92V4135	18	2854	71.3	69	140	7
CI1442	1	2785	72.1	79	139	3
CI13996	2	2715	71.2	86	141	7
MEAN		3336				
LSD(.05)		N.S.				
C.V.		14.6				

GARDEN CITY

KANSAS

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1
XH1706	39	2849	75	70	139
KS93U206	28	2723	74.4	63	141
TX90V6313	17	2659	73.9	63	141
XH1689	37	2658	72	75	144
WI89-273-13	40	2653	74.3	62	143
XH1520	35	2606	75	69	140
OK88767-02	5	2564	75.5	62	143
CO880169	20	2539	72.9	70	142
T4731	42	2528	64.7	69	144
WI89-189-14	41	2519	74	58	142
XH1693	38	2512	75	64	139
KS84063-939-3	27	2499	72.5	66	141
KS92PO263-137	24	2490	73.8	64	141
KS92PO425-155	26	2440	68.4	61	146
T83	45	2439	71.3	71	144
NE90524	31	2379	73.5	73	144
XH1529	36	2371	71.6	60	144
OK88767-11	4	2337	74.1	60	143
CO880210	21	2330	72.8	68	144
T4732	43	2284	65.9	70	145
T81	44	2281	72.3	68	143
TX91V4931	12	2267	75.2	65	145
HBZ374C	9	2265	72.3	65	144
PI495594	3	2183	71.2	66	142
KS92PO363-134	25	2179	68.7	66	145
NE90479	30	2159	73.1	76	146
OK90604	6	2155	71.2	71	144
KS92PO59E	23	2121	71.6	64	141
HBE0726-1	19	2108	67.5	62	145
TX89A7137	11	2082	70.4	62	142
CO910927	22	2078	70.5	58	142
TX89A7141	16	2076	71.8	63	140
CI13996	2	2038	72.1	86	147
TX90D9277	10	2032	70.1	61	145
OK90649	7	2019	72.7	66	143
TX92V4135	18	2008	74.6	59	141
TX90V8410	13	1980	70.4	69	146
NE91651	34	1925	69.4	64	143
OK91783	8	1901	70.7	67	145
NE91608	32	1828	71.6	75	145
NE91635	33	1826	70.3	67	142
TX90V7911	14	1744	70.4	64	148
TX91V3308	15	1646	68.7	68	146
CI1442	1	1619	69.1	97	151
N87V106	29	1555	65.4	64	147
MEAN		2232			
LSD(.05)		413			
C.V.		11.4			

AKRON, COLORADO

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL
WI89-189-14	41	2238	71.9
WI89-273-13	40	2142	71
OK90649	7	2108	71.5
XH1706	39	2080	66.4
KS84063-939-3	27	2079	66.6
NE91635	33	2055	65.9
TX89A7137	11	2047	67.8
T4732	43	1993	65.7
XH1689	37	1991	66.5
CI13996	2	1953	73.5
KS92PO59E	23	1949	66.9
TX89A7141	16	1910	66.9
TX92V4135	18	1867	68.1
T83	45	1847	66.1
NE84557	49	1847	70.1
CO880210	21	1843	69
OK88767-11	4	1835	69.1
KS92PO263-137	24	1830	66.7
TX91V3308	15	1808	66.6
TX90V6313	17	1805	70.8
PI559720	46	1772	64.8
MV16-85	50	1771	61.3
XH1520	35	1764	66.3
CO910927	22	1746	63.8
XH1529	36	1742	65.6
PI5559719	48	1739	70.6
KS92PO425-155	26	1732	63.5
HBE0726-1	19	1729	63.1
T4731	42	1724	60.9
NE90479	30	1723	71.6
TX90V8410	13	1705	71.8
PI495594	3	1684	66.2
HBZ374C	9	1673	68.8
TX91V4931	12	1670	69.9
OK88767-02	5	1667	73.6
KS93U206	28	1659	66.2
OK90604	6	1652	67.3
T81	44	1650	66
XH1693	38	1631	65.7
KS92PO363-134	25	1628	63.1
NE91651	34	1602	62.1
CO880169	20	1587	67.4
TX90D9277	10	1566	64.9
TX90V7911	14	1560	65.4
NE91608	32	1473	69.4
NE90524	31	1410	64.8
N87V106	29	1409	65.3
OK91783	8	1300	68.3
CO860094	47	1154	60
CI1442	1	1134	70
MEAN		1750	
LSD(.05)		501	
C.V.		17.6	

JULESBURG, COLORADO

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL
XH1689	37	2457	67.4
XH1706	39	2368	68.9
XH1520	35	2176	70
KS92PO425-155	26	2174	66.8
KS84063-939-3	27	2110	69.1
HBZ374C	9	2078	69.9
KS92PO59E	23	2044	65.5
KS93U206	28	2011	69.4
TX89A7137	11	1981	69
TX90D9277	10	1979	68.8
TX89A7141	16	1925	69.9
OK88767-11	4	1922	71.5
XH1693	38	1912	69.8
T81	44	1892	70.8
NE90524	31	1888	70.9
TX91V4931	12	1872	75.7
NE84557	49	1864	72.3
OK90604	6	1861	70.9
CO880210	21	1847	71.3
T4731	42	1844	66.9
XH1529	36	1815	70
PI495594	3	1772	70.5
T4732	43	1770	66.2
NE91608	32	1764	70.7
CO910927	22	1742	68.8
KS92PO263-137	24	1741	71
CI13996	2	1738	72
MV16-85	50	1728	65.2
NE91635	33	1710	70.7
NE90479	30	1695	71.8
WI89-273-13	40	1666	69.7
OK91783	8	1664	71.9
PI5559719	48	1661	70.5
T83	45	1653	69
HBE0726-1	19	1635	66.6
TX90V6313	17	1628	70.1
CO860094	47	1628	64.2
CO880169	20	1625	67.7
WI89-189-14	41	1625	71.6
KS92PO363-134	25	1615	65.4
TX90V8410	13	1609	70.7
OK90649	7	1599	71.3
TX91V3308	15	1582	70.5
PI559720	46	1580	69.8
N87V106	29	1501	71.2
TX90V7911	14	1480	71
NE91651	34	1444	68.1
OK88767-02	5	1422	72.3
CI1442	1	1410	72.4
TX92V4135	18	1316	70.5
MEAN		1781	
LSD(.05)		441	
C.V.		15.2	

WALSH, COLORADO

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL
TX90V8410	13	2038	75.3
XH1529	36	2020	76.4
TX91V4931	12	1979	80.8
XH1706	39	1863	77.4
XH1689	37	1852	74.4
KS93U206	28	1795	76.8
CO880210	21	1764	77.7
OK88767-11	4	1762	75.3
TX89A7141	16	1761	73.2
CO910927	22	1759	75.4
CO880169	20	1745	75
NE90524	31	1723	74.5
NE90479	30	1721	76.4
XH1520	35	1702	75.4
PI495594	3	1696	75.3
WI89-273-13	40	1692	75.4
TX89A7137	11	1669	71.9
XH1693	38	1644	77.3
KS92PO59E	23	1636	73.5
PI559720	46	1630	74.7
TX90V6313	17	1620	73.7
KS92PO263-137	24	1577	73.7
NE91608	32	1528	74.7
T81	44	1478	76.7
OK88767-02	5	1475	77.8
T83	45	1475	75.7
TX90D9277	10	1468	71.4
KS84063-939-3	27	1456	74.1
PI5559719	48	1446	77.1
KS92PO425-155	26	1436	69.8
WI89-189-14	41	1434	76.1
CO860094	47	1421	71
NE91651	34	1418	71.4
KS92PO363-134	25	1416	68.8
TX90V7911	14	1408	72.9
OK90604	6	1404	74.5
HBZ374C	9	1381	75.7
NE91635	33	1366	72.2
T4731	42	1365	70.7
NE84557	49	1316	75
OK91783	8	1280	72.2
CI13996	2	1228	75.8
MV16-85	50	1215	69.2
OK90649	7	1189	76.3
T4732	43	1164	69.5
CI1442	1	1102	75.2
TX92V4135	18	1095	73.9
TX91V3308	15	1093	70
HBE0726-1	19	1071	69.6
N87V106	29	1010	74.5
MEAN		1516	
LSD(.05)		309	
C.V.		12.6	

BURLINGTON, COLORADO

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL
XH1689	37	3665	73.5
XH1706	39	3650	72.8
XH1529	36	3622	76.1
HBE0726-1	19	3410	71.1
NE91635	33	3344	73.5
NE90524	31	3335	74.1
KS92PO263-137	24	3317	74
T4731	42	3270	67.7
NE91651	34	3261	72.2
KS93U206	28	3257	76.1
KS92PO59E	23	3255	71.1
TX89A7137	11	3245	72.7
NE90479	30	3238	75.6
KS84063-939-3	27	3208	75.8
OK88767-02	5	3193	78.2
HBZ374C	9	3177	76.1
OK90649	7	3159	75.5
T83	45	3159	74.5
KS92PO363-134	25	3158	70.4
T4732	43	3142	68.4
TX90V8410	13	3135	69.5
OK88767-11	4	3126	77.5
PI5559719	48	3126	74.8
TX89A7141	16	3120	73.5
NE91608	32	3115	74.4
XH1520	35	3054	74.9
TX90D9277	10	3049	71.6
CO880169	20	3045	73.9
T81	44	3042	74.3
OK91783	8	2999	75.3
XH1693	38	2999	74.9
TX90V7911	14	2955	73.5
TX91V3308	15	2947	72.5
CO910927	22	2935	72.6
TX91V4931	12	2934	77.7
TX92V4135	18	2904	76.4
OK90604	6	2857	75.4
PI559720	46	2845	72.5
CO880210	21	2831	74.3
WI89-273-13	40	2822	75.7
TX90V6313	17	2806	72.1
CI13996	2	2800	74.5
WI89-189-14	41	2792	77.8
MV16-85	50	2752	67.3
KS92PO425-155	26	2724	69.4
PI495594	3	2660	73.8
NE84557	49	2630	75.5
CO860094	47	2383	66.5
CI1442	1	2371	75.5
N87V106	29	2028	73.8
MEAN		3037	
LSD(.05)		566	
C.V.		11.5	

LINCOLN

NEBRASKA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1
XH1693	38	4805	78.7	76	142
WI89-273-13	40	4760	78.8	66	143
WI89-189-14	41	4690	78.6	66	139
XH1689	37	4672	76.9	79	143
T4731	42	4502	73.5	76	143
T83	45	4484	77	79	143
NE90479	30	4434	78.4	81	143
TX89A7137	11	4422	75.3	66	141
KS92PO363-134	25	4389	75.5	79	141
T4732	43	4351	73.5	76	143
KS92PO425-155	26	4316	73.7	71	143
TX92V4135	18	4187	78.2	66	139
NE90524	31	4151	77.4	86	143
XH1706	39	4146	76.6	79	142
XH1529	36	4133	78.2	71	142
OK88767-11	4	4116	79.1	71	141
XH1520	35	4090	75.7	76	141
T81	44	4087	77.4	74	142
KS92PO59E	23	4052	75.1	74	142
KS92PO263-137	24	4016	76.6	76	141
NE91651	34	3989	75.1	79	141
TX89A7141	16	3954	75.6	71	141
N87V106	29	3930	77.7	74	142
OK90604	6	3896	77.5	71	142
OK88767-02	5	3882	79.7	69	142
KS84063-939-3	27	3871	75.5	76	142
NE91608	32	3867	77.9	84	142
OK90649	7	3854	78.8	71	141
NE91635	33	3844	76	79	142
PI495594	3	3835	76.5	76	140
HBZ374C	9	3825	78.8	71	142
TX90V6313	17	3793	76.6	66	142
HBE0726-1	19	3788	76.5	64	142
KS93U206	28	3755	76.4	79	141
TX91V3308	15	3753	75.3	76	143
TX90V8410	13	3725	77	71	143
OK91783	8	3628	76.2	79	141
TX90V7911	14	3618	77.3	74	143
CO880210	21	3610	76.4	74	143
CI13996	2	3600	77.9	99	143
CO880169	20	3460	73.5	79	143
TX90D9277	10	3352	76.6	64	143
CO910927	22	3298	75.1	69	141
TX91V4931	12	3285	81.3	69	143
CI1442	1	2979	77.8	99	148
MEAN		3982			
LSD(.05)		736			
C.V.		11.4			

CLAY CENTER

NEBRASKA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM
XH1693	38	5129	81.3	89
XH1706	39	5085	80	89
XH1689	37	4826	82.6	86
WI89-189-14	41	4719	82.6	74
T81	44	4712	80	79
T4732	43	4526	74.8	86
XH1520	35	4487	82.6	86
KS92PO59E	23	4482	77.4	76
TX89A7137	11	4465	81.3	76
KS92PO425-155	26	4460	78.7	76
NE91635	33	4432	80	86
T83	45	4431	80	81
KS84063-939-3	27	4428	77.4	84
TX90V6313	17	4387	81.3	76
KS93U206	28	4372	80	86
WI89-273-13	40	4371	83.9	76
PI495594	3	4360	80	81
KS92PO363-134	25	4315	81.3	76
NE90479	30	4256	83.9	84
NE91608	32	4190	82.6	89
OK91783	8	4161	81.3	84
KS92PO263-137	24	4159	80	79
TX92V4135	18	4152	83.9	76
CO910927	22	4148	78.7	79
NE90524	31	4125	82.6	91
T4731	42	4096	74.8	79
CO880169	20	4093	81.3	86
TX89A7141	16	4080	81.3	76
CO880210	21	4052	82.6	76
XH1529	36	4034	82.6	71
N87V106	29	3981	80	79
TX90D9277	10	3952	81.3	76
HBZ374C	9	3939	81.3	86
OK88767-11	4	3902	81.3	71
HBE0726-1	19	3899	83.9	71
TX91V4931	12	3855	83.9	84
OK90604	6	3764	81.3	76
TX90V8410	13	3683	83.9	81
NE91651	34	3683	81.3	79
TX91V3308	15	3654	80	76
TX90V7911	14	3648	83.9	76
CI13996	2	3629	80	102
OK90649	7	3602	81.3	81
OK88767-02	5	3391	81.3	69
CI1442	1	2873	78.7	104
MEAN		4155		
LSD(.05)		581		
C.V.		8.6		

NORTH PLATTE

NEBRASKA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL
XH1689	37	4203	76.1
XH1706	39	4108	74.8
KS92PO263-137	24	3997	71
XH1693	38	3967	77.4
T4732	43	3874	73.5
NE90524	31	3785	76.1
NE91635	33	3648	76.1
KS92PO59E	23	3593	74.8
T81	44	3578	77.4
TX89A7137	11	3532	74.8
TX89A7141	16	3515	74.8
KS92PO363-134	25	3499	72.2
KS93U206	28	3472	76.1
NE90479	30	3460	76.1
NE91651	34	3395	73.5
T4731	42	3389	72.2
XH1520	35	3349	76.1
N87V106	29	3348	76.1
KS84063-939-3	27	3342	76.1
NE91608	32	3295	77.4
PI495594	3	3261	72.2
HBZ374C	9	3250	76.1
CI13996	2	3228	76.1
KS92PO425-155	26	3216	74.8
CO910927	22	3150	74.8
CO880210	21	3069	77.4
TX90D9277	10	3040	74.8
WI89-189-14	41	3011	78.7
T83	45	3002	72.2
TX91V3308	15	2987	73.5
OK91783	8	2941	73.5
CO880169	20	2886	76.1
HBE0726-1	19	2840	73.5
WI89-273-13	40	2830	76.1
TX90V8410	13	2765	76.1
OK90604	6	2736	73.5
OK88767-11	4	2663	69.7
TX91V4931	12	2663	80
TX90V7911	14	2603	76.1
TX90V6313	17	2594	76.1
CI1442	1	2545	76.1
XH1529	36	2471	73.5
OK90649	7	2376	73.5
TX92V4135	18	2265	76.1
OK88767-02	5	1864	76.1
MEAN		3169	
LSD(.05)		511	
C.V.		9.9	

SIDNEY

NEBRASKA

TWO REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM
HBE0726-1	19	4943	78.7	76
XH1693	38	4908	78.7	74
XH1706	39	4761	76.1	69
KS92PO59E	23	4714	76.1	76
T81	44	4672	78.7	69
CO880169	20	4625	78.7	84
NE90524	31	4625	77.4	84
TX89A7141	16	4544	76.1	76
KS84063-939-3	27	4467	77.4	76
KS93U206	28	4386	77.4	74
XH1520	35	4373	77.4	76
XH1689	37	4368	77.4	76
NE91635	33	4351	77.4	79
KS92PO263-137	24	4349	77.4	76
TX89A7137	11	4297	76.1	71
KS92PO425-155	26	4067	74.8	69
NE90479	30	4067	78.7	86
HBZ374C	9	3988	77.4	76
XH1529	36	3980	77.4	69
NE91651	34	3959	74.8	76
CO880210	21	3882	78.7	79
CO910927	22	3855	76.1	74
KS92PO363-134	25	3776	74.8	79
TX90V8410	13	3726	77.4	74
CI13996	2	3709	77.4	91
T4731	42	3695	73.5	66
N87V106	29	3694	77.4	74
TX90V6313	17	3620	77.4	74
OK88767-02	5	3566	78.7	71
PI495594	3	3551	77.4	69
CI1442	1	3391	78.7	99
TX92V4135	18	3307	78.7	71
TX91V3308	15	3243	76.1	76
OK90649	7	3152	76.1	76
NE91608	32	3110	77.4	79
T4732	43	3104	74.8	69
WI89-273-13	40	3073	77.4	66
T83	45	2991	74.8	71
WI89-189-14	41	2927	78.7	61
OK91783	8	2924	76.1	76
TX90D9277	10	2919	74.8	69
OK88767-11	4	2910	76.1	69
OK90604	6	2897	77.4	71
TX91V4931	12	2687	81.3	69
TX90V7911	14	2194	77.4	71
MEAN		3786		
LSD(.05)		1276		
C.V.		16.7		

HEMINGFORD

NEBRASKA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM
XH1529	36	4823	79.5	79
XH1689	37	4771	76.9	89
XH1706	39	4753	77.9	81
T81	44	4609	78.8	81
NE90479	30	4507	81	86
XH1693	38	4451	76.4	79
T83	45	4444	77.1	84
CO880169	20	4441	78	84
TX89A7137	11	4410	78.2	74
NE91651	34	4394	76	84
TX90V8410	13	4359	79.2	81
KS92PO59E	23	4321	72.5	79
TX92V4135	18	4313	78.6	71
HBE0726-1	19	4297	75.2	76
CO910927	22	4293	74.9	76
OK90604	6	4289	78.6	79
WI89-189-14	41	4279	78.4	71
KS92PO425-155	26	4258	72.4	74
KS92PO363-134	25	4223	72.8	79
KS84063-939-3	27	4214	69.1	79
WI89-273-13	40	4213	78.7	74
NE91635	33	4198	76.5	86
OK88767-11	4	4191	80.4	71
TX89A7141	16	4167	77.8	79
NE90524	31	4152	78.8	89
PI495594	3	4143	77.9	69
KS92PO263-137	24	4140	77.7	81
CO880210	21	4121	77.4	76
TX91V4931	12	4064	81.9	76
OK90649	7	4056	76.9	81
OK91783	8	4033	78.8	86
T4732	43	3976	71.7	79
TX91V3308	15	3972	75.3	81
KS93U206	28	3954	77.9	79
XH1520	35	3847	79.1	84
TX90D9277	10	3784	78	76
HBZ374C	9	3735	78	76
TX90V6313	17	3731	79.5	76
N87V106	29	3713	77.4	81
T4731	42	3675	74.8	81
OK88767-02	5	3637	81	76
NE91608	32	3589	77.5	89
CI1442	1	3441	78.3	104
TX90V7911	14	3250	77.1	79
CI13996	2	3117	77.4	97
MEAN		4119		
LSD(.05)		752		
C.V.		11.2		

PIERRE

S. DAKOTA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM
KS93U206	28	3445	78	42
CO880169	20	3340	78.1	48
PI495594	3	3300	77.6	45
NE90524	31	3197	78	46
HBZ374C	9	3170	77.1	46
CO880210	21	3156	77.1	46
KS92PO263-137	24	3105	77.2	43
OK90604	6	3087	77	47
XH1520	35	3076	77.6	46
KS92PO363-134	25	3028	78.4	50
T83	45	3017	77	48
KS92PO59E	23	2968	78.7	40
NE91651	34	2952	77.8	45
TX90D9277	10	2923	78.1	45
NE90479	30	2923	77.3	52
TX89A7137	11	2910	76.2	46
KS84063-939-3	27	2874	78.2	49
TX89A7141	16	2872	76.1	44
NE91608	32	2838	78	47
TX91V4931	12	2831	76.8	55
CO910927	22	2820	76.8	41
OK90649	7	2816	77.4	48
TX90V6313	17	2782	77.4	51
XH1693	38	2768	76.5	46
T4732	43	2759	78.6	44
WI89-273-13	40	2753	77.7	45
HBE0726-1	19	2746	76.5	45
XH1706	39	2737	76.8	44
N87V106	29	2721	76.5	43
CI13996	2	2717	78.3	56
XH1689	37	2717	76.9	52
OK91783	8	2681	76.4	47
T81	44	2670	77	45
TX91V3308	15	2654	77.1	44
OK88767-02	5	2641	76.4	47
TX90V8410	13	2636	76.5	48
T4731	42	2632	76.8	45
TX90V7911	14	2589	76.9	46
XH1529	36	2578	77	46
KS92PO425-155	26	2564	76.4	43
WI89-189-14	41	2556	76.4	44
NE91635	33	2470	77	50
TX92V4135	18	2396	76.2	41
CI1442	1	2338	76.5	58
OK88767-11	4	2208	75.8	48
MEAN		2821		
LSD(.05)		N.S.		
C.V.		16.1		

WINNER

S. DAKOTA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	WINTER SURVIVAL %
XH1706	39	4425	78.7	69	149	97
XH1689	37	4376	78.4	68	149	100
XH1693	38	4235	79.2	64	149	97
T83	45	4071	77	67	149	90
XH1529	36	3999	78	65	149	87
XH1520	35	3957	78.6	67	149	83
NE90479	30	3865	77.6	73	151	90
HBE0726-1	19	3737	76.2	61	152	83
NE90524	31	3683	76.6	66	149	97
WI89-273-13	40	3589	78.2	60	150	83
T81	44	3560	78.7	61	151	83
KS93U206	28	3504	77.5	64	149	87
TX90D9277	10	3497	76.3	66	149	83
NE91651	34	3495	77.2	69	150	87
KS92PO425-155	26	3488	74.8	61	153	90
KS92PO59E	23	3311	76.9	65	150	90
OK88767-11	4	3304	78	62	150	73
KS92PO363-134	25	3192	76.2	66	149	93
TX92V4135	18	3190	78.1	62	149	83
CI13996	2	3174	77.8	76	151	93
CO880169	20	3163	77.6	63	150	97
HBZ374C	9	3076	77.8	64	149	90
N87V106	29	3042	77.2	63	151	83
CO880210	21	3037	76.3	60	152	70
CO910927	22	3020	75.9	59	150	90
KS84063-939-3	27	2995	78.2	67	149	83
CI1442	1	2961	79.1	91	157	97
TX90V7911	14	2941	77.5	64	153	70
TX89A7137	11	2919	75.6	60	148	67
KS92PO263-137	24	2883	77.7	66	150	77
TX90V8410	13	2858	75.4	64	150	57
OK91783	8	2829	75.8	65	150	73
WI89-189-14	41	2827	77.4	62	150	80
TX89A7141	16	2742	74.2	62	150	70
PI495594	3	2701	74.8	64	150	63
T4732	43	2652	73.7	65	151	83
OK90604	6	2571	76.9	61	150	73
OK88767-02	5	2562	77	60	150	70
NE91608	32	2538	77.2	68	150	93
TX90V6313	17	2405	76.9	59	149	60
OK90649	7	2378	75.8	71	149	67
TX91V4931	12	2343	74.9	62	152	43
NE91635	33	2098	76.2	66	149	100
T4731	42	2011	72.7	62	152	63
TX91V3308	15	1870	74.4	63	154	43

MEAN	3135
LSD(.05)	734
C.V.	14.4

BROOKINGS

S. DAKOTA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1
CI1442	1	2547	76.5	81	159
XH1689	37	2217	73.7	61	155
TX90D9277	10	2215	66.3	57	157
CI13996	2	1944	74	75	156
HBE0726-1	19	1941	68.9	50	158
XH1520	35	1926	75.5	59	154
XH1706	39	1843	72.6	60	155
HBZ374C	9	1827	71.6	57	156
KS92PO59E	23	1780	68.2	56	156
T4732	43	1757	66.6	59	157
TX89A7137	11	1701	68.6	53	155
T81	44	1690	72.6	53	155
KS92PO263-137	24	1688	69.6	52	156
OK90649	7	1686	70.5	58	156
NE90479	30	1675	71.9	62	158
XH1693	38	1675	73.8	54	155
NE91651	34	1668	70.8	56	157
KS92PO363-134	25	1623	68.2	59	156
NE91635	33	1605	72.5	60	156
T83	45	1603	70.2	54	156
N87V106	29	1578	67.8	53	157
TX90V8410	13	1576	71.7	55	157
TX91V3308	15	1551	65.1	50	157
KS92PO425-155	26	1511	64.8	49	158
NE91608	32	1495	72.4	61	157
XH1529	36	1488	70	47	156
TX90V7911	14	1484	70.6	54	158
TX91V4931	12	1421	67.5	53	157
WI89-189-14	41	1408	69.3	44	155
OK91783	8	1406	63.2	52	158
OK88767-02	5	1397	71	57	156
CO880210	21	1383	67.7	54	159
T4731	42	1379	61	53	158
OK88767-11	4	1318	66.9	49	156
KS84063-939-3	27	1296	69.3	55	154
WI89-273-13	40	1296	68.5	50	157
OK90604	6	1293	67.3	56	157
TX92V4135	18	1242	68.8	41	155
KS93U206	28	1228	68.4	52	157
NE90524	31	1215	65.5	52	156
TX89A7141	16	1163	67.2	55	155
TX90V6313	17	1159	68.6	46	156
CO880169	20	1157	66.7	58	158
PI495594	3	1152	67.2	50	154
CO910927	22	1085	67.8	50	154
MEAN		1562			
LSD(.05)		557			
C.V.		21.9			

COLUMBIA, MISSOURI

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	LODGING 0-9	BYD VIRUS 0-9	SEPTORIA 0-9
T4731	42	4056	68.5	93	136	2.7	2.3	4.3
T4732	43	4056	70.6	95	136	3	1.3	3.7
KS92PO425-155	26	4017	68.6	82	137	3	1.7	3.3
PI495594	3	3889	73.8	91	134	1.7	1.7	3
XH1529	36	3888	75.2	91	133	2.3	2.3	3.7
OK90604	6	3839	73.6	95	135	1.3	2.3	3.3
XH1689	37	3829	73.7	100	137	2.3	2	3.3
PION2548	49	3824	66.2	84	137	0.3	2.3	4
KS92PO363-134	25	3817	71.7	89	136	1.7	2.3	4
KARL92	47	3799	75.2	89	134	1.7	2.3	4
KS92PO263-137	24	3798	72.1	91	137	1.7	1.7	3.3
KS93U206	28	3690	74.6	93	134	1.7	1.3	3
HBE0726-1	19	3651	68.6	91	136	1.7	2.3	4.3
CO880210	21	3648	73.4	89	135	2.3	2	3.7
CO910927	22	3638	70.7	89	134	1	4	5
N87V106	29	3613	73.4	93	135	2.3	3.3	5
WI89-189-14	41	3595	72.8	81	134	3	3	4.3
TX91V3308	15	3587	70.3	89	136	2	3.3	4
T83	45	3578	71.7	89	135	2	3	3.7
T81	44	3577	73.4	89	135	2	2.7	4.7
WI89-273-13	40	3569	73.2	86	136	3.3	2	4.3
ERNIE	48	3529	70.3	81	135	0.7	2	2.7
NE91651	34	3520	72.2	93	134	3	2.3	4
OK91783	8	3499	72.2	97	134	2	2.7	4.3
OK90649	7	3460	74.6	94	135	2	2.7	5
TX90D9277	10	3391	71.8	93	137	1.7	3	4.3
XH1520	35	3386	74.2	95	134	2.7	3.3	4.7
NE91608	32	3382	73.8	108	136	3.3	3	3
TX89A7141	16	3374	71	87	135	2	3.3	3.7
NE91635	33	3374	72.8	95	135	1.3	2.7	4.7
KS84063-939-3	27	3372	74	91	133	1.3	3.3	3.3
TX92V4135	18	3342	73.5	85	134	1.3	2.7	5.7
TX89A7137	11	3332	71	95	135	2.7	3	5
HBZ374C	9	3293	72.9	91	135	1	1.3	4
OK88767-02	5	3231	75.3	94	135	0.7	3.3	5.7
NE90524	31	3199	71.9	108	136	3	2.3	4
XH1693	38	3164	73.1	87	134	2.3	3.7	5.3
TX90V7911	14	3162	73.8	97	138	2	2.3	3.3
KS92PO59E	23	3145	68.9	91	136	1.7	2	4.3
TX91V4931	12	3124	76.8	90	135	2.3	2.7	3.3
TX90V6313	17	3008	72.2	85	134	2.7	3.3	5.7
NE90479	30	2995	73.5	98	138	2	2.3	4.3
OK88767-11	4	2994	72.2	91	135	2	2.7	5.7
KARL	46	2756	74.3	97	139	2.3	2	5
TX90V8410	13	2627	70.5	91	136	3	3	5
XH1706	39	2594	69.4	91	135	2.3	2.3	6
CI13996	2	2577	74.7	124	139	4	3	4.3
CO880169	20	2519	71.3	96	137	2	3	4.3
CI1442	1	2042	74.5	128	146	3	3	4

MEAN	3395
LSD(.05)	363
C.V.	6.6

ABERDEEN, IDAHO

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	LODGING 0-9	STRIPE RUST SEV.	STRIPE RUST RESP.	STRAW STRENGTH 0-5
KS92PO59E	23	10878	78.6	99	153	5	5	1	4
HBE0726-1	19	10255	76.6	95	151	6	15	3	5
CO880169	20	10073	79.5	102	152	5.5	0	0	5
CO880210	21	10068	80.1	98	152	8	5	2	5
TX89A7141	16	9945	78.6	90	147	6	0	0	4.5
KS92PO425-155	26	9883	77.7	89	151	1	1	6	3.5
KS92PO363-134	25	9750	78.3	91	150	8.5	0	0	5
TX91V3308	15	9650	78.3	93	153	3.5	0	0	4.5
KS92PO263-137	24	9512	78.4	95	153	4.5	1	5	4
CO910927	22	9472	78.6	94	148	4	0	0	4.5
OK88767-11	4	9375	79.5	86	149	1	5	4	3
TX89A7137	11	9303	77.1	94	147	1.5	15	1	3.5
TX90D9277	10	9257	77.1	100	151	2	0	0	3
PI495594	3	9184	79.3	91	148	1	5	5	4
NE91651	34	9167	78.3	95	147	2.5	0	0	4
TX90V7911	14	9067	79.2	97	151	7.5	1	7	5
HBZ374C	9	9058	79.5	98	149	1	0	0	4
TX91V4931	12	8774	83.5	90	152	4.5	0	0	4.5
NE90524	31	8653	78.9	109	151	5	0	0	4.5
OK91783	8	8591	76.4	102	149	4	0	0	4.5
TX92V4135	18	8551	78.8	86	146	4	5	4	4
KARL92	46	8538	78.4	89	150	4	5	1	4
KS93U206	28	8534	78.9	91	146	2	2	2	4.5
TX90V8410	13	8509	80.8	91	151	8	0	0	5
KS84063-939-3	27	8211	79.3	93	147	2	0	0	4.5
OK90604	6	8064	78.4	90	147	1	8	4	4
N87V106	29	8042	77.5	102	148	6	0	0	4.5
NE90479	30	7846	78.8	103	150	4.5	5	6	4.5
NE91635	33	7841	77.7	105	150	3	.	.	4.5
TX90V6313	17	7765	79.2	86	148	9	20	1	5
OK90649	7	7724	78	94	150	4.5	0	0	4
OK88767-02	5	7498	78.3	86	153	1	0	0	3.5
NE91608	32	6003	77.7	104	150	6.5	.	.	5
CI13996	2	5857	79.2	118	150	9	0	0	5
MEAN		8791							
LSD(.05)		1648							
C.V.		11.5							

Table 2. Summary of mean yields (kg/ha) for 45 wheats grown in the 1994 Southern Regional Performance Nursery at 29 locations with state means and ranks.

VARIETY OR PEDIGREE	C.I. OR SEL. NO.	ENTRY NO.	CLOVIS (IRR.) NEW MEXICO		CLOVIS (DRYL.) NEW MEXICO		NEW MEXICO STATE MEAN	
Quantum Hybrid Wheat	XH1706	39	6168	1	539	16	3354	1
Quantum Hybrid Wheat	XH1693	38	4977	5	631	7	2804	4
Quantum Hybrid Wheat	XH1689	37	3829	24	661	3	2245	19
Quantum Hybrid Wheat	XH1520	35	4820	6	579	13	2700	7
HRE LT-11(OR)*Homestead/W8447	HBE0726-1	19	5433	2	336	34	2884	3
WX11088/2165//W8447	KS92PO59E	23	3538	29	688	2	2113	23
TAM-107/T213 sib	T81	44	3898	21	333	35	2115	22
TAM-107*3/TA2460	KS93U206	28	3905	20	645	6	2275	17
Quantum Hybrid Wheat	XH1529	36	4411	11	457	23	2434	10
TX81V6610/W82-163	WI89-273-13	40	4506	9	961	1	2734	6
W8447D/W2436//W3420	KS92PO425-155	26	4058	16	440	24	2249	18
KS82W418/Stephens	KS84063-939-3	27	4981	4	546	15	2763	5
W2440/W9488A//2163	KS92PO263-137	24	4575	7	429	25	2502	8
T213 sib *2/HRW	T83	45	2726	41	315	36	1520	42
IL71-5662/PL145//2165	HBZ374C	9	4522	8	280	40	2401	12
TAM-200/W81-296	WI89-189-14	41	3404	33	649	5	2026	28
TAM-107/TX3006	CO880210	21	4242	14	462	22	2352	13
Brule seln/4/Bez 1/3/Ctk//Arthur/Ctk78	NE90524	31	4185	15	406	29	2296	16
TAM-105/10334	TX89A7137	11	3725	25	477	18	2101	24
NE82671/NE80413	NE91651	34	4281	13	354	33	2317	14
WX12907/T-108//W2440	KS92PO363-134	25	5318	3	585	12	2952	2
KS83H2510/Brule composite	NE90479	30	2638	42	658	4	1648	41
F29-76/TAM-105//Chisholm	OK88767-11	4	3446	31	629	8	2038	27
TAM-105/10334	TX89A7141	16	3297	35	522	17	1909	35
TAM-107/Hail	CO880169	20	4491	10	426	26	2459	9
TAM-107	PI495594	3	3097	38	605	9	1851	36
TAM-200//Sxl/Tan 's'	TX90D9277	10	4009	17	605	10	2307	15
Ogosta/Csm//TAM-107	OK90604	6	3714	26	209	44	1961	31
T11//Brule/TAM-108	T4732	43	3013	40	410	28	1712	39
T11//Brule/TAM-108	T4731	42	3289	36	589	11	1939	32
TAM-200//TX38949-2/TAM-107	TX91V4931	12	4392	12	468	21	2430	11
TX81V6603/TX78A3345-V34	TX90V6313	17	3431	32	424	27	1927	34
Csm/OK79256	OK90649	7	3029	39	373	31	1701	40
Yantar/TAM-101//Mustang	OK91783	8	3848	22	557	14	2203	20
Brule//Buc 's'/Bjy 's'/3/TX78V3924-5-3	TX92V4135	18	2431	44	305	37	1368	45
Sumner/CO820026,F1//PI372129,F1/3/TAM-10	CO910927	22	3844	23	261	42	2053	26
TAM-108/Vee's'//TX84V2029	TX91V3308	15	3936	18	210	43	2073	25
TX81V6603/TX78A3345-V34	TX90V8410	13	3507	30	468	19	1988	30
F29-76/TAM-105//Chisholm	OK88767-02	5	3385	34	179	45	1782	37
TX78V2430-2/TX86V1540	TX90V7911	14	3618	27	374	30	1996	29
Complex Pedigree	N87V106	29	3231	37	264	41	1748	38
Arapahoe/TAM-107	NE91608	32	3909	19	364	32	2137	21
NE82761/NE82599	NE91635	33	2508	43	287	39	1398	43
Scout 66	CI13996	2	2274	45	468	20	1371	44
Kharkof	CI1442	1	3561	28	297	38	1929	33
	MEAN		3853		461		2157	
	LSD(.05)		1477		319		N.S.	
	C.V.		23.6		42.6		30.5	

Table 2. Continued.

C.I. OR SEL. NO.	ENTRY NO.	HUTCHINSON KANSAS		HAYS KANSAS		COLBY KANSAS		GARDEN CITY KANSAS		MANHATTAN KANSAS		KANSAS STATE MEAN	
XH1706	39	3939	2	4425	1	3313	23	2849	1	3761	7	3657	1
XH1693	38	3750	6	4412	2	3207	30	2512	11	4166	2	3609	3
XH1689	37	3587	14	4226	6	3558	14	2658	4	3233	26	3452	7
XH1520	35	4049	1	3925	12	3594	11	2606	6	3898	4	3615	2
HBE0726-1	19	3222	34	4230	5	3673	7	2108	29	3848	6	3416	11
KS92PO59E	23	3385	24	4165	8	3629	8	2121	28	3862	5	3432	9
T81	44	3476	20	4145	9	3763	5	2281	21	3465	17	3426	10
KS93U206	28	3743	7	4203	7	3881	2	2723	2	3399	21	3590	4
XH1529	36	3431	22	3730	18	3205	31	2371	17	3609	9	3269	18
WI89-273-13	40	3496	19	4308	4	3744	6	2653	5	3342	22	3509	6
KS92PO425-155	26	3346	28	3708	19	3494	16	2440	14	3537	11	3305	17
KS84063-939-3	27	3581	15	2910	36	3365	19	2499	12	3320	23	3135	22
KS92PO263-137	24	3873	3	3259	27	3566	13	2490	13	3508	13	3339	14
T83	45	3431	22	3824	16	3872	3	2439	15	3429	19	3399	12
HBZ374C	9	3698	9	3602	22	3345	20	2265	23	3624	8	3307	16
WI89-189-14	41	3626	13	3981	11	3231	28	2519	10	4297	1	3531	5
CO880210	21	3567	16	4315	3	3777	4	2330	19	3226	28	3443	8
NE90524	31	3222	35	2984	35	3421	17	2379	16	2676	40	2936	34
TX89A7137	11	3060	41	3255	28	3971	1	2082	30	2701	39	3014	29
NE91651	34	3639	12	2762	38	3151	35	1925	38	3262	24	2948	33
KS92PO363-134	25	3287	32	1787	44	3283	26	2179	25	3226	27	2752	41
NE90479	30	3867	4	3033	33	3230	29	2159	26	3023	34	3062	24
OK88767-11	4	3789	5	3849	14	3193	32	2337	18	3436	18	3321	15
TX89A7141	16	3294	31	3230	29	3308	24	2076	32	3212	29	3024	27
CO880169	20	3209	37	3842	15	3603	10	2539	8	2105	43	3060	26
PI495594	3	3548	18	3508	26	3403	18	2183	24	3494	16	3227	20
TX90D9277	10	3352	27	3109	32	2967	40	2032	34	3110	32	2914	35
OK90604	6	3652	11	3535	25	2888	41	2155	27	3501	15	3146	21
T4732	43	3216	36	2304	41	3181	33	2284	20	3212	29	2839	38
T4731	42	3704	8	2156	42	3006	37	2528	9	3580	10	2995	31
TX91V4931	12	3561	17	4046	10	3342	21	2267	22	2257	42	3095	23
TX90V6313	17	3379	25	3584	23	3578	12	2659	3	3096	33	3259	19
OK90649	7	3450	21	3006	34	3016	36	2019	35	3508	14	3000	30
OK91783	8	3177	38	2831	37	2984	39	1901	39	3240	25	2827	39
TX92V4135	18	2897	43	3773	17	2854	43	2008	36	3016	35	2910	36
CO910927	22	3131	39	3537	24	3610	9	2078	31	2763	36	3024	28
TX91V3308	15	3307	30	2488	39	3497	15	1646	43	3428	20	2873	37
TX90V8410	13	3326	29	3909	13	3320	22	1980	37	2763	37	3060	25
OK88767-02	5	3665	10	3685	20	2885	42	2564	7	3935	3	3347	13
TX90V7911	14	3372	26	3674	21	3307	25	1744	42	2756	38	2971	32
N87V106	29	2962	42	3132	31	2993	38	1555	45	3204	31	2769	40
NE91608	32	3131	39	2320	40	3258	27	1828	40	2394	41	2586	43
NE91635	33	3249	33	1459	45	3152	34	1826	41	3530	12	2643	42
CI13996	2	2415	44	3183	30	2715	45	2038	33	1099	44	2290	44
CI1442	1	2024	45	2080	43	2785	44	1619	44	528	45	1807	45
MEAN		3402		3410		3336		2232		3191		3114	
LSD(.05)		483		608		N.S.		413		587		522	
C.V.		8.7		11.0		14.6		11.4		11.3		11.7	

Table 2. Continued.

C.I. OR SEL. NO.	ENTRY NO.	LINCOLN NEBRASKA		CLAY CENTER NEBRASKA		NORTH PLATTE NEBRASKA		SIDNEY NEBRASKA		HEMING-FORD NEBRASKA		NEBRASKA STATE MEAN	
XH1706	39	4146	14	5085	2	4108	2	4761	3	4753	3	4571	2
XH1693	38	4805	1	5129	1	3967	4	4908	2	4451	6	4652	1
XH1689	37	4672	4	4826	3	4203	1	4368	12	4771	2	4568	3
XH1520	35	4090	17	4487	7	3349	17	4373	11	3847	35	4029	15
HBE0726-1	19	3788	33	3899	35	2840	33	4943	1	4297	14	3953	18
KS92PO59E	23	4052	19	4482	8	3593	8	4714	4	4321	12	4232	5
T81	44	4087	18	4712	5	3578	9	4672	5	4609	4	4332	4
KS93U206	28	3755	34	4372	15	3472	13	4386	10	3954	34	3988	16
XH1529	36	4133	15	4034	30	2471	42	3980	19	4823	1	3888	21
WI89-273-13	40	4760	2	4371	16	2830	34	3073	37	4213	21	3850	25
KS92PO425-155	26	4316	11	4460	10	3216	24	4067	17	4258	18	4063	12
KS84063-939-3	27	3871	26	4428	13	3342	19	4467	9	4214	20	4065	11
KS92PO263-137	24	4016	20	4159	22	3997	3	4349	14	4140	27	4132	9
T83	45	4484	6	4431	12	3002	29	2991	38	4444	7	3870	24
HBZ374C	9	3825	31	3939	33	3250	22	3988	18	3735	37	3747	28
WI89-189-14	41	4690	3	4719	4	3011	28	2927	39	4279	17	3925	19
CO880210	21	3610	39	4052	29	3069	26	3882	21	4121	28	3747	29
NE90524	31	4151	13	4125	25	3785	6	4625	6	4152	25	4167	7
TX89A7137	11	4422	8	4465	9	3532	10	4297	15	4410	9	4225	6
NE91651	34	3989	21	3683	39	3395	15	3959	20	4394	10	3884	22
KS92PO363-134	25	4389	9	4315	18	3499	12	3776	23	4223	19	4041	14
NE90479	30	4434	7	4256	19	3460	14	4067	16	4507	5	4145	8
OK88767-11	4	4116	16	3902	34	2663	37	2910	42	4191	23	3556	35
TX89A7141	16	3954	22	4080	28	3515	11	4544	8	4167	24	4052	13
CO880169	20	3460	41	4093	27	2886	32	4625	6	4441	8	3901	20
PI495594	3	3835	30	4360	17	3261	21	3551	30	4143	26	3830	26
TX90D9277	10	3352	42	3952	32	3040	27	2919	41	3784	36	3409	40
OK90604	6	3896	24	3764	37	2736	36	2897	43	4289	16	3516	38
T4732	43	4351	10	4526	6	3874	5	3104	36	3976	32	3966	17
T4731	42	4502	5	4096	26	3389	16	3695	26	3675	40	3871	23
TX91V4931	12	3285	44	3855	36	2663	37	2687	44	4064	29	3311	42
TX90V6313	17	3793	32	4387	14	2594	40	3620	28	3731	38	3625	33
OK90649	7	3854	28	3602	43	2376	43	3152	34	4056	30	3408	41
OK91783	8	3628	37	4161	21	2941	31	2924	40	4033	31	3537	36
TX92V4135	18	4187	12	4152	23	2265	44	3307	32	4313	13	3645	32
CO910927	22	3298	43	4148	24	3150	25	3855	22	4293	15	3749	27
TX91V3308	15	3753	35	3654	40	2987	30	3243	33	3972	33	3522	37
TX90V8410	13	3725	36	3683	38	2765	35	3726	24	4359	11	3652	31
OK88767-02	5	3882	25	3391	44	1864	45	3566	29	3637	41	3268	43
TX90V7911	14	3618	38	3648	41	2603	39	2194	45	3250	44	3063	44
N87V106	29	3930	23	3981	31	3348	18	3694	27	3713	39	3733	30
NE91608	32	3867	27	4190	20	3295	20	3110	35	3589	42	3610	34
NE91635	33	3844	29	4432	11	3648	7	4351	13	4198	22	4094	10
CI13996	2	3600	40	3629	42	3228	23	3709	25	3117	45	3457	39
CI1442	1	2979	45	2873	45	2545	41	3391	31	3441	43	3046	45
MEAN		3982		4155		3169		3786		4119		3842	
LSD(.05)		736		581		511		1276		752		449	
C.V.		11.4		8.6		9.9		16.7		11.2		11.3	

Table 2. Continued.

C.I. OR SEL. NO.	ENTRY NO.	AKRON COLORADO		JULESBURG COLORADO		WALSH COLORADO		BURLINGTON COLORADO		COLORADO STATE MEAN		ABERDEEN * IDAHO	
XH1706	39	2080	4	2368	2	1863	4	3650	2	2490	2	.	.
XH1693	38	1631	35	1912	13	1644	18	2999	29	2047	21	.	.
XH1689	37	1991	9	2457	1	1852	5	3665	1	2491	1	.	.
XH1520	35	1764	20	2176	3	1702	14	3054	25	2174	9	.	.
HBE0726-1	19	1729	24	1635	32	1071	44	3410	4	1961	33	10255	2
KS92PO59E	23	1949	11	2044	7	1636	19	3255	11	2221	5	10878	1
T81	44	1650	34	1892	14	1478	23	3042	28	2016	27	.	.
KS93U206	28	1659	32	2011	8	1795	6	3257	10	2180	7	8534	22
XH1529	36	1742	22	1815	20	2020	2	3622	3	2300	3	.	.
WI89-273-13	40	2142	2	1666	29	1692	16	2822	38	2081	17	.	.
KS92PO425-155	26	1732	23	2174	4	1436	28	2724	42	2016	26	9883	6
KS84063-939-3	27	2079	5	2110	5	1456	27	3208	14	2213	6	8211	24
KS92PO263-137	24	1830	17	1741	25	1577	21	3317	7	2116	13	9512	9
T83	45	1847	14	1653	31	1475	24	3159	17	2034	23	.	.
HBZ374C	9	1673	29	2078	6	1381	34	3177	16	2077	18	9058	17
WI89-189-14	41	2238	1	1625	34	1434	29	2792	41	2022	24	.	.
CO880210	21	1843	15	1847	18	1764	7	2831	37	2071	19	10068	4
NE90524	31	1410	42	1888	15	1723	12	3335	6	2089	16	8653	19
TX89A7137	11	2047	7	1981	9	1669	17	3245	12	2236	4	9303	12
NE91651	34	1602	37	1444	42	1418	30	3261	9	1931	38	9167	15
KS92PO363-134	25	1628	36	1615	36	1416	31	3158	19	1955	34	9750	7
NE90479	30	1723	26	1695	28	1721	13	3238	13	2094	15	7846	27
OK88767-11	4	1835	16	1922	12	1762	8	3126	22	2161	10	9375	11
TX89A7141	16	1910	12	1925	11	1761	9	3120	23	2179	8	9945	5
CO880169	20	1587	38	1625	35	1745	11	3045	27	2000	30	10073	3
PI495594	3	1684	28	1772	21	1696	15	2660	43	1953	35	9184	14
TX90D9277	10	1566	39	1979	10	1468	26	3049	26	2015	28	9257	13
OK90604	6	1652	33	1861	17	1404	33	2857	36	1944	36	8064	25
T4732	43	1993	8	1770	22	1164	40	3142	20	2017	25	.	.
T4731	42	1724	25	1844	19	1365	36	3270	8	2051	20	.	.
TX91V4931	12	1670	30	1872	16	1979	3	2934	34	2114	14	8774	18
TX90V6313	17	1805	19	1628	33	1620	20	2806	39	1965	32	7765	29
OK90649	7	2108	3	1599	38	1189	39	3159	17	2014	29	7724	30
OK91783	8	1300	44	1664	30	1280	37	2999	30	1811	42	8591	20
TX92V4135	18	1867	13	1316	45	1095	42	2904	35	1796	43	8551	21
CO910927	22	1746	21	1742	24	1759	10	2935	33	2045	22	9472	10
TX91V3308	15	1808	18	1582	39	1093	43	2947	32	1858	40	9650	8
TX90V8410	13	1705	27	1609	37	2038	1	3135	21	2122	11	8509	23
OK88767-02	5	1667	31	1422	43	1475	25	3193	15	1939	37	7498	31
TX90V7911	14	1560	40	1480	41	1408	32	2955	31	1851	41	9067	16
N87V106	29	1409	43	1501	40	1010	45	2028	45	1487	45	8042	26
NE91608	32	1473	41	1764	23	1528	22	3115	24	1970	31	6003	32
NE91635	33	2055	6	1710	27	1366	35	3344	5	2119	12	7841	28
CI13996	2	1953	10	1738	26	1228	38	2800	40	1930	39	5857	33
CI1442	1	1134	45	1410	44	1102	41	2371	44	1504	44	.	.
MEAN		1760		1790		1528		3069		2037		8799	
LSD(.05)		499		425		302		554		294		1673	
C.V.		17.4		14.6		12.2		11.1		13.7		11.6	

* Not included in regional averages.

Table 2. Continued.

C.I. OR SEL. NO.	ENTRY NO.	PROSPER TEXAS		CHILLI-COTHE TEXAS		BUSHLAND (IRR.) TEXAS		BUSHLAND (DRYL.) TEXAS		TEXAS STATE MEAN	
XH1706	39	2923	15	4138	12	6077	20	2831	6	3992	10
XH1693	38	3069	9	4369	3	6326	10	2937	1	4175	3
XH1689	37	3369	1	4524	1	5972	22	2887	4	4188	1
XH1520	35	2995	11	4268	7	6530	3	2845	5	4159	4
HBE0726-1	19	2773	24	4190	9	6122	16	2777	10	3966	12
KS92PO59E	23	2715	25	3932	20	6371	8	2912	2	3982	11
T81	44	3125	6	4302	5	6622	1	2703	13	4188	1
KS93U206	28	2807	22	3806	26	6313	12	2504	32	3857	13
XH1529	36	3167	5	4277	6	6443	4	2674	15	4140	5
WI89-273-13	40	2990	12	4039	16	5705	26	2694	14	3857	13
KS92PO425-155	26	2887	18	4468	2	6109	18	2820	8	4071	6
KS84063-939-3	27	2829	20	3887	24	6541	2	2735	11	3998	9
KS92PO263-137	24	2775	23	4013	17	5591	27	2582	23	3740	24
T83	45	3002	10	4331	4	6149	15	2600	20	4020	8
HBZ374C	9	3201	4	3788	28	5920	24	2352	41	3815	18
WI89-189-14	41	2979	13	3607	36	6162	14	2401	40	3787	20
CO880210	21	2836	19	4109	13	6436	5	2822	7	4051	7
NE90524	31	3206	3	4082	14	5506	31	2562	24	3839	15
TX89A7137	11	2208	38	3459	40	6384	6	2493	33	3636	31
NE91651	34	2589	30	4156	10	5967	23	2486	34	3800	19
KS92PO363-134	25	2464	32	4042	15	5198	38	2656	16	3590	33
NE90479	30	2822	21	3732	31	5463	32	2585	22	3651	30
OK88767-11	4	2430	33	3351	42	6384	7	2287	43	3613	32
TX89A7141	16	2058	41	3730	33	6326	10	2551	25	3666	28
CO880169	20	2242	36	3869	25	6104	19	2793	9	3752	23
PI495594	3	2408	34	4004	18	6243	13	2441	37	3774	21
TX90D9277	10	3363	2	4147	11	5189	39	2618	17	3829	16
OK90604	6	2663	26	3766	29	6120	17	2522	30	3768	22
T4732	43	3125	6	3925	21	5315	34	2589	21	3739	25
T4731	42	3105	8	4261	8	5425	33	2524	29	3829	17
TX91V4931	12	2233	37	3735	30	6330	9	2612	18	3727	27
TX90V6313	17	2349	35	3903	22	5221	37	2706	12	3545	35
OK90649	7	2919	16	3535	37	6075	21	2405	39	3733	26
OK91783	8	2975	14	3730	32	5120	40	2506	31	3583	34
TX92V4135	18	2553	31	3795	27	5745	25	2533	28	3657	29
CO910927	22	1984	43	3723	34	5548	28	2439	38	3424	40
TX91V3308	15	2598	29	3957	19	5001	41	2549	26	3526	36
TX90V8410	13	2060	40	3611	35	5268	36	2903	3	3461	39
OK88767-02	5	2896	17	3082	43	5539	30	2163	44	3420	41
TX90V7911	14	2132	39	3894	23	5295	35	2540	27	3465	38
N87V106	29	2638	27	3524	38	5546	29	2349	42	3514	37
NE91608	32	2634	28	3477	39	4479	43	2612	19	3300	42
NE91635	33	2047	42	3441	41	3481	44	2452	35	2855	43
CI13996	2	1542	44	2688	44	4618	42	2448	36	2824	44
CI1442	1	769	45	2284	45	2739	45	2156	45	1987	45
MEAN		2654		3843		5712		2590		3700	
LSD(.05)		448		544		882		282		545	
C.V.		10.4		8.7		9.5		6.7		9.7	

Table 2. Continued.

C.I. OR SEL. NO.	ENTRY NO.	STILLWATER OKLAHOMA		ALTUS OKLAHOMA		LAHOMA OKLAHOMA		GOODWELL OKLAHOMA		OKLAHOMA STATE MEAN	
XH1706	39	4635	3	4846	13	5865	1	4882	2	5057	1
XH1693	38	4572	5	5248	2	5306	3	4776	6	4975	2
XH1689	37	4822	2	4680	22	4324	20	4086	23	4478	15
XH1520	35	4587	4	4953	8	5107	5	4425	11	4768	4
HBE0726-1	19	4510	8	4886	11	5408	2	4534	9	4835	3
KS92PO59E	23	4569	6	4871	12	4661	15	4813	5	4729	5
T81	44	4083	17	5003	5	4809	11	4225	16	4530	14
KS93U206	28	4097	16	4903	10	5303	4	4513	10	4704	6
XH1529	36	4909	1	4999	6	4229	26	4665	8	4700	7
WI89-273-13	40	4058	18	5163	3	4581	17	4859	3	4665	9
KS92PO425-155	26	4299	13	4634	25	4673	14	4853	4	4615	10
KS84063-939-3	27	3905	22	5637	1	4975	8	4285	15	4700	8
KS92PO263-137	24	4490	9	4551	29	5029	7	4298	13	4592	12
T83	45	4022	20	4821	14	5083	6	3747	34	4418	16
HBZ374C	9	4536	7	4436	34	4779	12	4689	7	4610	11
WI89-189-14	41	3681	26	4503	30	4955	9	4115	21	4314	18
CO880210	21	3541	32	4256	37	3742	36	4066	24	3901	35
NE90524	31	3623	31	4452	33	4558	18	3866	29	4124	26
TX89A7137	11	3519	34	4625	26	3933	31	4005	26	4020	32
NE91651	34	3681	26	4967	7	4895	10	3486	36	4257	19
KS92PO363-134	25	4394	11	4930	9	3695	37	3313	38	4083	29
NE90479	30	3674	28	4460	32	3887	33	4172	19	4048	31
OK88767-11	4	3652	29	4810	15	4643	16	5082	1	4547	13
TX89A7141	16	3631	30	4692	21	4328	19	4171	20	4206	23
CO880169	20	3327	37	4132	40	4148	27	4193	17	3950	34
PI495594	3	3412	36	4294	36	3918	32	3854	30	3869	37
TX90D9277	10	4014	21	4593	27	4271	24	3417	37	4074	30
OK90604	6	3453	35	4761	16	4111	28	4308	12	4158	25
T4732	43	4359	12	4186	38	3964	30	3042	41	3888	36
T4731	42	4039	19	4339	35	3851	34	3039	42	3817	38
TX91V4931	12	3538	33	4758	17	4743	13	3750	33	4197	24
TX90V6313	17	3778	24	4675	23	4103	29	3830	31	4096	28
OK90649	7	4104	15	4576	28	4302	22	3902	28	4221	21
OK91783	8	3838	23	4713	19	4244	25	4042	25	4209	22
TX92V4135	18	4225	14	4726	18	4284	23	4290	14	4382	17
CO910927	22	3166	41	4100	41	3371	41	3645	35	3571	41
TX91V3308	15	4396	10	5157	4	3526	39	3942	27	4255	20
TX90V8410	13	3312	38	4463	31	3583	38	3297	40	3664	39
OK88767-02	5	3683	25	4170	39	3813	35	4187	18	3963	33
TX90V7911	14	3292	39	4708	20	4320	21	4092	22	4103	27
N87V106	29	2871	43	4637	24	3345	42	3752	32	3651	40
NE91608	32	3292	39	3892	42	3460	40	3311	39	3489	42
NE91635	33	3058	42	3498	43	2657	43	2146	45	2839	43
CI13996	2	2361	44	3153	44	2585	44	2749	43	2712	44
CI1442	1	1853	45	2044	45	1342	45	2280	44	1880	45
MEAN		3841		4553		4238		3978		4153	
LSD(.05)		519		494		797		498		517	
C.V.		8.3		6.7		11.6		7.7		8.8	

Table 2. Concluded.

C.I. OR SEL. NO.	ENTRY NO.	PIERRE S. DAKOTA		WINNER S. DAKOTA		BROOKINGS S. DAKOTA		SOUTH DAKOTA STATE MEAN		COLUMBIA MISSOURI		REGIONAL AVERAGE	
XH1706	39	2737	28	4425	1	1843	7	3002	2	2594	42	3772	1
XH1693	38	2768	24	4235	3	1675	15	2892	5	3164	34	3698	2
XH1689	37	2717	30	4376	2	2217	2	3103	1	3829	7	3656	3
XH1520	35	3076	9	3957	6	1926	6	2986	3	3386	24	3585	4
HBE0726-1	19	2746	27	3737	8	1941	5	2808	8	3651	11	3491	5
KS92P059E	23	2968	12	3311	16	1780	9	2686	14	3145	36	3481	6
T81	44	2670	33	3560	11	1690	12	2640	15	3577	18	3480	7
KS93U206	28	3445	1	3504	12	1228	39	2726	9	3690	10	3474	8
XH1529	36	2578	39	3999	5	1488	26	2689	13	3888	5	3470	9
WI89-273-13	40	2753	26	3589	10	1296	35	2546	21	3569	19	3424	10
KS92P0425-155	26	2564	40	3488	15	1511	24	2521	23	4017	3	3419	11
KS84063-939-3	27	2874	17	2995	26	1296	35	2388	27	3372	28	3418	12
KS92P0263-137	24	3105	7	2883	30	1688	13	2558	19	3798	9	3415	13
T83	45	3017	11	4071	4	1603	20	2897	4	3578	17	3341	14
HBZ374C	9	3170	5	3076	22	1827	8	2691	12	3293	31	3337	15
WI89-189-14	41	2556	41	2827	33	1408	29	2263	38	3595	15	3293	16
CO880210	21	3156	6	3037	24	1383	32	2526	22	3648	12	3285	17
NE90524	31	3197	4	3683	9	1215	40	2698	11	3199	33	3272	18
TX89A7137	11	2910	16	2919	29	1701	11	2510	24	3332	30	3244	19
NE91651	34	2952	13	3495	14	1668	17	2705	10	3520	20	3228	20
KS92P0363-134	25	3028	10	3192	18	1623	18	2615	17	3817	8	3216	21
NE90479	30	2923	15	3865	7	1675	15	2821	7	2995	39	3213	22
OK88767-11	4	2208	45	3304	17	1318	34	2277	36	2994	40	3199	23
TX89A7141	16	2872	18	2742	34	1163	41	2259	39	3374	26	3198	24
CO880169	20	3340	2	3163	21	1157	43	2553	20	2519	44	3168	25
PI495594	3	3300	3	2701	35	1152	44	2384	28	3889	4	3158	26
TX90D9277	10	2923	14	3497	13	2215	3	2878	6	3391	23	3140	27
OK90604	6	3087	8	2571	37	1293	37	2317	31	3839	6	3125	28
T4732	43	2759	25	2652	36	1757	10	2390	26	4056	2	3116	29
T4731	42	2632	37	2011	44	1379	33	2007	45	4056	1	3110	30
TX91V4931	12	2831	20	2343	42	1421	28	2198	41	3124	37	3099	31
TX90V6313	17	2782	23	2405	40	1159	42	2115	42	3008	38	3073	32
OK90649	7	2816	22	2378	41	1686	14	2293	34	3460	22	3059	33
OK91783	8	2681	32	2829	32	1406	30	2305	33	3499	21	3037	34
TX92V4135	18	2396	43	3190	19	1242	38	2276	37	3342	29	3036	35
CO910927	22	2820	21	3020	25	1085	45	2308	32	3638	13	3025	36
TX91V3308	15	2654	34	1870	45	1551	23	2025	44	3587	16	3012	37
TX90V8410	13	2636	36	2858	31	1576	22	2357	29	2627	41	3008	38
OK88767-02	5	2641	35	2562	38	1397	31	2200	40	3231	32	2991	39
TX90V7911	14	2589	38	2941	28	1484	27	2338	30	3162	35	2929	40
N87V106	29	2721	29	3042	23	1578	21	2447	25	3613	14	2913	41
NE91608	32	2838	19	2538	39	1495	25	2290	35	3382	25	2877	42
NE91635	33	2470	42	2098	43	1605	19	2058	43	3374	26	2760	43
CI13996	2	2717	30	3174	20	1944	4	2612	18	2577	43	2562	44
CI1442	1	2338	44	2961	27	2547	1	2615	16	2042	45	2125	45
MEAN		2821		3135		1562		2506		3388		3199	
LSD(.05)		N.S.		734		557		N.S.		368		12.4	
C.V.		16.1		14.4		21.9		16.7		6.7		220	

Table 3. Summary of mean yields (kg/ha) and ranks of 45 wheats in the 1994 Southern Regional Performance Nursery at 21 locations from which a CV of 15.0 or less and a significant F test for entries were obtained.

C.I. OR SEL. NO.	ENTRY NO.	PROSPER TEXAS		CHILLI-COTHE TEXAS		BUSHLAND (IRR.) TEXAS		BUSHLAND (DRYL.) TEXAS		STILLWATER OKLAHOMA		ALTUS OKLAHOMA		LAHOMA OKLAHOMA		GOODWELL OKLAHOMA	
XH1706	39	2923	15	4138	12	6077	20	2831	6	4635	3	4846	13	5865	1	4882	2
XH1693	38	3069	9	4369	3	6326	10	2937	1	4572	5	5248	2	5306	3	4776	6
XH1689	37	3369	1	4524	1	5972	22	2887	4	4822	2	4680	22	4324	20	4086	23
XH1520	35	2995	11	4268	7	6530	3	2845	5	4587	4	4953	8	5107	5	4425	11
XH1529	36	3167	5	4277	6	6443	4	2674	15	4909	1	4999	6	4229	26	4665	8
T81	44	3125	6	4302	5	6622	1	2703	13	4083	17	5003	5	4809	11	4225	16
KS92PO59E	23	2715	25	3932	20	6371	8	2912	2	4569	6	4871	12	4661	15	4813	5
KS93U206	28	2807	22	3806	26	6313	12	2504	32	4097	16	4903	10	5303	4	4513	10
KS92PO425-155	26	2887	18	4468	2	6109	18	2820	8	4299	13	4634	25	4673	14	4853	4
WI89-273-13	40	2990	12	4039	16	5705	26	2694	14	4058	18	5163	3	4581	17	4859	3
T83	45	3002	10	4331	4	6149	15	2600	20	4022	20	4821	14	5083	6	3747	34
HBE0726-1	19	2773	24	4190	9	6122	16	2777	10	4510	8	4886	11	5408	2	4534	9
KS84063-939-3	27	2829	20	3887	24	6541	2	2735	11	3905	22	5637	1	4975	8	4285	15
KS92PO263-137	24	2775	23	4013	17	5591	27	2582	23	4490	9	4551	29	5029	7	4298	13
WI89-189-14	41	2979	13	3607	36	6162	14	2401	40	3681	26	4503	30	4955	9	4115	21
HBZ374C	9	3201	4	3788	28	5920	24	2352	41	4536	7	4436	34	4779	12	4689	7
OK88767-11	4	2430	33	3351	42	6384	7	2287	43	3652	29	4810	15	4643	16	5082	1
CO880210	21	2836	19	4109	13	6436	5	2822	7	3541	32	4256	37	3742	36	4066	24
NE90524	31	3206	3	4082	14	5506	31	2562	24	3623	31	4452	33	4558	18	3866	29
NE90479	30	2822	21	3732	31	5463	32	2585	22	3674	28	4460	32	3887	33	4172	19
NE91651	34	2589	30	4156	10	5967	23	2486	34	3681	26	4967	7	4895	10	3486	36
TX89A7141	16	2058	41	3730	33	6326	10	2551	25	3631	30	4692	21	4328	19	4171	20
OK90604	6	2663	26	3766	29	6120	17	2522	30	3453	35	4761	16	4111	28	4308	12
TX89A7137	11	2208	38	3459	40	6384	6	2493	33	3519	34	4625	26	3933	31	4005	26
PI495594	3	2408	34	4004	18	6243	13	2441	37	3412	36	4294	36	3918	32	3854	30
T4732	43	3125	6	3925	21	5315	34	2589	21	4359	12	4186	38	3964	30	3042	41
KS92PO363-134	25	2464	32	4042	15	5198	38	2656	16	4394	11	4930	9	3695	37	3313	38
T4731	42	3105	8	4261	8	5425	33	2524	29	4039	19	4339	35	3851	34	3039	42
TX90D9277	10	3363	2	4147	11	5189	39	2618	17	4014	21	4593	27	4271	24	3417	37
TX92V4135	18	2553	31	3795	27	5745	25	2533	28	4225	14	4726	18	4284	23	4290	14
TX91V4931	12	2233	37	3735	30	6330	9	2612	18	3538	33	4758	17	4743	13	3750	33
CO880169	20	2242	36	3869	25	6104	19	2793	9	3327	37	4132	40	4148	27	4193	17
OK90649	7	2919	16	3535	37	6075	21	2405	39	4104	15	4576	28	4302	22	3902	28
OK91783	8	2975	14	3730	32	5120	40	2506	31	3838	23	4713	19	4244	25	4042	25
TX90V6313	17	2349	35	3903	22	5221	37	2706	12	3778	24	4675	23	4103	29	3830	31
OK88767-02	5	2896	17	3082	43	5539	30	2163	44	3683	25	4170	39	3813	35	4187	18
CO910927	22	1984	43	3723	34	5548	28	2439	38	3166	41	4100	41	3371	41	3645	35
TX91V3308	15	2598	29	3957	19	5001	41	2549	26	4396	10	5157	4	3526	39	3942	27
TX90V8410	13	2060	40	3611	35	5268	36	2903	3	3312	38	4463	31	3583	38	3297	40
TX90V7911	14	2132	39	3894	23	5295	35	2540	27	3292	39	4708	20	4320	21	4092	22
N87V106	29	2638	27	3524	38	5546	29	2349	42	2871	43	4637	24	3345	42	3752	32
NE91608	32	2634	28	3477	39	4479	43	2612	19	3292	39	3892	42	3460	40	3311	39
NE91635	33	2047	42	3441	41	3481	44	2452	35	3058	42	3498	43	2657	43	2146	45
CI13996	2	1542	44	2688	44	4618	42	2448	36	2361	44	3153	44	2585	44	2749	43
CI1442	1	769	45	2284	45	2739	45	2156	45	1853	45	2044	45	1342	45	2280	44
MEAN		2654		3843		5712		2590		3841		4553		4238		3978	
LSD(.05)		448		544		882		282		519		494		797		498	
C.V.		10.4		8.7		9.5		6.7		8.3		6.7		11.6		7.7	

Table 3. Continued.

C.I. OR SEL. NO.	ENTRY NO.	LINCOLN NEBRASKA		CLAY CENTER NEBRASKA		NORTH PLATTE NEBRASKA		HEMING-FORD NEBRASKA		JULESBURG COLORADO		WALSH COLORADO		BURLINGTON COLORADO	
XH1706	39	4146	14	5085	2	4108	2	4753	3	2368	2	1863	4	3650	2
XH1693	38	4805	1	5129	1	3967	4	4451	6	1912	13	1644	18	2999	29
XH1689	37	4672	4	4826	3	4203	1	4771	2	2457	1	1852	5	3665	1
XH1520	35	4090	17	4487	7	3349	17	3847	35	2176	3	1702	14	3054	25
XH1529	36	4133	15	4034	30	2471	42	4823	1	1815	20	2020	2	3622	3
T81	44	4087	18	4712	5	3578	9	4609	4	1892	14	1478	23	3042	28
KS92PO59E	23	4052	19	4482	8	3593	8	4321	12	2044	7	1636	19	3255	11
KS93U206	28	3755	34	4372	15	3472	13	3954	34	2011	8	1795	6	3257	10
KS92PO425-155	26	4316	11	4460	10	3216	24	4258	18	2174	4	1436	28	2724	42
WI89-273-13	40	4760	2	4371	16	2830	34	4213	21	1666	29	1692	16	2822	38
T83	45	4484	6	4431	12	3002	29	4444	7	1653	31	1475	24	3159	17
HBE0726-1	19	3788	33	3899	35	2840	33	4297	14	1635	32	1071	44	3410	4
KS84063-939-3	27	3871	26	4428	13	3342	19	4214	20	2110	5	1456	27	3208	14
KS92PO263-137	24	4016	20	4159	22	3997	3	4140	27	1741	25	1577	21	3317	7
WI89-189-14	41	4690	3	4719	4	3011	28	4279	17	1625	34	1434	29	2792	41
HBZ374C	9	3825	31	3939	33	3250	22	3735	37	2078	6	1381	34	3177	16
OK88767-11	4	4116	16	3902	34	2663	37	4191	23	1922	12	1762	8	3126	22
CO880210	21	3610	39	4052	29	3069	26	4121	28	1847	18	1764	7	2831	37
NE90524	31	4151	13	4125	25	3785	6	4152	25	1888	15	1723	12	3335	6
NE90479	30	4434	7	4256	19	3460	14	4507	5	1695	28	1721	13	3238	13
NE91651	34	3989	21	3683	39	3395	15	4394	10	1444	42	1418	30	3261	9
TX89A7141	16	3954	22	4080	28	3515	11	4167	24	1925	11	1761	9	3120	23
OK90604	6	3896	24	3764	37	2736	36	4289	16	1861	17	1404	33	2857	36
TX89A7137	11	4422	8	4465	9	3532	10	4410	9	1981	9	1669	17	3245	12
PI495594	3	3835	30	4360	17	3261	21	4143	26	1772	21	1696	15	2660	43
T4732	43	4351	10	4526	6	3874	5	3976	32	1770	22	1164	40	3142	20
KS92PO363-134	25	4389	9	4315	18	3499	12	4223	19	1615	36	1416	31	3158	19
T4731	42	4502	5	4096	26	3389	16	3675	40	1844	19	1365	36	3270	8
TX90D9277	10	3352	42	3952	32	3040	27	3784	36	1979	10	1468	26	3049	26
TX92V4135	18	4187	12	4152	23	2265	44	4313	13	1316	45	1095	42	2904	35
TX91V4931	12	3285	44	3855	36	2663	37	4064	29	1872	16	1979	3	2934	34
CO880169	20	3460	41	4093	27	2886	32	4441	8	1625	35	1745	11	3045	27
OK90649	7	3854	28	3602	43	2376	43	4056	30	1599	38	1189	39	3159	17
OK91783	8	3628	37	4161	21	2941	31	4033	31	1664	30	1280	37	2999	30
TX90V6313	17	3793	32	4387	14	2594	40	3731	38	1628	33	1620	20	2806	39
OK88767-02	5	3882	25	3391	44	1864	45	3637	41	1422	43	1475	25	3193	15
CO910927	22	3298	43	4148	24	3150	25	4293	15	1742	24	1759	10	2935	33
TX91V3308	15	3753	35	3654	40	2987	30	3972	33	1582	39	1093	43	2947	32
TX90V8410	13	3725	36	3683	38	2765	35	4359	11	1609	37	2038	1	3135	21
TX90V7911	14	3618	38	3648	41	2603	39	3250	44	1480	41	1408	32	2955	31
N87V106	29	3930	23	3981	31	3348	18	3713	39	1501	40	1010	45	2028	45
NE91608	32	3867	27	4190	20	3295	20	3589	42	1764	23	1528	22	3115	24
NE91635	33	3844	29	4432	11	3648	7	4198	22	1710	27	1366	35	3344	5
CI13996	2	3600	40	3629	42	3228	23	3117	45	1738	26	1228	38	2800	40
CI1442	1	2979	45	2873	45	2545	41	3441	43	1410	44	1102	41	2371	44
MEAN		3982		4155		3169		4119		1790		1528		3069	
LSD(.05)		736		581		511		752		425		302		554	
C.V.		11.4		8.6		9.9		11.2		14.6		12.2		11.1	

Table 3. Concluded.

C.I. OR SEL. NO.	ENTRY NO.	HUTCHINSON KANSAS		HAYS KANSAS		MANHATTAN KANSAS		GARDEN CITY KANSAS		WINNER S. DAKOTA		COLUMBIA MISSOURI		REGIONAL AVERAGE	
XH1706	39	3939	2	4425	1	3761	7	2849	1	4425	1	2594	42	4008	1
XH1693	38	3750	6	4412	2	4166	2	2512	11	4235	3	3164	34	3988	2
XH1689	37	3587	14	4226	6	3233	26	2658	4	4376	2	3829	7	3953	3
XH1520	35	4049	1	3925	12	3898	4	2606	6	3957	6	3386	24	3821	4
XH1529	36	3431	22	3730	18	3609	9	2371	17	3999	5	3888	5	3777	5
T81	44	3476	20	4145	9	3465	17	2281	21	3560	11	3577	18	3751	6
KS92PO59E	23	3385	24	4165	8	3862	5	2121	28	3311	16	3145	36	3725	7
KS93U206	28	3743	7	4203	7	3399	21	2723	2	3504	12	3690	10	3720	8
KS92PO425-155	26	3346	28	3708	19	3537	11	2440	14	3488	15	4017	3	3708	9
WI89-273-13	40	3496	19	4308	4	3342	22	2653	5	3589	10	3569	19	3686	10
T83	45	3431	22	3824	16	3429	19	2439	15	4071	4	3578	17	3675	11
HBE0726-1	19	3222	34	4230	5	3848	6	2108	29	3737	8	3651	11	3664	12
KS84063-939-3	27	3581	15	2910	36	3320	23	2499	12	2995	26	3372	28	3624	13
KS92PO263-137	24	3873	3	3259	27	3508	13	2490	13	2883	30	3798	9	3623	14
WI89-189-14	41	3626	13	3981	11	4297	1	2519	10	2827	33	3595	15	3609	15
HBZ374C	9	3698	9	3602	22	3624	8	2265	23	3076	22	3293	31	3554	16
OK88767-11	4	3789	5	3849	14	3436	18	2337	18	3304	17	2994	40	3525	17
CO880210	21	3567	16	4315	3	3226	28	2330	19	3037	24	3648	12	3487	18
NE90524	31	3222	35	2984	35	2676	40	2379	16	3683	9	3199	33	3484	19
NE90479	30	3867	4	3033	33	3023	34	2159	26	3865	7	2995	39	3478	20
NE91651	34	3639	12	2762	38	3262	24	1925	38	3495	14	3520	20	3448	21
TX89A7141	16	3294	31	3230	29	3212	29	2076	32	2742	34	3374	26	3426	22
OK90604	6	3652	11	3535	25	3501	15	2155	27	2571	37	3839	6	3417	23
TX89A7137	11	3060	41	3255	28	2701	39	2082	30	2919	29	3332	30	3414	24
PI495594	3	3548	18	3508	26	3494	16	2183	24	2701	35	3889	4	3411	25
T4732	43	3216	36	2304	41	3212	29	2284	20	2652	36	4056	2	3382	26
KS92PO363-134	25	3287	32	1787	44	3226	27	2179	25	3192	18	3817	8	3371	27
T4731	42	3704	8	2156	42	3580	10	2528	9	2011	44	4056	1	3370	28
TX90D9277	10	3352	27	3109	32	3110	32	2032	34	3497	13	3391	23	3368	29
TX92V4135	18	2897	43	3773	17	3016	35	2008	36	3190	19	3342	29	3362	30
TX91V4931	12	3561	17	4046	10	2257	42	2267	22	2343	42	3124	37	3331	31
CO880169	20	3209	37	3842	15	2105	43	2539	8	3163	21	2519	44	3309	32
OK90649	7	3450	21	3006	34	3508	14	2019	35	2378	41	3460	22	3308	33
OK91783	8	3177	38	2831	37	3240	25	1901	39	2829	32	3499	21	3302	34
TX90V6313	17	3379	25	3584	23	3096	33	2659	3	2405	40	3008	38	3298	35
OK88767-02	5	3665	10	3685	20	3935	3	2564	7	2562	38	3231	32	3240	36
CO910927	22	3131	39	3537	24	2763	36	2078	31	3020	25	3638	13	3213	37
TX91V3308	15	3307	30	2488	39	3428	20	1646	43	1870	45	3587	16	3211	38
TX90V8410	13	3326	29	3909	13	2763	37	1980	37	2858	31	2627	41	3204	39
TX90V7911	14	3372	26	3674	21	2756	38	1744	42	2941	28	3162	35	3185	40
N87V106	29	2962	42	3132	31	3204	31	1555	45	3042	23	3613	14	3128	41
NE91608	32	3131	39	2320	40	2394	41	1828	40	2538	39	3382	25	3052	42
NE91635	33	3249	33	1459	45	3530	12	1826	41	2098	43	3374	26	2898	43
CI13996	2	2415	44	3183	30	1099	44	2038	33	3174	20	2577	43	2665	44
CI1442	1	2024	45	2080	43	528	45	1619	44	2961	27	2042	45	2069	45
MEAN		3402		3410		3191		2232		3135		3388		3428	
LSD(.05)		483		608		587		413		734		368		247	
C.V.		8.7		11.0		11.3		11.4		14.4		6.7		10.2	

Table 4. Summary of mean yields (kg/ha) and ranks of 45 wheats grown in the Southern Regional Performance Nursery for 5 intra-regional production zones (after Peterson, 1992).

C.I. OR SEL. NO.	ENTRY NO.	SOUTH-CENTRAL PLAINS		NORTH-CENTRAL PLAINS		NORTHERN HIGH PLAINS		INTER-MOUNTAIN WEST		SOUTHERN HIGH PLAINS		REGIONAL AVERAGE	
Number of sites		9		6		6		1		5		28	
XH1706	39	4637	2	3666	3	3380	1	4753	3	2850	1	3772	1
XH1693	38	4647	1	3796	1	3104	7	4451	6	2540	2	3698	2
XH1689	37	4399	8	3674	2	3374	2	4771	2	2378	9	3656	3
XH1520	35	4538	3	3572	4	3052	12	3847	35	2510	3	3585	4
HBE0726-1	19	4431	4	3327	11	3038	14	4297	14	2345	10	3491	5
KS92PO59E	23	4387	9	3409	7	3197	3	4321	12	2179	18	3481	6
T81	44	4421	6	3364	8	3099	8	4609	4	2139	22	3480	7
KS93U206	28	4410	7	3284	15	3111	6	3954	34	2314	14	3474	8
XH1529	36	4428	5	3307	13	2806	24	4823	1	2387	8	3470	9
WI89-273-13	40	4356	10	3352	10	2713	28	4213	21	2502	4	3424	10
KS92PO425-155	26	4331	11	3313	12	2901	17	4258	18	2239	16	3419	11
KS84063-939-3	27	4283	13	3131	24	3095	9	4214	20	2443	5	3418	12
KS92PO263-137	24	4209	16	3227	17	3133	5	4140	27	2331	12	3415	13
T83	45	4268	14	3506	5	2754	26	4444	7	1911	37	3341	14
HBZ374C	9	4294	12	3243	16	2918	15	3735	37	2160	20	3337	15
WI89-189-14	41	4179	17	3416	6	2637	34	4279	17	2081	26	3293	16
CO880210	21	4096	18	3077	25	2875	19	4121	28	2324	13	3285	17
NE90524	31	3944	24	3174	22	3078	10	4152	25	2251	15	3272	18
TX89A7137	11	3827	34	3186	19	3179	4	4410	9	2089	25	3244	19
NE91651	34	4016	22	3175	21	2802	25	4394	10	2093	23	3228	20
KS92PO363-134	25	3679	38	3296	14	2827	22	4223	19	2431	6	3216	21
NE90479	30	3901	28	3363	9	2902	16	4507	5	1952	35	3213	22
OK88767-11	4	4221	15	3047	27	2608	35	4191	23	2092	24	3199	23
TX89A7141	16	3940	25	3004	31	3054	11	4167	24	2041	30	3198	24
CO880169	20	3896	29	2886	38	2895	18	4441	8	2399	7	3168	25
PI495594	3	3910	27	3140	23	2722	27	4143	26	2005	32	3158	26
TX90D9277	10	3940	26	3175	20	2587	36	3784	36	2146	21	3140	27
OK90604	6	4041	20	3019	30	2482	40	4289	16	2001	33	3125	28
T4732	43	3715	37	3210	18	2844	20	3976	32	1892	38	3116	29
T4731	42	3769	36	3033	28	2821	23	3675	40	2059	28	3110	30
TX91V4931	12	4077	19	2665	44	2528	38	4064	29	2343	11	3099	31
TX90V6313	17	3869	30	2937	36	2672	32	3731	38	2168	19	3073	32
OK90649	7	3985	23	2974	34	2569	37	4056	30	1803	40	3059	33
OK91783	8	3852	33	2991	33	2469	41	4033	31	2018	31	3037	34
TX92V4135	18	4032	21	3030	29	2419	43	4313	13	1674	45	3036	35
CO910927	22	3579	41	2856	40	2840	21	4293	15	2076	27	3025	36
TX91V3308	15	3819	35	2818	42	2677	31	3972	33	1887	39	3012	37
TX90V8410	13	3648	39	2874	39	2710	29	4359	11	2179	17	3008	38
OK88767-02	5	3858	32	2968	35	2433	42	3637	41	1953	34	2991	39
TX90V7911	14	3864	31	2839	41	2350	44	3250	44	1937	36	2929	40
N87V106	29	3601	40	3076	26	2495	39	3713	39	1682	44	2913	41
NE91608	32	3333	42	2887	37	2669	33	3589	42	2048	29	2877	42
NE91635	33	2782	44	2997	32	3043	13	4198	22	1688	43	2760	43
CI13996	2	2810	43	2694	43	2690	30	3117	45	1691	42	2562	44
CI1442	1	1935	45	2371	45	2273	45	3441	43	1747	41	2125	45
MEAN		3959		3141		2818		4119		2133		3199	
LSD(.05)		374		485		377		752		470		220	
C.V.		9.4		12.9		13.9		11.2		20.9		12.4	

Table 5. Summary of mean yields (kg/ha) and ranks for 24 wheats grown in the Southern Regional Performance Nursery at 21 sites in 1993 and 1994 with state means and ranks.

C.I. OR SEL. NO.	ENTRY NO.	NORTH PLATTE NEBRASKA		HEMING-FORD NEBRASKA		NEBRASKA STATE MEAN		PIERRE S. DAKOTA		WINNER S. DAKOTA		BROOKINGS S. DAKOTA		SOUTH DAKOTA STATE MEAN	
XH1529	36	3370	14	4980	1	4175	6	4602	8	4285	2	2093	10	3660	2
XH1520	35	3729	7	4664	3	4196	4	4747	4	4475	1	2232	6	3818	1
KS92PO425-155	26	3928	3	4528	9	4228	2	4514	11	4049	4	2119	9	3561	5
KS92PO263-137	24	3971	1	4450	13	4210	3	5160	1	3446	14	2261	5	3622	3
KS92PO59E	23	3953	2	4633	5	4293	1	4696	6	3442	15	2319	3	3486	6
OK88767-11	4	3133	19	4297	16	3715	17	4926	2	3692	10	1762	15	3460	7
KS92PO363-134	25	3772	6	4552	8	4162	7	4048	22	3697	9	2560	2	3435	8
NE90524	31	3783	5	4569	6	4176	5	4472	13	4071	3	1580	21	3374	11
CO880210	21	3157	18	4563	7	3860	16	4827	3	3311	19	1448	22	3195	17
T4731	42	3806	4	4282	17	4044	11	4291	18	3179	22	2306	4	3259	15
NE90479	30	3622	10	4467	12	4045	10	4468	14	3728	8	2027	11	3408	9
TX89A7137	11	3674	9	4634	4	4154	8	4560	9	3687	11	1730	16	3326	12
TX90D9277	10	3377	13	4443	14	3910	14	4420	16	3822	5	2624	1	3622	4
TX89A7141	16	3728	8	4487	11	4107	9	4422	15	3407	17	1423	23	3084	20
PI495594	3	3480	12	4325	15	3902	15	4723	5	3335	18	1224	24	3094	19
CO880169	20	3186	16	4695	2	3941	13	4501	12	3759	6	1647	18	3302	13
TX91V4931	12	3185	17	3890	18	3538	19	4408	17	3159	23	1673	17	3080	21
TX91V3308	15	3074	21	3844	19	3459	20	4532	10	3027	24	2178	8	3246	16
TX90V8410	13	3558	11	4504	10	4031	12	4119	21	3275	21	1594	20	2996	22
TX90V7911	14	2867	22	3750	21	3309	22	4204	20	3425	16	1832	14	3154	18
OK88767-02	5	2462	24	3686	23	3074	23	4634	7	3561	12	1638	19	3278	14
N87V106	29	3368	15	3762	20	3565	18	4243	19	3734	7	2191	7	3389	10
CI13996	2	3124	20	3719	22	3422	21	3208	23	3480	13	1948	13	2879	23
CI1442	1	2591	23	3309	24	2950	24	2507	24	3292	20	1981	12	2594	24
MEAN		3412		4293		3853		4385		3597		1933		3305	
LSD(.05)		776		763		N.S.		N.S.		N.S.		N.S.		N.S.	
C.V.		11.0		10.8		11.0		11.6		14.2		20.6		14.4	

Table 5. Continued.

C.I. OR SEL. NO.	ENTRY NO.	PROSPER TEXAS		CHILLI-COTHE TEXAS		BUSHLAND (IRR.) TEXAS		TEXAS STATE MEAN		CLOVIS (IRR.) NEW MEXICO		CLOVIS (DRYL.) NEW MEXICO		NEW MEXICO STATE MEAN	
XH1529	36	4134	1	4974	1	7418	1	5509	1	4999	9	697	10	2848	10
XH1520	35	3765	6	4651	4	7182	2	5200	3	5233	3	684	11	2958	3
KS92PO425-155	26	3852	4	4842	2	7095	3	5263	2	4546	14	731	7	2639	13
KS92PO263-137	24	3802	5	4588	6	6181	16	4857	8	5052	8	730	8	2891	7
KS92PO59E	23	3656	7	4430	10	7024	5	5037	4	4358	15	603	14	2481	15
OK88767-11	4	3564	9	4174	15	6387	13	4708	12	4656	13	552	17	2604	14
KS92PO363-134	25	3558	10	4430	10	5614	21	4534	20	5054	7	778	5	2916	6
NE90524	31	3879	3	4602	5	6361	14	4947	5	4795	11	532	18	2664	12
CO880210	21	3522	13	4292	12	6896	6	4903	7	5383	1	780	4	3081	1
T4731	42	3616	8	4449	9	6022	17	4696	14	3689	22	589	15	2139	21
NE90479	30	3268	17	4140	18	6335	15	4581	19	4037	18	642	13	2340	17
TX89A7137	11	3183	18	4050	20	6814	8	4682	16	5146	4	702	9	2924	5
TX90D9277	10	4131	2	4567	7	5608	22	4769	9	4195	16	522	19	2358	16
TX89A7141	16	3156	19	4193	14	6836	7	4728	11	5275	2	831	2	3053	2
PI495594	3	3269	16	4029	21	6495	12	4598	18	4735	12	966	1	2851	9
CO880169	20	3129	20	4150	17	6672	10	4651	17	5138	5	567	16	2853	8
TX91V4931	12	3497	14	4266	13	7070	4	4944	6	5131	6	776	6	2953	4
TX91V3308	15	3470	15	4814	3	5819	18	4701	13	4053	17	402	23	2228	19
TX90V8410	13	3114	21	4166	16	6796	9	4692	15	4874	10	818	3	2846	11
TX90V7911	14	2979	22	4566	8	6652	11	4733	10	4020	19	515	20	2268	18
OK88767-02	5	3534	12	3851	22	5686	20	4357	22	3813	21	332	24	2072	23
N87V106	29	3544	11	4124	19	5800	19	4489	21	4017	20	414	22	2215	20
CI13996	2	2573	23	3302	23	5401	23	3759	23	3507	23	666	12	2086	22
CI1442	1	1362	24	2643	24	3496	24	2500	24	3059	24	414	21	1737	24
MEAN		3398		4262		6319		4660		4532		640		2586	
LSD(.05)		604		598		1032		673		N.S.		N.S.		N.S.	
C.V.		8.8		6.4		6.6		7.2		15.5		44.4		20.6	

Table 5. Continued.

C.I. OR SEL. NO.	ENTRY NO.	STILLWATER OKLAHOMA		LAHOMA* OKLAHOMA		GOODWELL OKLAHOMA		OKLAHOMA STATE MEAN		AKRON COLORADO		JULESBURG COLORADO		BURLINGTON COLORADO		COLORADO STATE MEAN	
XH1529	36	4281	1	3565	5	5690	2	4985	1	3483	1	3113	4	4598	1	3731	1
XH1520	35	3871	7	3676	3	5448	3	4660	6	3303	4	3398	1	4409	2	3703	2
KS92PO425-155	26	4142	3	3510	6	5411	4	4776	2	3081	11	3096	5	4146	5	3441	5
KS92PO263-137	24	4207	2	3901	1	5207	7	4707	5	3165	8	3019	6	4163	3	3449	4
KS92PO59E	23	4072	5	3621	4	5364	5	4718	4	3168	7	3338	2	4150	4	3552	3
OK88767-11	4	3490	11	3894	2	6058	1	4774	3	3093	10	3129	3	4083	6	3435	6
KS92PO363-134	25	4115	4	3306	12	4581	19	4348	9	2828	21	2527	19	4025	8	3127	17
NE90524	31	2953	15	3313	11	4976	12	3964	15	2843	19	2714	13	3971	9	3176	14
CO880210	21	2937	16	2819	21	4974	13	3955	16	3311	3	2934	10	3693	15	3313	7
T4731	42	3837	8	3098	16	4454	22	4145	12	3129	9	2609	17	3861	10	3199	12
NE90479	30	3349	12	2940	19	5127	9	4238	10	2917	17	2956	9	4027	7	3300	8
TX89A7137	11	2903	18	3124	15	5027	10	3965	14	3270	5	2762	12	3714	13	3248	9
TX90D9277	10	3567	10	3430	8	4491	21	4029	13	2731	22	2958	8	3684	16	3124	18
TX89A7141	16	3049	14	3345	10	4774	17	3912	18	3363	2	2644	16	3712	14	3239	10
PI495594	3	2854	20	2986	17	4785	16	3819	20	3035	14	2704	14	3665	17	3134	16
CO880169	20	2777	21	2895	20	4977	11	3877	19	3199	6	2695	15	3822	11	3239	11
TX91V4931	12	2921	17	3458	7	4944	14	3933	17	3053	12	2997	7	3538	20	3196	13
TX91V3308	15	3930	6	3286	13	4914	15	4422	7	3053	13	2340	21	3815	12	3069	19
TX90V8410	13	2693	22	2803	22	4622	18	3657	22	3022	15	2928	11	3496	21	3148	15
TX90V7911	14	3228	13	3153	14	5136	8	4182	11	2830	20	2437	20	3603	19	2957	21
OK88767-02	5	3592	9	3417	9	5214	6	4403	8	2890	18	2551	18	3634	18	3025	20
N87V106	29	2879	19	2942	18	4497	20	3688	21	2672	23	2332	22	2959	23	2655	23
CI13996	2	1883	23	1760	23	3945	23	2914	23	2935	16	2326	23	3383	22	2882	22
CI1442	1	1528	24	829	24	2713	24	2121	24	2228	24	1587	24	2637	24	2151	24
MEAN		3294		3128		4889		4091		3025		2754		3783		3187	
LSD(.05)		633		936		728		767		488		798		813		553	
C.V.		9.4		11.0		7.9		8.6		11.3		9.1		10.6		10.6	

* Not included in state or regional averages.

Table 5. Concluded.

C.I. OR SEL. NO.	ENTRY NO.	HUTCHINSON KANSAS		HAYS* KANSAS		COLBY* KANSAS		GARDEN CITY KANSAS		KANSAS STATE MEAN		COLUMBIA MISSOURI		REGIONAL AVERAGE	
XH1529	36	3446	2	4380	1	3135	1	3513	2	3479	2	3268	6	4052	1
XH1520	35	3310	6	4131	2	3109	2	3230	8	3270	5	2821	16	3953	2
KS92PO425-155	26	3213	7	3804	7	2631	14	3710	1	3461	3	3672	3	3926	3
KS92PO263-137	24	3662	1	3488	14	2474	17	3358	4	3510	1	3252	7	3871	4
KS92PO59E	23	3140	9	3920	4	3029	3	3261	6	3200	8	2811	17	3801	5
OK88767-11	4	3106	10	4129	3	2680	12	3187	11	3146	9	2806	18	3672	6
KS92PO363-134	25	3443	3	2337	21	2042	22	3035	16	3239	6	3471	4	3671	7
NE90524	31	2846	14	2504	20	2482	16	3420	3	3133	10	2956	13	3629	8
CO880210	21	2500	21	3902	5	2907	7	3354	5	2927	13	3042	10	3607	9
T4731	42	3401	4	2279	23	1849	24	3252	7	3326	4	3902	1	3593	10
NE90479	30	3339	5	3422	15	2863	9	3132	13	3235	7	2729	19	3573	11
TX89A7137	11	2565	20	3413	16	2893	8	2836	21	2701	22	3045	9	3572	12
TX90D9277	10	3064	11	3109	17	2454	18	2846	20	2955	12	3027	11	3560	13
TX89A7141	16	2566	19	3652	12	2648	13	2991	18	2779	21	3025	12	3549	14
PI495594	3	2499	22	3768	8	2919	6	3220	9	2859	18	3779	2	3507	15
CO880169	20	2583	18	3704	11	2951	5	3212	10	2898	14	2318	22	3502	16
TX91V4931	12	2774	16	3753	9	2976	4	3019	17	2896	15	2584	20	3494	17
TX91V3308	15	2948	13	2290	22	2303	20	2630	22	2789	20	3159	8	3445	18
TX90V8410	13	2639	17	3861	6	2787	10	3134	12	2886	16	2316	23	3426	19
TX90V7911	14	2832	15	3562	13	2569	15	2937	19	2884	17	2856	15	3371	20
OK88767-02	5	3157	8	3751	10	2682	11	3036	15	3097	11	2890	14	3342	21
N87V106	29	3029	12	2512	19	2128	21	2583	23	2806	19	3338	5	3305	22
CI13996	2	2106	23	3107	18	2332	19	3064	14	2585	23	2341	21	2940	23
CI1442	1	1200	24	2033	24	1995	23	2228	24	1714	24	1670	24	2247	24
MEAN		2890		3367		2618		3092		2991		2962		3526	
LSD(.05)		953		933		N.S.		559		N.S.		412		364	
C.V.		11.3		10.1		15.1		9.9		10.6		10.1		11.2	

* Not included in state or regional averages.

Table 6. Mean yield, regression coefficient, correlation coefficient, and coefficient of determination from linear regression analysis of variety mean yield on nursery mean yield for the 45 entries in the 1994 Southern Regional Performance Nursery grown at 28 locations.

C.I. OR SEL. NO.	ENTRY NO.	28 SITE REGIONAL AVERAGE KG/HA	REGRESSION COEFFICIENT (b)	CORRELATION COEFFICIENT (r)	COEFFICIENT OF DETERMINATION (r^2)
XH1706	39	3772	1.14	0.91	0.84
XH1693	38	3698	1.21	0.96	0.93
XH1689	37	3656	1.00	0.96	0.91
XH1520	35	3585	1.10	0.97	0.95
HBE0726-1	19	3491	1.19	0.95	0.90
KS92PO59E	23	3481	1.08	0.97	0.94
T81	44	3480	1.18	0.99	0.97
KS93U206	28	3474	1.09	0.97	0.94
XH1529	36	3470	1.12	0.96	0.92
WI89-273-13	40	3424	1.03	0.95	0.90
KS92PO425-155	26	3419	1.11	0.98	0.96
KS84063-939-3	27	3418	1.15	0.97	0.93
KS92PO263-137	24	3415	1.05	0.97	0.94
T83	45	3341	1.08	0.94	0.89
HBZ374C	9	3337	1.05	0.97	0.94
WI89-189-14	41	3293	1.05	0.94	0.88
CO880210	21	3285	1.01	0.96	0.93
NE90524	31	3272	1.01	0.96	0.92
TX89A7137	11	3244	1.04	0.96	0.93
NE91651	34	3228	1.09	0.97	0.94
KS92PO363-134	25	3216	1.00	0.91	0.83
NE90479	30	3213	0.94	0.95	0.89
OK88767-11	4	3199	1.05	0.94	0.89
TX89A7141	16	3198	1.06	0.97	0.94
CO880169	20	3168	1.04	0.93	0.87
PI495594	3	3158	1.01	0.96	0.93
TX90D9277	10	3140	0.86	0.95	0.90
OK90604	6	3125	1.06	0.97	0.93
T4732	43	3116	0.91	0.91	0.83
T4731	42	3110	0.92	0.91	0.83
TX91V4931	12	3099	1.02	0.93	0.86
TX90V6313	17	3073	0.96	0.97	0.94
OK90649	7	3059	0.99	0.95	0.91
OK91783	8	3037	0.98	0.97	0.95
TX92V4135	18	3036	1.08	0.95	0.91
CO910927	22	3025	0.96	0.96	0.93
TX91V3308	15	3012	1.00	0.94	0.87
TX90V8410	13	3008	0.88	0.95	0.91
OK88767-02	5	2991	0.95	0.93	0.87
TX90V7911	14	2929	0.96	0.95	0.89
N87V106	29	2913	1.00	0.96	0.92
NE91608	32	2877	0.82	0.94	0.89
NE91635	33	2760	0.68	0.74	0.55
CI13996	2	2562	0.64	0.80	0.64
CI1442	1	2125	0.44	0.57	0.32

Table 7. Mean yield, regression coefficient, correlation coefficient, and coefficient of determination from linear regression analysis of variety mean yield on nursery mean yield for the 45 entries in the 1993 and 1994 Southern Regional Performance Nursery grown at 18 locations.

C.I. OR SEL. NO.	ENTRY NO.	18 SITE REGIONAL AVERAGE KG/HA	REGRESSION COEFFICIENT (b)	CORRELATION COEFFICIENT (r)	COEFFICIENT OF DETERMINATION (r^2)
XH1529	36	4052	1.18	0.98	0.96
XH1520	35	3953	1.12	0.98	0.96
KS92PO425-155	26	3926	1.08	0.97	0.95
KS92PO263-137	24	3871	1.01	0.97	0.94
KS92PO59E	23	3801	1.05	0.98	0.95
OK88767-11	4	3672	1.13	0.96	0.92
KS92PO363-134	25	3671	0.85	0.93	0.85
NE90524	31	3629	1.04	0.98	0.96
CO880210	21	3607	1.11	0.97	0.94
T4731	42	3593	0.87	0.93	0.86
NE90479	30	3573	0.98	0.97	0.94
TX89A7137	11	3572	1.08	0.98	0.95
TX90D9277	10	3560	0.87	0.96	0.92
TX89A7141	16	3549	1.09	0.96	0.93
PI495594	3	3507	1.03	0.95	0.91
CO880169	20	3502	1.08	0.98	0.95
TX91V4931	12	3494	1.10	0.97	0.95
TX91V3308	15	3445	0.98	0.95	0.90
TX90V8410	13	3426	1.10	0.96	0.92
TX90V7911	14	3371	1.05	0.98	0.95
OK88767-02	5	3342	0.96	0.95	0.90
N87V106	29	3305	0.91	0.96	0.92
CI13996	2	2940	0.79	0.92	0.85
CI1442	1	2247	0.51	0.76	0.58

Table 8. Summary of agronomic and yield data for 45 wheats grown in the 1994 Southern Regional Performance Nursery.

VARIETY OR PEDIGREE	C.I. OR SEL. NO.	ENTRY NO.	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	WINTER SURVIVAL %	LODGING %
Number of Trials			23	17	1	5
Quantum Hybrid Wheat	XH1706	39	74	129	97	10
Quantum Hybrid Wheat	XH1693	38	73	129	97	7.3
Quantum Hybrid Wheat	XH1689	37	77	131	100	15.3
Quantum Hybrid Wheat	XH1520	35	74	129	83	6
HRE LT-11(OR)*Homestead/W8447	HBE0726-1	19	68	131	83	6.7
WX11088/2165//W8447	KS92PO59E	23	70	130	90	1.3
TAM-107/T213 sib	T81	44	70	130	83	7.3
TAM-107*3/TA2460	KS93U206	28	71	128	87	14
Quantum Hybrid Wheat	XH1529	36	68	128	87	4
TX81V6610/W82-163	WI89-273-13	40	66	131	83	8.7
W8447D/W2436//W3420	KS92PO425-155	26	66	132	90	16.7
KS82W418/Stephens	KS84063-939-3	27	72	128	83	16
W2440/W9488A//2163	KS92PO263-137	24	71	130	77	7.3
T213 sib *2/HRW	T83	45	72	130	90	18
IL71-5662/PL145//2165	HBZ374C	9	71	130	90	0.7
TAM-200/W81-296	WI89-189-14	41	64	128	80	14
TAM-107/TX3006	CO880210	21	70	130	70	11.7
Brule seln/4/Bez 1/3/Ctk//Arthur/Ctk78	NE90524	31	78	131	97	18.7
TAM-105/10334	TX89A7137	11	68	128	67	8
NE82671/NE80413	NE91651	34	72	129	87	22.7
WX12907/T-108//W2440	KS92PO363-134	25	71	130	93	12
KS83H2510/Brule composite	NE90479	30	79	132	90	23.3
F29-76/TAM-105//Chisholm	OK88767-11	4	67	129	73	0.7
TAM-105/10334	TX89A7141	16	68	128	70	8
TAM-107/Hail	CO880169	20	73	130	97	12
TAM-107	PI495594	3	68	128	63	6
TAM-200//Sx1/Tan 's'	TX90D9277	10	71	130	83	15.3
Ogosta/Csm//TAM-107	OK90604	6	69	129	73	4
T11//Brule/TAM-108	T4732	43	73	131	83	30.7
T11//Brule/TAM-108	T4731	42	69	131	63	12
TAM-200//TX38949-2/TAM-107	TX91V4931	12	69	130	43	22.7
TX81V6603/TX78A3345-V34	TX90V6313	17	66	129	60	17.3
Csm/OK79256	OK90649	7	72	129	67	2.7
Yantar/TAM-101//Mustang	OK91783	8	72	129	73	1.3
Brule//Buc 's'/Bjy 's'/3/TX78V3924-5-3	TX92V4135	18	65	128	83	4.7
Sumner/CO820026,F1//PI372129,F1/3/TAM-10	CO910927	22	67	128	90	6
TAM-108/Vee's'//TX84V2029	TX91V3308	15	70	130	43	16
TX81V6603/TX78A3345-V34	TX90V8410	13	69	131	57	21.3
F29-76/TAM-105//Chisholm	OK88767-02	5	68	129	70	0.7
TX78V2430-2/TX86V1540	TX90V7911	14	70	132	70	15.3
Complex Pedigree	N87V106	29	71	130	83	13.3
Arapahoe/TAM-107	NE91608	32	77	131	93	25.3
NE82761/NE82599	NE91635	33	75	130	100	12.7
Scout 66	CI13996	2	87	133	93	57.3
Kharkof	CI1442	1	94	139	97	60.3

Table 8. Concluded.

C.I. OR SEL. NO.	ENTRY NO.	LEAF RUST SEVERITY %	SEPTORIA 0-9	SBM VIRUS 0-9	BYD VIRUS 0-9	GRN LEAF DURATION 0-9	VOLUME WEIGHT KG/HL	YIELD KG/HA
Number of trials		2	1	1	2	2	28	28
XH1706	39	15	6	7	2.4	8	74.7	3772
XH1693	38	37	5.3	8	3.1	9	75.9	3698
XH1689	37	4	3.3	8	2.9	8	74.5	3656
XH1520	35	17	4.7	8	2.8	9	74.8	3585
HBE0726-1	19	0	4.3	5	2.1	6	72.1	3491
KS92P059E	23	10	4.3	4	3.2	6	72.3	3481
T81	44	5	4.7	7	4.2	8	74.8	3480
KS93U206	28	1	3	5	3.8	7	74.7	3474
XH1529	36	9	3.7	5	3	7	74.8	3470
WI89-273-13	40	3	4.3	7	3	7	75.4	3424
KS92P0425-155	26	11	3.3	5	2.9	7	71.2	3419
KS84063-939-3	27	0	3.3	2	4.3	5	73.7	3418
KS92P0263-137	24	4	3.3	2	2.2	6	74.3	3415
T83	45	9	3.7	5	2.9	7	73	3341
HBZ374C	9	19	4	3	1.3	4	75.1	3337
WI89-189-14	41	4	4.3	7	3.4	8	75.9	3293
CO880210	21	54	3.7	9	3.1	9	74.2	3285
NE90524	31	2	4	9	2.5	8	73.7	3272
TX89A7137	11	44	5	8	4.4	7	72.9	3244
NE91651	34	22	4	7	3.8	8	72.7	3228
KS92P0363-134	25	0	4	5	3.2	7	72.3	3216
NE90479	30	14	4.3	7	2.8	5	75.7	3213
OK88767-11	4	1	5.7	6	3.9	6	74.9	3199
TX89A7141	16	70	3.7	9	4.5	9	73.4	3198
CO880169	20	27	4.3	9	4.3	9	73.3	3168
PI495594	3	69	3	6	3.8	9	74	3158
TX90D9277	10	0	4.3	5	4.6	6	73.1	3140
OK90604	6	10	3.3	4	3.5	5	73.1	3125
T4732	43	42	3.7	6	2.3	8	70.5	3116
T4731	42	47	4.3	5	4.3	7	69.9	3110
TX91V4931	12	19	3.3	7	4.3	7	77	3099
TX90V6313	17	24	5.7	8	4.3	9	74.4	3073
OK90649	7	4	5	6	4.5	7	74.9	3059
OK91783	8	2	4.3	4	4.5	5	73.5	3037
TX92V4135	18	14	5.7	6	3.5	7	74	3036
CO910927	22	85	5	8	6	9	72	3025
TX91V3308	15	6	4	4	4.5	6	71.6	3012
TX90V8410	13	3	5	5	4.7	7	73.9	3008
OK88767-02	5	3	5.7	6	3.3	6	74.9	2991
TX90V7911	14	17	3.3	6	4.9	6	73.8	2929
N87V106	29	5	5	7	3	7	72.9	2913
NE91608	32	4	3	4	3.1	7	73.8	2877
NE91635	33	44	4.7	5	3.5	7	72.3	2760
CI13996	2	55	4.3	8	4.5	9	74.4	2562
CI1442	1	52	4	8	4.2	7	73	2125

Table 9. Seedling reaction of entries of the 1994 Uniform Southern Regional Hard Red Winter Wheat Performance Nursery to selected isolates of Puccinia graminis f. sp. tritici. (D.V. McVey, USDA-ARS, Cereal Rust Laboratory, U. of Minnesota, St. Paul, MN. 55108)

		Reaction Produced by Isolates							
		74-14-504C	75-32-1662A	76-00-118B	70-21-528A	71-00-24C	76-14-833B	76-21-702C	Postulated Sr
No	Cult/Line	RPQQ	RTQS	RTQQ	QFBS	QSHS	TNMK	RKQS	Gene
1	CI1442	S	S	S	S	S	S	S	None
2	CI13996	;1	S	0;	2-	S	S	S	17
3	PI495594	;1-	1	;1-	2=	2	2=	1	Amigo
4	OK88767-11	2=	1	2=	2=	2=	2=	2=	Amigo
5	OK88767-02	1-	2=	2=	2=	2=	1	2=	Amigo
6	OK90604	2=	2=	2=	2=	2=	2=	2=	Amigo
7	OK90649	2=	2=	2=	2=	2=	2=	1	Amigo
8	OK91783	0;	S	0;	0;	S	0	S	6,17
9	HBZ374C	23	23	23	S	S	S	S	+
10	TX90D9277	2-	2=:S	2=	2=	2-	2=,S	2=,S	seg 24/31
11	TX89A7137	;1-N	1N	0;	2	S	S	1N	10
12	TX91V4931	1	1	2=	2=	1	2=	2=	Amigo
13	TX90V8410	S,2=	S,2=	2=,S	2=	2=,S	2-,S	S,2-	seg Amigo
14	TX90V7911	2=,S	2-,S	2-,S	2=	S,2	S,2=	2-,S	seg Amigo
15	TX91V3308	0	;1-N	0;	0	2=	0	0;	6,17,Amigo
16	TX89A7141	XCN	23CN	23CN	2	S	S	23CN	10
17	TX90V6313	2-,S	2=,S	2=,S	2=	S,2-	S	1	+
18	TX92V4135	0;	23CN	0	2-	S	S	23CN	10,17,+
19	HBE0726-1	0;	2=	2=	0	2=	0	2-	6,24/31
20	CO880169	S	S	S	S	S	S	S	None
21	CO880210	0	1	0;	2=	2=	2=	2=	17,Amigo
22	CO910927	2=	2=	2=	1	2-	2	2=	Amigo
23	KS92P059E	0;	0;	0	0	S	0	0	6,10
24	KS92P0263-137	S	S	S,0	2=	S	2	0,S	+
25	KS92P0363-134	1N	1N	-	S	S	2-	XN	+
26	KS92P0425-155	0;	S	S	0	S	0	S	6
27	KS84063-9-39-3	1N	1N	23CN	1N	S	0	-	10
28	KS93U206	2=	1	2=	2=	2-	-	2=	Amigo
29	N87V106	0	-	-	0	2	0	2-	6,+
30	NE90479	0;	S	0;	2-	2-	2=	2-	17,+
31	NE90524	0;	23	0;	23	23	0	S	6,+
32	NE91608	0	23	0;	2-	2	2=	2=	17,24
33	NE91635	0;	;1-N	0;	0;	2	0	0	6,10,24
34	NE91651	0;	S	0;	2=	2-	2-	2-	17,+
35	XH1520	23C	23N	23C	2	23	S	-	10,+
36	XH1529	2=	2=	2=	2=	2-	1	2=	24
37	FH1689	0;	2-	2=	0;	2=	0	2-	6,24
38	XH1693	2-	;1N	S	2=	2-	S	1	+
39	XH1706	;1-	2=	2=	1	2=	1	1	24
40	WI89-273-13	0	2=	0;	2=	2=	0	0;	6,24
41	WI89-189-14	0;	2=	0	2=	0,2=	0	0	+
42	T4731	0	S	-	0;	S	0	S	6
43	T4732	0;	S	S	0	S	0	S	6
44	T81	0	0;	0;	0;	2=	2=	0	+
45	T83	o	0;	0;	;1-	0	0	0	+

Table 10. Seedling reaction of entries of the 1994 Southern Regional Performance Nusery to selected isolates of Puccinia recondita. Data provided by Don McVey, USDA-ARS, St. Paul, MN.

	Sel. no.	CLBN	TCBJ	PLML	PBDL	MGBN	CDBD	TDBN	Post. gene
1	Kharkof	S	S	S	S	S	S	S	none
2	Scout 66	;1-	S	0;	X-	S	S	S	+
3	TAM-107	S	S	S	S	S	S	S	none
4	OK88767-11	0;	-	0;	0	0;	0;	0;	24,26
5	OK88767-12	0;	21	0;	0;	0;	0;	0;	24,26
6	OK90604	;1-c	0;	0;	0;	0;	0;	0;,S	24,26
7	OK90649	0;	S	;1-	0;	;1	;1-	0;	26
8	OK91783	0;	0;	0;	0;	0;	0;	;1-c	24,26
9	HBZ374C	S	0;	S	0;	0;	0;	S	+
10	TX90D9277	S	0;	S	0;	0;	0;	0;,S	10,+
11	TX89A7137	23	;1-c	S	S	S	21,S	S	+
12	TX91V4931	0;	0;	0;	0;	0;	23	S	24
13	TX90V8410	23	0;	S	;1-	0;	0;	S	10,+
14	TX90V7911	S	0;	0;	0;	0;	0;	0;	9
15	TX91V3308	0;	2,0;	0;	0;	0;	;1-	0;	24,26
16	TX89A7141	23	0;	S	S	S	0;	S	10
17	TX90V6313	S	S	S	0;	S	S	S	+
18	TX92V4135	S,X	0;	S	23	S	0;	S	10
19	HBE0726-1	0;	21	0;	0;	0;	0;	0;	26
20	CO880169	S	;1-c,S	S	;1-c	21	S	S	+
21	CO880210	23	;1	S	23	23c	S	S	+
22	CO910927	S	S	S	S	S	S	S	none
23	KS92P059E	S	S	S	S	S	S	S	none
24	KS92P0263-137	S	0;	S	0;	S	21	S	+
25	KS92P0363-134	0;	;1-	0;	0;	0;	0;	0;	24,26
26	KS92P0425-155	S	S	S	S	S	S	S	none
27	KS84063-9-39-3	;1-c	;1c	;1-c	0;	;1c	0;	;1-c	21
28	KS93U206	S	0;	S,0;	0	0;	0,S	0;	10,+
29	N87V106	;1-c	0;,S	S	S	S,0;	-	S	+
30	NE90479	;1-c,S	2cn,S	;1	;1c	S	;1	S	+
31	NE90524	;1-	0;,2	0;,S	23	0;	23	S	+
32	NE91608	S	S	;1-c,S	X	S	S	S	+
33	NE91635	S	S	S	S	S	S	S	none
34	NE91651	;1c	;1c	21c,S	;1-	23	;1c	23	21
35	XH1520	23	S	S	S	S	S	S	none
36	XH1529;1-	0;	0;	0;	0;	0;	-	S	24
37	XH1689	0;	0;	0;	0;	0;	;1-c	;1-c,S	24,+
38	XH1693	S	S	S	S	S	S	S	none
39	XH1706	0;	S	;1c	;1-c	;1-c	;1-c	;1-c	+
40	WI89-273-13	0;	0;	0;	0;	0;	0;	S	10,24
41	WI89-189-14	0;	0;	0;	0;	0;	0;,S	S	10,24
42	T4731	S	S	S	S	S	S	S	none
43	T4732	S	S	S	S	S	S	S	none
44	T81	S	S	S	;1c,S	S	S	S	+
45	T83	S	S	S	S	S	S	S	none

Note: There is disagreement between #3 for leaf and stem rust reactions. I believe the stem rust reactions are incorrect.

Table 11. Adult plant reaction of the 1994 Southern Regional Hard Red Winter Wheat at St. Paul, Mn. to leaf and stem rust. Data provided by Don McVey, USDA-ARS, St. Paul.

Entry No.	Sel. No.	Headed	Leaf Rust 6/24	Leaf Rust 6/29	Stem Rust 6/24	Stem Rust 6/29	Stem Rust 7/6
1	CI1442	6/6	30S	60S	30S	60S	60S
2	CI13996	6/6	10-60S	60S	0	5MS-S	5MS-S
3	PI1495594	6/1	10S	60S	TR	20R-MR	40MR
4	OK88767-11	6/1	10S	20MS-S	TR	5MR	40MR
5	OK88767-02	6/1	TMS	40MS-S	TR	TR-MR	40MR
6	OK90604	6/1	TS	40S	TR	10MR	40MR
7	OK90649	6/1	TS	30MS-S	5R	10R-MR	40MR
8	OK91783	6/1	5MS-S	60S	20S	60S	60S
9	HBZ374C	6/1	TS-5S	5MR-MS	20S	60MS-S	60MS-S
10	TX90D9277	6/3	40S	60S	TR	60MS-S	60MS-S
11	TX89A7137	6/1	60S	60S	10MR-MS	60MS-S	60MS-S
12	TX91V4931	6/1	5MS-S	40MS-S	TR	20R-MR	40MR
13	TX90V8410	6/3	40S	60S	60S	60S	60S
14	TX90V7911	6/3	30S	60S	20MS-S	60S	60S
15	TX91V3308	6/1	TR	5MR-MS	0	TR	TR
16	TX89A7141	6/1	60S	60S	40S	80S	80S
17	TX90V6313	6/1	60S	60S	60S	80S	80S
18	TX92V4135	6/1	40-60S	40S	20MS-S	30MS-S	40S
19	HBE0726-1	6/3	TMS-S	5MS-S	0	TR	10MR
20	CO880169	6/3	20S	60S	5MS-S	20MR-S	20MR-S
21	CO880210	6/1	5MS-S	60S	TMR	10R-MR	30MR
22	CO910927	6/1	60S	60S	5MR	20MR-MS	40MS-S
23	KS92P059E	6/3	5MS-S	5MR-MS	TR	20MS-S	30MS-S
24	KS92P0263-137	6/3	30S	60S	40MS-S	80S	80S
25	KS92P0363-134	6/3	5S	5MS-S	20MS-S	40MS-S	60MS-S
26	KS92P0425-155	6/6	40S	60S	30MS-S	60S	60S
27	KS84063-9-39-3	6/1	TMS-S	10MS-S	TMR-MS	5R-MR	20MS-S
28	KS93U206	6/1	40MS-S	40S	TR	20MR	40MR
29	N87V106	6/1	5S	5MR-MS	5MR-S	20MS-S	40MS-S
30	NE90479	6/1	20S	40S	TR	20MR	40MR
31	NE90524	6/1	TMS-S	40MS-S	5MS-S,60S	20MS	40MS
32	NE91608	6/3	5S	60S	TR-MR	20MR-MS	40MS
33	NE91635	6/1	10S	60S	TR	5R-MR	10MR
34	NE91651	6/1	10S	50MS-S	5MS-S	40MS-S	40MS-S,TR
35	XH1520	6/1	30S	60S	50S	60S	60S
36	XH1529	6/1	5MS-S	60MS-S	5R	20MR	40MS-S
37	XH1689	6/1	5MS-S	5MR-MS	0	10R-MR	10R-MR
38	XH1693	6/1	80S	80S	80S	80S	80S
39	XH1706	6/1	5MS-S	5MR-MS	5R	10R-MR	40MR
40	WI89-273-13	6/1	5MS-S	5MR-MS	TR	5R	40MR
41	WI89-189-14	6/1	5MS-S	TMS-S	TR	5R-MR	40MR
42	T4731	6/3	40S	80S	20S	40S	60S
43	T4732	6/3	30S	80S	20MS-S	40MS-S	40MS-S
44	T81	6/1	TMR-MS	30MS-S	TR	20MR-MS	20MR-MS
45	T83	6/1	5MS-S	40MS-S	TR	30MR-MS	30MR-MS

Table 12. Genotypes entered in the 1994 Southern Regional Performance Nursery that possess the 1RS wheat-rye translocation. Data provided by Bob Graybosch, USDA-ARS, Lincoln, NE. Analytical methods were described in the 1993 Regional Report.

Entry	Selection	Translocation
1	CI1442	-
2	CI13996	-
3	PI495594	1AL.1RS
4	OK88767-11	1BL.1RS
5	OK88767-02	1BL.1RS
6	OK90604	1AL.1RS
7	OK90649	1BL.1RS
8	OK91783	-
9	HBZ374C	-
10	TX90D9277	1AL.1RS
11	TX89A7137	-
12	TX91V4931	1AL.1RS
13	TX90V8410	-
14	TX90V7911	-
15	TX91V3308	1BL.1RS
16	TX89A7141	-
17	TX90V6313	-
18	TX92V4135	-
19	HBE0726-1	1BL.1RS
20	CO880169	-
21	CO880210	1AL.1RS
22	CO910927	-
23	KS92PO59E	-
24	KS92PO263-137	-
25	KS92PO363-134	-
26	KS92PO425-155	-
27	KS84063-9-39-3	-
28	KS93U206	1AL.1RS
29	N87V106	-
30	NE90479	-
31	NE90524	-
32	NE91608	-
33	NE91635	-
34	NE91651	-
35	XH1520	-
36	XH1529	-
37	XH1689	1BL.1RS
38	XH1693	-
39	XH1706	1BL.1RS
40	WI89-273-13	1AL.1RS
41	WI89-189-14	1AL.1RS
42	T4731	-
43	T4732	-
44	T81	-
45	T83	1AL.1RS

Table 13. Mean coleoptile length, mean seed weight of the 45 entries in the 1994 Southern Regional Performance Nursery grown at Bushland, TX, with mean plant height of entries over all locations. Coleoptile and seed weight data provided by K.B. Porter.

Entry	C.I. or Seln.	Coleoptile Length				2-Site 1994 Mean wt. 16-Seed	Regional Mean Plant Height
		Bushland, TX		2-Site 1994	4-Site 1993-94		
		Rainfed	Irrigated	Mean	Mean		
		mm				mg	cm
2	CI13996	128	119	124	122	497	87
33	NE91635	118	116	117		417	75
1	CI1442	109	113	111	110	407	94
31	NE90524	109	107	108	105	413	78
10	TX90D9277	102	104	103	101	431	71
17	TX90V6313	100	97	99		513	66
28	KS93U206	98	96	97		527	71
3	PI495594	95	93	94	92	530	68
8	OK91783	95	93	94		462	72
5	OK88767-02	97	89	93		518	68
23	KS92PO59E	92	92	92	90	511	70
37	XH1689*	90	91	91		441	77
11	TX89A7137	94	88	91	89	508	68
9	HBZ374C	90	91	91		433	71
16	TX89A7141	89	90	90	87	511	68
7	OK90649	92	85	89		531	72
42	T4731	89	91	89	86	475	69
21	CO880210	89	89	89	87	451	70
27	KS84063-9-39-3	88	87	88		468	72
35	XH1520*	85	90	88	82	487	74
12	TX91V4931	84	89	87	86	422	69
20	CO880169	87	86	87	83	442	73
13	TX90V8410	91	81	86	83	473	69
6	OK90604	86	85	86		474	69
32	NE91608	85	83	84		453	77
18	TX92V4135	81	86	84		368	65
30	NE90479	84	83	84	81	459	79
29	N87V106	85	83	84	81	409	71
45	T83	85	81	83		490	72
4	OK88767-11	80	84	82	79	474	67
19	HBE0726-1	80	83	82		396	68
40	WI89-273-13	86	74	80		426	66
22	CO910927	80	80	80		463	67
25	KS92PO363-134	81	79	80	79	409	71
43	T4732	83	76	79		482	73
24	KS92PO263-137	76	82	79	78	498	71
41	WI89-189-14	79	77	78		538	64
44	T81	79	77	78		440	70
38	XH1693*	75	80	78		413	73
36	XH1529*	75	79	77	76	518	68
39	XH1706*	75	77	76		415	74
15	TX91V3308	78	73	76	72	436	70
26	KS92PO425-155	75	74	75	73	426	66
14	TX90V7911	78	72	75	70	391	70
34	NE91651	66	71	69		362	72
Mean		88	87	88	82	458	
LSD(0.05)				7	6	76	
C.V.				4	5	9	

* Hybrids were evaluated using F2 seed.

Table 13a. Correlation of coleoptile length of 1994 SRPN entries from two seed sources with mean seed weight and mean plant height over locations.

	Coleoptile Length		
	Bushland, TX		2-Site 1994
	Rainfed	Irrigated	Mean
r value - coleoptile length and weight of seed planted	0.08	0.25	0.15
probability > r	0.59	0.10	0.17
r value - coleoptile length and mean plant height	0.52	0.56	0.55
probability > r	<0.01	<0.01	<0.01

Table 14. Reactions of entries in the 1994 Southern Regional Performance Nursery to Soilborne Mosaic and Barley Yellow Dwarf Viruses. Data provided by A.D. Hewings, USDA-ARS, Urbana, IL.

		Soilborne Mosaic 0-9		Barley Yellow Dwarf 0-9	
Entry	Selection	Rep 1	Rep 2	Rep 1	Rep 2
1	CI1442	-	9	6	5
2	CI13996	-	7	5	5
3	PI495594	-	9	6	6
4	OK88767-11	-	-	-	5
5	OK88767-02	8	6	5	7
6	OK90604	8	6	7	6
7	OK90649	7	8	4	4
8	OK91783	9	5	5	6
9	HBZ374C	8	6	6	6
10	TX90D9277	9	-	5	6
11	TX89A7137	9	8	4	5
12	TX91V4931	6	-	5	6
13	TX90V8410	8	-	6	4
14	TX90V7911	9	-	6	6
15	TX91V3308	9	6	6	5
16	TX89A7141	9	9	5	5
17	TX90V6313	-	-	7	7
18	TX92V4135	-	6	6	6
19	HBE0726-1	4	9	4	6
20	CO880169	9	-	5	4
21	CO880210	-	9	5	5
22	CO910927	6	6	5	5
23	KS92PO59E	8	3	5	5
24	KS92PO263-137	9	6	3	5
25	KS92PO363-134	9	5	4	4
26	KS92PO425-155	6	3	5	5
27	KS84063-9-39-3	4	5	7	3
28	KS93U206	6	6	6	5
29	N87V106	7	7	8	8
30	NE90479	6	7	6	7
31	NE90524	7	9	6	7
32	NE91608	8	6	5	6
33	NE91635	6	9	6	5
34	NE91651	7	9	6	6
35	XH1520	9	5	5	5
36	XH1529	5	6	5	6
37	XH1689	8	7	4	4
38	XH1693	8	5	5	5
39	XH1706	4	5	4	5
40	WI89-273-13	7	5	7	7
41	WI89-189-14	8	9	7	6
42	T4731	6	7	4	4
43	T4732	6	5	4	4
44	T81	7	7	5	6
45	T83	8	6	4	4

Table 15. Reaction of entries in the 1994 Southern Regional Performance Nursery to wheat soilborne mosaic virus. Data provided by R.M. Hunger, W.C. Siegerist, and J.L. Sherwood, Stillwater, OK.

Entry No.	Sel. No.	Reaction to wheat soilborne mosaic virus* Visual (0-3) Rep 1	Rep 2	Rep 3	ELISA Rep 1	Rep 2	Rep 3
01	CI1442	2	3	3	1.453	1.758	1.847
02	CI13996	2	3	3	1.574	1.658	1.848
03	PI495594	1	3	2	0.904	1.701	1.850
04	OK88767-11	1	3	2	1.485	1.561	1.839
05	OK88767-02	0	0	0	1.220	0.005	0.032
06	OK90604	2	1	2	1.489	1.553	1.501
07	OK90649	2	1	2	1.593	1.629	1.746
08	OK91783	1	1	1	0.041	1.660	1.445
09	HBZ374C	1	0	0	0.009	0.055	0.113
10	TX90D9277	3	2	3	1.537	1.577	1.841
11	TX89A7137	2	2	2	1.189	1.676	1.715
12	TX91V4931	2	3	3	1.410	1.715	1.788
13	TX90V8410	1	3	2	1.433	1.781	1.744
14	TX90V7911	1	3	2	1.540	1.813	1.891
15	TX91V3308	0	0	0	0.022	0.041	0.163
16	TX89A7141	1	1	1	1.322	1.615	1.566
17	TX90V6313	2	1	1	1.548	1.875	1.717
18	TX92V4135	0	0	1	0.030	1.421	0.525
19	HBE0726-1	1	1	1	1.373	1.604	0.026
20	CO880169	1	1	3	1.598	1.593	1.608
21	CO880210	3	1	2	1.703	1.814	1.535
22	CO910927	1	1	0	0.012	0.021	0.068
23	KS92P059E	0	0	0	0.011	0.018	0.057
24	KS92PO263-137	0	0	0	0.003	0.014	0.014
25	KS92PO363-134	3	2	2	1.430	1.796	1.553
26	KS92PO425-155	0	0	0	0.030	0.012	0.025
27	KS84063-9-39-3	0	1	0	0.011	1.525	1.300
28	KS93U206	1	1	0	0.881	0.002	1.420
29	N87V106	2	2	2	1.531	1.569	1.599
30	NE90479	0	0	0	0.022	0.011	0.118
31	NE90524	3	2	2	1.801	1.774	1.546
32	NE91608	1	0	0	1.731	0.040	0.014
33	NE91635	3	2	2	1.649	1.764	1.396
34	NE91651	1	2	2	1.804	1.702	1.615
35	XH1520	0	0	0	0.346	0.066	0.022
36	XH1529	0	0	0	1.680	0.016	1.772
37	XH1689	1	0	0	1.801	1.718	1.680
38	XH1693	0	0	0	0.248	0.025	1.428
39	XH1706	0	0	0	1.665	0.022	1.635
40	WI89-273-13	0	0	1	1.021	0.010	0.003
41	WI89-189-14	1	2	0	1.573	1.595	1.970
42	T4731	1	1	0	0.005	0.001	0.028
43	T4732	0	0	0	0.003	0.003	0.004
44	T81	1	1	1	1.445	1.622	1.553
45	T83	0	0	0	0.011	0.025	0.006

*The SRPN was tested in the field, with each rep being one, three-foot row. Rows were rated ona scale where, 0=no stunting, no mosaic, 1=slight stunting and/or slight mosaic, 2=moderate stunting and/or moderate mosaic, and 3=severe stunting and/or severe mosaic. Foliage samples collected at the time of visual assessment were evaluated in ELISA as previously described (Hunger, et al., 1991. Crop Sci. 31:900-905).

Table 16. Reaction of entries in the 1994 Southern Regional Performance Nursery to tan spot. Data provided by R.M. Hunger, W.C. Siegerist, and C.K. Evans, Stillwater, OK.

Entry No.	Sel. No.	Reaction to tan spot* Rep 1	Rep 2	Rep 3
01	CI1442	4	3	3
02	CI13996	4	4	4
03	PI495594	4	4	3
04	OK88767-11	1	2	2
05	OK88767-02	3	-	3
06	OK90604	4	3	4
07	OK90649	2	3	2
08	OK91783	4	4	4
09	HBZ374C	4	3	3
10	TX90D9277	1	2	2
11	TX89A7137	4	4	4
12	TX91V4931	4	4	3
13	TX90V8410	4	3	3
14	TX90V7911	3	3	2
15	TX91V3308	2	2	2
16	TX89A7141	4	4	4
17	TX90V6313	4	4	3
18	TX92V4135	4	3	3
19	HBE0726-1	1	1	1
20	CO880169	3	4	4
21	CO880210	4	3	3
22	CO910927	4	3	3
23	KS92P059E	1	2	2
24	KS92PO263-137	3	3	3
25	KS92PO363-134	2	3	3
26	KS92PO425-155	4	3	3
27	KS84063-9-39-3	3	3	3
28	KS93U206	3	3	3
29	N87V106	4	4	4
30	NE90479	4	3	3
31	NE90524	4	4	4
32	NE91608	4	4	4
33	NE91635	4	4	4
34	NE91651	4	3	4
35	XH1520	3	2	3
36	XH1529	3	3	3
37	XH1689	4	3	3
38	XH1693	3	3	3
39	XH1706	2	2	2
40	WI89-273-13	2	3	3
41	WI89-189-14	3	3	3
42	T4731	3	2	3
43	T4732	3	2	2
44	T81	4	3	3
45	T83	2	3	2

*Clumps of seedlings with first leaves expanded were inoculated with conidia from three Pyrenophora tritici-repentis isolates at a final concentration of 2000 conidia/ml. Tan spot reaction was determined as, 1=small (1-2 mm), dark lesions with no or little chlorosis, 2=lesions 2-3 mm with some chlorosis, 3=lesions 2-3 mm with extensive chlorosis, and 4=lesions >3 mm with coalescing chlorosis and/or necrosis. A reaction of '1' typically occurred on 'Red Chief' checks, and a reaction of '4' typically occurred on 'Tam-105' checks.

Table 17. Aluminum tolerance of lines tested in the 1994 SRPN based on hematoxylin staining of seedling roots. (Data provided by B.F. Carver, Stillwater, OK).

Entry No.	Selection	Stain Intensity(a) Al Concentration (mM) 0.18	0.36	0.72	Rating(b)
1	CI1442	C	C	C	VS
2	CI13996	C	C	C	VS
3	PI495594	C	C	C	VS
4	OK88767-11	C	C	C	VS
5	OK88767-02	P	C	C	MS
6	OK90604	C	C	C	VS
7	OK90649	P	P+	C	I
8	OK91783	P/N	C/P	C/P	MS-T*
9	HBZ374C	P-	P+	C/P+	I-T*
10	TX90D9277	P-/P+	P-	C	I
11	TX89A7137	P-	P-	P+	T
12	TX91V4931	P	P	P	T
13	TX90V8410	P	P	P	T
14	TX90V7911	P+/P	C/P	C	MS-I*
15	TX91V3308	P	P	C	I
16	TX89A7141	N	P-	P+	T
17	TX90V6313	N/C	P-/C	P	VS-T*
18	TX92V4135	C/N	C/P-	C	VS-I*
19	HBE0726-1	P	C	C	MS
20	CO880169	C	C	C	VS
21	CO880210	P+	C	C	MS
22	CO910927	C	C	C	VS
23	KS92PO59E	P	P+	C	I
24	KS92PO263-137	P-	P	P	T
25	KS92PO363-134	N	N	P-	T
26	KS92PO425-155	P+	P+	C	I
27	KS84063-9-39-3	P-	P-	P	T
28	KS93U206	C	C	C	VS
29	N87V106	P-	C/P-	C/P	MS-T*
30	NE90479	P	C	C	MS
31	NE90524	C	C	C	VS
32	NE91608	P+	C	C	MS
33	NE91635	C	C	C	VS
34	NE91651	P	C	C	MS
35	XH1520	P-	P	C	I
36	XH1529	N	P-	P	T
37	XH1689	P-	P	C	I
38	XH1693	P	P	P+	T
39	XH1706	P	P	P+/C	I-T*
40	WI89-273-13	C	C	C	VS
41	WI89-189-14	C	C	C	VS
42	T4731	P+	C	C	MS
43	T4732	P	C	C	MS
44	T81	C	C	C	VS
45	T83	C	C	C	VS

(a) C, P, and N = complete, partial, and no staining of root tips, respectively; P- and P+ indicate light and dark intensity, respectively, of partial staining.

(b) VS = very susceptible, MS = moderately susceptible, I = intermediate and T = tolerant (0.72 mM Al); * = heterogeneous response; predominant stain intensity listed first for each Al concentration.

1994

Northern Regional Performance Nursery

Entry No.	Variety or Pedigree	Sel. No.	Source
1	Kharkof	CI1442	Check
2	Roughrider	CI17439	"
3**	Abilene	PI511307	"
4	Brule/Agate	SD89119	So. Dakota
5	Gent/Siouxland	SD89333	"
6*	Brule/OK754615E	SD89153	"
7*	Nell/KS81H16 4063	SD89180	"
8*	Centurk/Nell	SD89186	"
9*	NE77682/Dawn	SD89205	"
10*	2163's'/4/Sturdy/Aztec/3/PL145/NB/SRW//SRW	HBC197F	"
11	Nsr/4/Ctk//Wnk/Uln/3/SD76694	ND8933	No. Dakota
12	Seward/SD76705	ND8955	"
13	Mvr/KS79397//Nsr/3/Cody	ND8889	"
14	Rrr*2/1809//NE78414	ND90109	"
15*	Seward/Archer	ND8974	"
16*	Sdn*2/Bon//Frd/Nb68466	ND9043	"
17*	Rri//Frd/SD6689/3/Frd/NB68466	ND9064	"
18	TX79A2729//Caldwell/Brule seln/3/Siouxland	NE90625	Nebraska
19*	Arapahoe/Colt 83 Composite	NE90616	"
20*	Brule 84-11/Bighorn	NE91562	"
21*	NE82761/Brule 84	NE91631	"
22*	NE82671/NE80413	NE91648	"
23*	Quantum Hybrid Wheat	XNH1564	HybriTech
24*	" "	XNH1727	"
25*	" "	XNH1772	"
26*	" "	XNH-1	"
27*	" "	XNH-2	"
28	2*MC/NP824/3/LMH66/54117aB-2B-5//MC/6/2*IT/ UT175a-53//Bdls Burt/3/CI13438/4/BH/Rex//R/R /3/UT175a-53/5/CI14106/Clm//MC	IDO426	Idaho
29*	" "	IDO355HW	"

* New Entry
** New Seed Provided

Test Site Information - NRPN

Nebraska stations -- See information for SRPN.

South Dakota stations -- See information for SRPN.

Casselton, ND -- The nursery was planted on 9/14/93 on flax ground and fertilized in the spring for a 60 bu/a yield goal. September and October were extremely dry, resulting in poor fall establishment. Snow cover was plentiful throughout the winter. Stands were spotty in the spring and stands did not correlate well with historical winterhardiness data. Dry conditions persisted until heading in mid-June. Thereafter, moisture was higher than normal. Leaf and stem rust pressures were light. Yield limiting diseases were Septoria nodorum leaf spot and Fusarium head blight. The trial was harvested on 8/2/94.

Hettinger, ND -- The nursery was hailed out.

Williston, ND -- Planted on 9/11/93 into fallow soil with excellent stand establishment. Fertilizer applied was 80N:25P:0K. There were some early leaf spotting diseases and no insect pressure. Harvested July 25, 1993.

Waseca, MN -- Planted on 9/27/93 and harvested 7/20/94.

Rosemount, MN -- Planted on 9/24/93 and harvested on 7/15/94.

Archer, WY -- Moisture during the growing season was approximately half of normal, so yields and test weights were low.

Moccasin, MT -- Nursery was abandoned due to very poor stands.

Sidney, MT -- Planted on 9/16/93 into summer fallow. Precipitation for the crop year was 12.1 inches compared to 13.7 for average year. Fertilizer applied was 30 lbs/a N with 20 lbs/a residual. Harvested 8/3/94.

Bozeman, MT -- No additional information.

Aberdeen, ID -- See information for SRPN.

Lind, WA -- The nursery was abandoned.

Lethbridge, Alberta -- Planted on 9/25/93.

Table 18. Yield and agronomic data for 29 wheats grown in the Northern Regional Performance Nursery in 1993.

LINCOLN

NEBRASKA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	DAYS TO HEADING FROM 1/1
NE91648	22	4491	77	143
XNH1564	23	4415	77.4	143
XNH1772	25	4330	77.3	143
NE90625	18	4107	76.5	144
SD89333	5	4102	70.4	143
XNH1727	24	4072	76.5	144
XNH-2	27	4036	77.1	146
HBC197F	10	3969	78	143
SD89119	4	3965	79.5	144
IDO355HW	29	3946	76.9	147
NE91562	20	3892	77	143
ND8889	13	3866	77.7	146
SD89205	9	3846	77.9	143
SD89180	7	3806	79.7	143
NE90616	19	3779	73.8	143
PI511307	3	3775	79.3	144
NE91631	21	3649	76.9	146
SD89153	6	3642	81	143
SD89186	8	3628	77.7	143
ND8955	12	3619	76.8	145
XNH-1	26	3573	77.9	146
CI1442	1	3568	78.6	148
ND9064	17	3556	78.4	143
ND90109	14	3532	79.6	146
ND8974	15	3502	77.7	143
ND8933	11	3343	74.3	148
ND9043	16	3341	76.6	148
IDO426	28	3312	76.5	147
CI17439	2	3224	79.1	147
MEAN		3789		
LSD(.05)		545		
C.V.		8.8		

NORTH PLATTE

NEBRASKA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL
NE90625	18	4455	77.4
PI511307	3	4230	82.6
XNH1772	25	4209	81.3
SD89205	9	4165	80
XNH1564	23	4045	81.3
SD89333	5	4010	82.6
NE91648	22	3973	80
XNH1727	24	3941	80
SD89186	8	3828	81.3
ND8955	12	3822	77.4
XNH-1	26	3777	81.3
NE90616	19	3760	74.8
NE91631	21	3691	80
SD89119	4	3690	82.6
NE91562	20	3639	80
SD89180	7	3603	82.6
HBC197F	10	3590	80
ND8889	13	3584	81.3
XNH-2	27	3536	81.3
ND8933	11	3512	80
ND9064	17	3471	80
SD89153	6	3432	83.9
ND8974	15	3216	74.8
ND90109	14	3209	80
CI17439	2	3134	80
CI1442	1	3062	80
IDO355HW	29	3028	81.3
ND9043	16	2900	78.7
IDO426	28	2556	81.3
MEAN		3623	
LSD(.05)		577	
C.V.		9.8	

SIDNEY

NEBRASKA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	PLANT HEIGHT CM
SD89205	9	4928	84
XNH1727	24	4798	81
NE91631	21	4788	86
NE90625	18	4472	79
NE91562	20	4461	74
NE91648	22	4354	81
SD89153	6	4337	79
NE90616	19	4310	71
SD89333	5	4304	81
IDO426	28	4279	74
HBC197F	10	4261	81
IDO355HW	29	4212	89
ND8889	13	4137	91
PI511307	3	4122	66
ND8955	12	4052	84
SD89180	7	4037	84
SD89186	8	3970	86
ND90109	14	3926	91
ND9064	17	3899	91
ND8933	11	3896	91
SD89119	4	3737	79
ND8974	15	3612	86
CI17439	2	3522	86
CI1442	1	3200	97
ND9043	16	3048	94
MEAN		4107	
LSD(.05)		557	
C.V.		8.3	

HEMINGFORD

NEBRASKA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM
CI17439	2	3953	80	99
PI511307	3	3942	81.3	69
SD89119	4	3874	83.9	81
ND90109	14	3807	81.3	94
SD89186	8	3785	81.3	89
SD89180	7	3730	80	91
CI1442	1	3718	81.3	107
SD89333	5	3704	80	91
SD89153	6	3691	80	89
HBC197F	10	3666	80	81
NE90625	18	3661	74.8	81
IDO355HW	29	3651	80	89
NE91562	20	3587	81.3	84
NE91648	22	3573	80	89
IDO426	28	3551	80	71
ND8974	15	3494	78.7	91
ND8955	12	3487	76.1	89
NE90616	19	3485	76.1	76
SD89205	9	3480	78.7	86
ND8889	13	3448	78.7	97
NE91631	21	3324	80	91
XNH1727	24	3297	78.7	69
ND9064	17	3232	78.7	102
ND9043	16	3202	80	94
ND8933	11	2903	80	91
MEAN		3570		
LSD(.05)		N.S.		
C.V.		9.8		

BROOKINGS

S. DAKOTA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	DAYS TO HEADING FROM 1/1
ND8933	11	2598	74.1	162
CI17439	2	2284	76	161
SD89153	6	2284	77.4	157
ND8889	13	2282	74.9	162
ND8955	12	2242	73	161
XNH1772	25	2206	74.2	158
CI1442	1	2204	77	160
ND9064	17	2197	74.6	163
ND8974	15	1930	69.4	161
SD89333	5	1908	73.3	155
SD89205	9	1903	74.5	159
SD89186	8	1883	73.1	159
ROSE	30	1861	75.9	159
SD89119	4	1816	73.3	160
ND90109	14	1773	72.1	161
SD89180	7	1654	72.9	158
NE90616	19	1652	67.6	159
ND9043	16	1636	71.2	164
HBC197F	10	1537	72.8	158
NE91648	22	1466	71.4	160
NE91631	21	1459	67.9	161
NE90625	18	1414	68.1	162
NE91562	20	1349	68.2	160
XNH1564	23	1345	68.5	158
XNH-2	27	1335	71.1	161
PI511307	3	1280	65.5	160
XNH1727	24	1204	67.6	159
IDO426	28	999	66.2	163
IDO355HW	29	998	67.6	164
XNH-1	26	968	68.2	162
MEAN		1722		
LSD(.05)		745		
C.V.		26.3		

PIERRE

S. DAKOTA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM
SD89180	7	3150	77.1	46
CI1442	1	3100	77.2	58
ND9064	17	3015	79.2	55
CI17439	2	2972	77.1	56
SD89119	4	2912	76.7	50
SD89153	6	2898	77.2	50
XNH-1	26	2874	77.2	60
SD89333	5	2818	77.3	50
NE90625	18	2739	77	55
XNH-2	27	2730	78.6	50
XNH1564	23	2728	76.5	54
ND8889	13	2724	76	57
NE90616	19	2697	76.3	52
XNH1727	24	2659	75.8	51
ROSE	30	2573	76.7	56
XNH1772	25	2560	76.8	52
NE91631	21	2538	76.5	47
SD89205	9	2526	77.4	54
ND90109	14	2515	77	58
ND8955	12	2513	76.5	53
IDO355HW	29	2430	76.5	53
ND8974	15	2410	75.8	50
ND8933	11	2354	76	57
ND9043	16	2352	76.4	56
HBC197F	10	2340	75.6	50
IDO426	28	2253	76.6	50
SD89186	8	2224	74.8	47
PI511307	3	2204	75.7	44
NE91562	20	2015	75.8	55
NE91648	22	1876	74.6	52
MEAN		2590		
LSD(.05)		N.S.		
C.V.		25.2		

WINNER

S. DAKOTA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	WINTER SURVIVAL %
XNH1727	24	4817	76.1	80	154	87
NE91562	20	4788	75.2	81	153	97
NE90625	18	4598	74	75	154	83
XNH1772	25	4508	77.2	75	153	80
NE91648	22	4470	76.5	80	154	93
SD89119	4	4008	76.1	74	152	93
ND8889	13	3853	76	84	154	93
NE91631	21	3788	75.9	84	155	87
SD89186	8	3786	75	74	153	100
XNH1564	23	3768	73.4	75	154	63
SD89180	7	3723	77.4	76	153	73
ND8933	11	3663	72.2	90	157	83
ND90109	14	3645	75.1	86	155	93
ND8955	12	3508	74.9	75	154	83
NE90616	19	3508	70	71	154	80
XNH-1	26	3398	77.1	76	155	67
ND9064	17	3313	71.8	93	158	83
SD89153	6	3268	73.5	78	153	90
ND8974	15	3250	72	77	155	93
SD89205	9	3241	75.2	76	154	57
XNH-2	27	3217	70.3	72	155	97
HBC197F	10	3190	74.7	69	149	83
ND9043	16	3125	75.2	92	156	97
CI17439	2	2905	75.6	90	160	77
PI511307	3	2721	76	61	155	73
SD89333	5	2694	73	75	150	83
CI1442	1	2681	76.4	87	158	93
IDO426	28	1885	68.4	67	159	63
IDO355HW	29	1511	68.5	80	158	53
ROSE	30	1466	70	85	158	20
MEAN		3410				
LSD(.05)		1488				
C.V.		26.6				

CASSELTON

N. DAKOTA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	LODGING 0-9	STAND %
NE91562	20	4725	76.4	86	164	2	80
XNH1772	25	4538	76.8	84	162	2.7	75
NE91648	22	4504	77.2	85	166	1	68
NE90625	18	4440	77.2	79	162	0	72
XNH1727	24	4309	75.1	85	163	2	72
SD89186	8	4097	78.2	79	162	1.3	73
SD89333	5	4020	77.7	77	157	2	67
XNH-2	27	4008	75.6	78	163	0	77
NE90616	19	3950	74.8	73	162	0	78
SD89119	4	3939	77.9	83	160	2.3	65
SD89153	6	3922	79.7	79	164	1.3	73
CI17439	2	3821	77.4	97	165	6	73
XNH1564	23	3802	75.2	74	162	0.7	55
PI511307	3	3753	78	67	162	0	72
SEWARD	30	3743	74.9	94	166	1.3	67
NE91631	21	3666	73.4	90	167	0.7	67
SD89205	9	3625	77.5	79	162	2.3	68
ND8933	11	3565	72	97	169	3.3	63
SD89180	7	3561	78.5	82	162	2.7	70
ND8974	15	3541	74.2	84	165	0.3	65
ND9043	16	3303	73.4	101	169	3.7	52
HBC197F	10	3243	76.9	76	162	0.7	68
ND8889	13	3012	73.1	92	166	3	53
IDO426	28	2891	74.5	75	164	0.3	68
ND9064	17	2766	73.9	98	165	1.7	47
ND8955	12	2715	71.7	88	169	0.3	45
XNH-1	26	2585	71.2	80	165	0.3	38
CI1442	1	2582	74.3	104	171	4.7	52
ND90109	14	2551	73.8	94	166	0	57
IDO355HW	29	2125	70.4	88	167	3	45
MEAN		3577					
LSD(.05)		925					
C.V.		15.8					

WILLISTON

N. DAKOTA

FOUR REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	WINTER SURVIVAL %	LEAF DISEASE %
XNH1772	25	4433	80.9	74	151	99	55
PI511307	3	4105	82.2	63	150	99	47
XNH-2	27	4027	81.3	72	153	91	28
XNH1727	24	4018	79.7	75	151	88	68
SEWARD	30	3972	80.1	86	156	95	37
XNH1564	23	3917	80	70	150	88	70
ND8889	13	3882	80.2	80	154	99	42
ND8974	15	3871	79.6	78	154	99	53
IDO355HW	29	3867	79.7	84	155	88	38
SD89186	8	3853	80.8	75	151	90	62
ND9064	17	3799	80.5	88	155	95	18
NE91648	22	3775	81.1	76	153	94	48
XNH-1	26	3761	79.5	77	153	76	62
NE91631	21	3760	78.2	82	154	93	37
NE90625	18	3754	79.3	73	153	90	57
SD89153	6	3721	80.8	75	154	93	22
IDO426	28	3707	78.7	72	155	90	23
NE90616	19	3619	78.2	67	151	94	70
SD89333	5	3589	81.3	76	149	90	65
ND8933	11	3575	79.5	85	155	96	35
SD89119	4	3538	80.9	76	151	90	33
SD89205	9	3537	80.9	76	151	84	67
NE91562	20	3537	79.9	79	152	90	52
ND8955	12	3517	78.9	76	153	90	53
HBC197F	10	3496	80.4	67	150	86	57
ND9043	16	3429	79.6	90	156	100	28
CI17439	2	3392	80.2	85	155	99	47
ND90109	14	3142	78	83	154	95	57
SD89180	7	3069	81.1	76	150	80	57
CI1442	1	2649	77.8	100	154	79	53
MEAN		3677					
LSD(.05)		581					
C.V.		11.2					

WASECA

MINNESOTA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	LEAF RUST SEV. %	RESP 0-9	LEAF DISEASE 0-9
XNH1772	25	5289	71.9	82	156	1	2	3
NE91562	20	4786	71.1	82	157	30	5	3
NE90616	19	4771	69.7	78	157	50	7	2
ND8955	12	4611	71.3	86	158	.	2	3
XNH1727	24	4601	69.8	85	156	5	8	2.3
XNH1564	23	4541	70	75	158	30	8	2.3
NE91648	22	4539	73	86	157	60	8	3.3
ND9064	17	4534	73.6	102	156	15	8	3.7
ND8933	11	4517	72.6	95	157	.	2	3
NE90625	18	4443	71.2	80	158	20	7	2.3
ND9043	16	4436	74	102	156	5	5	4
CI17439	2	4280	73.8	90	157	80	8	3
XNH-1	26	4234	71.4	79	157	80	8	2.3
ND8889	13	4233	71.6	91	156	20	7	2.7
SD89119	4	4232	73.1	80	157	.	.	2
SD89205	9	4187	71.5	80	157	.	.	3
NE91631	21	4153	70.3	93	157	60	8	1.7
ND90109	14	4091	73.1	93	156	1	2	2
SD89153	6	3925	73.2	84	157	100	8	2.3
ND8974	15	3919	70.4	86	157	.	.	2.7
SD89333	5	3874	71.3	76	156	.	.	3.3
SD89186	8	3861	70.5	75	157	.	.	2.7
XNH-2	27	3772	70.2	77	157	.	.	2
SD89180	7	3687	72.6	81	156	90	8	2.7
CI1442	1	3536	72.6	89	156	.	.	3.7
HBC197F	10	3423	71.1	73	157	.	.	3.3
PI511307	3	3319	70.6	63	159	.	.	1.7
IDO355HW	29	2241	70.2	98	158	.	.	2
IDO426	28	1553	64.7	69	159	90	8	1.7
MEAN		4055						
LSD(.05)		556						
C.V.		8.4						

ROSEMOUNT, MINNESOTA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	LEAF RUST SEV. %	LEAF RUST RESP 0-9	LEAF RUST SEV. %	LEAF RUST RESP 0-9	LEAF DISEASE 0-9	MILDEW 0-9
XNH1727	24	6824	76.4	100	154	5	8	5	5	1.7	.
XNH1772	25	6764	76.6	98	154	1	8	5	3	1.3	.
XNH1564	23	6511	76.8	87	153	10	8	5	7	1.3	.
NE91631	21	6086	74.6	101	156	10	8	50	8	1.7	.
ND8955	12	6069	78.6	102	157	1	.	1	2	2.7	.
NE91648	22	5991	77.5	97	154	10	8	10	7	3	.
NE91562	20	5947	74.2	94	155	5	8	5	7	4.3	.
SD89119	4	5833	77.7	99	153	10	8	90	8	2	.
NE90616	19	5756	73.8	91	154	1	.	5	5	1.3	.
SD89153	6	5733	79.1	95	155	5	8	60	8	1.7	.
SD89205	9	5706	77.3	96	154	5	8	5	7	3.3	.
SD89186	8	5583	75.5	97	153	20	8	.	.	3.7	.
NE90625	18	5545	76	94	154	1	8	10	7	1.7	.
SD89180	7	5411	78	100	154	20	8	90	8	3.7	.
ND8974	15	5386	76.6	101	157	40	8	80	8	2.3	.
ND8889	13	5378	76.9	110	156	5	8	10	8	3	.
ND9064	17	5326	76.6	103	156	5	8	10	7	4	.
XNH-1	26	5252	75.5	93	156	30	8	50	8	1	5
XNH-2	27	5249	73.5	97	155	70	8	.	.	1.3	7
ND8933	11	5247	76.2	110	159	1	.	10	5	3	4
CI17439	2	5234	75.7	112	157	40	8	100	8	4.3	.
HBC197F	10	5106	75.9	99	152	40	8	40	8	1.3	.
SD89333	5	5068	75.9	99	153	15	8	100	8	4.7	.
PI511307	3	5043	73.8	77	154	60	8	.	.	1	7
ND9043	16	4775	75.7	106	158	1	.	20	7	5	.
CI1442	1	4650	77.1	101	152	40	8	.	.	3.3	.
ND90109	14	4584	76.4	109	157	10	8	1	2	1.3	.
IDO355HW	29	3772	75.1	106	159	80	8	.	.	1.3	.
IDO426	28	3034	67.1	85	159	60	8	.	.	1.3	4
MEAN		5409									
LSD(.05)		723									
C.V.		8.2									

ARCHER

WYOMING

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	WINTER SURVIVAL %
XNH1727	24	1520	68.9	46	156	91
PI511307	3	1401	72.9	41	155	91
XNH-1	26	1399	68.4	45	158	89
SD89153	6	1397	70.7	49	158	97
ND9064	17	1370	69.9	51	159	95
XNH1564	23	1352	69.3	44	155	91
XNH-2	27	1352	72.8	45	158	95
HBC197F	10	1316	70	42	154	93
BUCKSKIN	30	1267	72	47	157	91
SD89333	5	1251	67.7	44	154	87
NE90625	18	1224	66.2	45	157	93
SD89186	8	1202	68.5	47	156	94
CI1442	1	1170	71.1	47	157	86
NE91648	22	1139	67.7	46	158	97
SD89119	4	1123	68.6	46	158	87
ND8933	11	1121	71.2	50	161	91
NE90616	19	1116	65.4	44	158	96
SD89180	7	1103	71.1	46	156	96
IDO426	28	1089	68	47	160	89
NE91562	20	1085	69.4	47	158	94
XNH1772	25	1085	71.1	44	155	96
SD89205	9	1083	66.6	44	157	91
IDO355HW	29	1027	63.9	47	163	89
ND9043	16	1004	67.5	48	161	93
NE91631	21	982	67	47	158	95
CI17439	2	928	70.7	47	160	93
ND8955	12	926	65.8	47	160	94
ND8889	13	894	66.4	47	161	93
ND8974	15	894	66.8	47	160	91
ND90109	14	874	67.5	45	161	90
MEAN		1156				
LSD(.05)		302				
C.V.		16.0				

SIDNEY

MONTANA

FOUR REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	WINTER SURVIVAL %	GRAIN PROTEIN %
XNH-1	26	4302	81.6	72	157	85	10.8
XNH1727	24	4209	81.7	77	156	86	11.9
IDO355HW	29	4081	81	90	160	79	11.1
NE90625	18	4072	80	76	155	88	10.8
XNH-2	27	4061	82.2	71	157	76	11.3
ND8889	13	4057	81.5	90	158	91	11.1
ND9064	17	4054	80.9	94	158	90	11.8
ND8955	12	4039	80.4	81	158	86	10.8
SD89153	6	3992	81.7	77	157	85	12.7
ND8974	15	3984	81.6	78	158	93	10.8
XNH1772	25	3953	80.4	78	155	90	11.9
NE91631	21	3947	79.3	82	158	85	10
SD89180	7	3914	81.8	79	155	86	12.9
XNH1564	23	3832	81.2	69	155	81	12
NE91562	20	3789	80.7	78	156	93	12.6
SD89186	8	3717	80.7	73	155	90	11.8
NE91648	22	3656	81.2	77	156	89	12
CI17439	2	3648	81.5	92	159	86	11.5
NE90616	19	3634	78.5	70	155	94	12.5
ND90109	14	3570	79.9	86	158	90	11.1
SD89205	9	3552	81.1	72	154	88	12.4
IDO426	28	3552	78.6	75	160	74	10.3
ND8933	11	3542	79.9	91	160	85	10.7
SD89119	4	3484	79.6	74	155	81	12.9
ND9043	16	3464	79.9	92	159	93	12.1
PI511307	3	3371	81.8	61	155	86	13.1
SD89333	5	3365	81.2	72	153	83	12.9
HBC197F	10	3280	80.8	72	154	74	12.9
CI1442	1	3136	81.2	93	159	89	12.4
MEAN		3768					
LSD(.05)		519					
C.V.		9.8					

BOZEMAN

MONTANA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1
XNH-1	26	6723	81.2	94	161
IDO426	28	6641	80.5	81	164
XNH1564	23	6515	80.5	91	158
XNH1727	24	6467	80.5	98	159
XNH-2	27	6276	81.4	87	160
IDO355HW	29	6200	81.1	106	164
NE91631	21	6112	79.9	99	162
SD89333	5	5958	81.7	97	156
XNH1772	25	5916	80.8	91	158
NE90616	19	5907	79.6	83	159
ND8889	13	5698	80.8	104	163
NE91562	20	5576	80.1	97	161
ND8955	12	5446	80.1	102	163
NE91648	22	5341	80.8	97	160
SD89205	9	5337	81.6	94	158
PI511307	3	5225	81.8	75	157
NE90625	18	5174	80.5	91	158
ND90109	14	5167	80.8	107	163
HBC197F	10	5098	81.4	88	158
SD89119	4	5059	81.1	95	158
ND8974	15	5033	80	101	162
SD89153	6	4948	81.6	97	162
ND9064	17	4932	80.8	121	164
SD89180	7	4778	81.2	98	158
ND8933	11	4772	80.2	112	164
SD89186	8	4641	80.5	95	158
CI17439	2	4255	80.7	113	164
ND9043	16	4012	79.2	117	165
CI1442	1	3864	78.7	119	163
MEAN		5416			
LSD(.05)		481			
C.V.		5.4			

LETHBRIDGE, ALBERTA

FOUR REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	TAN SPOT LOWER LF %	TAN SPOT MIDDLE LF %	LEAFSPOT 0-9
XNH-2	27	5257	81.2	79	162	5	0	1.7
IDO426	28	5247	79.2	76	164	3.3	0.3	2
NE91631	21	5110	79.5	87	164	3.7	0.7	2.3
XNH-1	26	5023	80.2	83	162	13.3	0	2
NE90616	19	4943	78.6	77	160	18.3	0.7	2.7
IDO355HW	29	4904	80.6	90	164	1	0	1.3
XNH1564	23	4808	79.8	78	158	1	0	1.3
XNH1772	25	4792	80.3	80	161	7	0	2.7
SD89205	9	4641	81.5	87	159	8.3	0.7	2.3
XNH1727	24	4605	79.6	82	161	5.3	0	2
SD89333	5	4595	80.7	88	156	1.3	0	1.7
NE91562	20	4589	80.7	86	160	6.7	0	1.3
NE91648	22	4586	80.8	83	162	7	0	2
ND8889	13	4573	80.1	98	163	11.7	0	3
ND8955	12	4527	79	89	164	20	2	2.7
READYMADE	30	4482	80.6	97	163	26.7	2.3	4
SD89119	4	4470	81.2	84	159	13.3	0	2
PI511307	3	4243	82.6	66	159	6.7	0	1.7
NE90625	18	4214	80.3	80	162	20	7.3	3.3
ND8974	15	4181	79.4	86	164	15	3.3	2.7
ND90109	14	4139	80.6	86	164	20	0.7	3
SD89180	7	4097	81	85	160	7.3	0	2.3
SD89153	6	4056	81.9	83	161	5.3	0	3
HBC197F	10	4055	80.9	73	159	2.3	0.3	2
ND9043	16	4022	79.1	104	164	20	0.3	2
SD89186	8	3963	80.5	88	158	15	0	2.3
ND8933	11	3830	79.1	103	164	21.7	10	2.7
ND9064	17	3778	80.4	105	164	25.3	0	2
CI17439	2	3738	81.1	101	163	21.7	1	2.7
CI1442	1	3512	80.3	105	164	28.3	0.3	3
MEAN		4431						
LSD(.05)		640						
C.V.		8.8						

Table 19. Summary of mean yields (kg/ha) of 29 wheats in the 1994 Northern Regional Performance Nursery at 15 locations with state means and ranks.

C.I. OR SEL. NO.	ENTRY NO.	LINCOLN NEBRASKA		NORTH PLATTE NEBRASKA		SIDNEY NEBRASKA		HEMING-FORD NEBRASKA		NEBRASKA STATE MEAN		WASECA MINNESOTA		ROSEMOUNT MINNESOTA		MINNESOTA STATE MEAN	
XNH1772	25	4330	3	4209	3	.	.	.	.	4269	1	5289	1	6764	2	6027	1
XNH1727	24	4072	6	3941	8	4798	2	3297	22	4027	7	4601	5	6824	1	5712	2
XNH1564	23	4415	2	4045	5	.	.	.	.	4230	2	4541	6	6511	3	5526	3
NE90625	18	4107	4	4455	1	4472	4	3661	11	4174	3	4443	10	5545	13	4994	10
NE91562	20	3892	11	3639	15	4461	5	3587	13	3895	9	4786	2	5947	7	5366	4
NE91648	22	4491	1	3973	7	4354	6	3573	14	4098	5	4539	7	5991	6	5265	6
NE91631	21	3649	17	3691	13	4788	3	3324	21	3863	11	4153	17	6086	4	5120	8
NE90616	19	3779	15	3760	12	4310	8	3485	18	3834	12	4771	3	5756	9	5263	7
XNH-2	27	4036	7	3536	19	.	.	.	.	3786	16	3772	23	5249	19	4511	22
SD89205	9	3846	13	4165	4	4928	1	3480	19	4105	4	4187	16	5706	11	4947	11
SD89119	4	3965	9	3690	14	3737	21	3874	3	3816	13	4232	15	5833	8	5033	9
ND8889	13	3866	12	3584	18	4137	13	3448	20	3759	18	4233	14	5378	16	4806	15
SD89333	5	4102	5	4010	6	4304	9	3704	8	4030	6	3874	21	5068	23	4471	23
SD89153	6	3642	18	3432	22	4337	7	3691	9	3775	17	3925	19	5733	10	4829	14
XNH-1	26	3573	21	3777	11	.	.	.	.	3675	21	4234	13	5252	18	4743	17
ND8955	12	3619	20	3822	10	4052	15	3487	17	3745	19	4611	4	6069	5	5340	5
SD89186	8	3628	19	3828	9	3970	17	3785	5	3803	14	3861	22	5583	12	4722	18
SD89180	7	3806	14	3603	16	4037	16	3730	6	3794	15	3687	24	5411	14	4549	21
ND9064	17	3556	23	3471	21	3899	19	3232	23	3540	23	4534	8	5326	17	4930	12
PI511307	3	3775	16	4230	2	4122	14	3942	2	4017	8	3319	27	5043	24	4181	26
ND8933	11	3343	26	3512	20	3896	20	2903	25	3413	27	4517	9	5247	20	4882	13
ND8974	15	3502	25	3216	23	3612	22	3494	16	3456	25	3919	20	5386	15	4653	19
HBC197F	10	3969	8	3590	17	4261	11	3666	10	3872	10	3423	26	5106	22	4265	25
CI17439	2	3224	29	3134	25	3522	23	3953	1	3458	24	4280	12	5234	21	4757	16
ND90109	14	3532	24	3209	24	3926	18	3807	4	3619	22	4091	18	4584	27	4338	24
ND9043	16	3341	27	2900	28	3048	25	3202	24	3122	29	4436	11	4775	25	4605	20
IDO355HW	29	3946	10	3028	27	4212	12	3651	12	3709	20	2241	28	3772	28	3006	28
CI1442	1	3568	22	3062	26	3200	24	3718	7	3387	28	3536	25	4650	26	4093	27
IDO426	28	3312	28	2556	29	4279	10	3551	15	3424	26	1553	29	3034	29	2294	29
MEAN		3789		3623		4107		3570		3767		4055		5409		4732	
LSD(.05)		545		577		557		N.S.		425		556		723		642	
C.V.		8.8		9.8		8.3		9.8		9.0		8.4		8.2		8.3	

Table 19. Continued.

C.I. OR SEL. NO.	ENTRY NO.	BROOKINGS S. DAKOTA		PIERRE S. DAKOTA		WINNER S. DAKOTA		SOUTH DAKOTA STATE MEAN		WILLISTON N. DAKOTA		CASSELTON N. DAKOTA		NORTH DAKOTA STATE MEAN	
XNH1772	25	2206	6	2560	15	4508	4	3091	1	4433	1	4538	2	4486	1
XNH1727	24	1204	26	2659	14	4817	1	2893	5	4018	4	4309	5	4164	2
XNH1564	23	1345	23	2728	11	3768	10	2614	17	3917	5	3802	13	3860	9
NE90625	18	1414	21	2739	9	4598	3	2917	3	3754	14	4440	4	4097	5
NE91562	20	1349	22	2015	28	4788	2	2718	12	3537	21	4725	1	4131	4
NE91648	22	1466	19	1876	29	4470	5	2604	18	3775	11	4504	3	4140	3
NE91631	21	1459	20	2538	16	3788	8	2595	19	3760	13	3666	15	3713	14
NE90616	19	1652	16	2697	13	3508	14	2619	16	3619	17	3950	9	3784	12
XNH-2	27	1335	24	2730	10	3217	21	2427	23	4027	3	4008	8	4018	6
SD89205	9	1903	11	2526	17	3241	20	2557	20	3537	22	3625	16	3581	17
SD89119	4	1816	13	2912	5	4008	6	2912	4	3538	20	3939	10	3738	13
ND8889	13	2282	4	2724	12	3853	7	2953	2	3882	6	3012	22	3447	19
SD89333	5	1908	10	2818	8	2694	26	2473	22	3589	18	4020	7	3804	11
SD89153	6	2284	2	2898	6	3268	18	2817	9	3721	15	3922	11	3822	10
XNH-1	26	968	29	2874	7	3398	16	2414	24	3761	12	2585	26	3173	25
ND8955	12	2242	5	2513	19	3508	14	2754	10	3517	23	2715	25	3116	26
SD89186	8	1883	12	2224	26	3786	9	2631	15	3853	9	4097	6	3975	7
SD89180	7	1654	15	3150	1	3723	11	2842	7	3069	28	3561	18	3315	22
ND9064	17	2197	8	3015	3	3313	17	2842	8	3799	10	2766	24	3283	24
PI511307	3	1280	25	2204	27	2721	25	2068	27	4105	2	3753	14	3929	8
ND8933	11	2598	1	2354	22	3663	12	2872	6	3575	19	3565	17	3570	18
ND8974	15	1930	9	2410	21	3250	19	2530	21	3871	7	3541	19	3706	15
HBC197F	10	1537	18	2340	24	3190	22	2356	26	3496	24	3243	21	3370	20
CI17439	2	2284	2	2972	4	2905	24	2721	11	3392	26	3821	12	3606	16
ND90109	14	1773	14	2515	18	3645	13	2644	14	3142	27	2551	28	2846	28
ND9043	16	1636	17	2352	23	3125	23	2371	25	3429	25	3303	20	3366	21
IDO355HW	29	998	28	2430	20	1511	29	1646	29	3867	8	2125	29	2996	27
CI1442	1	2204	7	3100	2	2681	27	2662	13	2649	29	2582	27	2616	29
IDO426	28	999	27	2253	25	1885	28	1712	28	3707	16	2891	23	3299	23
MEAN		1717		2591		3477		2595		3667		3571		3619	
LSD(.05)		761		N.S.		1452		N.S.		591		932		N.S.	
C.V.		26.8		25.5		25.6		26.7		11.5		16.0		13.4	

Table 19. Concluded.

C.I. OR SEL. NO.	ENTRY NO.	SIDNEY MONTANA		BOZEMAN MONTANA		MONTANA STATE MEAN		ARCHER WYOMING		LETHBRIDGE ALBERTA		REGIONAL AVERAGE		
XNH1772	25	3953	11	5916	9	4935	8	1085	19	4792	8	4199	1	*
XNH1727	24	4209	2	6467	4	5338	2	1520	1	4605	10	4089	2	
XNH1564	23	3832	14	6515	3	5174	3	1352	7	4808	7	3968	3	*
NE90625	18	4072	4	5174	17	4623	14	1224	10	4214	18	3888	4	
NE91562	20	3789	15	5576	12	4683	12	1085	19	4589	12	3851	5	
NE91648	22	3656	17	5341	14	4499	16	1139	13	4586	13	3849	6	
NE91631	21	3947	12	6112	7	5029	7	982	24	5110	3	3804	7	
NE90616	19	3634	19	5907	10	4770	10	1116	16	4943	5	3792	8	
XNH-2	27	4061	5	6276	5	5169	4	1352	6	5257	1	3758	9	*
SD89205	9	3552	21	5337	15	4444	19	1083	21	4641	9	3717	10	
SD89119	4	3484	24	5059	20	4272	23	1123	14	4470	16	3712	11	
ND8889	13	4057	6	5698	11	4878	9	894	27	4573	14	3708	12	
SD89333	5	3365	27	5958	8	4661	13	1251	9	4595	11	3684	13	
SD89153	6	3992	9	4948	22	4470	18	1397	4	4056	22	3683	14	
XNH-1	26	4302	1	6723	1	5512	1	1399	3	5023	4	3682	15	*
ND8955	12	4039	8	5446	13	4743	11	926	26	4527	15	3673	16	
SD89186	8	3717	16	4641	26	4179	25	1202	11	3963	25	3601	17	
SD89180	7	3914	13	4778	24	4346	21	1103	17	4097	21	3555	18	
ND9064	17	4054	7	4932	23	4493	17	1370	5	3778	27	3549	19	
PI511307	3	3371	26	5225	16	4298	22	1401	2	4243	17	3516	20	
ND8933	11	3542	23	4772	25	4157	26	1121	15	3830	26	3496	21	
ND8974	15	3984	10	5033	21	4509	15	894	27	4181	19	3482	22	
HBC197F	10	3280	28	5098	19	4189	24	1316	8	4055	23	3438	23	
CI17439	2	3648	18	4255	27	3952	27	928	25	3738	28	3419	24	
ND90109	14	3570	20	5167	18	4368	20	874	29	4139	20	3368	25	
ND9043	16	3464	25	4012	28	3738	28	1004	23	4022	24	3203	26	
IDO355HW	29	4081	3	6200	6	5141	5	1027	22	4904	6	3199	27	
CI1442	1	3136	29	3864	29	3500	29	1170	12	3512	29	3109	28	
IDO426	28	3552	21	6641	2	5096	6	1089	18	5247	2	3103	29	
MEAN		3768		5416		4592		1153		4431		3619		
LSD(.05)		519		481		N.S.		302		640		338		
C.V.		9.8		5.4		7.6		16.0		8.8		12.5		

* Not grown at all locations

Table 20. Summary of mean yields (kg/ha) and ranks of 29 wheats grown in the 1994 Northern Regional Performance Nursery at 9 locations from which a CV of 15.0 or less and a significant F test for entries were obtained.

C.I. OR SEL. NO.	ENTRY NO.	LINCOLN NEBRASKA		NORTH PLATTE NEBRASKA		SIDNEY NEBRASKA		ROSEMOUNT MINNESOTA		WASECA MINNESOTA	
XNH1772	25	4330	3	4209	3	.	.	6764	2	5289	1
XNH1727	24	4072	6	3941	8	4798	2	6824	1	4601	5
XNH1564	23	4415	2	4045	5	.	.	6511	3	4541	6
NE91631	21	3649	17	3691	13	4788	3	6086	4	4153	17
XNH-1	26	3573	21	3777	11	.	.	5252	18	4234	13
XNH-2	27	4036	7	3536	19	.	.	5249	19	3772	23
NE91648	22	4491	1	3973	7	4354	6	5991	6	4539	7
NE90616	19	3779	15	3760	12	4310	8	5756	9	4771	3
NE90625	18	4107	4	4455	1	4472	4	5545	13	4443	10
NE91562	20	3892	11	3639	15	4461	5	5947	7	4786	2
SD89205	9	3846	13	4165	4	4928	1	5706	11	4187	16
ND8955	12	3619	20	3822	10	4052	15	6069	5	4611	4
ND8889	13	3866	12	3584	18	4137	13	5378	16	4233	14
SD89333	5	4102	5	4010	6	4304	9	5068	23	3874	21
SD89119	4	3965	9	3690	14	3737	21	5833	8	4232	15
SD89153	6	3642	18	3432	22	4337	7	5733	10	3925	19
PI511307	3	3775	16	4230	2	4122	14	5043	24	3319	27
ND9064	17	3556	23	3471	21	3899	19	5326	17	4534	8
SD89186	8	3628	19	3828	9	3970	17	5583	12	3861	22
ND8974	15	3502	25	3216	23	3612	22	5386	15	3919	20
SD89180	7	3806	14	3603	16	4037	16	5411	14	3687	24
HBC197F	10	3969	8	3590	17	4261	11	5106	22	3423	26
IDO355HW	29	3946	10	3028	27	4212	12	3772	28	2241	28
ND8933	11	3343	26	3512	20	3896	20	5247	20	4517	9
ND90109	14	3532	24	3209	24	3926	18	4584	27	4091	18
CI17439	2	3224	29	3134	25	3522	23	5234	21	4280	12
IDO426	28	3312	28	2556	29	4279	10	3034	29	1553	29
ND9043	16	3341	27	2900	28	3048	25	4775	25	4436	11
CI1442	1	3568	22	3062	26	3200	24	4650	26	3536	25
MEAN		3789		3623		4107		5409		4055	
LSD(.05)		545		577		557		723		556	
C.V.		8.8		9.8		8.3		8.2		8.4	

Table 20. Concluded.

C.I. OR SEL. NO.	ENTRY NO.	SIDNEY MONTANA		BOZEMAN MONTANA		WILLISTON N. DAKOTA		LETHBRIDGE ALBERTA		REGIONAL AVERAGE	
XNH1772	25	3953	11	5916	9	4433	1	4792	8	4961	1 *
XNH1727	24	4209	2	6467	4	4018	4	4605	10	4837	2
XNH1564	23	3832	14	6515	3	3917	5	4808	7	4823	3 *
NE91631	21	3947	12	6112	7	3760	13	5110	3	4589	4
XNH-1	26	4302	1	6723	1	3761	12	5023	4	4580	5 *
XNH-2	27	4061	5	6276	5	4027	3	5257	1	4527	6 *
NE91648	22	3656	17	5341	14	3775	11	4586	13	4523	7
NE90616	19	3634	19	5907	10	3619	17	4943	5	4498	8
NE90625	18	4072	4	5174	17	3754	14	4214	18	4471	9
NE91562	20	3789	15	5576	12	3537	21	4589	12	4469	10
SD89205	9	3552	21	5337	15	3537	22	4641	9	4433	11
ND8955	12	4039	8	5446	13	3517	23	4527	15	4411	12
ND8889	13	4057	6	5698	11	3882	6	4573	14	4379	13
SD89333	5	3365	27	5958	8	3589	18	4595	11	4318	14
SD89119	4	3484	24	5059	20	3538	20	4470	16	4223	15
SD89153	6	3992	9	4948	22	3721	15	4056	22	4198	16
PI511307	3	3371	26	5225	16	4105	2	4243	17	4159	17
ND9064	17	4054	7	4932	23	3799	10	3778	27	4150	18
SD89186	8	3717	16	4641	26	3853	9	3963	25	4116	19
ND8974	15	3984	10	5033	21	3871	7	4181	19	4078	20
SD89180	7	3914	13	4778	24	3069	28	4097	21	4045	21
HBC197F	10	3280	28	5098	19	3496	24	4055	23	4031	22
IDO355HW	29	4081	3	6200	6	3867	8	4904	6	4028	23
ND8933	11	3542	23	4772	25	3575	19	3830	26	4026	24
ND90109	14	3570	20	5167	18	3142	27	4139	20	3929	25
CI17439	2	3648	18	4255	27	3392	26	3738	28	3825	26
IDO426	28	3552	21	6641	2	3707	16	5247	2	3765	27
ND9043	16	3464	25	4012	28	3429	25	4022	24	3714	28
CI1442	1	3136	29	3864	29	2649	29	3512	29	3464	29
MEAN		3768		5416		3667		4431		4261	
LSD(.05)		519		481		591		640		413	
C.V.		9.8		5.4		11.5		8.8		8.8	

Not grown at all locations

Table 21. Summary of mean yields (kg/ha) and ranks of 29 wheats grown in the Northern Regional Performance Nursery for 5 intra-regional production zones (after Peterson, 1992).

C.I. OR SEL. NO.	ENTRY NO.	NORTH-CENTRAL PLAINS		NORTHERN HIGH PLAINS		NORTHERN PLAINS		NORTH-WEST PLAINS		NORTH-WEST		REGIONAL AVERAGE	
Number of sites		7		3		1		3		2		15	
XNH1772	25	4551	1	1085	29	4538	2	3649	1	5354	9	4199	1 *
XNH1727	24	4243	2	3205	1	4309	5	3629	3	5536	7	4089	2
XNH1564	23	4104	4	1352	28	3802	13	3493	9	5661	4	3968	3 *
NE90625	18	4094	5	3119	5	4440	4	3522	8	4694	18	3888	4
NE91562	20	4067	6	3044	8	4725	1	3114	24	5083	12	3851	5
NE91648	22	4155	3	3022	10	4504	3	3103	25	4964	15	3849	6
NE91631	21	3805	13	3031	9	3666	15	3415	12	5611	5	3804	7
NE90616	19	3871	9	2970	13	3950	9	3316	16	5425	8	3792	8
XNH-2	27	3524	21	1352	27	4008	8	3606	5	5767	3	3758	9 *
SD89205	9	3842	11	3164	2	3625	16	3205	21	4989	13	3717	10
SD89119	4	3924	8	2911	16	3939	10	3311	17	4765	16	3712	11
ND8889	13	3866	10	2826	19	3012	22	3554	6	5136	11	3708	12
SD89333	5	3610	18	3086	6	4020	7	3257	19	5276	10	3684	13
SD89153	6	3714	16	3141	4	3922	11	3537	7	4502	22	3683	14
XNH-1	26	3534	20	1399	26	2585	26	3645	2	5873	2	3682	15 *
ND8955	12	3979	7	2822	20	2715	25	3356	14	4986	14	3673	16
SD89186	8	3762	14	2986	11	4097	6	3264	18	4302	25	3601	17
SD89180	7	3648	17	2957	15	3561	18	3378	13	4438	23	3555	18
ND9064	17	3733	15	2834	18	2766	24	3623	4	4355	24	3549	19
PI511307	3	3395	25	3155	3	3753	14	3227	20	4734	17	3516	20
ND8933	11	3813	12	2640	24	3565	17	3157	23	4301	26	3496	21
ND8974	15	3534	19	2667	23	3541	19	3422	11	4607	20	3482	22
HBC197F	10	3469	24	3081	7	3243	21	3039	28	4576	21	3438	23
CI17439	2	3510	22	2801	21	3821	12	3338	15	3997	28	3419	24
ND90109	14	3472	23	2869	17	2551	28	3076	27	4653	19	3368	25
ND9043	16	3369	26	2418	25	3303	20	3081	26	4017	27	3203	26
IDO355HW	29	2583	28	2963	14	2125	29	3459	10	5552	6	3199	27
CI1442	1	3283	27	2696	22	2582	27	2962	29	3688	29	3109	28
IDO426	28	2223	29	2973	12	2891	23	3170	22	5944	1	3103	29
MEAN		3678		2709		3571		3342		4924		3619	
LSD(.05)		511		296		932		478		574		338	
C.V.		13.1		10.4		16.0		14.0		7.0		12.5	

* Not grown at all locations

Table 22. Summary of mean yields (kg/ha) and ranks for 11 wheats grown in the Northern Regional Performance Nursery at 13 locations in 1993 and 1994 with state means and ranks.

C.I. OR SEL. NO.	ENTRY NO.	NORTH PLATTE NEBRASKA		HEMING-FORD NEBRASKA		NEBRASKA STATE MEAN		PIERRE S. DAKOTA		WINNER S. DAKOTA		BROOKINGS S. DAKOTA		SOUTH DAKOTA STATE MEAN	
NE90625	18	4348	1	4257	1	4302	1	4017	1	4533	1	1852	6	3468	1
ND8955	12	3656	5	3886	4	3771	5	3640	5	3763	5	2722	1	3375	3
SD89333	5	3737	3	4126	2	3931	2	3781	4	3286	7	1700	10	2922	8
ND8889	13	3623	6	4016	3	3820	4	3180	8	3827	3	2401	4	3136	4
SD89119	4	3712	4	3801	6	3756	6	3885	2	4072	2	2363	5	3440	2
ND90109	14	3483	7	3753	7	3618	7	3361	6	3768	4	1774	7	2968	7
PI511307	3	3925	2	3806	5	3865	3	3874	3	3727	6	1704	9	3102	5
ND8933	11	3450	8	3402	10	3426	8	3018	9	3239	8	2648	2	2968	6
CI17439	2	3193	9	3478	8	3335	9	3245	7	2944	9	2528	3	2906	9
CI1442	1	2940	10	3300	11	3120	10	2933	10	2650	10	1743	8	2442	10
IDO426	28	1981	11	3468	9	2725	11	2483	11	2110	11	607	11	1733	11
MEAN		3459		3754		3606		3402		3447		2020		2956	
LSD(.05)		705		N.S.		N.S.		N.S.		1180		1089		N.S.	
C.V.		10.1		8.9		9.5		17.9		17.2		27.4		19.7	

Table 22. Continued.

C.I. OR SEL. NO.	ENTRY NO.	WASECA MINNESOTA		ROSEMOUNT MINNESOTA		MINNESOTA STATE MEAN		WILLISTON N. DAKOTA		CASSELTON N. DAKOTA		NORTH DAKOTA STATE MEAN	
NE90625	18	3061	3	4331	2	3696	2	3702	3	5072	1	4387	1
ND8955	12	3087	1	4562	1	3825	1	3695	5	3540	7	3617	7
SD89333	5	2494	8	3615	7	3054	7	3472	7	4510	2	3991	2
ND8889	13	2706	4	3899	5	3302	5	4004	1	3694	6	3849	4
SD89119	4	2643	6	4144	3	3394	4	3367	9	4123	3	3745	5
ND90109	14	2659	5	3629	6	3144	6	3411	8	3404	8	3408	9
PI511307	3	2158	9	3325	9	2742	9	3699	4	3363	9	3531	8
ND8933	11	3080	2	3926	4	3503	3	3813	2	4093	4	3953	3
CI17439	2	2542	7	3513	8	3028	8	3686	6	3737	5	3711	6
CI1442	1	2068	10	3071	10	2570	10	2984	10	2809	10	2897	10
IDO426	28	924	11	2030	11	1477	11	2659	11	1853	11	2256	11
MEAN		2493		3641		3067		3499		3654		3577	
LSD(.05)		913		852		764		N.S.		N.S.		N.S.	
C.V.		14.0		8.0		10.5		8.8		10.6		9.5	

Table 22. Concluded.

C.I. OR SEL. NO.	ENTRY NO.	SIDNEY MONTANA		BOZEMAN MONTANA		MONTANA STATE MEAN		ARCHER WYOMING		LETHBRIDGE ALBERTA		REGIONAL AVERAGE	
NE90625	18	3335	3	4198	4	3766	4	2651	2	5158	3	3886	1
ND8955	12	3476	2	3937	6	3706	5	2380	4	5028	6	3644	2
SD89333	5	2927	9	5378	2	4152	2	2469	3	5383	2	3606	3
ND8889	13	3543	1	4330	3	3936	3	2209	8	5105	5	3580	4
SD89119	4	2966	8	3328	9	3147	9	2282	6	5125	4	3524	5
ND90109	14	3297	4	4093	5	3695	6	2339	5	4912	7	3376	6
PI511307	3	3055	6	3473	8	3264	7	2937	1	4629	8	3360	7
ND8933	11	2966	7	3477	7	3222	8	2004	10	4474	10	3353	8
CI17439	2	3080	5	2834	10	2957	10	2174	9	4526	9	3191	9
CI1442	1	2637	10	2786	11	2712	11	1929	11	4007	11	2758	10
IDO426	28	2487	11	5961	1	4224	1	2225	7	5732	1	2655	11
MEAN		3070		3981		3526		2327		4922		3359	
LSD(.05)		N.S.		1219		N.S.		N.S.		476		501	
C.V.		16.2		12.5		14.4		17.8		9.3		13.1	

Table 23. Mean yield, regression coefficient, correlation coefficient, and coefficient of determination from linear regression analysis of variety mean yield on nursery mean yield for the 29 entries in the 1994 Northern Regional Performance Nursery grown at 15 locations.

C.I. OR SEL. NO.	ENTRY NO.	15 SITE REGIONAL AVERAGE KG/HA	REGRESSION COEFFICIENT (b)	CORRELATION COEFFICIENT (r)	COEFFICIENT OF DETERMINATION (r^2)
XNH1772	25 *	4199	1.20	0.97	0.94
XNH1727	24	4089	1.27	0.96	0.92
XNH1564	23 *	3968	1.26	0.99	0.98
NE90625	18	3888	1.01	0.94	0.89
NE91562	20	3851	1.17	0.94	0.89
NE91648	22	3849	1.14	0.95	0.90
NE91631	21	3804	1.24	0.99	0.98
NE90616	19	3792	1.13	0.99	0.97
XNH-2	27 *	3758	1.12	0.96	0.93
SD89205	9	3717	1.05	0.97	0.95
SD89119	4	3712	0.97	0.97	0.94
ND8889	13	3708	1.01	0.97	0.95
SD89333	5	3684	0.99	0.95	0.91
SD89153	6	3683	0.86	0.97	0.94
XNH-1	26 *	3682	1.18	0.94	0.88
ND8955	12	3673	1.07	0.96	0.92
SD89186	8	3601	0.90	0.96	0.91
SD89180	7	3555	0.89	0.96	0.93
ND9064	17	3549	0.82	0.94	0.88
PI511307	3	3516	0.96	0.94	0.87
ND8933	11	3496	0.82	0.93	0.87
ND8974	15	3482	0.96	0.98	0.96
HBC197F	10	3438	0.92	0.98	0.95
CI17439	2	3419	0.77	0.91	0.82
ND90109	14	3368	0.91	0.95	0.91
ND9043	16	3203	0.80	0.93	0.87
IDO355HW	29	3199	1.02	0.80	0.633
CI1442	1	3109	0.62	0.87	0.76
IDO426	28	3103	0.98	0.73	0.54

* Not grown at all locations

Table 24. Mean yield, regression coefficient, correlation coefficient, and coefficient of determination from linear regression analysis of variety mean yield on nursery mean yield for the 11 entries in the 1993 and 1994 Northern Regional Performance Nursery grown at 13 locations.

C.I. OR SEL. NO.	ENTRY NO.	13 SITE REGIONAL AVERAGE KG/HA	REGRESSION COEFFICIENT (b)	CORRELATION COEFFICIENT (r)	COEFFICIENT OF DETERMINATION (r^2)
NE90625	18	3886	1.09	0.92	0.85
ND8955	12	3644	1.01	0.94	0.89
SD89333	5	3606	1.12	0.92	0.85
ND8889	13	3580	1.03	0.97	0.93
SD89119	4	3524	1.07	0.95	0.89
ND90109	14	3376	0.98	0.96	0.92
PI511307	3	3360	1.05	0.89	0.79
ND8933	11	3353	0.84	0.90	0.82
CI17439	2	3191	0.91	0.90	0.81
CI1442	1	2758	0.80	0.91	0.82
IDO426	28	2655	1.10	0.70	0.49

Table 25. Summary of agronomic and yield data for 29 wheats grown in the 1994 Northern Regional Performance Nursery.

VARIETY OR PEDIGREE	C.I. OR SEL. NO.	ENTRY NO.	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	WINTER SURVIVAL %	LODGING 0-9
Number of trials			12	11	4	1
Quantum Hybrid Wheat	XNH1772	25	76	155	91	2.7
Quantum Hybrid Wheat	XNH1727	24	77	156	88	2
Quantum Hybrid Wheat	XNH1564	23	72	155	81	0.7
→ TX79A2729//Caldwell/Brule seln/3/Sxld	NE90625	18	76	156	88	0
Brule 84-11/Bighorn	NE91562	20	78	156	93	2
NE82671/NE80413	NE91648	22	79	157	93	1
NE82761/Brule 84	NE91631	21	83	158	90	0.7
Arapahoe/Colt 83 Composite	NE90616	19	71	156	91	0
Quantum Hybrid Wheat	XNH-2	27	73	157	90	0
NE77682/Dawn	SD89205	9	77	155	80	2.3
Brule/Agate	SD89119	4	77	155	88	2.3
Mvr/KS79397//Nsr/3/Cody	ND8889	13	87	158	94	3
Gent/Siouxland	SD89333	5	77	153	86	2
Brule/OK754615E	SD89153	6	78	156	91	1.3
Quantum Hybrid Wheat	XNH-1	26	76	157	79	0.3
Seward/SD76705	ND8955	12	81	158	88	0.3
Centurk/Nell	SD89186	8	77	155	93	1.3
Nell/KS81H16 4063	SD89180	7	79	155	84	2.7
Rri//Frd/SD6689/3/Frd/NB68466	ND9064	17	92	158	91	1.7
Abilene	PI511307	3	63	155	87	0
Nsr/4/Ctk//Wnk/Uln/3/SD76694	ND8933	11	89	160	89	3.3
Seward/Archer	ND8974	15	81	158	94	0.3
2162 sib/W6430C//W9519A	HBC197F	10	73	154	84	0.7
Roughrider	CI17439	2	89	159	89	6
Rrr*2/1809//NE78414	ND90109	14	86	158	92	0
Sdn*2/Bon//Frd/Nb68466	ND9043	16	91	160	96	3.7
Complex Pedigree	IDO355HW	29	85	160	77	3
Kharkof	CI1442	1	92	158	87	4.7
Complex Pedigree	IDO426	28	70	159	79	0.3

Table 25. Concluded.

C.I. OR SEL. NO.	ENTRY NO.	MILDEW 0-9	TAN SPOT %	LEAF DISEASE 0-9	GRAIN PROTEIN %	VOLUME WEIGHT KG/HL	YIELD KG/HA	
Number of trials		1	1	2	1	14	15	
XNH1772	25	.	7	2.2	11.9	77.3	4199	*
XNH1727	24	.	5.3	2	11.9	76.2	4089	
XNH1564	23	.	1	1.8	12	76.1	3968	*
NE90625	18	.	20	2	10.8	75.6	3888	
NE91562	20	.	6.7	3.7	12.6	76.4	3851	
NE91648	22	.	7	3.2	12	77.1	3849	
NE91631	21	.	3.7	1.7	10	75.7	3804	
NE90616	19	.	18.3	1.7	12.5	74.1	3792	
XNH-2	27	7	5	1.7	11.3	76.6	3758	*
SD89205	9	.	8.3	3.2	12.4	77.2	3717	
SD89119	4	.	13.3	2	12.9	78	3712	
ND8889	13	.	11.7	2.8	11.1	76.8	3708	
SD89333	5	.	1.3	4	12.9	76.7	3684	
SD89153	6	.	5.3	2	12.7	78.7	3683	
XNH-1	26	5	13.3	1.7	10.8	76.2	3682	*
ND8955	12	.	20	2.8	10.8	75.7	3673	
SD89186	8	.	15	3.2	11.8	77	3601	
SD89180	7	.	7.3	3.2	12.9	78.2	3555	
ND9064	17	.	25.3	3.8	11.8	77.1	3549	
PI511307	3	7	6.7	1.3	13.1	77.4	3516	
ND8933	11	4	21.7	3	10.7	76.2	3496	
ND8974	15	.	15	2.5	10.8	75.5	3482	
HBC197F	10	.	2.3	2.3	12.9	77	3438	
CI17439	2	.	21.7	3.7	11.5	77.8	3419	
ND90109	14	.	20	1.7	11.1	76.8	3368	
ND9043	16	.	20	4.5	12.1	76.2	3203	
IDO355HW	29	.	1	1.7	11.1	75.2	3199	
CI1442	1	.	28.3	3.5	12.4	77.4	3109	
IDO426	28	4	3.3	1.5	10.3	74.3	3103	

* Not grown at all locations

Table 26. Seedling reaction of entries of the 1994 Uniform Northern Regional Hard Red Winter Wheat Performance Nursery to selected isolates of Puccinia graminis f. sp. tritici. (D.V. McVey, USDA-ARS, Cereal Rust Laboratory, U. of Minnesota, St. Paul, MN. 55108)

		Reaction Produced by Isolates								
No	Cult/Line	74-14-504C RPQQ	75-32-1662A RTQS	76-00-118B RTQQ	70-21-528A QFBS	71-00-24C QSHS	76-14-396A TNMH	76-21-833B TNMK	76-21-702C RKQS	Postulated Sr Gene
1	CI1442	S	S	S	S	S	S	S	S	None
2	CI17439	S	S	S	0;	0	X	X	S	36
3	PI511307	2=	2=	2=	;1-	2-	2=	2-	2=	24
4	SD89119	0;	S	2=	0;	S	0;	0;	2	6,+
5	SD89333	0;	2=	0;	2=	2=	;1	0;	2=	6,24/31
6	SD89153	0;	2=	0;	2=	2	2=	S	2=	17,+
7	SD89180	0;	2	0;	2-	2=	2=	S	2	17,+
8	SD89186	0;	S	0;	0;	S	0;	0;,S	S	17,seg6
9	SD89205	0;	2	0;	0;	2	0;	0;	2	6+
10	HBC197F	0;	2=	0;,S	2=	2=	0;,S	0;,S	2=,S	seg6,17,+
11	ND8933	0;	S	-	2=	S	0;	0;	S	+
12	ND8955	0;	S,2=	0;,2=	0;	S	0;	0;	2=	6,seg17,+
13	ND8889	0;	S	0;,S	0;	S	0;	0;	S	6,seg17
14	ND90109	-	2-	0;	0;	S	-	0;	21N	6,17,+
15	ND8974	0;	2	2	0;	2-	0;	0;	2	6,+
16	ND9043	0;	2	-	2=	-	-	0;	23	+
17	ND9064	0;	2	0;	S,0;	2-	2-	0;,S	S	17,seg6,+
18	NE90625	0;	2=	2=	0;	2=	0;	0;	2=	6,24/31
19	NE90616	0;	2=	0;	0;	2-	0;	0;	2	6,17,24
20	NE91562	0;	S	0;	0;	S	0;	0;	S	6,17
21	NE91631	0;	2-	0;	0;	2	0;	0;	2	6,16,24
22	NE91648	0;	2	0;	0;	2	0;	0;	S	6,17,+
23	XNH1564	0;	2=	2=	0;	2=	0;	0;	2=	6,24
24	XNH1727	0	2=	;1	0;	2=	0;	0;	2=	6,24,31
25	XNH1772	0;	2=	2-	0;	2=	0;	0;	2=	6,24,31
26	XNH-1	S	2-	S	S	S	S	S	S	+
27	XNH-2	S	S	S	S	S	S	S	S	None
28	ID0426	S	2=	S	2=	S	0;	S	2=	+
29	ID0355	2	2	2-	2	2	23	S	23	+

	Sr Gene			
Set I	5	9d	9e	7b
Set II	11	6	8	9a
Set III	36	9b	13	10
Set IV	15	16	17	Tmp

Table 27. Seedling reaction of entries of the 1994 Northern Regional Performance Nursery to selected isolates of Puccinia recondita. Data provided by Don McVey, USDA-ARS, St. Paul, MN.

	Sel. no.	CLBL	TLBJ	PCML	PBDL	MGBN	CDBG	TDBN	Post. gene
1	Kharkof	S	-	S	S	S	S	S	none
2	Roughrider	X	S	X	X,S	S	S	S	+
3	Abiline	;	;	;	;	;	S	S	24
4	SD89119	S	;,S	S	S,;1	S	S	S	+
5	SD89333	;	;,S	;	;	;1cn,S	1cn	;	+
6	SD89153	S	S,;	S	S	S	S	S	+
7	SD89180	S,;1	S,;	X,S	;1-,S	S	S	S	+
8	SD89186	23	;,S	23	;12	S	;12,S	S	+
9	SD89205	X	S,;	X-	X	S	S	S	14a
10	HBC197F	;1-c,X	;1-c	;1-,X	;,X	S	;,S	;1-,S	+
11	ND8933	-	;	S	;,S	S,;	;,S	;,S	+
12	ND8955	S	;,1cn	S	;,S	;	;	;,S	10,+
13	ND8889	;,S	S	23	23	S	;	23+	+
14	ND90109	X	;1,S	X	X	S	S	S,;1	+
15	ND8974	;,S	;	S	S	S	;	-	10,seg1
16	ND9043	;1-c	1cn,;	;1cn	;1c	S	2cn	23	16,+
17	ND9064	;1-c	-	;1-c	;1c	1cn	;1c	21cn	+
18	NE90625	;	-	;	;	;	;,S	;	24,26
19	NE90616	;1-c	;1-c	;1-c	;1c	21cn	;1cn	1cn	+
20	NE91562	S,2cn	;1cn	S,1cn	S	S	1cn,S	1cn,S	seg16,+
21	NE91631	;1-c	1-c	;1-c	;1c	S	S	S	+
22	NE91648	;1-c	;1cn	;1cn	S	S	21cn	12cn	16?
23	XNH1564	;	;	;	;	;	S	S	24
24	XNH1727	;	;	;	;	;	1c	;1c	24,26
25	XNH1772	;	;1-c	;1-c	;1-c	;	;	;	24,26
26	XNH-1	S	S	S	S	S	S	S	none
27	XNH-2	S	;	S	S	S	;,S	S	10
28	IDO426	S	S	S	S	S	S	S	none
29	IDO355HW	S	S	S	S	S	S	S	none
	LR1	;	S	S	S	S	0;	S	
	LR2a	;	S	;1	0;	0;	0;	S	
	LR2c	2c	S	S	S	0;	0;	S	
	LR3	S	S	S	S	S	S	S	
	LR9	S	O;	S	0;	0	0	0	
	LR16	2cn	2cn	2cn	2cn	S	2cn	2cn	
	LR24	0;	0;	0;	0;	0;	S	S	
	LR26	0;	S	;1c	;1c	;1c	0;	0;	
	LR3ka	23	23	S	23	23	23	23	
	LR11	12c	2c	23	;1c	23c	2c	21	
	LR17	;1c	;1c	1c	S	;1c	21c	;1-c	
	LR30	21c	21c	S	1c	;1c	;1c	;1-c	
	LR10	S	0;	S	S	S	;1	S	
	LR18	21c	S	;1c	;1c	1c	;1c	;1-c	
	LR14a	S	S	X	X	S	S	S	
	LR21	;1c	;1	21c	;1c	;1c	;1-c	;1-c	

Table 28. Adult plant reaction of the 1994 Northern Regional Hard Red Winter Wheat at St. Paul, Mn. to leaf and stem rust. Data provided by Don McVey, USDA-ARS, St. Paul, MN.

Entry No.	Sel. No.	Headed	Leaf Rust 6/24	Leaf Rust 6/29	Stem Rust 6/24	Stem Rust 6/29	Stem Rust 7/6
1	CI1442	--	20S	60S	40S	60S	60S
2	CI17439	--	TS	60S	TR	TR-MR	TR-MR
3	PI511307	6/2	40S	Dead	TR	10R-MR	30MR
4	SD89119	6/3	20S	60S	TR	40MS-S	60S
5	SD89333	6/1	10S	60S	TR	TR	10R-MR
6	SD89153	6/3	10S	60S	10MS-S	20MR	40MS
7	SD89180	6/2	40S	60S	10MS-S	40MR-MS	60MS
8	SD89186	6/2	5S	60MS-S	20MS-S	60S	60S
9	SD89205	6/2	TMR	20MS-S	TR	20MR-MS	40MS
10	HBC197F	6/6	20S	40S	TR	5R-MR	30MR-MS
11	ND8933	6/6	20S	30MS-S	20MS-S	30S	60S
12	ND8955	6/6	5MS-S	20MS-S	20MS-S	40MS-S	40S
13	ND8889	6/6	5MS-S	40S	TS	30MS-S	60S
14	ND90109	6/6	TMS-S	TMS-S	TR	TMS-S	TS
15	ND8974	6/3	10MS-S	40S	TR	TMR-MS	30MR-MS
16	ND9043	6/6	TMS	TMS-S	TR	5R-MR	30MR-MS
17	ND9064	6/3	TMS	5MS-S	TR	TR-MR	20MR-MS
18	NE90625	6/3	10S	40MS-S	TR	TR-MR	30MR
19	NE90616	6/1	10S	40MS-S	TR	TR	20MR
20	NE91562	6/1	40S	60S	5MR-MS	20MS-S	60S
21	NE91631	6/3	TMR	TMS-S	TR	TR	30MR
22	NE91648	6/3	5MS-S	60S	TMR-MS	30MR-MS	60MS
23	XNH1564	6/1	TMR-MS	5MS-S	TR	5R-MR	40MR
24	XNH1727	6/3	5MS-S	20MS-S	TR	20MR	40MS
25	XNH1772	6/3	TMS-S	30MS-S	TR	20MR	40S
26	XNH-1	6/6	50S	60S	30S	60S	60S
27	XNH-2	6/6	60S	80S	50S	40S	60S
28	ID0426	6/6	60S	80S	50S	60S	60S
29	ID0355HW	6/6	50S	60S	50S	60S	60S

Table 29. Genotypes entered in the 1994 Northern Regional Performance Nursery that possess the 1RS wheat-rye translocation. Data provided by Bob Graybosch, USDA-ARS, Lincoln, NE. Analytical methods were described in the 1993 Regional Report.

Entry	Selection	Translocation
1	CI1442	-
2	CI17439	-
3	PI511307	-
4	SD89119	-
5	SD89333	1BL.1RS
6	SD89153	-
7	SD89180	-
8	SD89186	-
9	SD89205	-
10	HBC197F	-
11	ND8933	-
12	ND8955	-
13	ND8889	-
14	ND90109	-
15	ND8974	-
16	ND9043	-
17	ND9064	-
18	NE90625	-
19	NE90616	-
20	NE91562	-
21	NE91631	-
22	NE91648	-
23	XNH1564	1BL.1RS
24	XNH1727	-
25	XNH1772	-
26	XNH-1	-
27	XNH-2	-
28	ID0426	-
29	ID0355	-

Table 30. Reactions of entries in the 1994 Northern Regional Performance Nursery to Soilborne Mosaic and Barley Yellow Dwarf Viruses. Data provided by A.D. Hewings, USDA-ARS, Urbana, IL.

		Soilborne Mosaic 0-9		Barley Yellow Dwarf 0-9	
Entry	Selection	Rep 1	Rep 2	Rep 1	Rep 2
1	CI1442	9	9	5	6
2	CI17439	9	8	3	6
3	PI511307	7	6	7	8
4	SD89119	-	-	3	6
5	SD89333	8	8	5	4
6	SD89153	8	7	3	5
7	SD89180	9	8	5	4
8	SD89186	8	9	5	6
9	SD89205	9	8	6	5
10	HBC197F	7	8	6	6
11	ND8933	6	7	4	5
12	ND8955	7	8	5	6
13	ND8889	4	3	5	6
14	ND90109	8	9	6	6
15	ND8974	6	5	5	6
16	ND9043	7	9	4	5
17	ND9064	5	6	8	4
18	NE90625	9	9	7	6
19	NE90616	7	7	6	7
20	NE91562	7	9	6	7
21	NE91631	9	8	6	6
22	NE91648	8	9	3	4
23	XNH1564	5	6	4	5
24	XNH1727	9	8	4	4
25	XNH1772	6	5	5	5
26	XNH-1	9	9	6	5
27	XNH-2	5	6	4	6
28	ID0426	9	9	8	7
29	ID0355	-	9	8	6

Table 31. Reaction of entries in the 1994 Northern Regional Performance Nursery to wheat soilborne mosaic virus. Data provided by R.M. Hunger, W.C. Siegerist, and J.L. Sherwood, Stillwater, OK.

Entry No.	Sel. No.	Reaction to wheat soilborne mosaic virus* Visual (0-3) Rep 1	Rep 2	Rep 3	ELISA Rep 1	Rep 2	Rep 3
01	CI1442	3	3	3	1.541	2.000	1.606
02	CI17439	2	3	3	1.524	1.939	1.605
03	PI511307	0	1	1	1.226	0.156	1.530
04	SD89119	2	2	2	1.563	2.000	1.684
05	SD89333	1	2	2	1.486	1.986	1.520
06	SD89153	2	2	2	1.521	1.999	1.568
07	SD89180	2	2	2	1.624	1.778	1.766
08	SD89186	2	3	3	1.665	1.635	1.273
09	SD89205	3	2	2	1.653	1.829	1.359
10	HBC197F	seg	2	2	0.081	1.517	1.519
11	ND8933	2	2	2	1.594	1.630	1.318
12	ND8955	2	3	3	1.608	1.673	1.279
13	ND8889	1	0	0	0.333	1.743	0.120
14	ND90109	3	3	3	1.530	1.773	1.345
15	ND8974	1	1	0	0.027	0.153	0.061
16	ND9043	3	3	2	2.000	1.735	1.476
17	ND9064	1	1	2	1.954	1.726	1.493
18	NE90625	3	3	3	1.988	1.841	1.359
19	NE90616	3	3	3	2.000	1.686	1.255
20	NE91562	3	3	3	1.973	1.754	1.865
21	NE91631	3	3	3	1.978	1.692	1.859
22	NE91648	2	2	2	2.000	1.801	1.669
23	XNH1564	0	0	0	1.827	1.703	0.159
24	XNH1727	1	2	2	1.846	1.829	1.737
25	XNH1772	2	1	1	2.000	1.794	1.946
26	XNH-1	3	3	3	2.000	1.936	1.827
27	XNH-2	1	0	1	0.068	1.995	0.279
28	ID0426	3	3	3	2.000	1.944	1.792
29	ID0355HW	3	3	3	2.000	1.972	1.783

*The NRPN was tested in the field, with each rep being one, three-foot row. Rows were rated on a scale where, 0=no stunting, no mosaic, 1=slight stunting and/or slight mosaic, 2=moderate stunting and/or moderate mosaic,and 3=severe stunting and/or severe mosaic. Foliage samples collected at the time of visual assessment were evaluated in ELISA as previously described (Hunger, et al., 1991. Crop Sci. 31:900-905).

Table 32. Reaction of entries in the 1994 Northern Regional Performance Nursery to tan spot. Data provided by R.M. Hunger, W.C. Siegerist, and C.K. Evans, Stillwater, OK.

Entry No.	Sel. No.	Reaction to Tan Spot* Rep 1	Rep 2	Rep 3
01	CI1442	4	4	3
02	CI17439	3	3	3
03	PI511307	4	3	4
04	SD89119	4	3	4
05	SD89333	3	3	2
06	SD89153	3	3	3
07	SD89180	3	4	4
08	SD89186	3	3	4
09	SD89205	2	3	3
10	HBC197F	4	4	4
11	ND8933	3	3	3
12	ND8955	3	3	3
13	ND8889	3	4	3
14	ND90109	4	4	4
15	ND8974	3	3	2
16	ND9043	1	2	2
17	ND9064	3	3	3
18	NE90625	4	3	4
19	NE90616	4	4	4
20	NE91562	4	4	3
21	NE91631	4	4	4
22	NE91648	4	4	4
23	XNH1564	3	3	2
24	XNH1727	4	3	4
25	XNH1772	4	4	4
26	XNH-1	3	3	3
27	XNH-2	3	3	3
28	ID0426	3	3	3
29	ID0355HW	3	3	3

*Clumps of seedlings growing in flats were inoculated when first leaves were fully expanded with equal numbers of conidia obtained from three isolates of Pyrenophora tritici-repentis at a final concentration of 2000 conidia/ml. Reaction to tan spot was determined using a scale where, 1=small (1-2 mm), dark lesions with no or little chlorosis, 2=lesions 2-3 mm with some chlorosis, 3=lesions 2-3 mm with extensive chlorosis, and 4=lesions >3 mm with coalescing chlorosis and/or necrosis. A reaction of '1' typically occurred on 'Red Chief' checks, and a reaction of '4' typically occurred on 'Tam-105' checks.

Table 33. Aluminum tolerance of lines tested in the 1994 NRPN based on hematoxylin staining of seedling roots. (Data provided by B.F. Carver, Stillwater, OK)

Entry No.	Selection	Stain Intensity(a) Al Concentration (mM) 0.18	0.36	0.72	Rating(b)
1	CI1442	C	C	C	VS
2	CI17439	C	C	C	VS
3	PI511307	P	P	C	I
4	SD89119	P	C	C	MS
5	SD89333	C	C	C	VS
6	SD89153	C	C	C	VS
7	SD89180	C	C	C	VS
8	SD89186	C	C	C	VS
9	SD89205	N	P-	P	T
10	HBC197F	P-/P+	C/P+	C/P+	MS-T*
11	ND8933	N	P-	P	T
12	ND8955	P-/C	C/P-	C/P+	VS-T*
13	ND8889	P-	P-	P+	T
14	ND90109	N	C	C	MS
15	ND8974	N/C	P-/C	C/P	VS-T*
16	ND9043	C	C	C	VS
17	ND9064	C	C	C	VS
18	NE90625	C	C	C	VS
19	NE90616	P	C	C	MS
20	NE91562	P+	C	C	MS
21	NE91631	P-	C	C	MS
22	NE91648	P-	C	C	MS
23	XNH1564	N	P	C	I
24	XNH1727	P-	P+	C	I
25	XNH1772	P+	C	C	MS
26	XNH-1	P-	P-	P+	T
27	XNH-2	C	C	C	VS
28	ID0426	C	C	C	VS
29	ID0355	C/P-	C/P-	C	VS-I*

(a) C, P, and N = complete, partial, and no staining of root tips, respectively; P- and P+ indicate light and dark intensity, respectively, of partial staining.

(b) VS = very susceptible, MS = moderately susceptible, I = intermediate and T = tolerant (0.72 mM Al); * = heterogeneous response; predominant stain intensity listed first for each Al concentration.

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Western Plains Regional Performance Nursery

Entry No.	Variety or Pedigree	Sel. No.	Source
1	Larned	CI17650	Check
2**	Siouxland	PI483469	"
3	Lamar	PI559719	"
4**	Arapahoe	PI518591	"
5	TAM-200/TAM-107	CO890323	Colorado
6*	Carson/TAM-107	CO900314	"
7*	TAM-107/Bennett	CO900777	"
8*	CO830094/TAM-107	CO900914	"
9*	Sumner/CO820026, F1//PI372129, F1/3/TAM-107	CO910927	"
10	Centura/Dawn//Colt sib	NE88584	Nebraska
11	KS83H2510 (H11)/Brule 83 composite	NE90479	"
12*	Ram/Brule 83 Composite	NE90411	"
13*	NapHal/At66//Lovrin 12/3/TX78V3630	N91L168	NE, USDA
14*	TAM-105/7/New66.5.1/5/Nrn16/CI12500//Bsn/3/At66 /Cmn//Wrr/4/Krasn. 39/6/NE78892	N90V006	"
15*	T.Dic x A. Sqr/SD69103//Karlik 1/NE701134/3/ NapHal/Jang Kwang//Odessa4/4/Newton	N90V121	"
16	TX71A889/TAM-101	TX90A9524	Texas
17	TAM-105/BAU39	TX90V7119	"
18	TAM-200//TX38949-2/TAM-107	TX90V8734	"
19	TAM-105/10334	TX89A7315	"
20	" "	TX89A7318	"
21	Siouxland/TX80GH2679	TX91V5524	"
22	TX86V1540/TX78V2430-4	TX90V6132	"
23	TAM-107/TX73V862	TX91V3736	"
24*	(TX71A562-6*4/Amigo)*4/Largo	TXGH12588-26	"
25*	" "	TXGH12588-105	"
26*	" "	TXGH12588-120	"
27**	Quantum Hybrid Wheat	QT542	Hybritech
28*	" "	XH1724	"
29*	" "	XH1733	"
30	Siouxland/NK812	T76	Trio
31*	UT 216c-12-10/Cnn/5/SM 4/4/Burt/3/R/R//Nbr/6/ 2*It/Ut 175a-53//Bdls Burt/3/CI13438/4/Bh/Rex// R/R/3/UT 175a-53/7/Weston	IDO445	Idaho

* New Entries
** New seed provided
*** Entered from SRPN

Test Site Information - WPRPN

Bushland, TX -- No additional information.

Goowell, OK -- No additional information.

Colby, KS -- No additional information.

Akron -- No additional information.

Archer -- Moisture recieved during the growing season was approximately half of normal so yields and test weights are low.

Scottbluff -- The nursery was located approximately 6 miles south of Morrill, NE, near the Wyoming border. It was planted on 9-16-93 into fallow ground with a loose seedbed but good moisture. Fertilizer applied at planting was 8 lbs/a N and 28 lbs/a P. Harvested on 7-11-94.

Table 34. Yield and agronomic data for 31 wheats grown in the 1994 Western Plains Regional Performance Nursery.

BUSHLAND (DRYL.)

TEXAS

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	DAYS TO FLOWERING FROM 1/1
XH1733	29	2990	78.8	70	130	133
TX90V8734	18	2840	80.7	66	131	131
CO900314	6	2784	76.7	72	128	130
TX90A9524	16	2777	77.4	66	130	131
QT542	27	2730	76	69	131	131
CO900914	8	2724	78.7	54	129	131
NE90411	12	2677	76.1	69	131	133
XH1724	28	2672	78	69	129	131
T76	30	2616	72.5	67	134	137
CO900777	7	2607	75.7	72	131	131
CI17650	1	2576	76.4	72	130	133
NE90479	11	2524	77.3	70	131	133
NE88584	10	2443	76.9	73	129	131
CO890323	5	2441	79.5	63	129	131
TXGH12588-26	24	2441	77.1	59	128	129
PI518591	4	2374	71.1	72	135	137
TX90V6132	22	2354	72	74	131	131
TX90V7119	17	2345	77.5	70	129	131
N91L168	13	2338	78.4	66	130	131
TXGH12588-105	25	2246	77	60	128	129
PI559719	3	2228	78	73	130	131
TXGH12588-120	26	2190	76.8	58	129	131
PI483469	2	2163	75.6	71	131	133
N90V006	14	2154	77.1	60	128	130
N90V121	15	2150	76.1	69	129	131
TX89A7315	19	2112	77.9	64	128	129
TX91V3736	23	2060	78.4	58	127	129
IDO445	31	2060	71.8	81	134	136
CO910927	9	1964	75.4	59	128	131
TX91V5524	21	1955	76.9	68	129	130
TX89A7318	20	1928	77.9	62	128	129
MEAN		2402				
LSD(.05)		289				
C.V.		7.4				

GOODWELL

OKLAHOMA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1
TXGH12588-26	24	2624	67	118
TXGH12588-120	26	2549	61	119
TX90A9524	16	2511	68	120
CO890323	5	2503	71	120
CO900914	8	2405	69	121
XH1724	28	2365	72	124
TX89A7318	20	2331	63	119
XH1733	29	2302	70	122
CO900314	6	2281	77	121
TXGH12588-105	25	2278	67	118
CO900777	7	2257	75	129
T76	30	2248	67	133
CI17650	1	2231	75	122
PI483469	2	2231	73	123
PI518591	4	2183	68	133
TX89A7315	19	2174	66	119
TX90V7119	17	2156	74	124
N90V006	14	2114	70	118
NE88584	10	2099	74	121
TX90V8734	18	2071	68	128
PI559719	3	2048	70	129
QT542	27	2039	75	132
CO910927	9	2020	63	119
TX91V5524	21	1989	71	118
NE90411	12	1963	68	132
NE90479	11	1955	69	126
TX91V3736	23	1848	64	117
TX90V6132	22	1794	73	132
N91L168	13	1686	68	131
N90V121	15	1637	72	131
IDO445	31	1368	73	.
MEAN		2137		
LSD(.05)		N.S.		
C.V.		18.3		

COLBY

KANSAS

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	LODGING %
TXGH12588-120	26	4009	71.9	75	136	3
XH1733	29	3899	74.4	80	138	0
NE88584	10	3853	74.4	86	140	0
TXGH12588-26	24	3791	72.3	75	136	0
XH1724	28	3754	76	80	139	0
TXGH12588-105	25	3673	74	76	136	0
TX90A9524	16	3602	73.5	76	136	0
NE90479	11	3561	75.6	81	139	3
TX90V8734	18	3483	79.2	77	141	0
TX89A7315	19	3473	72.6	75	136	0
CO900314	6	3468	74.2	90	139	0
T76	30	3448	71.5	82	142	0
TX89A7318	20	3441	72.5	75	137	0
TX91V5524	21	3358	74.5	86	138	3
CO900777	7	3345	76.5	86	139	3
TX91V3736	23	3338	74	74	135	3
NE90411	12	3307	72.1	83	141	0
PI483469	2	3300	73.4	87	140	0
QT542	27	3257	72.2	88	141	0
CI17650	1	3237	74.5	90	138	0
CO910927	9	3235	71.5	72	136	0
CO900914	8	3219	75.3	76	137	0
PI518591	4	3206	72.9	81	141	0
PI559719	3	3203	75.4	82	142	0
CO890323	5	3198	77.3	78	138	7
TX90V6132	22	2881	69.3	95	141	7
N90V121	15	2819	70.8	82	139	0
N90V006	14	2813	71	78	137	0
N91L168	13	2799	76.3	82	141	0
TX90V7119	17	2301	71.8	87	139	3
IDO445	31	2050	70.2	94	144	3
MEAN		3301				
LSD(.05)		438				
C.V.		8.1				

AKRON

COLORADO

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL
XH1733	29	2908	70.5
TXGH12588-120	26	2806	68.5
NE90479	11	2743	74.5
CO900314	6	2741	71.3
TX89A7318	20	2716	74.1
NE90411	12	2698	69.7
TX91V3736	23	2616	70.9
NE88584	10	2585	71.8
TXGH12588-105	25	2583	69.2
XH1724	28	2577	70.6
CO910927	9	2486	69
TX90V8734	18	2481	73.3
N90V121	15	2475	69.6
PI483469	2	2451	71
CO900777	7	2439	72.6
TX89A7315	19	2424	71.4
CO900914	8	2390	71.2
QT542	27	2380	70.8
CO890323	5	2331	73.1
PI559719	3	2300	73.2
N90V006	14	2279	69.7
CI17650	1	2265	72.1
TX91V5524	21	2240	71
N91L168	13	2223	75.8
TXGH12588-26	24	2121	66.3
IDO445	31	2051	72.6
TX90V7119	17	2035	67.7
TX90V6132	22	2033	67.6
TX90A9524	16	2012	66.9
PI518591	4	1793	66.4
T76	30	1670	63
MEAN		2382	
LSD(.05)		N.S.	
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	DAYS TO HEADING FROM 1/1	WINTER SURVIVAL %
QT542	27	1504	71.1	46	155	95
XH1724	28	1459	69.8	46	154	97
NE88584	10	1439	70.8	48	154	95
TX89A7318	20	1401	70.4	42	155	90
CO900777	7	1385	69.7	47	156	91
TX91V3736	23	1367	72	43	151	97
PI559719	3	1352	72.5	46	155	91
XH1733	29	1343	69.1	45	154	95
CO910927	9	1338	68.8	42	154	92
TX89A7315	19	1325	69	42	153	91
BUCKSKIN	32	1311	72.5	46	157	96
TXGH12588-26	24	1307	69.1	40	153	96
TX91V5524	21	1298	71.2	45	154	90
TXGH12588-120	26	1289	67	42	154	95
N90V121	15	1282	69.9	47	154	89
CO900314	6	1240	69.3	49	155	92
TX90A9524	16	1235	71	42	154	93
TXGH12588-105	25	1228	68.6	43	153	95
CO900914	8	1208	73.4	41	153	96
CO890323	5	1139	71.6	47	156	89
N90V006	14	1134	69.3	44	153	95
NE90479	11	1130	73.7	47	156	93
N91L168	13	1123	69.5	47	160	89
TX90V6132	22	1092	67	47	158	90
CI17650	1	1083	71.1	42	155	92
PI483469	2	1080	68.9	45	157	89
NE90411	12	1074	72.1	44	155	98
TX90V8734	18	1020	74.9	45	158	94
T76	30	980	66.2	44	158	96
TX90V7119	17	977	67.6	46	155	87
IDO445	31	935	72.5	46	160	89
PI518591	4	834	70	42	157	85
MEAN		1216				
LSD(.05)		209				
C.V.		10.5				

SCOTTSBLUFF

NEBRASKA

FOUR REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1
QT542	27	3430	78.5	78	148
XH1724	28	3060	79.7	70	151
PI559719	3	3036	80	71	151
XH1733	29	2991	78.3	72	151
CO910927	9	2990	75.9	66	152
CI17650	1	2936	77.8	76	149
CO900314	6	2921	79.7	73	151
TX90A9524	16	2878	79.1	64	152
NE90411	12	2865	77.7	72	151
CO900914	8	2809	79	65	152
TX89A7315	19	2802	77.3	64	152
TXGH12588-105	25	2790	77.8	62	152
NE90479	11	2752	77.9	70	152
N90V006	14	2748	77.2	68	152
NE88584	10	2734	77.2	74	151
TXGH12588-26	24	2728	76.8	66	152
TX89A7318	20	2720	77.5	65	152
CO900777	7	2711	78	71	151
T76	30	2703	73.5	66	152
TXGH12588-120	26	2697	76.5	62	152
TX90V8734	18	2682	81.3	69	153
PI483469	2	2654	76.6	72	151
IDO445	31	2570	79.1	74	153
PI518591	4	2563	77.8	65	152
N90V121	15	2540	78.1	72	151
TX90V7119	17	2529	78.2	79	150
TX91V5524	21	2529	77.8	70	151
TX90V6132	22	2529	76.8	74	151
CO890323	5	2526	79.7	70	151
N91L168	13	2465	78.1	67	152
TX91V3736	23	2406	79	65	152
MEAN		2751			
LSD(.05)		290			
C.V.		7.5			

Table 35. Summary of mean yields (kg/ha) and ranks for 31 wheats in the 1994 Western Plains Regional Performance nursery at 6 locations.

C.I. OR SEL. NO.	ENTRY NO.	BUSHLAND (DRYL.) TEXAS		GOODWELL OKLAHOMA		COLBY KANSAS		AKRON COLORADO		ARCHER WYOMING		SCOTTS-BLUFF NEBRASKA		REGIONAL AVERAGE	
XH1733	29	2990	1	2302	8	3899	2	2908	1	1343	8	2991	4	2739	1
XH1724	28	2672	8	2365	6	3754	5	2577	10	1459	2	3060	2	2648	2
TXGH12588-120	26	2190	22	2549	2	4009	1	2806	2	1289	13	2697	20	2590	3
CO900314	6	2784	3	2281	9	3468	11	2741	4	1240	15	2921	7	2573	4
QT542	27	2730	5	2039	22	3257	19	2380	18	1504	1	3430	1	2557	5
NE88584	10	2443	13	2099	19	3853	3	2585	8	1439	3	2734	15	2526	6
TX90A9524	16	2777	4	2511	3	3602	7	2012	29	1235	16	2878	8	2503	7
TXGH12588-26	24	2441	14	2624	1	3791	4	2121	25	1307	11	2728	16	2502	8
TXGH12588-105	25	2246	20	2278	10	3673	6	2583	9	1228	17	2790	12	2466	9
CO900914	8	2724	6	2405	5	3219	22	2390	17	1208	18	2809	10	2459	10
CO900777	7	2607	10	2257	11	3345	15	2439	15	1385	5	2711	18	2457	11
NE90479	11	2524	12	1955	26	3561	8	2743	3	1130	21	2752	13	2444	12
NE90411	12	2677	7	1963	25	3307	17	2698	6	1074	26	2865	9	2431	13
TX90V8734	18	2840	2	2071	20	3483	9	2481	12	1020	27	2682	21	2429	14
TX89A7318	20	1928	31	2331	7	3441	13	2716	5	1401	4	2720	17	2423	15
CI17650	1	2576	11	2231	13	3237	20	2265	22	1083	24	2936	6	2388	16
TX89A7315	19	2112	26	2174	16	3473	10	2424	16	1325	10	2802	11	2385	17
PI559719	3	2228	21	2048	21	3203	24	2300	20	1352	7	3036	3	2361	18
CO890323	5	2441	15	2503	4	3198	25	2331	19	1139	19	2526	29	2356	19
CO910927	9	1964	29	2020	23	3235	21	2486	11	1338	9	2990	5	2339	20
PI483469	2	2163	23	2231	14	3300	18	2451	14	1080	25	2654	22	2313	21
T76	30	2616	9	2248	12	3448	12	1670	31	980	28	2703	19	2278	22
TX91V3736	23	2060	28	1848	27	3338	16	2616	7	1367	6	2406	31	2273	23
TX91V5524	21	1955	30	1989	24	3358	14	2240	23	1298	12	2529	28	2228	24
N90V006	14	2154	24	2114	18	2813	28	2279	21	1134	20	2748	14	2207	25
PI518591	4	2374	16	2183	15	3206	23	1793	30	834	31	2563	24	2159	26
N90V121	15	2150	25	1637	30	2819	27	2475	13	1282	14	2540	25	2151	27
TX90V6132	22	2354	17	1794	28	2881	26	2033	28	1092	23	2529	26	2114	28
N91L168	13	2338	19	1686	29	2799	29	2223	24	1123	22	2465	30	2106	29
TX90V7119	17	2345	18	2156	17	2301	30	2035	27	977	29	2529	26	2057	30
IDO445	31	2060	27	1368	31	2050	31	2051	26	935	30	2570	23	1839	31
MEAN		2402		2137		3301		2382		1213		2751		2364	
LSD(.05)		289		N.S.		438		N.S.		212		290		274	
C.V.		7.4		18.3		8.1		17.2		10.6		7.5		11.7	

Table 36. Summary of agronomic and yield data for 31 wheats grown in the 1994 Western Regional Performance Nursery.

VARIETY OR PEDIGREE	C.I. OR SEL. NO.	ENTRY NO.	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	LODGING %	WINTER SURVIVAL %	VOLUME WEIGHT KG/HL	YIELD KG/HA
Number of trials			5	5	1	1	6	6
Quantum Hybrid Wheat	XH1733	29	67	139	0	95	75	2739
Quantum Hybrid Wheat	XH1724	28	67	139	0	97	75.5	2648
(TX71A562-6*4/Amigo)*4/Largo	TXGH12588-120	26	60	138	3.3	95	72.8	2590
Carson/TAM-107	CO900314	6	72	139	0	92	74.5	2573
Quantum Hybrid Wheat	QT542	27	71	141	0	95	74.5	2557
Centura/Dawn//Colt sib	NE88584	10	71	139	0	95	75.1	2526
TX71A889/TAM-101	TX90A9524	16	63	138	0	93	74.5	2503
(TX71A562-6*4/Amigo)*4/Largo	TXGH12588-26	24	61	137	0	96	72.9	2502
(TX71A562-6*4/Amigo)*4/Largo	TXGH12588-105	25	62	137	0	95	74	2466
CO830094/TAM-107	CO900914	8	61	138	0	96	76.1	2459
TAM-107/Bennett	CO900777	7	70	141	3.3	91	74.8	2457
KS83H2510 (H11)/Brule 83 composite	NE90479	11	67	141	3.3	93	76.2	2444
Ram/Brule 83 Composite	NE90411	12	67	142	0	98	74.3	2431
TAM-200//TX38949-2/TAM-107	TX90V8734	18	65	142	0	94	78.6	2429
TAM-105/10334	TX89A7318	20	62	138	0	90	75.1	2423
Larned	CI17650	1	71	139	0	92	74.9	2388
TAM-105/10334	TX89A7315	19	62	137	0	91	74.4	2385
Lamar	PI559719	3	68	141	0	91	76.5	2361
TAM-200/TAM-107	CO890323	5	66	139	6.7	89	77.1	2356
Sumner/CO820026,F1//PI372129,F1/3/TAM-10	CO910927	9	60	138	0	92	73.2	2339
Siouxland	PI483469	2	70	141	0	89	73.9	2313
Siouxland/NK812	T76	30	65	144	0	96	70.2	2278
TAM-107/TX73V862	TX91V3736	23	61	137	3.3	97	75.6	2273
Siouxland/TX80GH2679	TX91V5524	21	68	138	3.3	90	75.1	2228
Complex Pedigree	N90V006	14	64	138	0	95	73.9	2207
Arapahoe	PI518591	4	66	144	0	85	72.5	2159
Complex Pedigree	N90V121	15	68	141	0	89	73.7	2151
TX86V1540/TX78V2430-4	TX90V6132	22	73	143	6.7	90	71.5	2114
NapHal/At66//Lovrin 12/3/TX78V3630	N91L168	13	66	143	0	89	76.1	2106
TAM-105/BAU39	TX90V7119	17	71	139	3.3	87	73.6	2057
Complex Pedigree	IDO445	31	74	148	3.3	89	73.9	1839

Table 37. Summary of mean yields (kg/ha) and ranks of 17 wheats grown in the 1993 and 1994 Western Plains Regional Performance Nursery at 10 locations.

C.I. OR SEL. NO.	1994 ENTRY NO.	1994 BUSHLAND (DRYL.) TEXAS		1993 * COLBY KANSAS		1994 COLBY KANSAS		1993 GOODWELL OKLAHOMA		1994 GOODWELL OKLAHOMA	
NE88584	10	2443	7	1379	17	3853	1	1431	1	2099	10
TX90A9524	16	2777	2	2044	8	3602	2	1030	9	2511	1
TX89A7315	19	2112	14	2117	5	3473	5	1182	5	2174	8
CO890323	5	2441	8	1852	13	3198	15	1291	2	2503	2
TX89A7318	20	1928	17	2472	1	3441	7	1240	4	2331	3
QT542	27	2730	3	2136	4	3257	11	399	17	2039	13
NE90479	11	2524	6	1972	10	3561	3	885	10	1955	15
CI17650	1	2576	5	2285	2	3237	12	1143	6	2231	5
TX91V3736	23	2060	15	1844	14	3338	9	1252	3	1848	16
PI559719	3	2228	12	1969	11	3203	14	1043	8	2048	12
TX90V8734	18	2840	1	1903	12	3483	4	791	12	2071	11
PI483469	2	2163	13	1795	15	3300	10	771	13	2231	6
TX91V5524	21	1955	16	2002	9	3358	8	841	11	1989	14
PI518591	4	2374	9	2094	7	3206	13	1056	7	2183	7
T76	30	2616	4	2169	3	3448	6	711	16	2248	4
TX90V7119	17	2345	11	2099	6	2301	17	747	15	2156	9
TX90V6132	22	2354	10	1789	16	2881	16	755	14	1794	17
MEAN		2380		1995		3302		975		2142	
LSD(.05)		295		330		449		308		N.S.	
C.V.		7.4		9.9		8.2		19.0		20.3	

* Not included in regional averages.

Table 37. Concluded.

C.I. OR SEL. NO.	1994 ENTRY NO.	1994 SCOTTS-BLUFF NEBRASKA		1993 AKRON COLORADO		1994 AKRON COLORADO		1993 ARCHER WYOMING		1994 ARCHER WYOMING		2 YR REGIONAL AVERAGE	
NE88584	10	2734	7	4039	6	2585	4	3306	3	1439	2	2659	1
TX90A9524	16	2878	4	3901	10	2012	15	3773	1	1235	8	2636	2
TX89A7315	19	2802	5	4766	1	2424	7	3109	10	1325	6	2596	3
CO890323	5	2526	16	4568	2	2331	9	2955	12	1139	9	2550	4
TX89A7318	20	2720	8	4036	7	2716	2	3100	11	1401	3	2546	5
QT542	27	3430	1	3889	11	2380	8	3190	8	1504	1	2535	6
NE90479	11	2752	6	4355	3	2743	1	2863	14	1130	10	2530	7
CI17650 – LARNED	1	2936	3	4332	4	2265	11	2876	13	1083	12	2520	8
TX91V3736	23	2406	17	4320	5	2616	3	3194	7	1367	4	2489	9
PI559719 – LAMAR	3	3036	2	3723	14	2300	10	3262	5	1352	5	2466	10
TX90V8734	18	2682	10	3781	12	2481	5	2661	16	1020	14	2423	11
PI483469 – SWD	2	2654	11	3675	15	2451	6	3432	2	1080	13	2418	12
TX91V5524	21	2529	15	3994	8	2240	12	3271	4	1298	7	2386	13
PI518591 – ARAPAHOE	4	2563	12	3936	9	1793	16	3210	6	834	17	2350	14
T76	30	2703	9	3632	16	1670	17	2858	15	980	15	2319	15
TX90V7119	17	2529	13	3750	13	2035	13	3156	9	977	16	2222	16
TX90V6132	22	2529	13	3396	17	2033	14	2580	17	1092	11	2157	17
MEAN		2730		4005		2299		3106		1201		2459	
LSD(.05)		310		435		N.S.		558		204		241	
C.V.		8.0		7.6		17.3		10.8		10.2		11.4	

Table 38. Seedling reaction of entries of the 1994 Uniform Western Plains Hard Red Winter Wheat Performance Nursery to selected isolates of Puccinia graminis f. sp. tritici. (D.V. McVey, USDA-ARS, Cereal Rust Laboratory, U. of Minnesota, St. Paul, MN. 55108)

		Reaction Produced by Isolates								
		74-14-504C	75-32-1662A	76-00-118B	70-21-528A	71-00-24C	76-14-396A	76-21-833B	76-21-702C	Postulation Sr
No	Cult/Line	RPQQ	RTQS	RTQQ	QFBS	QSHS	TNMH	TNMK	RKQS	Gene
1	CI17650	0;	2	0;	2=	2=	23	23	2-	17,+
2	PI483469	2=	2=	2=	2=	2=	2=	2=	2=	24,31
3	CO820009	0;	2=	0	;1	2=	0;	0;	2=	6,17,24
4	PI518591	0;	-	0;	0	2=	0	0	2=	6,17,24
5	CO890323	2=	2=	2=	2=	2=	2=	2=	2=	Amigo
6	CO900314	0;	22-	23	0;	2-	0;	0	23	6,+
7	CO900777	0;	;1	2=	0;	2-	0;	0	;1-	6,Amigo
8	CO900914	2=	2=	2=	2=	2=	23	-	23	Amigo
9	CO910927	2=	2=	2=	2=	2=	2	2-	2=	Amigo
10	NE88584	0;	S	0;	0;	S	0;	0	S	6,17
11	NE90479	0;	2-	0;	0;	2=	0	0	2=	6,17,+
12	NE90411	0;	2-	23	0;	2=	0;	0	2-	6,+
13	N91L168	0;	;1-	0;	2=	2=	;1-	0	;1-	6,31
14	N90V006	S	S	S	S	S	S	S	S	None
15	N90V121	0;	S	S	0;	2-	0;	S	S	+
16	TX90A9524	2	2=	2	2-	2-	23	-	2	Amigo?
17	TX90V7119	0;	2=	0;	0	2=	0;	0	2=	6,17,+
18	TX90V8734	0;	0;	0;	0;	2=	0	0	;1-	6,17,Amigo
19	TX89A7315	S	S	S	2	S	S	-	S	+
20	TX89A7318	S	S	S	23	S	S	S	S	+
21	TX91V5524	2=	S	2=	2-	2-	S	S	S	+
22	TX90V6132	2=	2=	2-	2=	2=	2=	2=	2=	Amigo?
23	TX91V3736	0;	2=	0;	2=	2-	0;	2-	2-	17,Amigo
24	TXGH12588-26	2=	2=	2=	2=	2=	2=	2=	2=	Amigo
25	TXGH12588-105	2=	2=	;1	1	2=	2=	2=	2=	Amigo
26	TXGH12588-120	2=	2=	2=	2=	2=	2=	2=	2=	Amigo
27	QT542	S	S	S	S	S	S	S	S	None
28	XH1724	-	2=	2=	0;	2=	0;	0;	2=	6,Amigo
29	XH1733	0;	2-	S	0;	2	0;	0;	S	6,+
30	T76	0;	2=	1	0;	2=	0;	0	1	6,+
31	ID0445	S	S	S	S	S	S	S	S	None

	Sr Gene			
Set I	5	9d	9e	7b
Set II	11	6	8	9a
Set III	36	9b	13	10
Set IV	15	16	17	Tmp

Table 39. Seedling reaction of entries of the 1994 Western Plains Regional Performance to selected isolates of Puccinia recondita. Data provided by Don McVey, USDA-ARS, ST. Paul, MN.

	Sel. no.	CLBN	TCBJ	PLML	PBDL	MGBN	CDBD	TDBN	Post. gene
1	Larned	;	S	X	X	S	S	S	+
2	Siouxland	;	;1-	;	;	;	;	;	24,26
3	Lamar	X	S	X	X	S	S	S	14a
4	Aarapahoe	;	;	;	;	;	0;	;1c	10,16,24
5	CO890323	;	;	;	;	;	S	S	24
6	CO900314	S	;1-c,S	S	S	S	1c,S	S	seg10
7	CO900777	X,S	S	X,S	X,S	S	S	X,S	+
8	CO910914	;	;1c	;1-c	;1c	X	S	X	+
9	CO910927	S	S	S	S	S	S	S	none
10	NE88584	;1c	;	23	;	;1,S	;	;1-,S	+
11	NE90479	1c	;1cn	;1cn	;1-c	2cn	12cn	;1c	+
12	NE90411	;2-	;1cn	1cn	2	X,S,;1-c	;1cn	2-,;,S	+
13	N91L168	;	;1-c	;1c	;	;	;	;	24,26
14	N90V006	X	S	S	X	S	S	X	+
15	N90V121	S	S	S	S	S	S	S	none
16	TX90A9524	S	;	S	S	S	;1C	S	10
17	TX90V7119	;	;	;	;	;	;	S	10,24
18	TX90V8734	;	;	;	;	;	S	S	24
19	TX89A7315	S	;	S	S	S	;1	S	10
20	TX89A7318	S	;	S	S	S	;	S	10
21	TX91V5524	S	S	S	S	S	S;	S	seg10
22	TX90V6132	;	;	;	;	;	;	23	10,24
23	TX91V3736	S	;	S	S	S	;1	S	10
24	TXGH12588-26	S	X-c	S	S	S	S	S	+
25	TXGH12588-105	S	S	S	S	S	S	S	none
26	TXGH12588-120	S	Xc	S	S	S	S	S	+
27	QT542	S	S	S	;1-c	S	S	S	+
28	XH1724	;,S	;1-c,S	S;	S	S	;1	12,S	1,10,+
29	XH1733	2cn	2cn,S	23cn	S;	S	2cn	;1C,S	+
30	T76	;	;	;	;	;	;1c,S	12c,S	24,+
31	IDO445	S	S	S	S	S	S	S	none
	LR1	;	S	S	S	S	0;	S	
	LR2a	;	S	;1	0;	0;	0;	S	
	LR2c	2c	S	S	S	0;	0;	S	
	LR3	S	S	S	S	S	S	S	
	LR9	S	O;	S	0;	0	0	0	
	LR16	2cn	2cn	2cn	2cn	S	2cn	2cn	
	LR24	0;	0;	0;	0;	0;	S	S	
	LR26	0;	S	;1c	;1c	;1c	0;	0;	
	LR3ka	23	23	S	23	23	23	23	
	LR11	12c	2c	23	;1c	23c	2c	21	
	LR17	;1c	;1c	1c	S	;1c	21c	;1-c	
	LR30	21c	21c	S	1c	;1c	;1c	;1-c	
	LR10	S	0;	S	S	S	;1	S	
	LR18	21c	S	;1c	;1c	1c	;1c	;1-c	
	LR14a	S	S	X	X	S	S	S	
	LR21	;1c	;1	21c	;1c	;1c	;1-C	;1-C	

Table 40. Adult plant reaction of the 1994 Western Plains Regional Hard Red Winter Wheat at St. Paul, Mn. to leaf and stem rust. Data provided by Don McVey, USDA-ARS, St. Paul, MN.

Entry No.	Sel. No.	Headed	Leaf Rust 6/24	Leaf Rust 6/29	Stem Rust 6/24	Stem Rust 6/29	Stem Rust 7/6
1	CI17650	6/1	10S	60S	TR	40MR	40MR
2	PI483469	6/1	20-40S	60S	TR	20MR	60MR
3	CO820009	6/3	5MS-S	20MS-S	TR	10MR	60MR
4	PI518591	6/3	5MS-S	20MS-S	0	TR	20MR
5	CO890323	6/1	5MR-MS	40MS-S	TR	20MR	60MR
6	CO900314	6/1	60S	60S	10MS-S	60MS-S	60MS-S
7	CO900777	6/1	10S	50MS-S	0	TR	TR-MR
8	CO900914	6/1	5MS-S	10MS-S	TR-MR	5MS-S	40MR-MS
9	CO910927	6/1	60S	60S	5R-MR	10MR-MS	60S
10	NE88584	6/1	TMS-S	60S	10MS-S	60S	60MS-S
11	NE90479	6/1	20S	40S	TR-MR	40MS-S	40MR
12	NE90411	6/1	5MS-S	10MS-S	TR	5R-MR	5R-MR
13	N91L168	6/2	20MS-S	20MS-S	TR	TR	40MR-S
14	N90V006	6/1	TMS-S	40MS-S	TMR-S	40MR-S	60S
15	N90V121	6/1	40S	60S	20MS-S	60S	60S
16	TX90A9524	6/1	40S	60S	20MS-S	60S	60S
17	TX90V7119	6/1	10MS	60S	0	TR-MR	30MR-MS
18	TX90V8734	6/6	TMS	60S	0	TR	30MS
19	TX89A7315	6/1	60S	40S	20MR-MS	60MS-S	60MS-S
20	TX89A7318	6/1	60S	40S	20MR-MS	60MS-S	60MS-S
21	TX91V5524	6/1	60S	80S	60S	80S	80S
22	TX90V6132	6/3	5S	20S	TR	5MR	60MS
23	TX91V3736	6/1	60S	60S	40S	60S	60S
24	TXGH12588-26	6/1	40S	60S	TR	30MR	40MR-MS
25	TXGH12588-105	6/1	40S	60S	TR	30MR	40MR-MS
26	TXGH12588-120	6/1	20MS-S	60S	5R	30MR	30MR-MS
27	QT542	--	TMS-S	60S	40S	60S	60S
28	XH1724	6/2	5MS-S	60S	TR	40MS-S	40MS-S
29	XH1733	6/6	5MS-S	50S	10MS-S	40MS-S	40MS-S
30	T76	6/2	TMR-MS	40MS-S	TR	TR	20MR
31	ID0445	6/6	40S	60S	60S	60S	60S

Table 41. Genotypes entered in the 1994 Western Plains Regional Performance Nursery that possess the 1RS wheat-rye translocation. Data provided by Bob Graybosch, USDA-ARS, Lincoln, NE. Analytical methods were described in the 1993 Regional Report.

Entry	Selection	Translocation
1	CI17650	-
2	PI483469	1BL.1RS
3	PI559719	-
4	PI518591	-
5	CO890323	1AL.1RS
6	CO900314	1AL.1RS
7	CO900777	1AL.1RS
8	CO900914	-
9	CO910927	-
10	NE88584	-
11	NE90479	-
12	NE90411	-
13	N91L168	1BL.1RS
14	N90V006	-
15	N90V121	-
16	TX90A9524	-
17	TX90V7119	-
18	TX90V8734	1AL.1RS
19	TX89A7315	-
20	TX89A7318	-
21	TX91V5524	-
22	TX90V6132	-
23	TX91V3736	-
24	TXGH12588-26	1AL.1RS
25	TXGH12588-105	1AL.1RS
26	TXGH12588-120	1AL.1RS
27	QT542	-
28	XH1724	-
29	XH1733	-
30	T76	1AL.1RS
31	IDO445	-

UNIFORM WINTERHARDINESS NURSERIES

The nurseries are comprised of Southern and Northern Materials Sections. In 1994, the Southern Materials Section contained 149 entries and Northern Section 81 entries. There was little differential winter survival at most test sites. Nursery lists and survival data from Highmore, South Dakota and Sidney, Montana appear in the tables that follow.

SOIL-BORNE MOSAIC NURSERY

There were no entries in the 1994 Soil-borne Mosaic Nursery. Field screening results for entries in the SRPN and NRPN are included in their respective sections of this report.

QUALITY DATA

Composites of 1-lb samples of each SRPN, NRPN, and WPRPN entry from harvested nursery sites are evaluated at the U.S. Grain Marketing Research Laboratory at Manhattan, Kansas. Results are reported to cooperators by the laboratory and are not included in this report.

1994
Uniform Winterhardiness Nursery
Southern Section

Entry No.	Variety or Pedigree	Sel. No.	Source
1	Warrior	CI13190	Check
2	Kharkof	CI1442	"
3	Scout 66	CI13996	"
4	TAM-107	PI495594	"
5	F29-76/TAM-105//Chisholm	OK88767-11	Oklahoma
6	" "	OK88767-02	"
7	Ogosta/Csm//TAM-107	OK90604	"
8	Csm/OK79256	OK90649	"
9	Yantar/TAM-101//Mustang	OK91783	"
10	Scout 66	CI13996	Check
11	IL71-5662/PL145//2165	HBZ374C	Oklahoma
12	TAM-200//Sxl/Tan 's'	TX90D9277	Texas
13	TAM-105/10334	TX89A7137	"
14	TAM-200//TX38949-2/TAM-107	TX91V4931	"
15	TX81V6603/TX78A3345-V34	TX90V8410	"
16	TX78V2430-2/TX86V1540	TX90V7911	"
17	TAM-108/Vee's'//TX84V2029	TX91V3308	"
18	TAM-105/10334	TX89A7141	"
19	TX81V6603/TX78A3345-V34	TX90V6313	"
20	Vona	CI17441	Check
21	Brule//Buc 's'/Bjy 's'/3/TX78V3924-5-3	TX92V4135	Texas
22	HRE LT-11(OR)*Homestead/W8447	HBE0726-1	"
23	TAM-107/Hail	CO880169	Colorado
24	TAM-107/TX3006	CO880210	"
25	Sumner/CO820026,F1//PI372129,F1/3/TAM-107	CO910927	"
26	WX11088/2165//W8447	KS92PO59E	Kansas
27	W2440/W9488A//2163	KS92PO263-137	"
28	WX12907/T-108//W2440	KS92PO363-134	"
29	W8447D/W2436//W3420	KS92PO425-155	"
30	Warrior	CI13190	Check
31	KS82W418/Stephens	KS84063-9-39-3	Kansas
32	TAM-107*3/TA2460	KS93U206	KS, USDA
33	Complex pedigree	N87V106	NE, USDA
34	KS83H2510/Brule composite	NE90479	Nebraska
35	Brule seln/4/Bez 1/3/Ctk//Arthur/Ctk78	NE90524	"
36	Arapahoe/TAM-107	NE91608	"
37	NE82761/NE82599	NE91635	"
38	NE82671/NE80413	NE91651	"
39	Quantum Hybrid Wheat	XH1520	HybriTech
40	Scout 66	CI13996	Check
41	" "	XH1529	"
42	" "	XH1689	"
43	" "	XH1693	"
44	" "	XH1706	"
45	TX81V6610/W82-163	WI89-273-13	AgriPro
46	TAM-200/W81-296	WI89-189-14	"
47	T11//Brule/TAM-108	T4731	Trio
48	T11//Brule/TAM-108	T4732	"
49	TAM-107/T213 sib	T81	"

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50	Vona	CI17441	Check
51	T213 sib *2/HRW	T83	Trio
52	Larned	CI17650	Check
53	Siouxland	PI483469	"
54	Lamar	CO820009	"
55	Arapahoe	PI518591	"
56	TAM-200/TAM-107	CO890323	Colorado
57	Carson/TAM-107	CO900314	"
58	TAM-107/Bennett	CO900777	"
59	CO830094/TAM-107	CO900914	"
60	Warrior	CI13190	Check
61	Sumner/CO820026, F1//PI372129, F1/3/TAM-107	CO910927	Colorado
62	Centura/Dawn//Colt sib	NE88584	Nebraska
63	KS83H2510 (H11)/Brule 83 composite	NE90479	"
64	Ram/Brule 83 Composite	NE90411	"
65	NapHal/At66//Lovrin 12/3/TX78V3630	N91L168	NE, USDA
66	Complex Pedigree	N90V006	"
67	Complex Pedigree	N90V121	"
68	TX71A889/TAM-101	TX90A9524	Texas
69	TAM-105/BAU39	TX90V7119	"
70	Scout 66	CI13996	Check
71	TAM-200//TX38949-2/TAM-107	TX90V8734	Texas
72	TAM-105/10334	TX89A7315	"
73	" "	TX89A7318	"
74	Siouxland/TX80GH2679	TX91V5524	"
75	TX86V1540/TX78V2430-4	TX90V6132	"
76	TAM-107/TX73V862	TX91V3736	"
77	(TX71A562-6*4/Amigo)*4/Largo	TXGH12588-26	"
78	" "	TXGH12588-105	"
79	" "	TXGH12588-120	"
80	Vona	CI17441	Check
81	Quantum Hybrid Wheat	QT542	HybriTech
82	" "	XH1724	"
83	" "	XH1733	"
84	Siouxland/NK812	T76	Trio
85	Complex Pedigree	IDO445	Idaho
86	B203//HF5761/T105	KS91H153-1	Kansas, Hays
87	" "	KS91H153-2	"
88	KS82H238-1/3/HF5761/T105//B203	KS91H19-4	"
89	" "	KS91H19-5	"
90	Warrior	CI13190	Check
91	KS82H238-1/3/HF5761/T105//B203	KS92H19-6	Kansas, Hays
92	" "	KS92H21-4	"
93	P5 bulk	KS92H89-4	"
94	HBY242F*TAM-200/HBY261B	KS92H363-1	"
95	" "	KS92H363-2	"
96	" "	KS92H363-6	"
97	Arapahoe/NE82761	NE91509	Nebraska
98	TAM-108/Arapahoe	NE91515	"
99	NE82702 purple/TAM-108	NE91518	"

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100	Scout 66	CI13996	Check
101	NE82533/Siouxland	NE91527	Nebraska
102	NE82533/Arapahoe	NE91542	"
103	Brule 84-11/Bighorn	NE91562	"
104	Arapahoe/TAM-107	NE91608	"
105	NE82761/Brule 84	NE91631	"
106	NE82761/NE82599	NE91635	"
107	NE82671/NE80413	NE91648	"
108	" "	NE91651	"
109	N90L158, Bulk selection	NE91691	"
110	Vona	CI17441	Check
111	IDO033/Purdue 4930//Moldova/3/2*NE7060	N89L514	NE, USDA
112	NE82438/NE7060	N91L019	"
113	NapHal/At66//Lovrin 12/3/TX78V3630	N91L168	"
114	Complex pedigree	N92V002	"
115	KS821004-2/4/At66/Nebr.Rest./2/GK-Tiz/3/PlV	N92V022	"
116	KS831024/4/Aur/NE701154/3/NE7060/2/Ran12/Bez4	N92V112	"
117	PlV/2/NE76702/NE7060/3/KS831936-3	N92V155	"
118	T83-4/NE82438	N92L002	"
119	Arapahoe/N87U121	N92L005	"
120	Warrior	CI13190	Check
121	S. Afr. Seln./Brule	N92L016	NE, USDA
122	Complex pedigree	N92L020	"
123	" "	N92L022	"
124	Protein seln/KS831672	N92L083	"
125	Protein seln/KS831170	N92L088	"
126	Colt/3/PlV/2/NE76702/NE7060	N92L089	"
127	KS831022/4/Vie3233/3/NE7060/Samsn/2/Lov6/Samsn	N92L099	"
128	Vie3233/3/NE7060/Samsn/2/Lov6/Samsn/4/Prot.sln	N92L156	"
129	Sel.14-53/3/Lcr/2/At66/Nbr.rest./2/GK-Tiz/3/PlV	N92L186	"
130	Scout 66	CI13996	Check
131	NB68495/NB66490//TJB54-224/3/KS831862	N92L190	NE, USDA
132	NE7060/Abilene	N92L197	"
133	Abilene/KS831862	N92L207	"
134	NB68495/NB66490//TJB54-224/3/KS831862	N92L223	"
135	KS831170/3/Ran12/Bez4/2/Lancota/F9-67	N92L228	"
136	KS831672/6/Ctk/3/At66/Cmn/2/TX2607-6/4/ NE7060/5/F26-70	N92L244	"
137	KS831672/3/Ran12/Bez4/2/Lancota/F9-67	N92L250	"
138	KS831170/4/At66/Nbr.rest./2/GK-Tiz/3/PlV	N92L254	"
139	Vie3233/3/NE7060/Samsn/2/Lov6/Samsn/4/Prot.sln	N92V013	"
140	Vie3233/3/NE7060/Samsn/2/Lov6/Samsn/4/TAM200	N92L018	"
141	Tomahawk	Tomahawk	AgriPro
142	Vona	CI17441	Check
143	KS73H530/Vee's'//KS86H119(HISA/LES//T105)	KS93H44	Kansas, Hays
144	" "	KS93H66	"
145	" "	KS93H67	"
146	" "	KS93H68	"
147	HGZ024+W0541A*2165/TAM-200	KS92H408-4	"
148	" "	KS92H408-6	"
149	Warrior	CI13190	Check

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Southern Section

Ent	Selection no.	Highmore, SD Survival (%)		Sidney, MT Survival (%)	
		Rep 1	Rep 2	Rep 1	Rep 2
1	CI13190 (Warrior)	100	100	50	40
2	CI1442 (Kharkof)	100	100	30	30
3	CI13996 (Scout66)	100	100	50	50
4	PI495594 (TAM-107)	100	100	30	20
5	OK88767-11	70	70	10	5
6	OK88767-02	40	80	10	10
7	OK90604	60	90	50	30
8	OK90649	50	90	50	30
9	OK91783	100	80	40	30
10	CI13996 (Scout66)	100	90	50	40
11	HBZ374C	90	80	50	20
12	TX90D9277	60	100	50	20
13	TX89A7137	90	100	50	30
14	TX91V4931	50	60	40	30
15	TX90V8410	70	90	30	20
16	TX90V7911	40	20	5	20
17	TX91V3308	90	100	0	20
18	TX89A7141	100	100	50	50
19	TX90V6313	80	30	40	50
20	CI17441 (Vona)	90	100	40	40
21	TX92V4135	100	100	20	30
22	HBE0726-1	100	100	40	50
23	CO880169	100	100	30	50
24	CO880210	100	100	20	30
25	CO910927	100	100	30	40
26	KS92PO59E	100	100	10	20
27	KS92PO263-137	100	100	30	30
28	KS92PO363-134	100	100	40	40
29	KS92PO425-155	100	90	30	30
30	CI13190 (Warrior)	100	100	40	30
31	KS84063-9-39-3	100	100	5	20
32	KS93U206	100	100	20	30
33	N87V106	100	100	5	5
34	NE90479	100	100	10	10
35	NE90524	100	100	20	5
36	NE91608	100	100	20	5
37	NE91635	100	100	30	5
38	NE91651	100	100	50	10
39	XH1520	100	100	40	20
40	CI13996 (Scout66)	100	100	60	40
41	XH1529	100	100	10	10
42	XH1689	100	100	20	10
43	XH1693	100	100	20	10
44	XH1706	100	100	30	30
45	WI89-273-13	100	100	50	30
46	WI89-189-14	100	100	30	20
47	T4731	100	100	30	20
48	T4732	100	100	20	20
49	T81	100	100	20	30
50	CI17441 (Vona)	100	100	20	30
51	T83	100	100	40	20
52	CI17650 (Larned)	100	100	30	40
53	PI483469 (Siouxland)	100	100	20	20
54	CO820009	100	100	10	10

UWHN, Southern Section

Ent	Selection no.	Highmore, SD Survival (%)		Sidney, MT Survival (%)	
		Rep 1	Rep 2	Rep 1	Rep 2
55	PI518591 (Arapahoe)	100	100	30	10
56	CO890323	100	100	50	20
57	CO900314	100	100	30	10
58	CO900777	100	100	40	30
59	CO900914	100	100	60	30
60	CI13190 (Warrior)	100	100	40	30
61	CO910927	100	100	40	20
62	NE88584	100	100	40	30
63	NE90479	100	100	20	10
64	NE90411	100	100	30	20
65	N91L168	100	100	30	10
66	N90V006	100	100	30	20
67	N90V121	100	100	30	10
68	TX90A9524	100	100	50	50
69	TX90V7119	100	100	30	20
70	CI13996 (Scout66)	100	100	50	10
71	TX90V8734	100	100	20	10
72	TX89A7315	100	100	40	30
73	TX89A7318	100	100	40	30
74	TX91V5524	100	100	40	50
75	TX90V6132	100	100	20	10
76	TX91V3736	100	100	30	20
77	TXGH12588-26	100	100	20	20
78	TXGH12588-105	100	100	20	30
79	TXGH12588-120	100	100	30	30
80	CI17441 (Vona)	60	100	20	20
81	QT542	100	100	10	20
82	XH1724	100	100	5	10
83	XH1733	100	100	10	10
84	T76	100	100	30	20
85	IDO445	.	100	50	30
86	KS91H153-1	.	100	30	40
87	KS91H153-2	.	100	20	30
88	KS91H19-4	.	100	30	20
89	KS91H19-5	90	100	30	20
90	CI13190 (Warrior)	100	100	40	40
91	KS92H19-6	100	100	30	30
92	KS92H21-4	100	100	40	20
93	KS92H89-4	100	100	50	30
94	KS92H363-1	100	100	40	50
95	KS92H363-2	100	100	40	20
96	KS92H363-6	100	100	50	10
97	NE91509	100	100	40	10
98	NE91515	100	100	40	30
99	NE91518	100	100	40	30
100	CI13996 (Scout66)	100	100	40	40
101	NE91527	100	100	30	20
102	NE91542	100	100	50	10
103	NE91562	100	100	50	30
104	NE91608	100	100	40	20
105	NE91631	100	100	40	10
106	NE91635	100	100	30	50
107	NE91648	100	100	30	20
108	NE91651	100	100	50	30
109	NE91691	100	100	30	20
110	CI17441 (Vona)	100	100	20	40

UWHN, Southern Section

Ent	Selection no.	Highmore, SD Survival (%)		Sidney, MT Survival (%)	
		Rep 1	Rep 2	Rep 1	Rep 2
111	N89L514	100	100	20	20
112	N91L019	100	100	40	10
113	N91L168	100	100	30	30
114	N92V002	10	50	5	5
115	N92V022	90	100	20	5
116	N92V112	100	.	10	5
117	N92V155	100	100	20	30
118	N92L002	100	90	5	20
119	N92L005	100	100	50	40
120	CI13190 (Warrior)	100	100	50	40
121	N92L016	10	70	30	40
122	N92L020	10	80	5	10
123	N92L022	10	80	5	10
124	N92L083	100	100	30	20
125	N92L088	100	100	30	40
126	N92L089	100	100	30	40
127	N92L099	40	100	30	30
128	N92L156	80	100	20	10
129	N92L186	90	100	30	20
130	CI13996 (Scout66)	100	100	40	30
131	N92L190	100	100	20	10
132	N92L197	100	100	20	5
133	N92L207	100	80	20	1
134	N92L223	80	70	10	5
135	N92L228	100	100	30	30
136	N92L244	100	100	30	20
137	N92L250	100	100	20	20
138	N92L254	100	90	20	40
139	N92V013	90	70	20	10
140	N92L018	100	100	5	10
141	Tomahawk	100	80	60	40
142	CI17441 (Vona)	90	90	50	30
143	KS93H44	100	70	30	20
144	KS93H66	100	70	40	50
145	KS93H67	100	60	30	30
146	KS93H68	90	40	20	40
147	KS92H408-4	100	90	30	20
148	KS92H408-6	100	100	40	10
149	CI13190 (Warrior)	100	100	40	30

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Northern Section

Entry No.	Variety or Pedigree	Sel. No.	Source
1	Norstar	CI17735	Check
2	Roughrider	CI17439	"
3	Abilene	PI511307	"
4	Brule/Agate	SD89119	So. Dakota
5	Gent/Siouxland	SD89333	"
6	Brule/OK754615E	SD89153	"
7	Nell/KS81H16 4063	SD89180	"
8	Centurk/Nell	SD89186	"
9	NE77682/Dawn	SD89205	"
10	Warrior	CI13190	Check
11	2162 sib/W6430C//W9519A	HBC197F	So. Dakota
12	Nsr/4/Ctk//Wnk/Uln/3/SD76694	ND8933	No. Dakota
13	Seward/SD76705	ND8955	"
14	Mvr/KS79397//Nsr/3/Cody	ND8889	"
15	Rrr*2/1809//NE78414	ND90109	"
16	Seward/Archer	ND8974	"
17	Sdn*2/Bon//Frd/Nb68466	ND9043	"
18	Rri//Frd/SD6689/3/Frd/NB68466	ND9064	"
19	TX79A2729//Caldwell/Brule seln/3/Siouxland	NE90625	Nebraska
20	Centurk 78	CI17724	Check
21	Arapahoe/Colt 83 Composite	NE90616	Nebraska
22	Brule 84-11/Bighorn	NE91562	"
23	NE82761/Brule 84	NE91631	"
24	NE82671/NE80413	NE91648	"
25	Quantum Hybrid Wheat	XNH1564	HybriTech
26	" "	XNH1727	"
27	" "	XNH1772	"
28	" "	XNH1643	"
29	" "	XNH1766	"
30	Norstar	CI17735	Check
31	Complex Pedigree	IDO426	Idaho
32	" "	IDO355HW	"
33	NAPB8300/Centurk78	SD91102	So. Dakota
34	Newton/Siouxland	SD91134	"
35	Agate/Norstar	SD91147	"
36	NAPB 80310/HiPlains	SD91153	"
37	NAPB 80310/HiPlains	SD91155	"
38	Eagle/Bennett	SD91162	"
39	Eagle/Bennett	SD91163	"
40	Warrior	CI13190	Check
41	Newton/Colt	SD91169	So. Dakota
42	Newton/Colt	SD91170	"
43	Bennett/CO745775-4	SD91180	"
44	Colt/Rita	SD91191	"
45	Colt/Rita	SD91192	"

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46	Dawn/NK77W4093	SD91195	So. Dakota
47	Rose/Brule	SD91210	"
48	Rose/Brule	SD91211	"
49	Centurk78/Dawn	SD91215	"
50	Centurk 78	CI17724	Check
51	Eagle/MT7877	SD91230	So. Dakota
52	Brule//Vona/TAM106	SD91235	"
53	TX79A2729/Rose	SD91246	"
54	NK77W4093/Colt	SD91260	"
55	Bennett/Nell	SD91265	"
56	SD79613/Scout66	SD91269	"
57	SD79613/Scout66	SD91270	"
58	Winoka/Lancota	SD91277	"
59	Colt/HiPlains	SD91278	"
60	Norstar	CI17735	Check
61	SD79112/Rose	SD91287	So. Dakota
62	Siouxland/Rose	SD91306	"
63	Siouxland/Rose	SD91307	"
64	SD82119/Brule	SD91311	"
65	SD74221-15//SD82195/Winoka Mutant 17025	SD91318	"
66	SD82102/Amigo	SD91323	"
67	SD76598-7/SD82119	SD91329	"
68	SD79664/Amigo	SD91334	"
69	SD82150//SD82195/SD82144	SD91335	"
70	Warrior	CI13190	Check
71	Brule/SD74221-15	SD91338	So. Dakota
72	SD82144//TX81V6610/SD82119	SD91345	"
73	Brule/SD791109	SD91350	"
74	SD82119/Aurora	SD91363	"
75	SD82119/Aurora	SD91365	"
76	Bnz/Alb//Centura	ND9019	No. Dakota
77	Rri//Yogo/Trapper/5/Frd/3/Wnk/4/MT6	ND9081	"
78	Rri//Wnk/NB66425/7/CI15322/4/AG/3/4*Sut/5/ Ctk/6/SD75375	ND9118	"
79	Rri//Frd/Lcr/3/Brule	ND9141	"
80	Rri*2/Olaf/3/Lovrin 13//2*Ctk 78	ND9162	"
81	Centurk 78	CI17724	Check

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Northern Section

Ent	Selection no.	Highmore, SD Survival (%)		Sidney, MT Survival (%)	
		Rep 1	Rep 2	Rep 1	Rep 2
1	CI17735 (Norstar)	100	100	50	70
2	CI17439 (Roughrider)	100	100	50	30
3	PI511307 (Abilene)	100	100	20	5
4	SD89119	100	100	10	10
5	SD89333	100	100	40	10
6	SD89153	100	100	20	5
7	SD89180	100	100	20	1
8	SD89186	100	100	30	40
9	SD89205	100	100	20	50
10	CI13190 (Warrior)	100	100	40	50
11	HBC197F	100	100	10	20
12	ND8933	100	100	50	70
13	ND8955	100	100	40	50
14	ND8889	100	100	30	40
15	ND90109	100	100	10	20
16	ND8974	100	100	20	30
17	ND9043	100	100	40	60
18	ND9064	100	100	20	60
19	NE90625	100	100	1	30
20	CI17724 (Centurk78)	100	100	10	30
21	NE90616	100	100	10	40
22	NE91562	100	100	5	40
23	NE91631	100	100	1	30
24	NE91648	100	100	1	40
25	XNH1564	100	60	0	40
26	XNH1727	100	100	1	40
27	XNH1772	100	90	1	30
28	XNH1643	100	100	5	30
29	XNH1766	100	100	10	30
30	CI17735 (Norstar)	100	100	50	50
31	IDO426	100	100	1	10
32	IDO355HW	100	100	1	10
33	SD91102	100	100	5	5
34	SD91134	100	100	5	5
35	SD91147	100	100	5	0
36	SD91153	100	100	1	0
37	SD91155	100	100	5	0
38	SD91162	100	100	10	10
39	SD91163	100	100	1	0
40	CI13190 (Warrior)	100	100	10	20
41	SD91169	100	100	1	5
42	SD91170	100	100	20	30
43	SD91180	100	100	5	5
44	SD91191	100	100	5	20
45	SD91192	100	100	10	10
46	SD91195	100	100	5	20
47	SD91210	100	100	0	10
48	SD91211	100	100	0	20
49	SD91215	100	100	1	20
50	CI17724 (Centurk78)	100	100	10	30

UWHN, Northern Section

Ent	Selection no.	Highmore, SD Survival (%)		Sidney, MT Survival (%)	
		Rep 1	Rep 2	Rep 1	Rep 2
51	SD91230	100	100	20	40
52	SD91235	100	100	5	20
53	SD91246	100	100	20	20
54	SD91260	100	100	40	40
55	SD91265	100	100	30	20
56	SD91269	100	100	20	20
57	SD91270	100	100	50	30
58	SD91277	100	100	40	20
59	SD91278	100	100	5	0
60	CI17735 (Norstar)	100	100	40	50
61	SD91287	100	100	20	20
62	SD91306	100	100	10	10
63	SD91307	100	100	10	20
64	SD91311	100	100	5	10
65	SD91318	100	100	30	10
66	SD91323	100	100	20	5
67	SD91329	100	100	20	5
68	SD91334	100	100	20	10
69	SD91335	100	100	40	20
70	CI13190 (Warrior)	100	100	30	20
71	SD91338	100	100	10	10
72	SD91345	100	100	50	40
73	SD91350	100	100	10	10
74	SD91363	100	100	20	40
75	SD91365	100	100	20	20
76	ND9019	100	100	30	50
77	ND9081	100	100	30	40
78	ND9118	100	100	30	50
79	ND9141	100	100	60	50
80	ND9162	100	100	20	40
81	CI17724 (Centurk78)	100	100	20	40

1993 Southern Regional Performance Nursery

Locations in South Dakota

Note: Individual SRPN location data from South Dakota was inadvertantly omitted from the 1993 Regional Report.

BROOKINGS

S. DAKOTA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	LEAF RUST SEV. %	LEAF RUST RESP 0-9
XNH1687	28	3672	72.8	80	164		3
NE88588	24	3220	73.4	86	162		4
ND8955	13	3203	70.1	85	165		3
SD89119	9	2911	72.7	88	161		5
ND89142	14	2890	74.3	99	167		4
NE88595	23	2847	72.3	77	160		5
NE89526	18	2835	72.7	78	163		5
SD88231	8	2792	71.8	87	160		4
NE89657	19	2784	71.2	74	164		5
Roughrider	2	2772	73.8	92	167		4
NE88526	22	2750	73.8	71	164		4
ND8933	12	2698	71.6	99	168		3
ND8930	11	2630	72.7	101	169		3
ND8889	15	2519	68.1	94	166		5
NE87615	20	2399	70.7	66	161		5
SD87143	5	2315	69.9	83	163		3
NE90625	21	2290	71.4	70	165		4
NE89522	17	2262	65.6	77	161		4
SD89204	6	2238	62.7	77	165		4
Abilene	3	2128	67.2	67	164		6
SD88201	4	2083	71	83	165		3
XNH1650	27	2081	65.9	80	165		3
SD89102	7	1927	71.2	80	161		3
ND90109	16	1775	66.7	88	166		3
MT8713	31	1774	67.4	64	165		7
MT8719	32	1689	68.9	89	166		5
SD89333	10	1492	68.3	82	159		8
WI88-083	30	1472	67	57	162		6
XNH1643	25	1310	62.3	77	166		4
Kharkof	1	1283	68.9	104	168		5
W-198	34	1139	62.3	98	167		5
XNH1712	29	1125	64.5	68	164		6
XNH1648	26	973	60.5	75	165		5
W-235	35	622	61.6	93	168		6
IDO426	33	216	55.2	69	168		6
MEAN		2146					
LSD(.05)		873					
C.V.		24.9					

1993 Southern Regional Performance Nursery

PIERRE

S. DAKOTA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	LODGING 0-9
NE89526	18	6124	74.5	97	154	2.7
NE89657	19	5939	74.1	107	153	5
WI88-083	30	5859	73.6	90	152	4.3
NE89522	17	5751	71.4	103	153	6
XNH1687	28	5728	73.9	102	155	4
NE88526	22	5655	74.8	104	153	3
SD89102	7	5568	78.1	99	152	5.3
Abilene	3	5545	73.8	87	153	5.3
XNH1712	29	5402	71.2	98	155	3
XNH1650	27	5387	71.2	100	157	2.7
NE90625	21	5295	73	100	155	3.3
MT8713	31	5122	74.1	97	157	2
NE87615	20	5072	70.7	91	154	6
SD88231	8	4948	75.8	102	152	6
SD87143	5	4939	74.7	103	153	4.3
NE88595	23	4901	71.2	95	152	6
SD89119	9	4858	76.5	100	154	6.7
ND8955	13	4766	72.3	97	157	4
SD89333	10	4744	74.1	108	153	5.7
NE88588	24	4744	74.3	102	151	4.7
SD89204	6	4600	69.2	96	154	7.3
XNH1643	25	4531	70.5	96	158	2.7
XNH1648	26	4367	69.4	100	157	3
SD88201	4	4237	74.3	101	160	5.7
ND90109	16	4208	74.1	102	160	5.3
ND8933	12	3682	73.2	104	162	3
ND8889	15	3636	71.2	102	159	7
W-198	34	3526	71.4	99	162	3
Roughrider	2	3518	75.2	105	159	4.3
ND89142	14	3268	75.4	98	160	4.3
ND8930	11	3186	75.8	103	162	3.3
Kharkof	1	2765	72.8	103	160	6.7
IDO426	33	2712	67.4	90	160	3.7
W-235	35	2347	70.8	100	161	6
MT8719	32	2346	70.5	105	161	4.3
MEAN		4551				
LSD(.05)		828				
C.V.		11.1				

1993 Southern Regional Performance Nursery

WINNER

S. DAKOTA

THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY NO.	YIELD KG/HA	VOLUME WEIGHT KG/HL	PLANT HEIGHT CM
NE89522	17	4960	71.8	91
XNH1687	28	4896	71.9	94
NE89657	19	4889	71.6	86
WI88-083	30	4836	72.1	82
NE88595	23	4745	70.5	97
Abilene	3	4732	74.5	79
NE87615	20	4675	71.6	80
NE88526	22	4600	72.3	93
NE89526	18	4566	72.5	93
XNH1650	27	4470	69	93
NE90625	21	4468	67.8	90
NE88588	24	4263	73.9	103
SD89119	9	4136	71.8	94
SD89204	6	4103	67.6	90
ND8955	13	4017	69	96
SD88231	8	4011	73.4	92
SD89102	7	3974	75	95
SD87143	5	3905	71.6	93
ND90109	16	3891	71.2	95
SD89333	10	3878	71.6	102
XNH1643	25	3802	69.9	89
ND8889	15	3801	70.5	102
XNH1648	26	3789	71	90
XNH1712	29	3787	71.4	87
SD88201	4	3496	73.4	104
MT8713	31	3280	70.1	90
W-198	34	3080	68.1	102
Roughrider	2	2982	70.3	101
ND89142	14	2892	71.8	100
ND8933	12	2815	69	99
ND8930	11	2772	71.8	102
MT8719	32	2674	70.5	91
W-235	35	2623	68.7	100
Kharkof	1	2618	68.7	98
IDO426	33	2335	65.6	82
MEAN		3850		
LSD(.05)		516		
C.V.		8.2		