

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

COMPARISON OF
WINTER WHEAT VARIETIES GROWN IN COOPERATIVE
NURSERY EXPERIMENTS IN THE
HARD RED WINTER WHEAT REGION
IN 1988

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

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

Lincoln, Nebraska
March, 1989

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CENTRAL STATES AREA

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By

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The writer expresses appreciation to Joyce Kovar for assistance in preparing this report.

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REGIONAL NOTES

The 1988 Hard Red Winter Wheat Breeders field day was held on June 9th at the University of Nebraska Agronomy Farm in Lincoln, Nebraska. Cooperators also visited a Pioneer wheat nursery near Beatrice.

The 1989 Breeders Field Day is to be held at Stillwater, OK in late May.

The 18th Hard Red Winter Wheat Workers Conference was held on January 31 through February 2, 1989 at Dallas, Texas. Proceedings from the conference will be available in the near future through Dr. David Marshall, Texas A&M, Dallas.

Dr. Owen Merkle, Research Geneticist with the USDA/ARS at Stillwater, OK retired on December 31, 1988. Dr. Merkle accepted a position with MIAC Morocco project and is now stationed in Settat, Morocco as an Agronomist.

Dr. Kenneth Porter, Texas A&M Wheat Breeder stationed at Bushland, TX, retired in August of 1988. A replacement has not been named at this time.

Dr. A. D. Hewings was hired in 1988 by the USDA-ARS at Urbana, Illinois, replacing Dr. H. Jedlinski in small grains virology research efforts.

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:

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

NEW VARIETIES AND GERMPLASM

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 Kansas Agricultural Experiment Station and the USDA/ARS have announced the release of the hard red winter wheat variety 'Karl' (P.I. 527480). Karl was tested in the 1986 and 1987 SRPN as KS831374 and originates from the cross Plainsman V/3/Kaw/Atlas 50//Parker*5/Agent. Karl possesses excellent milling and baking qualities with grain protein concentrations approximately 1% higher than Eagle or 2% higher than Newton. Karl is resistant to soilborne mosaic and spindle streak mosaic viruses and provides excellent protection against leaf rust and tan spot.

The Colorado Agricultural Experiment Station has announced the release of the hard red winter wheat variety 'Lamar'. Lamar was tested in the 1987 and 1988 SRPN as C0820009 and originates from the cross 74F878/Wings//Vona. Lamar is a conventional medium height wheat with excellent quality. Lamar has shown significant tolerance to water stress and ability to fill grain under drought stress conditions. It is targeted for production in southeast Colorado.

Nickerson American Plant Breeders has announced the release of four winter wheat varieties:

'Bronco' is a hard red winter wheat derived from the cross Payne/W87-069. Bronco is a medium maturity, tall semidwarf with adaptation to the major wheat growing areas of Colorado, Kansas, Oklahoma, northern Texas, and southern Nebraska. Bronco was tested in the 1988 SRPN as NA-W83-256

'Rio Blanco' is a hard white winter wheat derived from the cross OK1125A/W76-1226. It is similar in many respects to its sister line Mesa but differs in that it is recessive for all three alleles for red seed coat. Rio Blanco is a medium maturity, short to intermediate height semidwarf with adaptation to the major wheat growing areas of Colorado, Kansas, Oklahoma, northern Texas, and southern Nebraska. Rio Blanco was tested in the 1988 SRPN as NA-W81-162W.

'Sierra' is a hard red winter wheat derived from the cross W79-227/Payne. Sierra is a medium maturity, intermediate height semidwarf with adaptation to Kansas, southern Nebraska, eastern Colorado, and the Oklahoma and Texas panhandle irrigated areas. Sierra was tested in the 1988 SRPN as NA-W84-229.

'Waco' is a hard red winter wheat derived from the cross W77-355/MN70113. Waco is a very early maturity, intermediate height semidwarf with primary adaptation to the north-central and northeastern portions of Texas. Waco was tested under the experimental designation W83-253.

1988
Southern Regional Performance Nursery

Entry No.	Variety or Pedigree	Sel. No.	Source
1**	Kharkof	CI1442	Check
2**	Scout 66	CI13996	"
3**	TAM-105	CI17826	"
4	Aurora/2*TAM W-101	OK84343	Oklahoma
5*	Payne*2/C0725052	OK84286	"
6*	" "	OK84287	"
7*	Hawk/OK80099	OK86197	"
8*	OK79257/Century Sib/2/Chisholm	OK86215	"
9	TAM W-101*4/Amigo*4//Largo	TXGH10989	Texas
10	Sturdy*3/Amigo	TX81V6582-2	"
11	TAM-105*4/Amigo*4//Largo	TXGH10563B	"
12	KS73146/TX71A1039	TX84V1336	"
13	TX71A562-6*4/Amigo*4//Largo	TXGH13622	"
14	TX71A374-4/TX71A1039-V1	TX84V1317	"
15	TX71A1039-V1*3/Amigo	TX81V6607-2	"
16*	TAM-106 resel./TX69D4819	TX84V1736	"
17*	TAM-108/Arkan	TX86A7041	"
18*	Rannaya/NE701136//CI13449/Ctk	TX86V1109	"
19*	" "	TX86V1110	"
20	74F878/Wings//Vona	C082009	Colorado
21	74cb462/Trapper//Vona	C0830027	"
22	C05926//7C/Tobari 63/3/Baca	C0830034	"
23*	74cb452/Vona//Baca	C0830014	"
24	Bison/Sterling//3*Scout/3/Eagle/4/ Pinnacle/2*Eagle	KS84HW196	Kansas
25	Bulk Selection	KS82C2338	"
26	KS73167/Agate//Sage sib	NE82533	Nebraska
27*	Wrr/Sut//MoW6811/3/Agate Sib/4/NE68457/Ctk78	NE84557	"
28*	CIMMYT/Scout//Bennett Sib/4/Parker*4/Agent //Belot.198/Lcr/3/Bez 1/Ctk78	NE83407	"
29***	Brule/3/Parker*4/Agent//Belot.198/Lcr	NE82656	"
30*	Winter Wheat Line	RL844677	Rohm & Haas
31*	Winter Wheat Line	RL845472	"
32*	HRW Selection	AGC-112	Seed Research
33*	" "	AGC-113	"
34	Bezostaya/TAM W-101//W558	XW141	Pioneer
35*	TAM W-101/W603//W558	XW161	"
36*	Winter Wheat Hybrid	XH675	HybriTech
37*	" "	XH685	"
38**	Bounty Hybrid Wheat	Bounty-122	Cargill
39*	" "	WH180001	"
40*	W79-227/Payne	NA-W84-229	NAPB
41*	Payne/W78-069	NA-W83-256	"
42*	OK11252A/W79-1226	NA-W81-162-W	"
43*	IL77-4259/IL76-3845	IL83-7439	Illinois
44*	TX69A330/IL76-3820	IL80-1251	"
45*	CHA Hybrid Mustang/3/T-105*4/Amigo*4//Largo, TXGH10287	TX87HA1	Texas

* New Entry in 1988, ** New Seed Provided, *** Entered from NRPN

TEST SITE INFORMATION - SRPN

Clovis, NM -- The dryland nursery was planted on 9/22/87 at a rate of 35 lbs/a. Fertilizer was applied preplant incorporated at a rate of 21 lbs/a nitrogen and 43 lbs/a phosphate.

The irrigated nursery was planted on 10/6/87 at a rate of 70 lbs/a. Fertilizer was applied preplant incorporated at a rate of 129 lbs/a nitrogen and 43 lbs/a phosphate.

Precipitation for August and September was above normal with 9.95 inches occurring in August. The following six months received below normal precipitation totaling only 2.03 inches. Harvest was delayed due to heavy rains in May and June (17.46 inches).

An infestation of Russian wheat aphid reached economic threshold levels by April 11, 1988. An application of 0.5 lbs/a a.i. Dimethoate was used to control the aphid. Leaf rust did not appear until hard dough stage and occurred at higher levels on the irrigated nursery. It did not, however, seem to affect yields. No other diseases were detected during the growing season.

Farmington, NM -- The nursery was sprayed two times in fall and spring for Russian wheat aphid control.

Bushland, TX -- The irrigated nursery was fertilized on 9/28/87 with 155 lbs/a N ammonium sulfate and sown on 10/20/87 at 65 lbs/a or 73 kg/ha. It was irrigated with 3.5 acre inches on 4/12/88, 5/2/88, and 5/18/88 followed by 2.39 inches of rainfall on 5/31/88. The low test weight of entries was not well explained. Failure to control Russian aphids late in the fruiting period may have been a contributing factor. Yellowing of some entries at heading suggested barley yellow dwarf infection but wheat streak or other viruses could be involved. Symptoms were not definitive.

The dryland nursery was sown on 10/6/88 at 32 lbs/a or 36 kg/ha. The nursery was ground sprayed with 1/3 oz/a Glean on 3/21/88 to control weeds. It was not fertilized. September rainfall was more than twice normal and December precipitation in the form of snow was almost three times normal. January through March was slightly below normal precipitation while April and May was 2.25 inches above normal.

Both nurseries were airplane sprayed with 1/2 lb/a Dimethoate for Russian aphid and greenbug control on 3/19/88 and 4/12/88.

Chillicothe, TX -- No information.

Dallas, TX -- A total of 100/46/0 lbs/a fertilizer (N/P/K) was applied. Emergence was delayed about 10 days due to dry conditions. There was good moisture from January through March with essentially no rains during April or May. Conditions were good for development with the highest yields in the Central Texas Blacklands in the past ten years and disease severities were relatively low.

Stillwater, OK -- There were near adequate soil moisture levels and mild temperatures throughout most of the season and no significant freeze damage. A uniform infection of barley yellow dwarf virus probably caused yield reductions in susceptible cultivars.

Lahoma, OK -- Temperatures were mild and soil moisture was adequate through most of the season. There was no significant disease or insect damage and no freeze damage.

Altus, OK -- Temperatures were mild and soil moisture better than average through most of the season for this location. A heavy leaf rust infection was present on susceptible cultivars. There was no significant freeze damage.

Goodwell, OK -- The nursery was pre-irrigated on 9/23/87 and irrigated on 3/23/88 and 5/10/88. Temperatures were mild throughout most of the season. There was no significant disease or insect damage and no freeze damage.

Hutchinson, KS -- The nursery was completely wiped out by wheat streak mosaic virus. Performance is an indication of tolerance to this disease.

Manhattan, KS -- Relatively good conditions and timely rains provided better than expected yields. A late, heavy infection of leaf rust influenced filling and reduced yields of susceptible cultivars.

Hays, KS -- Soil conditions in the fall were dry, however within three days of planting the nursery received 0.35 inches of rain which allowed for fairly uniform stands. Fall and winter growth was very limited. Winter survival was good. The nursery received 1.35 inches of rain on April 1, but no additional effective rainfall was received. Flowering dates were about average for the area but hot, dry conditions resulted in an early harvest date. Diseases and insects were not a factor in this test.

Garden City, KS -- The growing season ranged from normal to dry conditions. There was no disease pressure other than wheat streak mosaic virus and a late minor infection of leaf rust. Wheat streak mosaic virus adversely affected yields.

Colby, KS -- The nursery was abandoned due to poor stands. Planting conditions were very dry.

Ft. Collins, CO -- Nursery abandoned due to poor stand establishment..

Akron, CO -- No information.

Burlington, CO -- No information.

Walsh, CO -- Nursery abandoned due to hail damage.

Julesburg, CO -- No information.

Lincoln, NE -- The nursery was planted at a near optimal date with adequate fall and spring moisture. Winterkilling was a minor problem. Despite a generally dry and hot early summer, timely rains prevented drought stress. Leaf rust was prevalent.

Clay Center, NE -- The nursery was planted at a near optimal date with adequate fall and spring moisture. Winterkilling was a minor problem. Severe drought and heat during grain filling limited yields.

North Platte, NE -- The nursery was planted at a near optimal date with below adequate fall moisture. Winterkilling was a minor problem. Stands were very irregular with plot border rows failing to emerge as well as the center rows. Early spring moisture was ideal for the spread of *Cephalosporium* stripe which differentially affected the cultivars. Grain filling was abruptly ended by heat and wind with some lines dying green. Data are not reported due to variability in emergence.

Sidney, NE -- The nursery was abandoned due to hail.

Alliance, NE -- The nursery was planted at a near optimal date with adequate fall and spring moisture. Winterkilling was a minor problem. Adequate moisture was present during grain filling. A fertility gradient was present in the field which increased plot variability.

Brookings, SD -- The nursery was seeded on 9/11/87 into good moisture. Flax was planted as a snow-catch crop. A mild winter with adequate snow cover allowed 100% survival. An early, hot, dry spring and summer reduced yield potential. No disease or insect problems. Harvested on 7/5/88.

Presho, SD -- Seeded on 9/8/87 into fallowed ground with adequate moisture. A mild winter allowed for 100% survival. There were heavy fall infestations of wheat curl mite and R. Padi. The spring and summer were extremely hot and dry. WSMV and BYDV were very evident. Notes were taken on general plant appearance. Harvested on 7/6/88.

Casselton, ND -- The nursery was planted on 9/9/87. Less than 50% winter survival was recorded for most plots. Dry conditions were experienced from planting through harvest with less than 40% of normal precipitation received from April through July.

Columbia, MO -- No information.

Ames, IA -- The nursery was planted on 9/23/87 and emerged on 9/30/87. Fall moisture and growth was adequate. There was heavy winterkill on non-hardy cultivars. A dry spring and high temperatures in the early summer shortened plant growth. Plants ripened about 10 days ahead of normal with very little disease evident. Grain was bright, clean, and reasonably plump. Yields were fairly good despite low moisture and rapid growth.

Urbana, IL -- Soil moisture was good at planting and fall stands were excellent. Winter temperatures were fairly mild with snow cover during part of the winter. Most plots had excellent stands in the spring. Rainfall from January through harvest was below normal. Conditions became progressively drier throughout the season and diseases did not develop.

Lind, WA -- The fall was very dry with poor moisture conditions and poor emergence. The winter was mild with little moisture. Spring conditions were cool and moist with above normal precipitation in March, April and May.

Aberdeen, ID -- A total of 200 lb/a N and 40 lbs/a P were applied to the nursery. There were low levels of rainfall and snowfall for the crop season and hot summer temperatures. A total of 190 mm irrigation was applied. A slight leaf rust infection occurred late in the season. Planted on 9/25/87 and harvested 8/19/88.

Table 1. Yield and agronomic data for 45 entries in the Southern Regional Performance Nursery in 1988.

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:	: LEAF RUST: SEV.:RESP: % : 0-9:
TXGH13622	13	7176	71.5	80	134	9
TXGH10563B	11	7081	70.3	80	130	7
AGC-112	32	6835	68.9	82	131	4
CI17826	3	6348	69.6	79	133	8
OK84286	5	6326	69.1	83	134	10
XH675	36	5940	68.5	86	135	4
RL844677	30	5880	72	83	137	4
OK84287	6	5858	69.1	79	133	7
C0830027	21	5841	70.6	86	134	10
TXGH10989	9	5762	68.8	77	133	7
TX84V1317	14	5739	71	78	131	4
XW161	35	5691	67	72	130	2
WH180001	39	5640	68.3	81	134	4
OK84343	4	5625	68.8	75	134	1
TX84V1336	12	5617	68.8	79	130	4
NE84557	27	5536	71	79	137	15
OK86215	8	5483	71.3	82	131	4
OK86197	7	5471	67.7	82	130	4
TX86V1110	19	5442	66.8	87	133	1
C0830014	23	5420	71	89	135	9
Bounty-122	38	5419	65.2	83	134	12
NA-W84-229	40	5389	68.5	77	135	2
TX87HA1	45	5331	70.5	79	132	15
NA-W83-256	41	5323	68.3	79	136	4
KS82C2338	25	5248	71.1	75	130	5
C0830034	22	5236	70.3	80	137	5
TX84V1736	16	5139	69.2	74	130	7
NA-W81-162-W	42	5098	69.2	77	133	4
IL80-1251	44	5095	69.3	77	137	4
XH685	37	5042	67.2	83	134	2
CI13996	2	4907	69.4	87	134	8
TX81V6607-2	15	4870	71.9	72	131	1
NE82533	26	4756	69.8	78	137	4
NE82656	29	4722	64.9	77	137	1
TX86V1109	18	4585	67.4	83	134	2
TX81V6582-2	10	4506	70.4	69	130	5
NE83407	28	4432	65.2	76	137	4
TX86A7041	17	4407	65	72	135	1
XW141	34	4387	66	71	136	1
RL845472	31	4122	67.9	90	138	4
AGC-113	33	3985	64.4	77	137	5
KS84HW196	24	3911	70.1	76	130	1
CI1442	1	3833	69.3	96	144	5
C082009	20	3775	69.2	82	137	13
IL83-7439	43	3765	66.1	79	136	2
MEAN		5244				
LSD(.05)		1202				
C.V.		14.0				

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: % :	: LEAF RUST : : SEV.: : 0-9:
TXGH105638	11	3257	73.9	64	125	27
TX87HA1	45	2970	75.7	68	129	27
TXGH13622	13	2922	73.7	57	130	4
CI17826	3	2666	72.1	64	127	23
CI13996	2	2567	72.2	71	130	1
XH675	36	2456	71.3	64	130	2
RL845472	31	2338	73	65	129	2
OK84287	6	2265	71.3	60	129	4
TXGH10989	9	2170	70.6	60	129	9
TX84V1336	12	2069	72.9	56	125	1
AGC-112	32	2044	72.8	58	128	22
TX84V1317	14	2033	72.4	56	129	1
IL80-1251	44	1994	72.4	59	130	2
TX81V6607-2	15	1980	75.5	57	128	5
C0830014	23	1945	73.6	64	130	7
C082009	20	1849	73.4	63	134	7
OK84286	5	1743	71.3	57	130	1
TX86A7041	17	1728	66.5	59	130	1
TX84V1736	16	1700	71.9	54	125	4
OK86215	8	1677	71.8	59	128	5
OK84343	4	1629	69.9	57	130	4
TX86V1109	18	1601	68	69	129	1
TX81V6582-2	10	1579	72.2	57	126	7
NA-W83-256	41	1578	69.9	59	131	2
TX86V1110	19	1538	66.6	67	129	11
WH180001	39	1531	69.3	62	131	7
C0830027	21	1521	72.2	58	129	2
XH685	37	1483	71.1	59	130	4
KS84HW196	24	1455	72.1	57	127	1
NE84557	27	1414	72.6	56	131	1
C0830034	22	1384	72.7	58	134	14
NA-W81-162-W	42	1346	69.9	53	130	2
RL844677	30	1342	72	59	135	1
OK86197	7	1198	69.4	56	129	1
Bounty-122	38	1146	67.4	55	130	7
CI1442	1	1126	65.9	76	144	14
NA-W84-229	40	1113	70	48	131	1
KS82C2338	25	1110	70.7	58	129	14
NE83407	28	974	67.5	52	135	2
NE82656	29	973	68.2	58	134	4
IL83-7439	43	871	67.6	58	130	1
AGC-113	33	868	66.2	58	135	4
NE82533	26	831	69.1	55	133	11
XW141	34	697	61.4	53	133	1
XW161	35	678	67.2	49	123	1
MEAN		1675				
LSD(.05)		987				
C.V.		36.1				

FARMINGTON
NEW MEXICO
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:
TX86A7041	17	8006	75.8	90	139
XH685	37	7141	77.4	102	137
AGC-113	33	7038	75.1	100	139
NA-W84-229	40	6965	77.7	85	137
XH675	36	6950	77.7	99	136
RL844677	30	6833	78	105	139
C0830027	21	6789	79	99	136
C0830034	22	6745	79	103	137
TX84V1336	12	6569	77.4	84	133
XW141	34	6510	77.1	85	137
CI17826	3	6349	76.4	91	135
TXGH10563B	11	6334	74.8	92	134
C082009	20	6334	79	101	139
TX81V6607-2	15	6305	77.1	81	135
TX84V1317	14	6217	77.7	83	133
IL80-1251	44	6070	76.1	91	135
Bounty-122	38	6056	75.1	91	135
TX81V6582-2	10	5938	79.3	77	132
WH180001	39	5938	75.8	93	135
NA-W83-256	41	5909	75.1	92	139
AGC-112	32	5821	75.1	89	136
NE82656	29	5806	72.9	98	137
NE82533	26	5718	78.4	100	136
TXGH13622	13	5630	74.8	89	137
XW161	35	5630	74.5	69	132
NA-W81-162-W	42	5586	76.8	84	135
NE84557	27	5440	77.1	100	136
TX87HA1	45	5381	73.5	95	135
CI1442	1	5322	76.4	126	143
OK84287	6	5249	76.8	90	138
IL83-7439	43	5220	75.5	98	135
TX86V1109	18	5191	74.5	93	135
TX86V1110	19	5147	75.5	90	134
KS82C2338	25	5147	79	90	133
OK84286	5	5117	76.4	92	138
OK86215	8	5117	74.8	89	134
OK84343	4	5088	74.2	84	132
NE83407	28	5073	72.6	86	137
TX84V1736	16	5059	77.1	77	133
RL845472	31	5015	76.4	92	138
TXGH10989	9	5000	75.1	81	133
C0830014	23	4795	75.1	110	136
OK86197	7	4560	73.9	87	133
CI13996	2	4311	75.8	105	133
KS84HW196	24	3739	71.3	84	132
MEAN		5781			
LSD(.05)		1255			
C.V.		15.5			

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:	: LODGING : : % :	: YELLOW : : INDEX : : 0-9 :
TX81V6607-2	15	6226	74.2	82	130	27	1
TX81V6582-2	10	5984	73.5	85	128	30	1
TX84V1336	12	5661	71.2	87	130	27	2
TXGH10563B	11	5502	68.1	89	129	35	1
XW161	35	5360	70.1	85	127	0	3
TX87HA1	45	5273	69.9	88	132	10	3
TX84V1736	16	5183	71.1	83	128	37	3
AGC-112	32	5142	66.3	82	130	38	1
TX84V1317	14	5107	71.2	82	130	18	3
TXGH13622	13	5102	69.6	90	132	57	2
OK84343	4	4974	72.1	88	133	2	2
XH675	36	4922	69.6	92	133	13	1
OK84286	5	4887	69.7	89	133	18	3
OK86215	8	4878	70.8	87	131	22	3
NA-W84-229	40	4781	69.6	86	133	0	3
C0830027	21	4779	73.7	92	131	40	2
TXGH10989	9	4757	70.1	88	130	55	1
OK84287	6	4711	69.2	90	133	13	3
KS82C2338	25	4694	70.7	88	131	12	3
XH685	37	4649	68.5	87	133	13	2
Bounty-122	38	4642	65	91	133	8	2
NA-W81-162-W	42	4487	68.7	81	133	7	3
WH180001	39	4407	68.5	94	134	15	4
IL80-1251	44	4400	68.5	89	135	10	4
KS84HW196	24	4389	72	82	129	53	4
XW141	34	4344	65.6	82	133	5	1
OK86197	7	4341	70.7	90	131	62	2
RL845472	31	4297	71.6	86	134	23	2
NA-W83-256	41	4220	68.3	87	135	33	3
TX86A7041	17	4142	64.5	74	134	20	4
CI17826	3	4097	65.6	88	132	20	2
TX86V1109	18	4072	70.3	88	132	50	2
TX86V1110	19	4048	69.2	90	132	42	2
NE82656	29	4036	66.8	90	136	15	2
NE83407	28	4014	64.1	85	135	10	2
RL844677	30	4009	69.2	93	135	13	3
C0830034	22	3902	67.6	92	135	17	2
IL83-7439	43	3823	69	91	135	35	3
NE84557	27	3249	71.2	91	137	38	5
C0830014	23	3210	70.5	94	134	17	4
C082009	20	3152	68.9	88	135	45	3
NE82533	26	3045	69.4	91	136	5	3
AGC-113	33	2966	61.8	89	136	30	2
CI13996	2	2870	70.8	92	134	73	4
CI1442	1	1734	68	95	142	68	3
MEAN		4410					
LSD(.05)		500					
C.V.		6.9					

BUSHLAND (DRYL.)

TEXAS

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:	: YELLOW INDEX 0-9
TX81V6607-2	15	3685	82.6	62	128	2
TX81V6582-2	10	3373	81.1	61	127	2
TXGH13622	13	3160	79.2	62	129	2
TX84V1336	12	3157	79.6	62	128	3
TXGH10563B	11	3039	78.1	65	127	2
AGC-112	32	3014	79.1	64	127	2
TX84V1317	14	2977	80.2	63	127	4
TXGH10989	9	2861	79.1	64	128	1
C0830034	22	2857	78.7	70	132	4
C0830027	21	2839	80.4	75	130	2
CI17826	3	2835	78.7	66	129	2
OK84286	5	2825	78.6	63	130	1
TX87HA1	45	2825	77.8	63	128	2
TX84V1736	16	2740	77.8	62	127	2
OK84287	6	2677	78.8	63	130	1
OK86215	8	2672	78.2	65	128	2
XH675	36	2650	76.6	71	131	3
XH685	37	2637	76.5	68	131	3
RL845472	31	2570	79.9	67	131	3
OK86197	7	2460	77.5	64	127	3
RL844677	30	2449	78.8	68	133	4
AGC-113	33	2435	75.7	66	133	3
NE84557	27	2402	79	67	134	5
NA-W83-256	41	2369	77.8	63	131	2
KS82C2338	25	2361	79.9	65	128	3
IL80-1251	44	2349	77.2	64	133	4
NA-W81-162-W	42	2329	78.1	61	130	3
TX86V1110	19	2326	76.1	71	128	4
KS84HW196	24	2321	79	65	127	4
TX86A7041	17	2319	76.1	57	133	4
OK84343	4	2260	76.8	62	130	3
C082009	20	2114	79.1	67	134	4
TX86V1109	18	2063	76.6	60	129	4
NE83407	28	2043	73.8	57	134	4
WH180001	39	2031	77.2	63	131	3
CI13996	2	1987	79	75	132	5
Bounty-122	38	1972	76.8	64	132	4
XW161	35	1950	77.4	56	127	4
C0830014	23	1949	78.6	71	131	6
NA-W84-229	40	1927	76.9	52	132	5
XW141	34	1875	76.2	51	132	3
NE82533	26	1841	76.9	66	134	4
NE82656	29	1589	75.6	64	134	4
IL83-7439	43	1541	76.5	58	132	6
CI1442	1	1017	72.3	66	138	5
MEAN		2437				
LSD(.05)		475				
C.V.		13.9				

CHILICOTHE

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:
TX81V6607-2	15	4741	84.2	70	109
RL844677	30	4730	81.1	82	112
XW161	35	4723	82.8	70	106
C0830027	21	4656	82.5	86	111
TXGH13622	13	4580	82.8	79	110
TX87HA1	45	4557	80.8	81	109
NA-W81-162-W	42	4542	81.3	74	111
C0830014	23	4506	81.7	89	110
TXGH10563B	11	4492	80.2	71	107
TX86V1110	19	4398	80.4	88	110
TX84V1317	14	4389	81.2	73	110
NE83407	28	4317	76	78	116
TX81V6582-2	10	4311	82.9	70	106
TX84V1336	12	4311	81.5	69	108
IL80-1251	44	4270	78.2	82	118
NE84557	27	4235	81.9	93	119
XW141	34	4201	80.4	76	112
NE82656	29	4176	77.9	83	116
RL845472	31	4176	80.9	88	115
TX84V1736	16	4165	80.9	67	106
TX86A7041	17	4152	76.2	74	112
TXGH10989	9	4147	79.5	78	111
C0830034	22	4140	80.4	92	115
TX86V1109	18	4131	80.6	92	110
Bounty-122	38	4122	79.8	73	109
WH180001	39	4122	79.7	83	114
NE82533	26	4120	80.4	84	117
AGC-113	33	4096	76.6	82	118
XH675	36	4084	79.7	80	111
KS82C2338	25	4075	82.8	77	106
XH685	37	4069	79.7	83	111
NA-W83-256	41	4066	77.1	74	112
AGC-112	32	4060	78.5	75	108
OK86215	8	4046	81.3	76	106
OK84343	4	4013	79.9	75	112
NA-W84-229	40	4001	79.9	71	112
OK84286	5	3974	80.5	73	110
OK84287	6	3797	80.4	76	111
CI13996	2	3762	79.1	101	116
IL83-7439	43	3757	80	80	116
CI17826	3	3717	75.5	77	112
OK86197	7	3670	80.7	78	109
C082009	20	3654	80.7	92	117
KS84HW196	24	3237	81.5	75	112
CI1442	1	2849	77.3	96	127
MEAN		4141			
LSD(.05)		532			
C.V.		7.9			

DALLAS, 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 RUST : SEV.: : % :	: MILDew : RESP: : 0-9:	: SEPTORIA: : 0-9 :	: BYD : VIRUS : 0-5 :
XH675	36	4222	76.7	79	108	5	8	0	1
TX86A7041	17	4192	73.2	74	110	5	7	0	0.5
Bounty-122	38	4190	73.6	76	104	10	8	50	2
NA-W83-256	41	4094	75.4	79	109	15	8	60	1
TX84V1736	16	4081	77.7	69	101	5	8	0	1
XW161	35	3984	76.3	64	104	0	.	20	2
TXGH13622	13	3973	76.1	79	108	30	8	0	1
TX84V1336	12	3933	76.7	76	109	15	7	5	2
XH685	37	3924	75.8	81	108	1	7	50	2
OK86215	8	3907	77.1	71	103	5	8	0	1
OK86197	7	3905	76	76	108	15	8	40	0.5
NA-W81-162-W	42	3791	76.8	71	110	1	8	60	2
C0830027	21	3775	77.5	84	110	30	8	0	1
RL844677	30	3770	77.1	84	109	1	8	0	1
TX86V1109	18	3757	75.3	86	105	5	8	10	1.5
OK84286	5	3714	77.1	71	104	1	7	60	1
TX87HA1	45	3702	75.7	76	106	40	8	0	1.5
TXGH10563B	11	3630	74.8	79	107	15	8	0	2
TX81V6607-2	15	3560	78.9	71	110	5	8	0	2.5
AGC-113	33	3494	73.3	76	113	10	8	0	3
TX84V1317	14	3474	76.3	71	109	5	7	5	2.5
TXGH10989	9	3471	71.7	79	113	5	8	0	2
C0830014	23	3465	76.1	94	108	35	8	0	2
OK84287	6	3420	78.2	71	105	1	7	0	1
OK84343	4	3409	75.4	71	118	1	7	0	0.5
NE83407	28	3396	73.4	71	113	5	8	0	2.5
AGC-112	32	3395	74.6	74	108	30	8	0	1
NE82656	29	3354	73.7	76	121	0	.	0	3
C0830034	22	3326	75.4	89	114	25	8	0	1
TX86V1110	19	3303	74.2	81	104	5	8	5	2.5
KS82C2338	25	3298	76.6	79	113	25	8	0	2
RL845472	31	3297	76.8	81	115	0	.	0	1
NE82533	26	3294	77.8	74	120	5	8	0	3.5
NE84557	27	3177	76.8	89	119	0	.	0	2
KS84HW196	24	3171	76.7	74	114	15	8	0	2
NA-W84-229	40	3170	75.9	69	112	10	8	50	3.5
IL80-1251	44	3136	75.2	79	115	1	8	0	2
TX81V6582-2	10	3115	80.1	69	107	15	8	0	2
WH180001	39	3113	74.5	79	121	15	8	0	3
IL83-7439	43	3078	74.6	79	114	5	8	0	3
C113996	2	2910	76.8	91	120	35	8	5	2.5
C117826	3	2770	73.3	71	117	20	8	25	2.5
XW141	34	2699	71.3	69	112	10	8	0	4
C082009	20	2565	77	81	120	15	8	0	2
C11442	1	1343	75.4	102	127	35	8	10	3
MEAN		3461							
LSD(.05)		442							
C.V.		7.8							

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:	: BYD VIRUS 0-9
TX81V6607-2	15	4089	78.7	81	119	4
OK84343	4	4083	79.5	85	124	4
TX84V1317	14	4001	79.1	81	121	7
OK84287	6	3976	80	89	120	3
RL844677	30	3960	81.3	97	122	6
TXGH10989	9	3868	76.8	87	120	4
C0830034	22	3861	79.9	100	123	5
OK84286	5	3843	80	86	120	5
XW161	35	3814	79.1	78	117	3
WH180001	39	3784	78	98	125	5
TX84V1736	16	3780	77.4	82	118	6
AGC-113	33	3768	77.1	84	125	5
TX84V1336	12	3752	74.3	86	118	6
XH685	37	3744	77.4	94	121	5
OK86215	8	3730	77.5	84	118	5
XH675	36	3691	77.7	97	121	4
TX86A7041	17	3608	77	82	125	6
TX81V6582-2	10	3587	78.7	78	117	6
IL80-1251	44	3574	78	81	127	6
C0830027	21	3571	80.1	96	121	6
TXGH13622	13	3540	77.1	91	119	4
OK86197	7	3510	76.1	93	119	5
NE83407	28	3497	78.9	82	124	4
TX87HA1	45	3427	76.5	90	120	6
Bounty-122	38	3423	76	90	120	5
NA-W81-162-W	42	3336	79.3	83	122	6
KS82C2338	25	3316	78.7	88	118	6
NE84557	27	3289	82	94	127	6
TXGH10563B	11	3258	74.2	88	117	6
NE82656	29	3251	78.2	79	127	6
NA-W84-229	40	3208	77.5	80	123	7
KS84HW196	24	3199	78.3	82	122	6
IL83-7439	43	3124	79.5	99	125	5
C082009	20	3070	81.8	95	127	5
TX86V1109	18	3058	76.9	99	119	6
TX86V1110	19	3036	75.7	97	119	7
NA-W83-256	41	3029	79.6	85	123	6
CI17826	3	2937	74.9	83	123	6
AGC-112	32	2787	75.2	79	119	6
CI13996	2	2692	79.3	103	127	7
RL845472	31	2651	79.3	87	126	7
C0830014	23	2475	78.2	98	121	8
NE82533	26	2231	78.8	83	129	7
CI1442	1	1779	79.1	96	135	7
XW141	34	1766	76.4	70	124	8
MEAN		3355				
LSD(.05)		359				
C.V.		6.5				

LAHOMA

OKLAHOMA

THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: : NO. :	: YIELD : : KG/HA :	: VOLUME : : WEIGHT : : KG/HL :	: PLANT : : HEIGHT : : CM :	: LODGING : : % :
XW161	35	5482	78	93	0
OK84343	4	5351	77.8	92	0
TX84V1336	12	5217	77.3	91	3
TX81V6607-2	15	5115	81	91	5
TX84V1317	14	5064	78.9	88	20
OK86215	8	4987	77.5	94	0
TX84V1736	16	4946	78.4	88	23
XH685	37	4899	75.7	105	0
NA-W84-229	40	4847	75.3	92	0
TX86A7041	17	4813	73.8	92	0
RL844677	30	4763	77	104	0
TX81V6582-2	10	4760	78.8	85	2
OK84286	5	4743	79.5	98	0
TX86V1110	19	4740	76.9	106	27
NA-W81-162-W	42	4729	77.7	91	0
OK84287	6	4704	79.1	98	0
KS82C2338	25	4659	79.2	95	0
WH180001	39	4578	74.3	102	0
C0830027	21	4526	79.5	103	25
TXGH10989	9	4478	76.5	93	32
TX86V1109	18	4388	77.4	104	27
IL80-1251	44	4374	72.9	95	0
XH675	36	4363	75.6	104	0
AGC-112	32	4324	75.1	91	0
NE82656	29	4318	74.4	94	0
RL845472	31	4286	77.8	101	0
TXGH10563B	11	4218	75.9	99	0
NE83407	28	4195	75.6	98	0
Bounty-122	38	4186	74	94	0
TX87HA1	45	4177	76.2	103	0
XW141	34	4166	72	89	0
NA-W83-256	41	4143	74.3	101	2
C0830014	23	4080	78.7	117	0
OK86197	7	4064	76.5	103	15
TXGH13622	13	3961	76.9	95	5
KS84HW196	24	3956	78.9	97	10
NE84557	27	3927	80.5	104	2
CI17826	3	3816	75.1	99	0
C0830034	22	3784	77.1	106	10
IL83-7439	43	3617	78.2	115	13
C082009	20	3560	78.3	109	5
AGC-113	33	3474	71.9	95	25
CI13996	2	3458	78.7	110	10
NE82533	26	3314	76.2	94	0
CI1442	1	1770	76.8	106	27
MEAN		4340			
LSD(.05)		364			
C.V.		5.1			

ALTUS
OKLAHOMA
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: VOLUME WEIGHT KG/HL	: PLANT HEIGHT CM
OK84343	4	4086	79.9	83
XW161	35	4049	79.3	74
WH180001	39	3564	75.1	97
XH685	37	3547	75.1	99
NA-W81-162-W	42	3536	75.9	77
TX86V1110	19	3508	75.7	91
TX84V1336	12	3501	79.3	75
XW141	34	3501	74	81
TX86V1109	18	3497	76.4	94
TX84V1317	14	3488	80.9	74
NE83407	28	3444	74	83
TX86A7041	17	3432	73.1	85
NE82656	29	3415	74.6	89
RL844677	30	3378	74.8	99
XH675	36	3371	75.7	97
OK84287	6	3363	80.5	83
OK84286	5	3326	80.5	82
NA-W83-256	41	3296	73.9	87
Bounty-122	38	3290	74.8	86
NA-W84-229	40	3289	78.3	85
AGC-112	32	3277	73.8	84
TX87HA1	45	3270	75.6	86
TXGH10989	9	3266	76.9	84
TX84V1736	16	3259	79.2	79
RL845472	31	3235	78.3	94
IL83-7439	43	3222	77.9	96
IL80-1251	44	3189	76.1	90
TX81V6582-2	10	3160	80.2	76
TX81V6607-2	15	3158	82.8	75
OK86197	7	3143	78.4	84
TXGH10563B	11	3137	75.6	78
KS82C2338	25	3106	79.5	86
OK86215	8	3100	78.7	83
AGC-113	33	3096	73.3	90
KS84HW196	24	3081	79.2	82
NE84557	27	3020	77.1	97
TXGH13622	13	3019	78.6	80
CO830014	23	2973	78.2	99
CI17826	3	2897	75.3	84
CI13996	2	2842	77.9	105
CO830034	22	2820	76.6	96
CO830027	21	2798	79.6	93
NE82533	26	2554	77.8	91
CO82009	20	2472	76.6	99
CI1442	1	1680	78.3	98
MEAN		3215		
LSD(.05)		375		
C.V.		7.1		

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:
OK84286	5	5098	75.3	102	133
XW161	35	4805	74.6	86	132
OK86215	8	4785	74.2	97	133
OK84287	6	4708	74.2	102	134
XW141	34	4699	70.4	89	134
OK84343	4	4664	73.9	98	135
TX81V6582-2	10	4657	76.2	89	132
TX84V1317	14	4441	73.9	91	133
TXGH10563B	11	4413	71.1	102	132
TX84V1736	16	4403	73	91	133
RL845472	31	4362	74.4	109	136
NA-W83-256	41	4354	69	99	136
TX84V1336	12	4346	72.4	99	133
XH675	36	4292	71.2	108	133
NA-W81-162-W	42	4263	72	93	135
AGC-112	32	4207	69.5	99	133
TX81V6607-2	15	4176	75.5	92	133
IL80-1251	44	4176	68.5	104	136
TX87HA1	45	4135	70.8	104	133
TX86A7041	17	4134	67.7	95	136
OK86197	7	4122	73.8	104	133
NE82656	29	4113	69.8	107	137
XH685	37	4092	72	109	133
KS82C2338	25	4091	74.8	100	133
TXGH10989	9	4020	71	97	134
WH180001	39	4013	68.8	107	135
NE83407	28	3953	67.9	101	137
TX86V1110	19	3952	71.1	99	133
NA-W84-229	40	3922	69.9	101	135
RL844677	30	3913	72.1	110	136
NE84557	27	3887	74.7	106	138
TX86V1109	18	3873	73	101	133
Bounty-122	38	3864	68	103	135
AGC-113	33	3808	66.6	106	137
KS84HW196	24	3802	75.6	100	133
C0830027	21	3790	73.1	108	133
IL83-7439	43	3697	73.8	107	135
TXGH13622	13	3684	72.4	99	133
NE82533	26	3593	72.1	107	138
CI13996	2	3575	75.6	104	136
C0830014	23	3553	73.8	114	135
C082009	20	3504	72.8	104	137
CI17826	3	3436	69.3	102	133
C0830034	22	3392	70.6	107	137
CI1442	1	2592	71.7	115	140

MEAN	4075
LSD(.05)	555
C.V.	8.3

HUTCHINSON
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:
TX81V6582-2	10	2979	66.7	74	137
XW161	35	2511	63.3	75	135
TX81V6607-2	15	2499	68.2	75	136
AGC-112	32	2273	61.9	80	136
TX87HA1	45	2247	61.8	84	136
OK86215	8	2130	63.1	78	133
TXGH10563B	11	2106	60	80	135
OK86197	7	2082	63.6	75	133
KS82C2338	25	2011	67.1	75	135
TXGH10989	9	2003	59.7	76	135
TXGH13622	13	1945	62.8	78	136
TX86V1109	18	1929	61.3	81	135
TX84V1736	16	1820	60.4	70	135
XH675	36	1804	59	79	137
OK84343	4	1802	62.7	77	131
OK84286	5	1727	59.1	75	132
NE82656	29	1678	58.6	74	135
RL844677	30	1647	59.5	79	135
TX86V1110	19	1642	58.4	78	134
TX84V1336	12	1607	62.2	75	133
XW141	34	1580	53.5	72	135
KS84HW196	24	1578	63.3	72	137
IL80-1251	44	1559	53.9	75	135
C0830027	21	1545	61.9	82	135
TX84V1317	14	1508	60.2	77	137
XH685	37	1496	57.4	75	137
OK84287	6	1481	60.2	68	133
RL845472	31	1341	61.7	73	136
NA-W81-162-W	42	1331	58.3	69	135
NA-W83-256	41	1300	58.3	68	134
Bounty-122	38	1232	53.3	71	135
C082009	20	1208	59.1	79	137
WH180001	39	1186	57.9	78	135
NA-W84-229	40	1186	57.3	65	136
C0830014	23	1117	61.3	78	136
NE84557	27	1058	60.4	78	135
C0830034	22	1039	54.3	78	135
NE83407	28	935	54.2	69	136
IL83-7439	43	925	53	63	137
CI13996	2	894	58.6	80	134
AGC-113	33	820	51.2	71	136
CI17826	3	819	53	67	132
NE82533	26	704	57.5	72	135
TX86A7041	17	604	53.3	62	135
CI1442	1	510	58.1	84	137
MEAN		1542			
LSD(.05)		445			
C.V.		17.7			

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	: LEAF RUST SEV.: %	: RESP: 0-9:
TXGH13622	13	4675	81.8	80	131	70	8
RL844677	30	4651	82.2	87	133	15	3
XH685	37	4637	78.9	82	131	50	8
TX84V1317	14	4601	80.6	73	131	20	8
XW161	35	4505	81	67	129	10	3
OK86215	8	4391	80.9	74	130	50	8
NA-W83-256	41	4382	79.5	79	131	70	8
NA-W81-162-W	42	4338	82	71	132	30	8
XW141	34	4311	78.8	72	133	20	3
TX87HA1	45	4246	80.7	91	130	15	8
TX84V1336	12	4236	80.2	76	131	30	7
NE82656	29	4223	78.4	75	135	15	3
AGC-113	33	4215	77.7	74	134	70	8
XH675	36	4202	79.6	81	132	50	8
IL80-1251	44	4155	80.6	74	134	30	8
TX81V6607-2	15	4123	83.5	69	131	15	7
TXGH105638	11	4104	78.8	78	130	60	8
TX81V6582-2	10	4043	81.7	71	130	50	8
WH180001	39	4002	79.4	79	133	30	3
TX86A7041	17	3991	78.1	68	132	10	3
TX84V1736	16	3990	81.3	70	129	40	8
NA-W84-229	40	3958	80	73	132	30	7
AGC-112	32	3936	79	79	130	70	8
RL845472	31	3912	80.8	81	132	20	8
NE83407	28	3903	77.3	72	133	80	8
OK86197	7	3890	80.9	78	131	60	8
NE84557	27	3884	81.7	87	134	25	8
OK84343	4	3866	79.7	70	133	30	7
C0830014	23	3852	79.5	67	131	70	8
KS84HW196	24	3844	80.8	76	131	70	8
NE82533	26	3840	80.8	80	134	70	8
TXGH10989	9	3822	78.7	63	133	70	8
TX86V1109	18	3807	79.1	87	132	10	3
TX86V1110	19	3777	78	84	131	10	3
CI17826	3	3762	77.9	77	132	80	8
C0830034	22	3704	80.6	78	135	80	8
KS82C2338	25	3692	81.4	79	130	80	8
IL83-7439	43	3656	80.4	85	133	15	8
C0830027	21	3526	81.9	77	132	30	3
OK84286	5	3451	81.3	67	132	60	8
CI13996	2	3389	80.9	90	133	70	8
C082009	20	3144	80.6	76	135	40	8
OK84287	6	3112	80.3	68	132	60	8
Bounty-122	38	3006	77	73	132	80	8
CI1442	1	2792	77.8	83	139	70	8
MEAN		3945					
LSD(.05)		566					
C.V.		8.8					

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:
TXGH13622	13	2712	79.5	61	134
TX81V6582-2	10	2641	82.1	55	132
TXGH10563B	11	2609	78.5	57	133
TX81V6607-2	15	2569	81.6	53	135
TXGH10989	9	2551	79.5	60	134
OK84343	4	2547	78.2	59	135
CO830034	22	2517	79.3	64	138
RL844677	30	2421	80.9	62	136
XW161	35	2419	79.1	53	131
KS84HW196	24	2401	81	61	132
TX87HA1	45	2383	79	58	132
TX84V1336	12	2349	79.6	54	135
CO830014	23	2340	78	63	135
NE83407	28	2336	76.2	59	137
CO830027	21	2327	81.4	58	136
NA-W83-256	41	2291	76.6	58	135
XH685	37	2287	78	61	135
AGC-112	32	2284	77.7	56	133
TX86V1109	18	2266	76.9	64	136
TX84V1317	14	2257	80.7	55	135
CI17826	3	2235	78	54	134
NA-W84-229	40	2233	77.3	54	136
IL80-1251	44	2233	78.9	59	136
OK84286	5	2215	79.1	54	135
RL845472	31	2215	79.2	56	136
OK86215	8	2201	79.2	57	133
Bounty-122	38	2201	76.2	57	134
KS82C2338	25	2186	81.4	59	132
XH675	36	2174	77.8	59	135
WH180001	39	2154	77.5	62	137
OK84287	6	2132	78.9	52	136
NE82533	26	2121	76.4	57	139
NA-W81-162-W	42	2118	77.8	50	135
IL83-7439	43	2107	77.5	59	135
AGC-113	33	2083	77.4	55	139
TX86V1110	19	2076	74.8	62	135
TX84V1736	16	2067	80.2	49	134
CI13996	2	2047	78	66	136
NE82656	29	2042	76.2	56	138
NE84557	27	2038	77.7	59	138
XW141	34	2022	72.8	51	139
OK86197	7	2009	79.7	58	132
TX86A7041	17	1993	75	54	138
CO82009	20	1883	76.4	57	138
KS87H66	46	1775	78.1	47	135
CI1442	1	1397	74.2	71	142

MEAN	2227
LSD(.05)	427
C.V.	11.7

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:
TXGH13622	13	3244	78.9	62	137
XH675	36	3219	76.2	62	137
AGC-112	32	3199	77	60	137
TXGH105638	11	3167	76.1	58	136
TX81V6607-2	15	3158	81.2	57	138
TX87HA1	45	3042	77.7	63	137
TXGH10989	9	2982	77.5	60	138
KS82C2338	25	2977	78.1	60	138
TX84V1317	14	2874	78.4	58	137
C0830034	22	2860	77.8	58	140
C0830027	21	2840	78.6	65	137
OK84286	5	2831	77.6	62	137
C082009	20	2825	78.4	60	141
TX86V1109	18	2820	75.9	65	138
TX81V6582-2	10	2813	80.2	58	137
NA-W83-256	41	2802	75.6	60	138
RL844677	30	2795	77	60	139
AGC-113	33	2766	73.9	55	140
XH685	37	2739	76.5	58	138
NE82533	26	2733	75.9	60	139
OK84287	6	2706	78.2	60	137
OK86215	8	2684	77.6	62	137
RL845472	31	2677	77.9	58	138
OK86197	7	2659	77.2	60	137
TX86V1110	19	2641	74.9	62	138
NE82656	29	2639	74.3	57	139
CI17826	3	2621	76.6	57	137
TX84V1736	16	2596	76.6	57	136
NE83407	28	2556	73.4	55	140
CI13996	2	2554	78.2	68	138
IL80-1251	44	2533	77	57	139
KS84HW196	24	2529	77.9	62	137
XW141	34	2498	75	53	138
C0830014	23	2477	78.6	68	137
NE84557	27	2455	77.1	60	140
IL83-7439	43	2453	75.4	52	141
XW161	35	2399	75.7	53	137
NA-W81-162-W	42	2397	77.2	53	140
Bounty-122	38	2392	75.1	60	138
OK84343	4	2385	76.7	57	140
NA-W84-229	40	2368	75.9	53	140
TX84V1336	12	2345	77.4	55	137
WH180001	39	2280	76.1	62	138
TX86A7041	17	2260	71.8	55	139
CI1442	1	1924	75	70	144
MEAN		2683			
LSD(.05)		377			
C.V.		8.6			

AKRON
COLORADO
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: : NO. :	: YIELD : : KG/HA :	: VOLUME : : WEIGHT : : KG/HL :
TXGH13622	13	1835	65.3
AGC-112	32	1822	69.6
OK84343	4	1782	70.3
NE82656	29	1750	66.5
TXGH10563B	11	1699	64.4
TXGH10989	9	1649	66.2
RL845472	31	1643	67.8
CI17826	3	1582	63.1
NE84557	27	1568	72.7
TX87HA1	45	1547	65.3
RL844677	30	1534	65
TX81V6607-2	15	1508	68.4
AGC-113	33	1493	63.7
NE82533	26	1458	65.9
TX84V1736	16	1447	64.7
IL83-7439	43	1434	71.2
TX84V1336	12	1423	63.4
OK84286	5	1416	68.1
KS84HW196	24	1407	69.9
KS82C2338	25	1400	65.6
NE83407	28	1393	59.1
XH675	36	1378	64.7
TX84V1317	14	1325	67.8
OK86215	8	1315	66.2
XW161	35	1266	63.1
Bounty-122	38	1233	60
WH180001	39	1228	64.1
NA-W81-162-W	42	1221	63.4
OK86197	7	1217	68.4
C0830027	21	1205	69.9
CI13996	2	1203	69.3
NA-W83-256	41	1198	64.4
TX81V6582-2	10	1194	65.6
OK84287	6	1193	69
IL80-1251	44	1192	65.6
C082009	20	1179	68.4
XW141	34	1141	58.2
C0830034	22	1124	65.6
NA-W84-229	40	1122	69.3
XH685	37	1113	59.1
TX86A7041	17	1085	59.1
TX86V1110	19	1044	66.5
TX86V1109	18	987	.
CI1442	1	832	71.5
C0830014	23	791	69.3
MEAN		1346	
LSD(.05)		459	
C.V.		20.9	

BURLINGTON

COLORADO

THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: VOLUME WEIGHT KG/HL	: PLANT HEIGHT CM
AGC-112	32	3175	71.2	84
TX84V1336	12	3122	72.4	79
KS84HW196	24	3025	74.3	81
RL845472	31	2968	76.1	89
KS82C2338	25	2964	73.3	79
OK86215	8	2932	71.5	79
OK84343	4	2873	72.4	79
TX87HA1	45	2851	72.4	89
OK84287	6	2841	72.4	84
NE82656	29	2820	68.1	91
XH685	37	2819	71.8	94
TXGH105638	11	2817	70.3	84
C0830027	21	2786	74	91
TX81V6582-2	10	2784	73	79
OK84286	5	2764	74	84
RL844677	30	2748	71.2	99
TXGH13622	13	2715	71.5	86
IL80-1251	44	2698	72.4	84
TX84V1317	14	2693	73.7	76
NE82533	26	2686	70.9	81
TX81V6607-2	15	2669	75.2	79
NA-W84-229	40	2649	74.9	81
XW161	35	2647	70.6	69
TX86V1110	19	2635	70.6	91
CI13996	2	2630	74.3	112
TXGH10989	9	2629	69.9	84
WH180001	39	2621	72.4	84
OK86197	7	2619	71.8	81
TX86V1109	18	2577	70.9	91
NE84557	27	2550	72.4	99
NA-W83-256	41	2526	71.5	84
AGC-113	33	2488	68.1	94
NE83407	28	2451	68.7	81
IL83-7439	43	2427	72.7	89
CI17826	3	2396	69.6	81
C0830014	23	2378	72.7	107
TX86A7041	17	2371	69.9	74
NA-W81-162-W	42	2363	73	69
XH675	36	2309	69.6	94
C082009	20	2230	71.8	107
C0830034	22	2001	69	94
CI1442	1	1888	67.5	117
Bounty-122	38	1873	68.1	84
XW141	34	1821	67.5	76
TX84V1736	16	1696	73	76
MEAN		2589		
LSD(.05)		585		
C.V.		13.8		

JULESBURG
COLORADO
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD : KG/HA	: VOLUME : WEIGHT : KG/HL	: PLANT : HEIGHT : CM
RL845472	31	2254	69.6	81
KS82C2338	25	2088	68.1	79
NE82656	29	2078	64.7	84
TX87HA1	45	2016	68.1	89
NE84557	27	2006	66.5	99
WH180001	39	1980	65.9	99
AGC-112	32	1921	67.5	81
CI13996	2	1866	67.8	94
NE82533	26	1733	63.1	91
IL80-1251	44	1732	66.2	89
CI17826	3	1679	63.1	76
OK86197	7	1649	65.3	76
NE83407	28	1577	61.6	84
TXGH13622	13	1567	61	79
RL844677	30	1550	67.8	97
TXGH10563B	11	1538	63.7	84
C0830034	22	1521	62.2	91
NA-W81-162-W	42	1491	66.8	74
XH685	37	1485	62.5	89
NA-W83-256	41	1485	64.7	91
OK86215	8	1473	62.5	74
OK84343	4	1449	65.3	79
XH675	36	1434	65.6	84
C0830014	23	1408	60	81
XW161	35	1337	61.9	69
TX81V6607-2	15	1320	68.1	71
IL83-7439	43	1290	66.2	102
TX86V1109	18	1280	63.1	97
C082009	20	1273	68.7	89
TX81V6582-2	10	1260	66.2	61
TX86V1110	19	1253	64.7	91
KS84HW196	24	1234	66.2	74
AGC-113	33	1210	59.4	89
Bounty-122	38	1198	58.8	84
NA-W84-229	40	1196	67.2	74
TX84V1736	16	1139	65.9	58
OK84286	5	1081	64.4	76
TX84V1317	14	1057	65	74
TX84V1336	12	1043	64.4	69
OK84287	6	1042	62.8	71
XW141	34	990	59.4	71
TXGH10989	9	980	61	64
C0830027	21	960	65.3	71
TX86A7041	17	936	55.4	71
CI1442	1	784	67.5	102
MEAN		1441		
LSD(.05)		548		
C.V.		23.3		

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: % :	: LEAF RUST : : SEV.: RESP : : 0-9:
AGC-112	32	4779	78.4	78	137	8
TXGH13622	13	4721	83.7	75	136	8
RL844677	30	4636	83.3	83	138	2
XW161	35	4600	82.9	67	137	2
TXGH10563B	11	4589	79.7	75	136	8
TX87HA1	45	4562	81.8	79	138	8
AGC-113	33	4472	81	79	139	8
TX84V1317	14	4470	82.3	70	139	7
OK86215	8	4434	80.8	79	137	2
C0830034	22	4414	81.4	85	138	8
TX86V1109	18	4389	81.4	86	137	2
NA-W81-162-W	42	4380	82.7	70	137	8
IL80-1251	44	4369	81.9	77	139	7
NE84557	27	4360	82.4	82	139	8
TX81V6582-2	10	4351	82.9	66	136	8
XH685	37	4329	80.6	86	138	8
IL83-7439	43	4320	80.9	85	137	7
CI17826	3	4295	79.2	77	137	8
OK86197	7	4232	81.4	75	137	8
TX86A7041	17	4228	79.3	75	138	2
TX81V6607-2	15	4178	84.2	69	138	5
XH675	36	4154	80.5	86	138	8
RL845472	31	4152	80.4	84	138	7
C0830027	21	4109	84.4	81	138	5
TX84V1336	12	4060	82.8	71	138	3
NE83407	28	4006	79.1	73	139	8
OK84286	5	3905	80.9	72	137	2
NA-W84-229	40	3880	80.2	74	137	2
OK84343	4	3849	79.2	68	139	5
NA-W83-256	41	3838	80	75	138	7
NE82656	29	3835	77.7	80	139	2
OK84287	6	3824	80.9	70	137	2
TXGH10989	9	3806	81.7	69	138	8
CI13996	2	3719	82	91	138	8
TX86V1110	19	3708	80.4	87	136	2
WH180001	39	3679	80.9	81	137	3
KS82C2338	25	3672	82.6	73	137	5
KS84HW196	24	3665	81.5	73	137	8
C0830014	23	3549	78.9	82	138	8
NE82533	26	3490	81.7	80	139	8
C082009	20	3217	82.4	83	140	7
Bounty-122	38	3212	77.9	75	138	8
TX84V1736	16	3174	83.6	71	137	5
XW141	34	3120	78.3	67	137	2
CI1442	1	2923	80.1	95	140	7
MEAN		4037				
LSD(.05)		614				
C.V.		9.3				

CLAY CENTER
NEBRASKA
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: VOLUME WEIGHT KG/HL	: PLANT HEIGHT CM
NE82656	29	3404	76.8	75
NE83407	28	3097	75.7	62
NE84557	27	2803	79.3	74
CI13996	2	2745	79.5	82
TXGH10563B	11	2734	77.1	66
AGC-112	32	2714	76.9	66
TXGH13622	13	2703	79.7	66
NE82533	26	2697	77.8	70
XH675	36	2669	77.8	71
RL844677	30	2642	79.9	69
TX84V1317	14	2641	80.9	64
NA-W83-256	41	2631	77	64
TX86A7041	17	2627	75.7	64
IL80-1251	44	2622	79.2	67
RL845472	31	2564	79.3	73
XW161	35	2558	78.7	60
XH685	37	2477	77.4	70
CI17826	3	2470	77.7	65
NA-W84-229	40	2428	77.8	63
KS82C2338	25	2425	79.5	64
OK86197	7	2340	80	63
CO830034	22	2292	79.6	68
IL83-7439	43	2265	77	65
CI1442	1	2208	75.3	90
CO830027	21	2194	80.2	65
CO830014	23	2131	78.6	70
OK86215	8	2104	78.4	63
TX87HA1	45	2078	78.8	64
TX84V1336	12	2067	79.3	63
CO82009	20	2062	78.4	67
TX86V1109	18	2058	78.2	65
XW141	34	2040	76	59
AGC-113	33	2020	75.6	72
TX86V1110	19	1956	76.9	67
NA-W81-162-W	42	1945	80	58
OK84286	5	1923	79.2	59
Bounty-122	38	1821	75.1	60
TX81V6607-2	15	1770	82.2	57
TX81V6582-2	10	1749	81.5	60
WH180001	39	1723	76.6	67
OK84287	6	1706	79.6	56
TX84V1736	16	1640	79.5	61
KS84HW196	24	1473	80.9	63
OK84343	4	1277	77.1	60
TXGH10989	9	960	77	64
MEAN		2254		
LSD(.05)		625		
C.V.		17.0		

ALLIANCE

NEBRASKA

THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: VOLUME WEIGHT KG/HL
AGC-113	33	4925	72.5
AGC-112	32	4799	72.4
TX84V1736	16	4780	72.9
XH685	37	4778	73.5
WH180001	39	4764	73.9
TXGH10563B	11	4735	73.9
XH675	36	4690	72.9
CI17826	3	4666	73
TX87HA1	45	4623	76.8
TX81V6582-2	10	4616	77.4
IL80-1251	44	4606	73.7
NE83407	28	4555	70.6
NE82656	29	4552	71.5
TX84V1317	14	4500	74.8
TXGH13622	13	4457	75.2
NA-W83-256	41	4443	74.7
RL845472	31	4427	75.1
NA-W81-162-W	42	4380	76.9
OK86215	8	4376	73.5
NE82533	26	4374	77.4
KS82C2338	25	4369	75.1
XW161	35	4337	73.1
TX86A7041	17	4335	69
NA-W84-229	40	4327	75.5
TX86V1110	19	4314	74.4
TX86V1109	18	4261	74.3
Bounty-122	38	4224	72.2
XW141	34	4216	72
OK86197	7	4182	74.7
OK84286	5	4181	73.8
RL844677	30	4167	71
C0830027	21	4163	73.5
C0830034	22	4162	70.7
KS84HW196	24	4145	74.4
IL83-7439	43	4096	77.4
CI13996	2	4091	74.4
NE84557	27	4086	78.4
C082009	20	4015	72.6
TX84V1336	12	3944	73.5
TXGH10989	9	3893	74.2
TX81V6607-2	15	3891	76.8
OK84343	4	3862	76.1
OK84287	6	3750	73.9
C0830014	23	3452	75.3
CI1442	1	3041	73.4
MEAN		4301	
LSD(.05)		482	
C.V.		6.9	

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:
NA-W83-256	41	2662	77.5	62	150
XH675	36	2341	77.5	65	151
C0830034	22	2313	76	63	151
NE83407	28	2238	76.9	56	151
OK84287	6	2199	80.2	58	150
NE82656	29	2178	75.7	64	150
AGC-113	33	2157	77.3	63	152
IL83-7439	43	2130	77.9	62	151
TX86V1110	19	2093	77.1	64	151
TX81V6607-2	15	2045	82.8	58	151
OK84286	5	1973	76.6	54	150
OK86215	8	1970	76.9	67	151
TX84V1336	12	1963	79.1	54	151
NE84557	27	1902	79.7	62	150
NE82533	26	1877	79.3	65	151
TX87HA1	45	1874	78.8	65	150
NA-W81-162-W	42	1863	79.7	58	150
XH685	37	1826	75.5	66	151
OK86197	7	1813	78.9	59	151
TX81V6582-2	10	1813	78	60	151
XW161	35	1807	77.1	52	151
C0830027	21	1794	80.2	68	151
NA-W84-229	40	1748	76	58	151
TX86A7041	17	1723	76.6	57	151
AGC-112	32	1698	76	58	150
CI17826	3	1692	76.2	55	150
CI13996	2	1691	77.9	68	149
RL844677	30	1690	79.5	65	150
KS82C2338	25	1657	79.5	62	151
RL845472	31	1608	78.6	61	150
TX86V1109	18	1600	75.7	59	151
TXGH13622	13	1592	76.9	51	151
TXGH10563B	11	1572	78.2	57	151
IL80-1251	44	1567	76.9	60	151
WH180001	39	1555	77.3	62	151
KS84HW196	24	1484	81.3	58	150
TX84V1317	14	1445	80	52	151
C082009	20	1361	77.7	52	151
TX84V1736	16	1345	78.2	47	151
OK84343	4	1267	67.8	52	151
Bounty-122	38	1253	72.4	58	150
C0830014	23	1186	75.9	61	151
CI1442	1	1140	68.2	67	154
TXGH10989	9	1090	67.1	52	151
XW141	34	1042	70.2	48	152
MEAN		1752			
LSD(.05)		548			
C.V.		19.2			

PRESHO

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:
TXGH13622	13	2460	70.4	55	148
AGC-112	32	2328	70.6	62	147
TXGH10563B	11	2154	69.5	58	148
CI13996	2	2095	69.7	64	148
OK86215	8	2082	70	57	147
TX81V6607-2	15	2074	74.2	54	148
NE84557	27	2047	66.4	58	149
NA-W83-256	41	2042	68.9	60	149
IL80-1251	44	2003	68.8	58	149
NA-W81-162-W	42	2001	69.1	53	149
CI17826	3	1974	66.9	53	148
RL845472	31	1966	71.1	57	150
TX86V1109	18	1921	69.5	58	148
XH675	36	1911	70.2	61	148
NE83407	28	1902	69.5	58	150
NE82533	26	1899	69.3	61	150
OK86197	7	1891	71.1	54	147
RL844677	30	1880	67.5	60	151
TX81V6582-2	10	1839	67.3	59	150
TX87HA1	45	1837	71.5	61	147
OK84286	5	1794	67.8	55	149
IL83-7439	43	1791	66.8	53	150
NE82656	29	1779	67.1	61	150
TX84V1336	12	1725	67.5	49	149
KS82C2338	25	1723	69.3	59	149
C0830034	22	1704	68.4	58	150
C0830027	21	1689	71.5	58	149
TX84V1317	14	1677	69.8	52	149
WH180001	39	1660	68.8	58	150
NA-W84-229	40	1636	68.2	52	151
C082009	20	1614	69.3	52	150
TXGH10989	9	1610	68.8	54	150
KS84HW196	24	1608	71.5	56	147
TX86V1110	19	1592	60	58	148
XH685	37	1569	68.2	60	149
C0830014	23	1560	68.8	62	148
OK84287	6	1538	70.2	53	148
TX86A7041	17	1510	63.1	56	150
AGC-113	33	1481	62.8	56	151
XW141	34	1423	64.6	58	151
TX84V1736	16	1418	68.4	47	148
Bounty-122	38	1402	66.4	60	148
OK84343	4	1391	67.8	57	151
CI1442	1	1361	67.1	69	155
XW161	35	1343	68.2	50	148
MEAN		1776			
LSD(.05)		443			
C.V.		15.3			

CASSELTON

N. DAKOTA

THREE REPLICATIONS

C.I. OR SEL. NO.	: : ENTRY: : NO. :	: WINTER : : SURVIVAL : : % :
CI1442	1	32
CI13996	2	32
CI17826	3	22
OK84343	4	2
OK84286	5	12
OK84287	6	12
OK86197	7	12
OK86215	8	12
TXGH10989	9	27
TX81V6582-2	10	7
TXGH10563B	11	28
TX84V1336	12	5
TXGH13622	13	12
TX84V1317	14	3
TX81V6607-2	15	0
TX84V1736	16	10
TX86A7041	17	10
TX86V1109	18	10
TX86V1110	19	18
C082009	20	5
C0830027	21	0
C0830034	22	2
C0830014	23	2
KS84HW196	24	3
KS82C2338	25	5
NE82533	26	8
NE84557	27	12
NE83407	28	20
NE82656	29	35
RL844677	30	13
RL845472	31	18
AGC-112	32	55
AGC-113	33	33
XW141	34	32
XW161	35	3
XH675	36	5
XH685	37	17
Bounty-122	38	0
WH180001	39	2
NA-W84-229	40	2
NA-W83-256	41	8
NA-W81-162-W	42	3
IL83-7439	43	33
IL80-1251	44	25
TX87HA1	45	30

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 :	: LEAF RUST: : SEV.: : % :	: BYD : RESP: : 0-9 :	: : VIRUS : 0-9 :
TXGH13622	13	6424	77.1	91	131	40	7	
XH675	36	6413	74.9	92	132	12	5	
TX87HA1	45	6133	77.4	91	131	13	7	
OK86215	8	6056	76.1	89	130	10	6	
WH180001	39	6054	75.1	97	133	5	5	
AGC-112	32	6020	75.2	88	131	50	8	
TX81V6582-2	10	5993	76.8	83	130	7	8	
XH685	37	5935	74	88	133	10	5	
TX84V1317	14	5914	75.6	81	131	4	7	
TXGH10989	9	5910	73.4	87	132	7	5	
IL83-7439	43	5906	75.3	101	134	.	7	
OK84286	5	5894	76.2	86	131	.	5	
NA-W81-162-W	42	5861	76.8	84	131	7	7	
RL844677	30	5810	75.9	86	135	4	5	
RL845472	31	5810	76.4	94	134	5	5	
TX81V6607-2	15	5689	76.9	81	131	4	6	
OK84287	6	5636	76.6	88	130	2	5	
OK86197	7	5578	75.3	91	129	17	7	
IL80-1251	44	5570	74.3	88	136	2	6	
XW161	35	5538	73.4	82	129	.	7	
KS82C2338	25	5517	77.9	88	130	10	7	
TX86V1109	18	5500	76	94	130	.	5	
TX84V1336	12	5459	74	86	130	3	8	
NA-W83-256	41	5443	74.2	88	134	4	5	
NE83407	28	5439	73.3	83	134	5	5	
C0830027	21	5276	77	90	131	5	6	
NE84557	27	5270	76.6	98	137	4	5	
TXGH10563B	11	5259	76.2	88	130	40	8	
TX86A7041	17	5252	71.6	85	134	2	6	
C0830034	22	5249	75.5	97	135	17	6	
KS84HW196	24	5247	75.9	85	130	23	8	
AGC-113	33	5245	72.1	91	135	23	7	
TX84V1736	16	5205	76.8	78	129	15	8	
OK84343	4	5181	74	83	134	.	6	
NE82656	29	5149	72.6	85	136	.	5	
TX86V1110	19	5026	75.9	93	129	.	5	
Bounty-122	38	5026	73.7	87	131	10	8	
NE82533	26	4960	75.2	93	136	8	5	
CI17826	3	4923	75.6	89	133	43	8	
XW141	34	4839	67.6	82	135	2	6	
NA-W84-229	40	4777	74.4	84	133	4	6	
C0830014	23	4770	76.2	104	131	10	6	
CI13996	2	4271	72.1	105	136	23	6	
C082009	20	4049	75.2	94	136	5	6	
CI1442	1	3917	73.1	109	137	17	5	
MEAN		5431						
LSD(.05)		1007						
C.V.		11.5						

AMES

IOWA

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 : RIPENING: : FROM 1/1:	: LODGING : % :	: WINTER : SURVIVAL : % :
NE82656	29	4351	75.3	86	142	174	1	97
TX87HA1	45	4344	76.8	82	139	175	0	90
IL80-1251	44	4295	76.5	80	141	174	0	92
AGC-113	33	4235	76.2	74	143	176	0	94
NE83407	28	4154	75.6	75	140	175	1	88
TX86V1110	19	4080	76.1	77	139	171	0	94
AGC-112	32	4013	73.4	76	139	174	0	89
IL83-7439	43	3878	77.4	73	143	173	1	94
TXGH13622	13	3847	76.5	72	141	176	0	69
RL845472	31	3766	77.4	82	141	174	0	93
CI13996	2	3753	76.8	92	142	174	6	94
TX86V1109	18	3688	75.9	76	139	171	0	96
NE82533	26	3528	76	80	143	176	1	77
XW161	35	3488	76.6	60	137	172	0	95
CI17826	3	3475	74.9	78	139	175	0	86
TX86A7041	17	3414	75.6	69	142	173	0	83
OK86215	8	3401	77.8	73	139	173	1	85
OK84286	5	3331	79.7	70	140	175	0	81
XH675	36	3250	76.6	76	140	176	0	77
RL844677	30	3203	78.6	80	142	176	2	73
TX84V1736	16	3170	79.3	64	139	172	2	73
XH685	37	3163	76.2	77	140	176	1	85
OK84287	6	3134	79.2	69	140	175	1	73
NA-W83-256	41	3022	76.1	70	141	175	1	81
TXGH10563B	11	2975	74.3	73	140	174	1	69
CI1442	1	2948	76.5	98	148	179	9	93
NE84557	27	2921	79.1	80	145	177	1	45
C0830034	22	2878	78.3	78	144	177	0	60
OK86197	7	2851	78.2	70	141	173	0	59
TX84V1336	12	2627	76.9	63	140	174	0	55
XW141	34	2365	70	62	142	176	0	84
NA-W81-162-W	42	2365	78.8	58	142	176	2	47
KS82C2338	25	2183	78.9	69	140	174	0	47
C082009	20	2136	77.4	75	145	179	0	70
C0830027	21	2047	78.7	72	141	176	1	40
TX84V1317	14	1867	79.2	60	140	175	0	22
Bounty-122	38	1825	73.8	67	143	177	1	32
KS84HW196	24	1401	79.9	62	142	174	0	28
WH180001	39	1219	74.4	73	143	176	1	22
C0830014	23	1078	76.4	68	141	177	0	17
NA-W84-229	40	1029	77.5	56	143	178	0	12
TX81V6582-2	10	726	.	58	143	176	0	12
OK84343	4	460	.	63	145	176	0	5
TXGH10989	9	448	.	65	145	178	0	4
TX81V6607-2	15	195	.	48	145	175	0	2
MEAN		2812						
LSD(.05)		1087						
C.V.		23.7						

URBANA
ILLINOIS
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 : %
TX87HA1	45	5070	75.3	87	136	100
TXGH13622	13	4881	76.5	87	135	100
TXGH105638	11	4801	74.2	81	136	100
OK86215	8	4795	76	82	135	100
TX86V1110	19	4707	74.8	85	135	100
NE83407	28	4700	73.9	85	138	100
OK84286	5	4695	77	82	136	100
TX86V1109	18	4641	75.3	92	136	100
RL844677	30	4591	75.5	94	138	100
AGC-112	32	4525	73.7	78	136	100
XW161	35	4518	74.7	75	136	100
OK84287	6	4515	77.8	80	136	100
IL80-1251	44	4488	76.2	90	139	100
IL83-7439	43	4476	77	91	140	100
CI17826	3	4472	73.9	80	136	100
NA-W83-256	41	4453	74.7	88	138	100
KS84HW196	24	4436	77.5	81	136	100
AGC-113	33	4403	74.4	89	139	100
TX84V1736	16	4361	76	74	135	100
C0830034	22	4354	74.8	90	140	100
TX84V1336	12	4350	75.7	76	135	100
NE82533	26	4348	75.8	91	139	100
NE84557	27	4318	76.5	96	141	100
OK84343	4	4291	73.9	78	138	100
TX84V1317	14	4254	76.4	76	135	100
XH675	36	4228	73.3	88	137	93
KS82C2338	25	4169	76.6	81	136	100
OK86197	7	4149	75.8	81	136	100
NE82656	29	4044	71.7	86	140	100
RL845472	31	4007	76.5	90	138	100
XH685	37	3991	72.7	90	137	100
NA-W81-162-W	42	3963	77.6	72	136	100
C0830027	21	3860	76.7	86	136	100
TX86A7041	17	3847	72.8	74	139	100
XW141	34	3691	71.3	79	139	100
C0830014	23	3663	74.4	91	137	100
CI13996	2	3553	75.4	97	141	100
WH180001	39	3426	72.9	84	139	100
C082009	20	3335	75.4	90	139	100
Bounty-122	38	3108	70.9	80	137	100
NA-W84-229	40	2837	72.8	72	138	100
CI1442	1	2626	71.2	98	142	100
TXGH10989	9	2598	72	69	137	45
TX81V6582-2	10	1953	74.5	58	137	33
TX81V6607-2	15	1128	75.4	59	138	8
MEAN		4036				
LSD(.05)		645				
C.V.		9.8				

LIND
WASHINGTON
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:
RL844677	30	2145	80.2	64	141
NA-W84-229	40	2069	79.9	58	139
NE84557	27	2049	79.3	66	141
TX84V1336	12	1997	81	60	137
WH180001	39	1997	77.1	64	140
C0830034	22	1984	79.3	56	141
XH685	37	1975	77.5	60	139
TX86A7041	17	1957	76.8	53	141
RL845472	31	1946	78.3	60	138
AGC-112	32	1941	78.2	58	138
TX84V1736	16	1907	79.2	51	137
NE82533	26	1901	78.6	59	140
CI17826	3	1887	79.1	52	138
C082009	20	1881	79.2	64	142
CI13996	2	1825	79.9	66	137
C0830014	23	1820	79.6	70	137
TXGH13622	13	1744	78.7	57	138
XH675	36	1740	76.9	60	140
AGC-113	33	1690	78	58	142
XW161	35	1688	80.2	55	137
TXGH105638	11	1679	77.7	59	137
NE82656	29	1679	76.9	58	143
NA-W83-256	41	1632	76.5	56	141
IL83-7439	43	1630	77.4	55	138
TX86V1109	18	1592	77	61	138
KS82C2338	25	1592	79.6	59	137
TX81V6582-2	10	1584	80.5	56	138
KS84HW196	24	1567	79.9	57	137
C0830027	21	1558	79.3	60	141
TX81V6607-2	15	1547	80.1	52	139
Bounty-122	38	1547	76.2	63	140
OK86215	8	1482	77.1	52	138
NE83407	28	1439	77	56	142
CI1442	1	1437	78	68	146
IL80-1251	44	1436	76.1	61	141
TX84V1317	14	1403	79.7	57	138
OK84286	5	1374	76.9	58	142
NA-W81-162-W	42	1365	78.9	51	140
OK84343	4	1341	75.7	60	141
TX86V1110	19	1325	75.9	62	138
TX87HA1	45	1314	78.8	60	137
TXGH10989	9	1309	77.4	59	139
XW141	34	1298	77.3	53	142
OK86197	7	1121	77	53	139
OK84287	6	1085	76.8	57	142
MEAN		1655			
LSD(.05)		304			
C.V.		11.2			

ABERDEEN

IDAHO

THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: PLANT HEIGHT CM	: DAYS TO HEADING FROM 1/1:	: DAYS TO RIPENING: FROM 1/1:	: LODGING 0-9	: STRAW STRENGTH 1-5
TX84V1336	12	6427	86	152	188	0	3
TXGH10563B	11	6143	92	154	189	3	3
AGC-113	33	5865	104	159	189	0	4
C0830034	22	5782	98	159	187	1	3
CI17826	3	5515	92	153	185	1	2
TX81V6607-2	15	5499	82	154	187	0	3
TX84V1317	14	5376	81	153	186	0	3
TXGH13622	13	5333	92	156	188	1	3
C0830027	21	5314	95	155	188	2	4
NA-W84-229	40	5214	81	157	186	1	1
WH180001	39	5210	96	157	185	0	3
NA-W83-256	41	5177	93	159	188	2	2
C082009	20	5135	104	157	189	1	2
XW161	35	5130	76	151	185	0	1
IL80-1251	44	5043	90	155	184	0	3
Bounty-122	38	4994	91	158	189	0	2
AGC-112	32	4973	86	155	185	1	2
XW141	34	4970	82	156	187	0	2
TX86V1110	19	4954	96	154	184	0	3
NE83407	28	4940	91	158	188	0	3
OK86215	8	4938	91	151	187	0	2
TX86V1109	18	4887	95	154	184	0	3
TX87HA1	45	4886	92	155	188	1	3
NA-W81-162-W	42	4851	82	156	199	0	2
TXGH10989	9	4831	86	152	186	1	3
TX86A7041	17	4791	82	159	186	1	3
IL83-7439	43	4771	93	156	186	0	1
XH675	36	4751	95	157	186	0	3
TX81V6582-2	10	4744	80	150	185	1	2
NE82533	26	4739	86	156	186	0	3
XH685	37	4683	94	156	186	1	3
RL845472	31	4607	91	155	186	2	4
KS82C2338	25	4585	87	155	185	0	3
NE84557	27	4575	94	156	183	0	2
TX84V1736	16	4534	76	151	199	1	2
OK84287	6	4503	88	155	188	0	2
RL844677	30	4468	103	159	189	0	3
OK84286	5	4446	84	155	186	1	3
OK84343	4	4431	81	156	185	0	2
C0830014	23	4411	109	156	185	1	2
CI13996	2	4393	112	155	186	4	5
NE82656	29	4367	92	159	187	1	3
CI1442	1	3894	105	161	190	5	5
OK86197	7	3782	85	151	184	0	3
KS84HW196	24	3323	89	153	198	1	2
MEAN		4893					
LSD(.05)		1112					
C.V.		13.9					

Table 2. Summary of mean yields (kg/ha) of 45 wheats grown in the 1988 Southern Regional Performance Nursery at 28 locations with state means and ranks.

VARIETY OR PEDIGREE	C.I. OR SEL. NO.	ENTRY: NO.	BUSHLAND (DRYL.) TEXAS	BUSHLAND (IRR.) TEXAS	CHILLY- COTHE TEXAS	DALLAS TEXAS	TEXAS STATE MEAN
TX71A562-6*4/Amigo*4//Largo	TXGH13622	13	3160 3	5102 10	4580 5	3973 7	4204 3
TAM-105*4/Amigo*4//Largo	TXGH105638	11	3039 5	5502 4	4492 9	3630 18	4166 5
HRW Selection	AGC-112	32	3014 6	5142 8	4060 33	3395 27	3903 12
Winter Wheat Hybrid	XH675	36	2650 17	4922 12	4084 29	4222 1	3970 11
KS73146/TX71A1039	TX84V1336	12	3157 4	5661 3	4311 13	3933 8	4265 2
TAM W-101/W603//W558	XW161	35	1950 38	5360 5	4723 3	3984 6	4004 9
Must/3/T-105*4/Ami*4//Largo, TXGH10289	TX87HA1	45	2825 12	5273 6	4557 6	3702 17	4089 6
Winter Wheat Line	RL84A677	30	2449 21	4009 36	4730 2	3770 14	3739 18
Winter Wheat Hybrid	XH685	37	2637 18	4649 20	4069 31	3924 9	3820 15
OK79257/Century Sib/2/Chisholm	OK86215	8	2672 16	4878 14	4046 34	3907 10	3876 13
TX71A374-4/TX71A1039-V1	TX84V1317	14	2977 7	5107 9	4389 11	3474 21	3987 10
TX69A330/IL76-3820	IL80-1251	44	2349 26	4400 24	4270 15	3136 37	3539 28
Payne*2/C0725052	OK84286	5	2825 12	4887 13	3974 37	3714 16	3850 14
Payne/W78-069	NA-W83-256	41	2369 24	4220 29	4066 32	4094 4	3687 21
Brule/3/Parker*4/Agent//Belot.198/Lcr	NE82656	29	1589 43	4036 34	4176 18	3354 28	3289 35
TAM-108/Arkan	TX86A7041	17	2319 30	4142 30	4152 21	4192 2	3701 20
TX71A1039-V1*3/Amigo	TX81V6607-2	15	3685 1	6226 1	4741 1	3560 19	4553 1
Complex Pedigree	NE83407	28	2043 34	4014 35	4317 12	3396 26	3442 32
74cb462/Trapper//Vona	C0830027	21	2839 10	4779 16	4656 4	3775 13	4012 8
C05926//7C/Tobar 63/3/Baca	C0830034	22	2857 9	3902 37	4140 23	3326 29	3556 27
HRW Selection	AGC-113	33	2435 22	2966 43	4096 28	3494 20	3248 40
TAM-105	CI17826	3	2835 11	4097 31	3717 41	2770 42	3355 34
OK11252A/W79-1226	NA-W81-162-W	42	2329 27	4487 22	4542 7	3791 12	3787 17
Winter Wheat Line	RL845472	31	2570 19	4297 28	4176 18	3297 32	3585 26
Sturdy*3/Amigo	TX81V6582-2	10	3373 2	5984 2	4311 13	3115 38	4195 4
Payne*2/C0725052	OK84287	6	2677 15	4711 18	3797 38	3420 24	3651 23
TAM-106 resele./TX69D4819	TX84V1736	16	2740 14	5183 7	4165 20	4081 5	4042 7
Bulk Selection	KS82C2338	25	2361 25	4694 19	4075 30	3298 31	3607 24
Rannaya/NE701136//CI13449/Ctk	TX86V1110	19	2326 28	4048 33	4398 10	3303 30	3518 29
Wrr/Sut//MoW6811/3/Agas/4/NE68457/Ctk78	NE84557	27	2402 23	3249 39	4235 16	3177 34	3265 39
Rannaya/NE701136//CI13449/Ctk	TX86V1109	18	2063 33	4072 32	4131 24	3757 15	3506 30
Bounty Hybrid Wheat	WH180001	39	2031 35	4407 23	4122 25	3113 39	3418 33
Aurora/2*TAM W-101	OK84343	4	2260 31	4974 11	4013 35	3409 25	3664 22
Hawk/OK80099	OK86197	7	2460 20	4341 27	3670 42	3905 11	3594 25
W79-227/Payne	NA-W84-229	40	1927 40	4781 15	4001 36	3170 36	3470 31
IL77-4259/IL76-3845	IL83-7439	43	1541 44	3823 38	3757 40	3078 40	3050 42
KS73167/Agate//Sage sib	NE82533	26	1841 42	3045 42	4120 27	3294 33	3075 41
TAM W-101*4/Amigo*4//Largo	TXGH10989	9	2861 8	4757 17	4147 22	3471 22	3809 16
Bounty Hybrid Wheat	Bounty-122	38	1972 37	4642 21	4122 25	4190 3	3732 19
Bezostaya/TAM W-101//W558	XW141	34	1875 41	4344 26	4201 17	2699 43	3279 37
Scout 66	CI13996	2	1987 36	2870 44	3762 39	2910 41	2882 43
Bsn/Strlng//3*Sut/3/Eag/4/Pinnacle/2*Eag	KS84HW196	24	2321 29	4389 25	3237 44	3171 35	3279 38
74cb452/Vona//Baca	C0830014	23	1949 39	3210 40	4506 8	3465 23	3282 36
74F878/Wings//Vona	C082009	20	2114 32	3152 41	3654 43	2565 44	2871 44
Kharkof	CI1442	1	1017 45	1734 45	2849 45	1343 45	1736 45
MEAN			2437	4410	4141	3461	3612
LSD(.05)			475	500	532	442	588
C.V.			13.9	6.9	7.9	7.8	8.9

Table 2. Continued.

C.I. OR SEL. NO.	: ENTRY: : NO. :	LINCOLN : NEBRASKA :	CLAY : CENTER : NEBRASKA :	ALLIANCE : NEBRASKA :	NEBRASKA : STATE MEAN :	AKRON : COLORADO :	BURLINGTON : COLORADO :	JULESBURG : COLORADO :	COLORADO : STATE MEAN :
TXGH13622	13	4721 2	2703 7	4457 15	3960 3	1835 1	2715 17	1567 14	2039 7
TXGH10563B	11	4589 5	2734 5	4735 6	4019 2	1699 5	2817 12	1538 16	2018 9
AGC-112	32	4779 1	2714 6	4799 2	4097 1	1822 2	3175 1	1921 7	2306 1
XH675	36	4154 22	2669 9	4690 7	3838 9	1378 22	2309 39	1434 23	1707 30
TX84V1336	12	4060 25	2067 29	3944 39	3357 32	1423 17	3122 2	1043 39	1863 18
XW161	35	4600 4	2558 16	4337 22	3832 10	1266 25	2647 23	1337 25	1750 25
TX87HA1	45	4562 6	2078 28	4623 9	3754 14	1547 10	2851 8	2016 4	2138 5
RL844677	30	4636 3	2642 10	4167 31	3815 11	1534 11	2748 16	1550 15	1944 11
XH685	37	4329 16	2477 17	4778 4	3861 8	1113 40	2819 11	1485 19	1805 22
OK86215	8	4434 9	2104 27	4376 19	3638 18	1315 24	2932 6	1473 21	1907 13
TX84V1317	14	4470 8	2641 11	4500 14	3870 6	1325 23	2693 19	1057 38	1692 32
IL80-1251	44	4369 13	2622 14	4606 11	3866 7	1192 35	2698 18	1732 10	1874 17
OK84286	5	3905 27	1923 36	4181 30	3336 33	1416 18	2764 15	1081 37	1754 23
NA-W83-256	41	3838 30	2631 12	4443 16	3637 19	1198 32	2526 31	1485 19	1736 27
NE82656	29	3835 31	3404 1	4552 13	3931 4	1750 4	2820 10	2078 3	2216 3
TX86A7041	17	4228 20	2627 13	4335 23	3730 16	1085 41	2371 37	936 44	1464 41
TX81V6607-2	15	4178 21	1770 38	3891 41	3280 35	1508 12	2669 21	1320 26	1832 19
NE83407	28	4006 26	3097 2	4555 12	3886 5	1393 21	2451 33	1577 13	1807 21
C0830027	21	4109 24	2194 25	4163 32	3489 29	1205 30	2786 13	960 43	1650 35
C0830034	22	4414 10	2292 22	4162 33	3623 20	1124 38	2001 41	1521 17	1549 39
AGC-113	33	4472 7	2020 33	4925 1	3806 13	1493 13	2488 32	1210 33	1731 28
CI17826	3	4295 18	2470 18	4666 8	3810 12	1582 8	2396 35	1679 11	1886 16
NA-W81-162-W	42	4380 12	1945 35	4380 18	3568 24	1221 28	2363 38	1491 18	1692 33
RL845472	31	4152 23	2564 15	4427 17	3714 17	1643 7	2968 4	2254 1	2289 2
TX81V6582-2	10	4351 15	1749 39	4616 10	3572 22	1194 33	2784 14	1260 30	1746 26
OK84287	6	3824 32	1706 41	3750 43	3093 40	1193 34	2841 9	1042 40	1692 31
TX84V1736	16	3174 43	1640 42	4780 3	3198 36	1447 15	1696 45	1139 36	1427 43
KS82C2338	25	3672 37	2425 20	4369 21	3488 30	1400 20	2964 5	2088 2	2151 4
TX86V1110	19	3708 35	1956 34	4314 25	3326 34	1044 42	2635 24	1253 31	1644 36
NE84557	27	4360 14	2803 3	4086 37	3750 15	1568 9	2550 30	2006 5	2041 6
TX86V1109	18	4389 11	2058 31	4261 26	3569 23	987 43	2577 29	1280 28	1615 37
WH180001	39	3679 36	1723 40	4764 5	3389 31	1228 27	2621 27	1980 6	1943 12
OK84343	4	3849 29	1277 44	3862 42	2996 43	1782 3	2873 7	1449 22	2035 8
OK86197	7	4232 19	2340 21	4182 29	3585 21	1217 29	2619 28	1649 12	1828 20
NA-W84-229	40	3880 28	2428 19	4327 24	3545 26	1122 39	2649 22	1196 35	1656 34
IL83-7439	43	4320 17	2265 23	4096 35	3560 25	1434 16	2427 34	1290 27	1717 29
NE82533	26	3490 40	2697 8	4374 20	3521 27	1458 14	2686 20	1733 9	1959 10
TXGH10989	9	3806 33	960 45	3893 40	2886 44	1649 6	2629 26	980 42	1752 24
Bounty-122	38	3212 42	1821 37	4224 27	3086 41	1233 26	1873 43	1198 34	1435 42
XW141	34	3120 44	2040 32	4216 28	3126 37	1141 37	1821 44	990 41	1317 44
CI13996	2	3719 34	2745 4	4091 36	3518 28	1203 31	2630 25	1866 8	1900 14
KS84HW196	24	3665 38	1473 43	4145 34	3095 39	1407 19	3025 3	1234 32	1889 15
C0830014	23	3549 39	2131 26	3452 44	3044 42	791 45	2378 36	1408 24	1526 40
C082009	20	3217 41	2062 30	4015 38	3098 38	1179 36	2230 40	1273 29	1561 38
CI1442	1	2923 45	2208 24	3041 45	2724 45	832 44	1888 42	784 45	1168 45
MEAN		4037	2254	4301	3531	1346	2589	1441	1792
LSD(.05)		614	625	482	583	459	585	548	404
C.V.		9.3	17.0	6.9	10.0	20.9	13.8	23.3	18.2

Table 2. Continued.

C.I. OR SEL. NO.	ENTRY: NO.	HUTCHINSON* KANSAS	HAYS KANSAS	MANHATTAN KANSAS	GARDEN CITY KANSAS	KANSAS STATE MEAN	BROOKINGS S. DAKOTA	PRESHO S. DAKOTA	SOUTH DAKOTA STATE MEAN
TXGH13622	13	1945 11	2712 1	4675 1	3244 1	3544 1	1592 32	2460 1	2026 6
TXGH10563B	11	2106 7	2609 3	4104 17	3167 4	3294 2	1572 33	2154 3	1863 17
AGC-112	32	2273 4	2284 18	3936 23	3199 3	3140 11	1698 25	2328 2	2013 7
XH675	36	1804 14	2174 29	4202 14	3219 2	3199 8	2341 2	1911 14	2126 2
TX84V1336	12	1607 20	2349 12	4236 11	2345 42	2977 17	1963 13	1725 24	1844 20
XW161	35	2511 2	2419 9	4505 5	2399 37	3108 13	1807 21	1343 45	1575 35
TX87HA1	45	2247 5	2383 11	4246 10	3042 6	3224 6	1874 16	1837 20	1855 18
RL844677	30	1647 18	2421 8	4651 2	2795 17	3289 3	1690 28	1880 18	1785 26
XH685	37	1496 26	2287 17	4637 3	2739 19	3221 7	1826 18	1569 35	1698 30
OK86215	8	2130 6	2201 26	4391 6	2684 22	3092 14	1970 12	2082 5	2026 5
TX84V1317	14	1508 25	2257 20	4601 4	2874 9	3244 5	1445 37	1677 28	1561 36
IL80-1251	44	1559 23	2233 23	4155 15	2533 31	2974 18	1567 34	2003 9	1785 27
OK84286	5	1727 16	2215 24	3451 40	2831 12	2832 35	1973 11	1794 21	1884 15
NA-W83-256	41	1300 30	2291 16	4382 7	2802 16	3159 10	2662 1	2042 8	2352 1
NE82656	29	1678 17	2042 39	4223 12	2639 26	2968 19	2178 6	1779 23	1979 9
TX86A7041	17	604 44	1993 43	3991 20	2260 44	2748 39	1723 24	1510 38	1616 33
TX81V6607-2	15	2499 3	2569 4	4123 16	3158 5	3283 4	2045 10	2074 6	2059 4
NE83407	28	935 38	2336 14	3903 25	2556 29	2932 26	2238 4	1902 15	2070 3
C0830027	21	1545 24	2327 15	3526 39	2840 11	2898 28	1794 22	1689 27	1741 29
C0830034	22	1039 37	2517 7	3704 36	2860 10	3027 15	2313 3	1704 26	2009 8
AGC-113	33	820 41	2083 35	4215 13	2766 18	3021 16	2157 7	1481 39	1819 24
CI17826	3	819 42	2235 21	3762 35	2621 27	2872 32	1692 26	1974 11	1833 22
NA-W81-162-W	42	1331 29	2118 33	4338 8	2397 38	2951 22	1863 17	2001 10	1932 12
RL845472	31	1341 28	2215 25	3912 24	2677 23	2935 24	1608 30	1966 12	1787 25
TX81V6582-2	10	2979 1	2641 2	4043 18	2813 15	3166 9	1813 19	1839 19	1826 23
OK84287	6	1481 27	2132 31	3112 43	2706 21	2650 42	2199 5	1538 37	1869 16
TX84V1736	16	1820 13	2067 37	3990 21	2596 28	2884 31	1345 39	1418 41	1382 39
KS82C2338	25	2011 9	2186 28	3692 37	2977 8	2952 21	1657 29	1723 25	1690 32
TX86V1110	19	1642 19	2076 36	3777 34	2641 25	2831 36	2093 9	1592 34	1843 21
NE84557	27	1058 36	2038 40	3884 27	2455 35	2792 38	1902 14	2047 7	1975 10
TX86V1109	18	1929 12	2266 19	3807 33	2820 14	2964 20	1600 31	1921 13	1760 28
WH180001	39	1186 33	2154 30	4002 19	2280 43	2812 37	1555 35	1660 29	1608 34
OK84343	4	1802 15	2547 6	3866 28	2385 40	2932 25	1267 40	1391 43	1329 42
OK86197	7	2082 8	2009 42	3890 26	2659 24	2852 34	1813 20	1891 17	1852 19
NA-W84-229	40	1186 34	2233 22	3958 22	2368 41	2853 33	1748 23	1636 30	1692 31
IL83-7439	43	925 39	2107 34	3656 38	2453 36	2739 40	2130 8	1791 22	1961 11
NE82533	26	704 43	2121 32	3840 31	2733 20	2898 29	1877 15	1899 16	1888 14
TXGH10989	9	2003 10	2551 5	3822 32	2982 7	3118 12	1090 44	1610 32	1350 41
Bounty-122	38	1232 31	2201 26	3006 44	2392 39	2533 44	1253 41	1402 42	1327 43
XW141	34	1580 21	2022 41	4311 9	2498 33	2943 23	1042 45	1423 40	1232 45
CI13996	2	894 40	2047 38	3389 41	2554 30	2663 41	1691 27	2095 4	1893 13
KS84HW196	24	1578 22	2401 10	3844 30	2529 32	2924 27	1484 36	1608 33	1546 37
C0830014	23	1117 35	2340 13	3852 29	2477 34	2890 30	1186 42	1560 36	1373 40
C082009	20	1208 32	1883 44	3144 42	2825 13	2617 43	1361 38	1614 31	1487 38
CI1442	1	510 45	1397 45	2792 45	1924 45	2038 45	1140 43	1361 44	1251 44
MEAN		1542	2237	3945	2683	2955	1752	1776	1764
LSD(.05)		445	429	566	377	423	548	443	525
C.V.		17.7	11.7	8.8	8.6	9.6	19.2	15.3	17.3

* Not included in state or regional averages.

Table 2. Continued.

C.I. OR SEL. NO.	ENTRY NO.	STILLWATER OKLAHOMA	ALTUS OKLAHOMA	LAHOMA OKLAHOMA	GOODWELL OKLAHOMA	OKLAHOMA STATE MEAN	COLUMBIA MISSOURI	URBANA ILLINOIS
TXGH13622	13	3540 21	3019 37	3961 35	3684 38	3551 33	6424 1	4881 2
TXGH10563B	11	3258 29	3137 31	4218 27	4413 9	3757 24	5259 28	4801 3
AGC-112	32	2787 39	3277 21	4324 24	4207 16	3649 31	6020 6	4525 10
XH675	36	3691 16	3371 15	4363 23	4292 14	3929 16	6413 2	4228 26
TX84V1336	12	3752 13	3501 7	5217 3	4346 13	4204 5	5459 23	4350 21
XW161	35	3814 9	4049 2	5482 1	4805 2	4538 2	5538 20	4518 11
TX87HA1	45	3427 24	3270 22	4177 30	4135 19	3752 25	6133 3	5070 1
RL844677	30	3960 5	3378 14	4763 11	3913 30	4003 12	5810 15	4591 9
XH685	37	3744 14	3547 4	4899 8	4092 23	4071 10	5935 8	3991 31
OK86215	8	3730 15	3100 33	4987 6	4785 3	4151 7	6056 4	4795 4
TX84V1317	14	4001 3	3488 10	5064 5	4441 8	4249 4	5914 9	4254 25
IL80-1251	44	3574 19	3189 27	4374 22	4176 17	3828 18	5570 19	4488 13
OK84286	5	3843 8	3326 17	4743 13	5098 1	4252 3	5894 12	4695 7
NA-W83-256	41	3029 37	3296 18	4143 32	4354 12	3705 27	5443 24	4453 16
NE82656	29	3251 30	3415 13	4318 25	4113 22	3774 22	5149 35	4044 29
TX86A7041	17	3608 17	3432 12	4813 10	4134 20	3997 13	5252 29	3847 34
TX81V6607-2	15	4089 1	3158 29	5115 4	4176 17	4134 8	5689 16	1128 45
NE83407	28	3497 23	3444 11	4195 28	3953 27	3772 23	5439 25	4700 6
C0830027	21	3571 20	2798 42	4526 19	3790 36	3671 30	5276 26	3860 33
C0830034	22	3861 7	2820 41	3784 39	3392 44	3464 38	5249 30	4354 20
AGC-113	33	3768 12	3096 34	3474 42	3808 34	3536 34	5245 32	4403 18
CI17826	3	2937 38	2897 39	3816 38	3436 43	3272 40	4923 39	4472 15
NA-W81-162-W	42	3336 26	3536 5	4729 15	4263 15	3966 15	5861 13	3963 32
RL845472	31	2651 41	3235 25	4286 26	4362 11	3633 32	5810 14	4007 30
TX81V6582-2	10	3587 18	3160 28	4760 12	4657 7	4041 11	5993 7	1953 44
OK84287	6	3976 4	3363 16	4704 16	4708 4	4188 6	5636 17	4515 12
TX84V1736	16	3780 11	3259 24	4946 7	4403 10	4097 9	5205 33	4361 19
KS82C2338	25	3316 27	3106 32	4659 17	4091 24	3793 21	5517 21	4169 27
TX86V1110	19	3036 36	3508 6	4740 14	3952 28	3809 20	5026 37	4707 5
NE84557	27	3289 28	3020 36	3927 37	3887 31	3531 36	5270 27	4318 23
TX86V1109	18	3058 35	3497 9	4388 21	3873 32	3704 28	5500 22	4641 8
WH180001	39	3784 10	3564 3	4578 18	4013 26	3985 14	6054 5	3426 38
OK84343	4	4083 2	4086 1	5351 2	4664 6	4546 1	5181 34	4291 24
OK86197	7	3510 22	3143 30	4064 34	4122 21	3709 26	5578 18	4149 28
NA-W84-229	40	3208 31	3289 20	4847 9	3922 29	3817 19	4777 41	2837 41
IL83-7439	43	3124 33	3222 26	3617 40	3697 37	3415 39	5906 11	4476 14
NE82533	26	2231 43	2554 43	3314 44	3593 39	2923 44	4960 38	4348 22
TXGH10989	9	3868 6	3266 23	4478 20	4020 25	3908 17	5910 10	2598 43
Bounty-122	38	3423 25	3290 19	4186 29	3864 33	3691 29	5026 36	3108 40
XW141	34	1766 45	3501 8	4166 31	4699 5	3533 35	4839 40	3691 35
CI13996	2	2692 40	2842 40	3458 43	3575 40	3141 43	4271 43	3553 37
KS84HW196	24	3199 32	3081 35	3956 36	3802 35	3509 37	5247 31	4436 17
C0830014	23	2475 42	2973 38	4080 33	3553 41	3270 41	4770 42	3663 36
C082009	20	3070 34	2472 44	3560 41	3504 42	3152 42	4049 44	3335 39
CI1442	1	1779 44	1680 45	1770 45	2592 45	1955 45	3917 45	2626 42
MEAN		3355	3215	4340	4075	3746	5431	4036
LSD(.05)		359	375	364	555	447	1007	645
C.V.		6.5	7.1	5.1	8.3	6.9	11.5	9.8

Table 2. Concluded.

C.I. OR SEL. NO.	: ENTRY: NO.	: CLOVIS (IRR.) NEW MEXICO	: CLOVIS (DRYL.)* NEW MEXICO	: FARMINGTON NEW MEXICO	: NEW MEXICO STATE MEAN	: AMES IOWA	: ABERDEEN IDAHO	: LIND WASHINGTON	: REGIONAL AVERAGE
TXGH13622	13	7176 1	2922 3	5630 24	6403 3	3847 9	5333 8	1744 17	3798 1
TXGH10563B	11	7081 2	3257 1	6334 12	6708 1	2975 25	6143 2	1679 21	3757 2
AGC-112	32	6835 3	2044 11	5821 21	6328 6	4013 7	4973 17	1941 10	3730 3
XH675	36	5940 6	2456 6	6950 5	6445 2	3250 19	4751 28	1740 18	3667 4
TX84V1336	12	5617 15	2069 10	6569 9	6093 10	2627 30	6427 1	1997 4	3662 5
XW161	35	5691 12	678 45	5630 24	5660 17	3488 14	5130 14	1688 20	3657 6
TX87HA1	45	5331 23	2970 2	5381 28	5356 26	4344 2	4886 23	1314 41	3649 7
RL844677	30	5880 7	1342 33	6833 6	6357 4	3203 20	4468 37	2145 1	3639 8
XH685	37	5042 30	1483 28	7141 2	6092 11	3163 22	4683 31	1975 7	3598 9
OK86215	8	5483 17	1677 20	5117 35	5300 29	3401 17	4938 21	1482 32	3590 10
TX84V1317	14	5739 11	2033 12	6217 15	5978 13	1867 36	5376 7	1403 36	3587 11
IL80-1251	44	5095 29	1994 13	6070 16	5582 20	4295 3	5043 15	1436 35	3507 12
OK84286	5	6326 5	1743 17	5117 35	5722 16	3331 18	4446 38	1374 37	3505 13
NA-W83-256	41	5323 24	1578 24	5909 20	5616 18	3022 24	5177 12	1632 23	3494 14
NE82656	29	4722 34	973 40	5806 22	5264 31	4351 1	4367 42	1679 21	3449 15
TX86A7041	17	4407 38	1728 18	8006 1	6207 8	3414 16	4791 26	1957 8	3443 16
TX81V6607-2	15	4870 32	1980 14	6305 14	5587 19	195 45	5499 6	1547 30	3434 17
NE83407	28	4432 37	974 39	5073 38	4753 40	4154 5	4940 20	1439 33	3425 18
C0830027	21	5841 9	1521 27	6789 7	6315 7	2047 35	5314 9	1558 29	3424 19
C0830034	22	5236 26	1384 31	6745 8	5990 12	2878 28	5782 4	1984 6	3420 20
AGC-113	33	3985 41	868 42	7038 3	5512 22	4235 4	5865 3	1690 19	3420 21
CI17826	3	6348 4	2666 4	6349 11	6348 5	3475 15	5515 5	1887 13	3417 22
NA-W81-162-W	42	5098 28	1346 32	5586 26	5342 28	2365 31	4851 24	1365 38	3408 23
RL845472	31	4122 40	2338 7	5015 40	4568 43	3766 10	4607 32	1946 9	3405 24
TX81V6582-2	10	4506 36	1579 23	5938 18	5222 33	726 42	4744 29	1584 27	3365 25
OK84287	6	5858 8	2265 8	5249 30	5554 21	3134 23	4503 36	1085 45	3361 26
TX84V1736	16	5139 27	1700 19	5059 39	5099 36	3170 21	4534 35	1907 11	3355 27
KS82C2338	25	5248 25	1110 38	5147 34	5197 34	2183 33	4585 33	1592 25	3354 28
TX86V1110	19	5442 19	1538 25	5147 33	5294 30	4080 6	4954 19	1325 40	3349 29
NE84557	27	5536 16	1414 30	5440 27	5488 23	2921 27	4575 34	2049 3	3346 30
TX86V1109	18	4585 35	1601 22	5191 32	4888 39	3688 12	4887 22	1592 25	3342 31
WH180001	39	5640 13	1531 26	5938 18	5789 14	1219 39	5210 11	1997 5	3336 32
OK84343	4	5625 14	1629 21	5088 37	5356 27	460 43	4431 39	1341 39	3300 33
OK86197	7	5471 18	1198 34	4560 43	5015 38	2851 29	3782 44	1121 44	3278 34
NA-W84-229	40	5389 22	1113 37	6965 4	6177 9	1029 41	5214 10	2069 2	3268 35
IL83-7439	43	3765 45	871 41	5220 31	4492 44	3878 8	4771 27	1630 24	3210 36
NE82533	26	4756 33	831 43	5718 23	5237 32	3528 13	4739 30	1901 12	3187 37
TXGH10989	9	5762 10	2170 9	5000 41	5381 25	448 44	4831 25	1309 42	3181 38
Bounty-122	38	5419 21	1146 35	6056 17	5737 15	1825 37	4994 16	1547 30	3134 39
XW141	34	4387 39	697 44	6510 10	5448 24	2365 31	4970 18	1298 43	3074 40
CI13996	2	4907 31	2567 5	4311 44	4609 41	3753 11	4393 41	1825 15	3044 41
KS84HW196	24	3911 42	1455 29	3739 45	3825 45	1401 38	3323 45	1567 28	2984 42
C0830014	23	5420 20	1945 15	4795 42	5107 35	1078 40	4411 40	1820 16	2973 43
C082009	20	3775 44	1849 16	6334 12	5054 37	2136 34	5135 13	1881 14	2905 44
CI1442	1	3833 43	1126 36	5322 29	4578 42	2948 26	3894 43	1437 34	2270 45
MEAN		5244	1675	5781	5513	2812	4893	1655	3371
LSD(.05)		1202	987	1255	N.S.	1087	1112	304	274
C.V.		14.0	36.1	15.5	15.1	23.7	13.9	11.2	12.8

* Not included in state or regional averages.

Table 3. Summary of mean yields (kg/ha) and ranks of 45 wheats grown in the 1988 Southern Regional Performance Nursery at 15 locations from the Midwest from which a CV of 14 or less and a significant F test for entries were obtained.

C.I. OR SEL. NO.	ENTRY: NO.	STILLWATER OKLAHOMA	ALTUS OKLAHOMA	LAHOMA OKLAHOMA	GOODWELL OKLAHOMA	DALLAS TEXAS	CHILLI- COTHE TEXAS	BUSHLAND (IRR.) TEXAS	BUSHLAND (DRYL.) TEXAS
TXGH105638	11	3258 29	3137 31	4218 27	4413 9	3630 18	4492 9	5502 4	3039 5
XW161	35	3814 9	4049 2	5482 1	4805 2	3984 6	4723 3	5360 5	1950 38
TXGH13622	13	3540 21	3019 37	3961 35	3684 38	3973 7	4580 5	5102 10	3160 3
TX81V6607-2	15	4089 1	3158 29	5115 4	4176 17	3560 19	4741 1	6226 1	3685 1
TX84V1317	14	4001 3	3488 10	5064 5	4441 8	3474 21	4389 11	5107 9	2977 7
TX84V1336	12	3752 13	3501 7	5217 3	4346 13	3933 8	4311 13	5661 3	3157 4
AGC-112	32	2787 39	3277 21	4324 24	4207 16	3395 27	4060 33	5142 8	3014 6
TX81V6582-2	10	3587 18	3160 28	4760 12	4657 7	3115 38	4311 13	5984 2	3373 2
OK86215	8	3730 15	3100 33	4987 6	4785 3	3907 10	4046 34	4878 14	2672 16
TX87HA1	45	3427 24	3270 22	4177 30	4135 19	3702 17	4557 6	5273 6	2825 12
XH675	36	3691 16	3371 15	4363 23	4292 14	4222 1	4084 29	4922 12	2650 17
RL844677	30	3960 5	3378 14	4763 11	3913 30	3770 14	4730 2	4009 36	2449 21
XH685	37	3744 14	3547 4	4899 8	4092 23	3924 9	4069 31	4649 20	2637 18
OK84286	5	3843 8	3326 17	4743 13	5098 1	3714 16	3974 37	4887 13	2825 12
OK84343	4	4083 2	4086 1	5351 2	4664 6	3409 25	4013 35	4974 11	2260 31
C0830027	21	3571 20	2798 42	4526 19	3790 36	3775 13	4656 4	4779 16	2839 10
TXGH10989	9	3868 6	3266 23	4478 20	4020 25	3471 22	4147 22	4757 17	2861 8
NA-W81-162-W	42	3336 26	3536 5	4729 15	4263 15	3791 12	4542 7	4487 22	2329 27
TX84V1736	16	3780 11	3259 24	4946 7	4403 10	4081 5	4165 20	5183 7	2740 14
OK84287	6	3976 4	3363 16	4704 16	4708 4	3420 24	3797 38	4711 18	2677 15
NA-W83-256	41	3029 37	3296 18	4143 32	4354 12	4094 4	4066 32	4220 29	2369 24
IL80-1251	44	3574 19	3189 27	4374 22	4176 17	3136 37	4270 15	4400 24	2349 26
WH180001	39	3784 10	3564 3	4578 18	4013 26	3113 39	4122 25	4407 23	2031 35
KS82C2338	25	3316 27	3106 32	4659 17	4091 24	3298 31	4075 30	4694 19	2361 25
TX86A7041	17	3608 17	3432 12	4813 10	4134 20	4192 2	4152 21	4142 30	2319 30
OK86197	7	3510 22	3143 30	4064 34	4122 21	3905 11	3670 42	4341 27	2460 20
NA-W84-229	40	3208 31	3289 20	4847 9	3922 29	3170 36	4001 36	4781 15	1927 40
TX86V1110	19	3036 36	3508 6	4740 14	3952 28	3303 30	4398 10	4048 33	2326 28
TX86V1109	18	3058 35	3497 9	4388 21	3873 32	3757 15	4131 24	4072 32	2063 33
RL845472	31	2651 41	3235 25	4286 26	4362 11	3297 32	4176 18	4297 28	2570 19
NE83407	28	3497 23	3444 11	4195 28	3953 27	3396 26	4317 12	4014 35	2043 34
NE82656	29	3251 30	3415 13	4318 25	4113 22	3354 28	4176 18	4036 34	1589 43
C0830034	22	3861 7	2820 41	3784 39	3392 44	3326 29	4140 23	3902 37	2857 9
C117826	3	2937 38	2897 39	3816 38	3436 43	2770 42	3717 41	4097 31	2835 11
NE84557	27	3289 28	3020 36	3927 37	3887 31	3177 34	4235 16	3249 39	2402 23
AGC-113	33	3768 12	3096 34	3474 42	3808 34	3494 20	4096 28	2966 43	2435 22
Bounty-122	38	3423 25	3290 19	4186 29	3864 33	4190 3	4122 25	4642 21	1972 37
KS84HW196	24	3199 32	3081 35	3956 36	3802 35	3171 35	3237 44	4389 25	2321 29
C0830014	23	2475 42	2973 38	4080 33	3553 41	3465 23	4506 8	3210 40	1949 39
XW141	34	1766 45	3501 8	4166 31	4699 5	2699 43	4201 17	4344 26	1875 41
IL83-7439	43	3124 33	3222 26	3617 40	3697 37	3078 40	3757 40	3823 38	1541 44
NE82533	26	2231 43	2554 43	3314 44	3593 39	3294 33	4120 27	3045 42	1841 42
C113996	2	2692 40	2842 40	3458 43	3575 40	2910 41	3762 39	2870 44	1987 36
C082009	20	3070 34	2472 44	3560 41	3504 42	2565 44	3654 43	3152 41	2114 32
C11442	1	1779 44	1680 45	1770 45	2592 45	1343 45	2849 45	1734 45	1017 45
MEAN		3355	3215	4340	4075	3461	4141	4410	2437
LSD(.05)		359	375	364	555	442	532	500	475
C.V.		6.5	7.1	5.1	8.3	7.8	7.9	6.9	13.9

Table 3. Concluded.

C.I. OR SEL. NO.	ENTRY: NO.	LINCOLN NEBRASKA	ALLIANCE NEBRASKA	HAYS KANSAS	MANHATTAN KANSAS	GARDEN CITY KANSAS	BURLINGTON COLORADO	CLOVIS (IRR.) NEW MEXICO	REGIONAL AVERAGE
TXGH105638	11	4589 5	4735 6	2609 3	4104 17	3167 4	2817 12	7081 2	4053 1
XW161	35	4600 4	4337 22	2419 9	4505 5	2399 37	2647 23	5691 12	4051 2
TXGH13622	13	4721 2	4457 15	2712 1	4675 1	3244 1	2715 17	7176 1	4048 3
TX81V6607-2	15	4178 21	3891 41	2569 4	4123 16	3158 5	2669 21	4870 32	4014 4
TX84V1317	14	4470 8	4500 14	2257 20	4601 4	2874 9	2693 19	5739 11	4005 5
TX84V1336	12	4060 25	3944 39	2349 12	4236 11	2345 42	3122 2	5617 15	3970 6
AGC-112	32	4779 1	4799 2	2284 18	3936 23	3199 3	3175 1	6835 3	3948 7
TX81V6582-2	10	4351 15	4616 10	2641 2	4043 18	2813 15	2784 14	4506 36	3913 8
OK86215	8	4434 9	4376 19	2201 26	4391 6	2684 22	2932 6	5483 17	3907 9
TX87HA1	45	4562 6	4623 9	2383 11	4246 10	3042 6	2851 8	5331 23	3894 10
XH675	36	4154 22	4690 7	2174 29	4202 14	3219 2	2309 39	5940 6	3886 11
RL844677	30	4636 3	4167 31	2421 8	4651 2	2795 17	2748 16	5880 7	3885 12
XH685	37	4329 16	4778 4	2287 17	4637 3	2739 19	2819 11	5042 30	3879 13
OK84286	5	3905 27	4181 30	2215 24	3451 40	2831 12	2764 15	6326 5	3872 14
OK84343	4	3849 29	3862 42	2547 6	3866 28	2385 40	2873 7	5625 14	3856 15
C0830027	21	4109 24	4163 32	2327 15	3526 39	2840 11	2786 13	5841 9	3755 16
TXGH10989	9	3806 33	3893 40	2551 5	3822 32	2982 7	2629 26	5762 10	3754 17
NA-W81-162-W	42	4380 12	4380 18	2118 33	4338 8	2397 38	2363 38	5098 28	3739 18
TX84V1736	16	3174 43	4780 3	2067 37	3990 21	2596 28	1696 45	5139 27	3733 19
OK84287	6	3824 32	3750 43	2132 31	3112 43	2706 21	2841 9	5858 8	3705 20
NA-W83-256	41	3838 30	4443 16	2291 16	4382 7	2802 16	2526 31	5323 24	3678 21
IL80-1251	44	4369 13	4606 11	2233 23	4155 15	2533 31	2698 18	5095 29	3677 22
WH180001	39	3679 36	4764 5	2154 30	4002 19	2280 43	2621 27	5640 13	3650 23
KS82C2338	25	3672 37	4369 21	2186 28	3692 37	2977 8	2964 5	5248 25	3647 24
TX86A7041	17	4228 20	4335 23	1993 43	3991 20	2260 44	2371 37	4407 38	3625 25
OK86197	7	4232 19	4182 29	2009 42	3890 26	2659 24	2619 28	5471 18	3618 26
NA-W84-229	40	3880 28	4327 24	2233 22	3958 22	2368 41	2649 22	5389 22	3597 27
TX86V1110	19	3708 35	4314 25	2076 36	3777 34	2641 25	2635 24	5442 19	3593 28
TX86V1109	18	4389 11	4261 26	2266 19	3807 33	2820 14	2577 29	4585 35	3570 29
RL845472	31	4152 23	4427 17	2215 25	3912 24	2677 23	2968 4	4122 40	3556 30
NE83407	28	4006 26	4555 12	2336 14	3903 25	2556 29	2451 33	4432 37	3540 31
NE82656	29	3835 31	4552 13	2042 39	4223 12	2639 26	2820 10	4722 34	3539 32
C0830034	22	4414 10	4162 33	2517 7	3704 36	2860 10	2001 41	5236 26	3532 33
CI17826	3	4295 18	4666 8	2235 21	3762 35	2621 27	2396 35	6348 4	3522 34
NE84557	27	4360 14	4086 37	2038 40	3884 27	2455 35	2550 30	5536 16	3473 35
AGC-113	33	4472 7	4925 1	2083 35	4215 13	2766 18	2488 32	3985 41	3471 36
Bounty-122	38	3212 42	4224 27	2201 26	3006 44	2392 39	1873 43	5419 21	3468 37
KS84HW196	24	3665 38	4145 34	2401 10	3844 30	2529 32	3025 3	3911 42	3378 38
C0830014	23	3549 39	3452 44	2340 13	3852 29	2477 34	2378 36	5420 20	3312 39
XW141	34	3120 44	4216 28	2022 41	4311 9	2498 33	1821 44	4387 39	3308 40
IL83-7439	43	4320 17	4096 35	2107 34	3656 38	2453 36	2427 34	3765 45	3245 41
NE82533	26	3490 40	4374 20	2121 32	3840 31	2733 20	2686 20	4756 33	3199 42
CI13996	2	3719 34	4091 36	2047 38	3389 41	2554 30	2630 25	4907 31	3162 43
C082009	20	3217 41	4015 38	1883 44	3144 42	2825 13	2230 40	3775 44	3012 44
CI1442	1	2923 45	3041 45	1397 45	2792 45	1924 45	1888 42	3833 43	2171 45
MEAN		4037	4301	2237	3945	2683	2589	5244	3631
LSD(.05)		614	482	429	566	377	585	1202	289
C.V.		9.3	6.9	11.7	8.8	8.6	13.8	14.0	9.6

Table 4. Summary of mean yields (kg/ha) and ranks for 19 wheats grown in the Southern Regional Performance Nursery at 24 sites in 1987 and 1988 with state means and ranks.

VARIETY OR PEDIGREE	: : C.I. OR : SEL. NO.	: : ENTRY: : NO. :	: : DALLAS : TEXAS	: : CHILLI- : COTHE : TEXAS	: : BUSHLAND : (IRR.) : TEXAS	: : BUSHLAND : (DRYL.) : TEXAS	: : TEXAS : STATE MEAN :
TAM-105*4/Amigo*4//Largo	TXGH10563B	11	3742 9	3366 4	4988 4	3384 5	3870 5
TX71A562-6*4/Amigo*4//Largo	TXGH13622	13	3802 7	3412 3	4759 7	3410 4	3846 6
TX71A374-4/TX71A1039-V1	TX84V1317	14	3806 6	3440 2	4934 5	3452 3	3908 4
Sturdy*3/Amigo	TX81V6582-2	10	3744 8	3265 5	5277 2	3554 2	3960 2
TX71A1039-V1*3/Amigo	TX81V6607-2	15	4086 2	3482 1	5502 1	3775 1	4211 1
TAM-105	CI17826	3	2981 15	2846 15	4062 13	3110 9	3250 14
KS73146/TX71A1039	TX84V1336	12	3999 3	3183 7	5128 3	3376 6	3922 3
Aurora/2*TAM W-101	OK84343	4	3831 5	3097 8	4806 6	2890 11	3656 8
74cb462/Trapper//Vona	C0830027	21	3590 10	3221 6	4727 8	3342 7	3720 7
C05926//7C/Tobari 63/3/Baca	C0830034	22	3387 11	3050 10	3803 15	3046 10	3321 12
Bounty Hybrid Wheat	Bounty-122	38	4247 1	2992 12	4421 11	2751 14	3603 10
Bulk Selection	KS82C2338	25	3226 13	3081 9	4482 10	2884 12	3418 11
Bezostaya/TAM W-101//W558	XW141	34	2307 18	2980 13	3966 14	2564 16	2954 16
KS73167/Agate//Sage sib	NE82533	26	3219 14	2892 14	3517 16	2444 17	3018 15
TAM W-101*4/Amigo*4//Largo	TXGH10989	9	3852 4	3005 11	4483 9	3154 8	3624 9
Bsn/Strlng//3*Sut/3/Eag/4/Pinnacle/2*Eag	KS84HW196	24	3263 12	2771 16	4217 12	2836 13	3272 13
Scout 66	CI13996	2	2766 16	2647 18	2990 18	2655 15	2765 17
74F878/Wings//Vona	C082009	20	2752 17	2651 17	3212 17	2396 18	2753 18
Kharkof	CI1442	1	1550 19	1923 19	1736 19	1888 19	1774 19
	MEAN		3376	3016	4264	2995	3413
	LSD(.05)		781	593	864	670	480
	C.V.		7.1	7.7	8.4	10.0	8.5

Table 4. Continued.

C.I. OR SEL. NO.	ENTRY: NO.	LINCOLN NEBRASKA	CLAY CENTER NEBRASKA	ALLIANCE NEBRASKA	NEBRASKA STATE MEAN	CLOVIS (IRR.) NEW MEXICO	CLOVIS (DRYL.)* NEW MEXICO	FARMINGTON NEW MEXICO	NEW MEXICO STATE MEAN
TXGH10563B	11	3608 4	3252 3	4933 1	3931 2	6261 2	4224 1	6276 10	6268 4
TXGH13622	13	3647 2	3149 4	4568 5	3788 4	6540 1	3915 2	6130 11	6335 3
TX84V1317	14	3842 1	3518 1	4749 4	4036 1	5827 6	2783 8	6482 7	6154 5
TX81V6582-2	10	3367 8	2835 10	4815 3	3672 6	4673 17	2327 17	6626 5	5649 11
TX81V6607-2	15	3144 13	2939 8	4417 9	3500 8	5177 12	2579 14	6095 12	5636 12
CI17826	3	3517 6	3090 5	4831 2	3813 3	6101 4	3881 3	6088 13	6095 7
TX84V1336	12	3308 10	2636 13	4289 13	3411 11	5211 11	2754 10	7029 1	6120 6
OK84343	4	3569 5	2094 18	4259 14	3307 14	5405 8	2680 13	5282 17	5344 17
C0830027	21	3248 11	2742 12	4431 8	3474 9	6182 3	2773 9	6983 2	6583 1
C0830034	22	3647 2	2964 7	4513 6	3708 5	6079 5	3403 5	6980 3	6530 2
Bounty-122	38	2785 16	2548 15	4399 10	3244 15	5643 7	3160 6	6509 6	6076 8
KS82C2338	25	2921 14	2867 9	4453 7	3413 10	4980 14	2307 18	5712 14	5346 16
XW141	34	2681 17	2976 6	4315 12	3324 13	5150 13	2570 15	6726 4	5938 9
NE82533	26	2900 15	3312 2	4351 11	3521 7	4774 16	2271 19	6360 9	5567 13
TXGH10989	9	3169 12	1857 19	4119 15	3048 17	5323 10	2736 12	5551 15	5437 14
KS84HW196	24	3368 7	2377 17	3852 18	3199 16	4328 19	2748 11	4744 19	4536 19
CI13996	2	3339 9	2816 11	3878 17	3344 12	5331 9	3699 4	5480 16	5405 15
C082009	20	2569 18	2552 14	3968 16	3030 18	4979 15	3127 7	6374 8	5677 10
CI1442	1	2468 19	2466 16	3178 19	2704 19	4425 18	2448 16	5096 18	4760 18
MEAN		3216	2790	4332	3446	5389	2968	6133	5761
LSD(.05)		736	N.S.	595	508	N.S.	N.S.	1171	N.S.
C.V.		12.2	14.6	8.0	11.1	11.2	18.3	13.1	12.6

* Not included in state or regional averages.

Table 4. Continued.

C.I. OR SEL. NO.	: ENTRY: NO.	: HUTCHINSON*: KANSAS	: HAYS KANSAS	: MANHATTAN KANSAS	: GARDEN CITY KANSAS	: KANSAS STATE MEAN	: PRESHO S. DAKOTA	: AMES IOWA	: URBANA ILLINOIS
TXGH10563B	11	2382 6	3640 2	4292 4	2590 2	3507 3	2889 2	3303 9	5495 1
TXGH13622	13	2423 5	3762 1	4642 2	2727 1	3711 1	3136 1	4027 4	5318 2
TX84V1317	14	2148 8	3405 7	5050 1	2395 4	3617 2	2168 12	3170 11	4609 8
TX81V6582-2	10	2746 1	3578 3	3757 11	2380 5	3238 6	2511 5	2148 18	4366 11
TX81V6607-2	15	2712 2	3452 6	4040 8	2457 3	3316 5	2106 14	2248 17	3357 18
CI17826	3	1696 16	3498 5	3409 14	2262 6	3056 9	2348 9	4187 2	5174 3
TX84V1336	12	1656 17	3231 11	3959 9	2151 7	3114 8	2004 17	3172 10	3884 15
OK84343	4	2549 3	3561 4	4342 3	2096 12	3333 4	1994 18	2738 16	4883 4
C0830027	21	2187 7	3158 13	3802 10	2118 10	3026 10	2547 4	3515 5	4560 9
C0830034	22	1967 12	3296 9	3660 12	2011 13	2989 11	2379 8	3475 6	4168 13
Bounty-122	38	1866 14	3231 11	3320 16	1779 17	2777 16	1885 19	3151 12	4511 10
KS82C2338	25	2494 4	3123 14	4137 6	2144 8	3135 7	2058 16	2904 13	4773 5
XW141	34	1908 13	2759 17	4169 5	1758 18	2895 15	2271 10	3423 7	4755 6
NE82533	26	1574 18	2905 16	4050 7	1799 16	2918 14	2492 6	4156 3	4749 7
TXGH10989	9	2120 9	3376 8	3323 15	2131 9	2944 12	2258 11	2037 19	4093 14
KS84HW196	24	2009 11	3296 9	3507 13	1964 15	2922 13	2165 13	2823 14	4337 12
CI13996	2	1729 15	3032 15	2965 17	1964 14	2654 17	2757 3	4220 1	3501 17
C082009	20	2011 10	2648 18	2930 18	2112 11	2563 18	2396 7	2745 15	3641 16
CI1442	1	1369 19	2039 19	2151 19	1556 19	1915 19	2059 15	3380 8	3169 19
MEAN		2081	3210	3763	2126	3033	2332	3201	4386
LSD(.05)		N.S.	452	1025	N.S.	589	608	N.S.	N.S.
C.V.		13.8	8.9	12.0	11.6	11.2	20.4	15.5	10.2

* Not included in state or regional averages.

Table 4. Concluded.

C.I. OR SEL. NO.	: ENTRY: NO.	: STILLWATER OKLAHOMA	: ALTUS OKLAHOMA	: LAHOMA OKLAHOMA	: GOODWELL OKLAHOMA	: OKLAHOMA STATE MEAN	: JULESBURG COLORADO	: ABERDEEN IDAHO	: LIND* WASHINGTON	: REGIONAL AVERAGE
TXGH10563B	11	2610 10	2562 4	3319 9	4776 5	3317 7	2218 2	7148 1	1488 5	4031 1
TXGH13622	13	2940 4	2313 10	3080 14	4296 13	3157 11	2119 4	6208 8	1441 7	3999 2
TX84V1317	14	3602 1	2719 2	3937 2	4710 7	3742 2	1460 17	6340 7	1122 17	3982 3
TX81V6582-2	10	2631 9	2406 8	3584 5	4793 3	3354 5	1773 10	6674 5	1182 14	3750 4
TX81V6607-2	15	2897 5	2266 12	3812 3	4820 2	3449 4	1717 11	6801 4	1184 13	3743 5
CI17826	3	2242 15	2242 14	2976 15	4370 11	2958 14	2138 3	6827 3	1430 8	3729 6
TX84V1336	12	2646 8	2647 3	3805 4	4765 6	3466 3	1132 18	6620 6	1444 6	3723 7
OK84343	4	3120 2	3185 1	4202 1	4792 4	3825 1	1873 7	5748 11	1142 15	3703 8
C0830027	21	2479 11	2214 15	3578 6	4426 9	3174 10	1539 16	5173 16	1283 10	3694 9
C0830034	22	2679 7	2257 13	3081 13	3715 18	2933 15	1625 14	6080 9	1729 2	3614 10
Bounty-122	38	2382 13	2429 6	3303 10	4672 8	3197 9	2002 5	6933 2	1407 9	3614 11
KS82C2338	25	2970 3	2509 5	3543 7	4345 12	3342 6	2308 1	5627 13	1218 12	3574 12
XW141	34	1970 18	2425 7	3096 12	4858 1	3087 12	1609 15	5726 12	961 19	3452 13
NE82533	26	2263 14	1974 17	2771 16	3953 16	2740 16	1777 9	5490 15	1280 11	3436 14
TXGH10989	9	2788 6	2393 9	3342 8	4390 10	3228 8	1823 8	5580 14	1126 16	3431 15
KS84HW196	24	2383 12	2286 11	3177 11	4028 14	2968 13	1686 13	4680 18	1015 18	3242 16
CI13996	2	1991 17	2183 16	2752 17	4023 15	2737 17	1925 6	4767 17	1726 3	3237 17
C082009	20	2006 16	1930 18	2712 18	3935 17	2646 18	1702 12	5790 10	1801 1	3143 18
CI1442	1	1349 19	1137 19	1726 19	2972 19	1796 19	821 19	3191 19	1586 4	2394 19
MEAN		2524	2320	3252	4350	3111	1750	5863	1346	3552
LSD(.05)		N.S.	459	911	661	472	N.S.	N.S.	N.S.	316
C.V.		11.3	9.3	5.4	9.4	9.2	14.9	14.3	16.2	12.3

* Not included in regional averages.

Table 5. Mean yield, regression coefficient, correlation coefficient, and coefficient of determination from linear regression analysis of variety mean yield on nursery mean yield for the 45 entries in the 1988 Southern Regional Performance Nursery grown at 26 locations.

C.I. OR SEL. NO.	ENTRY: NO.	MEAN YIELD OVER 26 LOCATIONS KG/HA	REGRESSION COEFFICIENT (b)	CORRELATION COEFFICIENT (r)	COEFFICIENT OF DETERMINATION (r ²)
TXGH13622	13	3798	1.07	0.94	0.89
TXGH10563B	11	3757	1.14	0.96	0.92
AGC-112	32	3730	1.02	0.95	0.90
XH675	36	3667	1.12	0.98	0.96
TX84V1336	12	3662	1.16	0.96	0.93
XW161	35	3657	1.14	0.97	0.94
TX87HA1	45	3649	1.01	0.95	0.91
RL844677	30	3639	1.06	0.97	0.94
XH685	37	3598	1.11	0.98	0.95
OK86215	8	3590	1.04	0.97	0.94
TX84V1317	14	3587	1.19	0.98	0.96
IL80-1251	44	3507	1.02	0.97	0.94
OK84286	5	3505	1.05	0.95	0.91
NA-W83-256	41	3494	0.98	0.98	0.95
NE82656	29	3449	0.84	0.92	0.85
TX86A7041	17	3443	1.12	0.94	0.88
TX81V6607-2	15	3434	1.05	0.82	0.67
NE83407	28	3425	0.87	0.94	0.88
C0830027	21	3424	1.13	0.97	0.95
C0830034	22	3420	1.01	0.95	0.90
AGC-113	33	3420	1.00	0.90	0.80
CI17826	3	3417	1.00	0.94	0.89
NA-W81-162-W	42	3408	1.07	0.98	0.97
RL845472	31	3405	0.82	0.94	0.89
TX81V6582-2	10	3365	1.06	0.88	0.77
OK84287	6	3361	1.04	0.95	0.91
TX84V1736	16	3355	1.03	0.95	0.89
KS82C2338	25	3354	0.94	0.98	0.95
TX86V1110	19	3349	0.99	0.96	0.91
NE84557	27	3346	0.86	0.96	0.93
TX86V1109	18	3342	0.97	0.97	0.93
WH180001	39	3336	1.10	0.95	0.91
OK84343	4	3300	1.06	0.90	0.80
OK86197	7	3278	0.91	0.96	0.91
NA-W84-229	40	3268	1.09	0.94	0.87
IL83-7439	43	3210	0.88	0.93	0.86
NE82533	26	3187	0.83	0.92	0.85
TXGH10989	9	3181	1.07	0.90	0.81
Bounty-122	38	3134	1.07	0.96	0.92
XW141	34	3074	1.10	0.95	0.90
CI13996	2	3044	0.69	0.92	0.84
KS84HW196	24	2984	0.78	0.89	0.78
C0830014	23	2973	0.92	0.93	0.87
C082009	20	2905	0.86	0.93	0.86
CI1442	1	2270	0.73	0.84	0.71

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 19 entries in the 1987 and 1988 Southern Regional Performance Nurseries grown at 21 locations.

C.I. OR SEL. NO.	: ENTRY: NO. :	: MEAN YIELD : OVER 21 : LOCATIONS : KG/HA :	: REGRESSION : COEFFICIENT : (b) :	: CORRELATION : COEFFICIENT : (r) :	: COEFFICIENT : OF : DETERMINATION : (r ²) :
TXGH10563B	11	4031	1.08	0.96	0.92
TXGH13622	13	3999	0.98	0.95	0.90
TX84V1317	14	3982	1.04	0.96	0.92
TX81V6582-2	10	3750	1.15	0.92	0.85
TX81V6607-2	15	3743	1.13	0.90	0.81
CI17826	3	3729	1.08	0.95	0.90
TX84V1336	12	3723	1.09	0.93	0.87
OK84343	4	3703	0.98	0.91	0.82
C0830027	21	3694	1.08	0.96	0.92
C0830034	22	3614	1.04	0.95	0.90
Bounty-122	38	3614	1.21	0.96	0.93
KS82C2338	25	3574	0.90	0.96	0.93
XW141	34	3452	1.09	0.95	0.89
NE82533	26	3436	0.93	0.93	0.86
TXGH10989	9	3431	1.00	0.94	0.88
KS84HW196	24	3242	0.79	0.92	0.85
CI13996	2	3237	0.78	0.88	0.78
C082009	20	3143	0.98	0.95	0.90
CI1442	1	2394	0.69	0.79	0.63

Table 7. Summary of agronomic and yield data for 45 wheats in the 1988 Southern Regional Performance Nursery.

VARIETY OR PEDIGREE	: : C.I. OR : SEL. NO.	: : ENTRY: : NO. :	: PLANT : HEIGHT : CM	: DAYS TO : HEADING : FROM 1/1:	: DAYS TO : RIPENING: : FROM 1/1:	: LODGING : : % :
	Number of Trials		26	21	2	3
TX71A562-6*4/Amigo*4//Largo	TXGH13622	13	77	134	182	21
TAM-105*4/Amigo*4//Largo	TXGH105638	11	77	132	181	12
HRW Selection	AGC-112	32	76	133	179	13
Winter Wheat Hybrid	XH675	36	82	134	181	4
KS73146/TX71A1039	TX84V1336	12	72	132	181	10
TAM W-101/W603//W558	XW161	35	68	131	178	0
MUST/3/T-105*4/AMI*4//LARGO, TXGH10289	TX87HA1	45	80	133	182	3
Winter Wheat Line	RL844677	30	83	136	183	5
Winter Wheat Hybrid	XH685	37	82	134	181	5
OK79257/Century Sib/2/Chisholm	OK86215	8	75	132	180	8
TX71A374-4/TX71A1039-V1	TX84V1317	14	71	133	180	13
TX69A330/IL76-3820	IL80-1251	44	78	136	179	3
Payne*2/C0725052	OK84286	5	74	134	180	6
Payne/W78-069	NA-W83-256	41	77	135	182	12
Brule/3/Parker*4/Agent//Belot.198/Lcr	NE82656	29	79	137	181	5
TAM-108/Arkan	TX86A7041	17	71	136	179	7
TX71A1039-V1*3/Amigo	TX81V6607-2	15	69	134	181	11
Complex Pedigree	NE83407	28	74	137	181	4
74cb462/Trapper//Vona	C0830027	21	81	134	182	22
C05926//7C/Tobari 63/3/Baca	C0830034	22	83	137	182	9
HRW Selection	AGC-113	33	79	137	182	18
TAM-105	CI17826	3	75	134	180	7
OK11252A/W79-1226	NA-W81-162-W	42	70	134	188	3
Winter Wheat Line	RL845472	31	80	136	180	8
Sturdy*3/Amigo	TX81V6582-2	10	69	132	180	11
Payne*2/C0725052	OK84287	6	74	134	182	5
TAM-106 resel./TX69D4819	TX84V1736	16	68	132	185	21
Bulk Selection	KS82C2338	25	76	133	179	4
Rannaya/NE701136//CI13449/Ctk	TX86V1110	19	82	133	178	23
Wrr/Sut//MoW6811/3/Aga S/4/NE68457/Ctk78	NE84557	27	83	137	180	14
Rannaya/NE701136//CI13449/Ctk	TX86V1109	18	82	133	177	26
Bounty Hybrid Wheat	WH180001	39	81	136	181	5
Aurora/2*TAM W-101	OKB4343	4	73	135	180	1
Hawk/OK80099	OK86197	7	76	133	179	26
W79-227/Payne	NA-W84-229	40	71	135	182	0
IL77-4259/IL76-3845	IL83-7439	43	80	136	180	16
KS73167/Agate//Sage sib	NE82533	26	79	137	181	2
TAM W-101*4/Amigo*4//Largo	TXGH10989	9	73	134	182	29
Bounty Hybrid Wheat	Bounty-122	38	76	134	183	3
Bezostaya/TAM W-101//W558	XW141	34	69	136	182	2
Scout 66	CI13996	2	90	136	180	30
Bsn/Strlng//3*Sut/3/Eag/4/Pinnacle/2*Eag	KS84HW196	24	74	133	186	21
74cb452/Vona//Baca	C0830014	23	85	134	181	6
74F878/Wings//Vona	C082009	20	82	138	184	17
Kharkof	CI1442	1	92	142	185	35

Table 7. Concluded.

C.I. OR SEL. NO.	: : NO.	: WINTER : SURVIVAL : : %	: STRAW : STRENGTH : : 1-5	: LEAF RUST: : SEVERITY : : %	: SEPTORIA: : 0-9	: BYD : VIRUS : : 0-9	: MILDEW : %	: VOLUME : WEIGHT : : KG/HL	: YIELD : KG/HA : :
Number of Trials	3	1	5	1	2	1	25	26	
TXGH13622	13	60	3	31	7	6	0	75.6	3798
TXGH10563B	11	66	3	30	6	7	0	74.2	3757
AGC-112	32	81	2	35	7	7	0	74.1	3730
XH675	36	58	3	15	6	5	0	74.3	3667
TX84V1336	12	53	3	11	7	7	5	75.3	3662
XW161	35	66	1	3	6	5	20	74.6	3657
TX87HA1	45	73	3	22	6	7	0	75.4	3649
RL844677	30	62	3	5	6	6	0	75.6	3639
XH685	37	67	3	13	7	5	50	73.7	3598
OK86215	8	65	2	15	7	6	0	75.2	3590
TX84V1317	14	42	3	7	7	7	5	76.3	3587
IL80-1251	44	72	3	8	6	6	0	74.4	3507
OK84286	5	64	3	14	6	5	60	75.6	3505
NA-W83-256	41	63	2	19	6	5	60	73.8	3494
NE82656	29	77	3	4	6	5	0	72.6	3449
TX86A7041	17	64	3	4	6	6	0	71.3	3443
TX81V6607-2	15	4	3	6	6	5	0	78.1	3434
NE83407	28	69	3	19	6	5	0	72	3425
C0830027	21	47	4	15	7	6	0	76.9	3424
C0830034	22	54	3	28	7	6	0	74.7	3420
AGC-113	33	76	4	22	7	6	0	71.8	3420
CI17826	3	69	2	35	7	7	25	73.4	3417
NA-W81-162-W	42	50	2	9	6	6	60	75.5	3408
RL845472	31	71	4	6	6	6	0	76.1	3405
TX81V6582-2	10	17	2	17	5	7	0	76.9	3365
OK84287	6	62	2	15	6	4	0	75.8	3361
TX84V1736	16	61	2	14	6	7	0	75.6	3355
KS82C2338	25	51	3	27	6	7	0	76.4	3354
TX86V1110	19	71	3	5	7	6	5	73.3	3349
NE84557	27	52	2	9	7	6	0	76.4	3346
TX86V1109	18	69	3	4	6	6	10	74.6	3342
WH180001	39	41	3	12	5	5	0	73.9	3336
OK84343	4	36	2	7	6	5	0	74.5	3300
OK86197	7	57	3	19	6	6	40	75.1	3278
NA-W84-229	40	38	1	9	6	7	50	74.8	3268
IL83-7439	43	76	1	5	6	6	0	74.9	3210
NE82533	26	62	3	20	6	6	0	75	3187
TXGH10989	9	25	3	20	5	4	0	73.6	3181
Bounty-122	38	44	2	24	7	7	50	71.8	3134
XW141	34	72	2	7	6	7	0	71.2	3074
CI13996	2	75	5	27	6	7	5	75.8	3044
KS84HW196	24	44	2	22	8	7	0	76.3	2984
C0830014	23	39	2	26	6	7	0	75.3	2973
C082009	20	58	2	16	7	6	0	75.7	2905
CI1442	1	75	5	28	6	6	10	73.2	2270

Table 8. Seedling reaction of entries of the 1988 Southern Regional Performance Nursery to selected isolates of Puccinia graminis f.sp. tritici (by D. V. McVey, U.S.D.A., A.R.S., Cereal Rust Laboratory, U. of MN, St. Paul, MN).

		Reaction produced by isolates							
		72- 00- 1370C QFBS	69- 21- 399 QSHS	71- 21- 584B RHRS	72- 25- 639C RKQS	72- 00- 53A RTQQ	72- 01- 4A TNMH	74- 21- 1409A TNMK	
No.	Name or sel. no.	151		11-32-113			15B-2		Spec. sr gene
1	Kharkof	s	s	s	s	s	s	s	none
2	Scout 66	s	s	s	s	;1n	;1n	s	17
3	TAM-105	32	2	23	23	23	s	s	Tme
4	OK84343	;1	2=	;1	;1	2=	2=	2=	31
5	OK84286	;1	2=	;1	;1	2=	2	2=	+
6	OK84287	;1	2=	;1	;1	2=	2	2=	+
7	OK86197	;;2	2=	2=	2=	2=	2=,;	2=,;	Seg.6
8	OK86215	2	2=	2=	2=	2=	2	2=	none
9	TXGH10989	2=	2=	2=	2=	2=	2=	2=	Amigo
10	TX81V6582-2	1	2=	2=	2=	2=	2=	2=	Amigo
11	TXGH10563B	2=	2=	2=	2=	2=	2=	2=	Amigo
12	TX84V1336	s	s	s	s	s	s	s	none
13	TXGH13622	2=	2=	2=	2=	;1-,xcn	;	2=	Amigo,Seg.17
14	TX84V1317	s	s	s	s	s	s	s	none
15	TX81V6607-2	2=	2=	2=	2=	2=	2=	2=	Amigo
16	TX84V1736	s	s	s	s	;1-n	;1n	s	17
17	TX86A7041	;1	2=	2=	;1-	2=	;	;;2=	6,24
18	TX86V1109	s	s	s	s	s	s	s	none
19	TX86V1110	s	s	s	s	s	s	s	none
20	C082009	--	2	2=	2=	;	;	2	17,+
21	C0830027	;	23	;1	;1	;1-n	;	x,s	11,17
22	C0830034	;	s	;1	;1	;	;1	s	11,17
23	C0830014	;	s	;1	;	;	;	s	11,17
24	KS84HW196	s	s	s	s	s	s	s	none
25	KS82C2338	;	s	s	s	;	;	;;s	6,17

Table 8. Continued.

No.	Name or sel. no.	Reaction produced by isolates							Spec. sr gene
		72- 00- 1370C QFBS	69- 21- 399 QSHS	71- 21- 584B RHRS	72- 25- 639C RKQS	72- 00- 53A RTQQ	72- 01- 4A TNMH	74- 21- 1409A TNMK	
		151		11-32-113			15B-2		
26	NE82533	2=	2=	2-	2=	;	;	2-	17,24
27	NE84557	;	2=	2=	2=	;	;	;	6,17,24
28	NE83407	;	2-	2=	2	;	;	;	6,17,24
29	NE82656	;	2=cn	2=cn	2	;	;	;	6,17,24
30	RL844677	23	s	s	s	;	;	23	17
31	RL845472	2	2	2	2	;	;	2	17,+
32	AGC-112	2=	2	2	2=	2=	2=	2=	+
33	AGC-113	;	2-	2	23	;	;	;	6,17,+
34	XW-141	2	2	2	2	23	23	23	none
35	XW-161	2=	2-	2-	2-	;	;	s	17,Tmp
36	XH-675	2=	2-	2-	2-	2-	2	2	24 or 31
37	XH-685	;1n,s	s	x	2	2	x,s	s	none
38	Bounty 122	;	2-	2=	2-	2=	;1	;	6,+
39	WH180001	;	2-cn	2-cn	23	xcn	;1n	;	6+
40	NA-W84-229	;	2	x	;	2=	32	23	+
41	NA-W83-256	;	2	2-	2-	2-	;	;	6,17
42	NA-W81-162W	;1	2-	;1	2=	2-	32	23	+
43	IL83-7439	2=	2-	2=	2=	;	;	2=	17
44	IL80-1251	s	s	s	s	s	s	s	none
45	TX87HAI	;	23	x,s	23	2-	;1-	;	6,Amigo

n = necrosis; c = chlorosis

Table 9. Adult plant field reaction of entries of the 1988 Southern Regional Performance Nursery to Puccinia graminis f.sp. tritici (by D. V. McVey, U.S.D.A., A.R.S., Cereal Rust Laboratory, U. of MN, St. Paul, MN).

No.	Name or sel. no.	Stem rust 6/22
1	Kharkof	TS
2	Scout 66	TS
3	TAM-105	10S
4	OK84343	0
5	OK84286	TR
6	OK84287	TR
7	OK86197	TR
8	OK86215	TR
9	TXGH10989	TR
10	TX81V6582-2	TR
11	TXGH10563B	TR
12	TX84V1336	TR
13	TXGH13622	TR
14	TX84V1317	30S
15	TX81V6607-2	TR
16	TX84V1736	10S
17	TX86A7041	TR
18	TX86V1109	5MS-S
19	TX86V1110	5MS-S
20	C082009	TR
21	C0830027	TR
22	C0830034	TS
23	C0830014	TS
24	KS84HW196	TR
25	KS82C2338	TR
26	NE82533	TR
27	NE84557	TR
28	NE83407	TR
29	NE82656	0
30	RL844677	TMR
31	RL845472	TMR
32	AGC-112	TR
33	AGC-113	TS
34	XW-141	TS
35	XW-161	10S
36	XH-675	10S
37	XH-685	20S
38	Bounty 122	5MS-S
39	WH180001	20S
40	NA-W84-229	0
41	NA-W83-256	0
42	NA-W81-162W	0
43	IL83-7439	TR
44	IL80-1251	10S
45	TX87HAI	TR

Table 10. Hessian fly reaction, Great Plains biotype,
1988 Southern Regional Performance Nursery.
(Data provided by J. H. Hatchett, USDA-ARS,
Manhattan, KS.)

ENTRY NO.	C.I. OR SEL. NO.	REACTION TYPE	NO. OF PLANTS	
			R	S
1	CI1442	S		
2	CI13996	S		
3	CI17826	S		
4	OK84343	S		
5	OK84286	H	9	14
6	OK84287	H	7	13
7	OK86197	H	6	11
8	OK86215	S		
9	TXGH10989	S		
10	TX81V6582-2	S		
11	TXGH10563B	S		
12	TX84V1336	S		
13	TXGH13622	S		
14	TX84V1317	S		
15	TX81V6607-2	S		
16	TX84V1736	S		
17	TX86A7041	S		
18	TX86V1109	S		
19	TX86V1110	S		
20	C082009	H	8	16
21	C0830027	S		
22	C0830034	S		
23	C0830014	S		
24	KS84HW196	S		
25	KS82C2338	S		
26	NE82533	H	5	16
27	NE84557	H	8	13
28	NE83407	H	5	17
29	NE82656	R		
30	RL844677	H	7	20
31	RL845472	H	19	3
32	AGC-112	S		
33	AGC-113	S		
34	XW141	S		
35	XW161	H	17	7
36	XH675	S		
37	XH685	S		
38	Bounty-122	S		
39	WH180001	S		
40	NA-W84-229	H	5	21
41	NA-W83-256	S		
42	NA-W81-162-W	S		
43	IL83-7439	S		
44	IL80-1251	H	10	13
45	TX87HA1	S		

Table 11. Virus reactions of entries in the 1988 Southern Regional Performance Nursery. (Data provided by A. D. Hewings and F. L. Kolb, Urbana, Illinois.)

ENTRY NO.	C.I. OR SEL. NO.	: BARLEY YELLOW :	: SOILBORNE :	
		: DWARF :	: MOSAIC :	
		: 0-9 :	: 0-9 :	
			Rep 1	Rep 2
1	CI1442	4	8	7
2	CI13996	6	8	7
3	CI17826	4	7	8
4	OK84343	3	7	6
5	OK84286	4	8	6
6	OK84287	4	8	7
7	OK86197	5	4	3
8	OK86215	7	8	8
9	TXGH10989	6	8	7
10	TX81V6582-2	4	8	7
11	TXGH105638	6	8	7
12	TX84V1336	5	7	6
13	TXGH13622	4	6	5
14	TX84V1317	5	6	5
15	TX81V6607-2	4	8	8
16	TX84V1736	8	8	7
17	TX86A7041	5	6	7
18	TX86V1109	6	7	7
19	TX86V1110	5	8	7
20	C082009	5	8	8
21	C0830027	6	9	8
22	C0830034	6	8	6
23	C0830014	7	8	8
24	KS84HW196	7	7	8
25	KS82C2338	7	5	4
26	NE82533	6	4	3
27	NE84557	6	5	5
28	NE83407	4	6	7
29	NE82656	5	7	6
30	RL844677	6	2	4
31	RL845472	7	8	7
32	AGC-112	6	8	7
33	AGC-113	6	2	4
34	XW141	7	3	6
35	XW161	4	2	5
36	XH675	7	6	6
37	XH685	4	6	6
38	Bounty-122	4	8	8
39	WH180001	6	6	6
40	NA-W84-229	6	5	5
41	NA-W83-256	6	4	4
42	NA-W81-162-W	7	3	3
43	IL83-7439	6	3	3
44	IL80-1251	6	7	7
45	TX87HA1	6	5	5

Table 12. Aluminum tolerance of lines tested in the 1988 SRPN based on hematoxylin staining of seedling roots. (Data provided by B.F. Carver, Stillwater, OK)

Entry No.	Selection No.	Stain Intensity ^a			Rating ^b
		Al Concentration (mM)			
		0.18	0.36	0.72	
1	Kharkof	C	C	C	VS
2	Scout 66	C	C	C	VS
3	TAM 105	C	C	C	VS
4	OK84343	P	P	C	I
5	OK84286	P	C	C	MS
6	OK84287	P	C	C	MS
7	OK86197	P	C	C	MS
8	OK86215	P	P	C	I
9	TXGH10989	P	P	C	I
10	TX81V6582-2	P	C	C	MS
11	TXGH10563B	C	C	C	VS
12	TX84V1336	N	P	P	T
13	TXGH13622	P/C/N	C/P	C	VS-I*
14	TX84V1317	N	P	P	T
15	TX81V6607-2	N	P	P	T
16	TX84V1736	P/C/N	P/C	P/C	VS-T*
17	TX86A7041	C	C	C	VS
18	TX86V1109	P	P	P	T
19	TX86V1110	N	P	P	T
20	C082009	P	C/P	C	MS-I*
21	C0830027	P	C	C	MS
22	C0830034	P	C/P	C	MS-I*
23	C0830014	P	C	C	MS
24	KS84HW196	C/P	C/P	C	VS-I*
25	KS82C2338	P/C	C/P	C	VS-I*
26	NE82533	C	C	C	VS
27	NE84557	C/P	C	C	VS-MS*
28	NE83407	C	C	C	VS
29	NE82656	P	C	C	MS
30	RL844677	P	P/C	C	MS-I*
31	RL845472	C	C	C	VS
32	AGC-112	C	C	C	VS
33	AGC-113	P	C/P	C	MS-I*
34	XW141	N	N	P	T
35	XW161	N	N	P	T
36	XH675	P	C	C	MS
37	XH685	P	C	C	MS
38	Bounty-122	N	N	P	T
39	WH180001	N	P	P	T
40	NA-W84-229	P	P	P	T
41	NA-W83-256	N/P	P/C	P/C	MS-T*
42	NA-W81-162-W	P	P	C	I
43	IL83-7439	N/P	P	C/P	I-T*
44	IL80-1251	N	P	P	T
45	TX87HA1	P	P	P	T

^aC, P, and N = complete, partial, and no staining of root tips, respectively.

^bVS = 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.

1988
Northern Regional Performance Nursery

<u>Entry No.</u>	<u>Variety or Pedigree</u>	<u>Sel. No.</u>	<u>Source</u>
1**	Kharkof	CI1442	Check
2**	Roughrider	CI17439	"
3**	Colt	PI476975	"
4	CI15322//Agate/4*Scout 66/3/Ctk 78/4/SD74221	SD82144	So. Dakota
5	CI15322//3*(Agent/4*Scout66)	SD76463-16	"
6	SD74221*2/Lathrop	SD82114	"
7	SD76109/Rose	SD78207-4	"
8	SD76669*2/KS71591	SD791231	"
9	Rrr//Yogo/Trapper	ND8212	No. Dakota
10	Rrr/3/Froid//Winoka/WW8	ND8215	"
11	Rrr*2/1809	ND8286	"
12	Ctk/3/Froid*2//ND363/ND269	ND8407	"
13*	Rrr/F0.1527	ND8460	"
14	Brule/3/Parker*4/Agent//Belot.198/Lcr	NE82656	Nebraska
15	HiPlains/Wings/3/Pkr*4/Agent//Belot.198/Lcr	NE82438	"
16*	(FTN/MI/Hope)//Pnc/2*Cnn/3/Pnc/3*Cnn/4/ Pnc/2*Cnn//ILL#1-Cns-TTi (CTMH)/ Sando60/5/Vona/6/Wrr*5/Agent//Kavkaz	NE83432	"
17*	Bez 1/Ctk78//Arthur/Ctk78/3/Bennett	NE84581	"
18	OK11252A/W76-1226 (Abilene)	NA-81-362-5	NAPB
19*	Winter Wheat Hybrid	XH947	HybriTech
20*	"	XNH1354	"
21	Kharkov 22 MC/Bezostaya 1	WT176	Lethbridge
22	Norstar/Rrr	WT177	"
23	"	WT179	"
24	Turkey/Burt//Bezostaya 1	ID0180	"
25*	Hg1/ID5006/4/II-60-156/CI14107//It/3/ 2Cnn/PI178383	ID0301	Idaho
26	Lancota/Froid//NE69559/Wnk	MT8039	Montana

* New Entry in 1988

** New Seed Provided

TEST SITE INFORMATION - NRPN

Clovis, NM -- See information for SRPN.

Nebraska stations -- See information for SRPN.

Brookings, SD -- See information for SRPN.

Presho, SD -- See information for SRPN.

Highmore, SD -- Seeded on 9/9/87 into fallowed land with good moisture. A mild winter allowed for 100% survival. April, May, June, and July were extremely hot and dry. Leaf rust was present at 10 to 20% severity on susceptible cultivars. WSMV was present and notes were taken on general plant appearance. Harvested on 7/11/88.

Casselton, ND -- The nursery was planted on 9/9/87. Some winterkill was recorded due to cold temperatures and uneven snow cover. Dry conditions were experienced from planting through harvest with less than 40% of normal precipitation received from April through July.

Carrington, ND -- The nursery was planted on 9/4/87 into standing small grain stubble. Along with some winterkill, there was severe drought during the growing season. The average yield at this location was 6 bu/a.

Williston, ND -- All varieties had 100% fall stand establishment and no winterkill. There were no disease, weed, or insect problems. The drought severely affected yields. There were 21 days in June with maximum daily temperatures 90 degrees or above. Two inches of the total June rainfall of 3.02 inches was received on June 30 and did very little to enhance grain production. June was the only month in which rains of greater than 0.33 inches occurred.

Rosemount, MN -- Planted on 9/9/87 and harvested 7/8/88. Plots were variable due to severe drought and heat and a spotty fall infection of BYDV. There was no winterkill. Heat pushed grain fill very fast and little moisture was available in June (0.22 inches). Temperatures were near or over record highs on many days with relatively low humidity. No other diseases were noted.

Waseca, MN -- Planted on 9/8/87 and harvested 7/6/88. There was less BYDV infection than at Rosemount and it was scattered and not severe. More precipitation was received but temperatures were just as severe when compared to Rosemount.

Sheridan, WY -- The nursery was seeded into a tilled seed bed and no fertilizer was applied. The soft ground resulted in sliding of the wheel driving the seed distributor. An inadequate stand resulted in three plots. Below normal precipitation dramatically affected yields. No insect or disease problems were noted.

Archer, WY -- The nursery was planted into a no-till chemical fallow area with a no-till plot drill. Fertilizer at 40-20-0 lbs/a rate was deep band applied at planting time. Very little moisture was received throughout the fall which affected emergence and stand establishment. The moisture received throughout the spring and summer was above average and timely. Temperatures were above normal beginning in early June and remained high until harvest. There was no insect or disease damage to the nursery. The Russian wheat aphid, which caused extensive damage the previous year, was not a problem.

Moccasin, MT -- All entries survived the winter with excellent stands. Cool moist conditions during April and the first two weeks of May produced succulent growth. Drought stress from May 15 through June 15 with high temperatures and strong south winds significantly reduced yields. Powdery mildew was the only disease or insect problem observed this year. Russian wheat aphids and green bugs arrived too late to affect small grain yields.

Sidney, MT -- Diseases and insects were not a problem. There was good soil moisture to a depth of 18 inches at planting time, resulting in good emergence and stand establishment. Winter survival was excellent. Persistent hot, dry, and windy conditions throughout the spring and summer growing periods reduced tillering, plant height, and yields drastically. Protein levels of harvested grain were very high due to the drought. Maturity was 2-3 weeks ahead of normal. A total of 6.18 inches of precipitation was received during the growing season compared to the long term average of 13.53 inches.

Bozeman, MT -- No information.

Idaho stations -- See information for SRPN.

Lind, WA -- See information for SRPN.

Table 13. Yield and agronomic data for entries in the 1988
Northern Regional Performance Nursery.

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 :	: LEAF RUST : : SEV.:RESP : : % : 0-9 :
MT8039	26	4643	65.3	90	134	30
XNH1354	20	4641	67.5	81	139	27
XH947	19	4528	65.6	80	137	9
SD82114	6	4510	67.9	92	137	10
PI476975	3	4439	67.3	72	137	27
NE83432	16	4125	68.1	77	139	11
NA-81-362-5	18	4114	69.2	74	137	9
NE82656	14	3990	66.5	78	137	7
ID0301	25	3927	64.6	89	144	20
NE82438	15	3784	66.5	79	139	13
SD82144	4	3761	64.5	86	138	15
SD76463-16	5	3480	67.9	94	140	8
ND8286	11	3447	67.9	91	141	15
NE84581	17	3393	68.2	80	142	1
ND8215	10	3363	71.4	98	143	5
ND8407	12	3207	66.9	96	139	5
ND8212	9	3127	69	93	144	27
CI17439	2	2800	68.8	91	144	17
SD791231	8	2685	69.9	87	139	4
ID0180	24	2653	64.5	88	145	14
SD78207-4	7	2488	68.5	94	144	4
WT176	21	2449	68.7	98	144	8
WT179	23	2386	67	97	145	10
CI1442	1	2317	69.7	102	144	10
WT177	22	2110	69.8	98	144	12
ND8460	13	1845	69.1	97	144	2
MEAN		3393				
LSD(.05)		930				
C.V.		16.7				

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 :	: LEAF RUST : : SEV. : : % :	: RESP : : 0-9 :
NE84581	17	2276	64.4	63	134	1	
ID0301	25	2216	68.4	60	137	9	
SD82114	6	2121	66.4	59	134	1	
XNH1354	20	2088	66.6	59	137	18	
XH947	19	2060	65.9	54	134	7	
ND8215	10	2023	62.8	66	138	1	
SD76463-16	5	1893	66.7	61	134	2	
NE82656	14	1874	65.6	62	134	2	
CI1442	1	1850	64.3	76	137	15	
PI476975	3	1745	67.3	56	134	5	
NA-81-362-5	18	1735	72.2	55	134	1	
ND8286	11	1709	64.1	63	137	2	
ND8212	9	1688	61.6	65	138	17	
SD78207-4	7	1635	62.7	61	137	2	
NE83432	16	1621	66.4	55	137	2	
CI17439	2	1554	63.8	63	137	4	
SD82144	4	1548	64.5	60	134	2	
ND8407	12	1465	64.7	65	137	2	
MT8039	26	1446	59.4	63	134	10	
WT176	21	1426	62.2	62	144	4	
ID0180	24	1419	59.9	57	144	14	
SD791231	8	1376	63.4	64	136	5	
NE82438	15	1300	59.6	54	137	1	
ND8460	13	1298	62.5	68	137	2	
WT179	23	1237	63.6	65	144	2	
WT177	22	963	63.1	59	144	2	
MEAN		1676					
LSD(.05)		N.S.					
C.V.		27.5					

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: % :	: LEAF RUST : : SEV.:RESP: : 0-9:
NA-81-362-5	18	4282	81.1	72	138	8
XH947	19	3867	77.8	80	138	8
NE83432	16	3728	77.5	80	141	3
NE84581	17	3596	78.3	80	142	5
NE82656	14	3374	78.7	80	139	2
PI476975	3	3356	78.8	70	138	8
SD82114	6	3347	81.5	91	139	7
SD82144	4	3302	82.4	93	139	8
SD76463-16	5	3297	78.4	91	140	8
ND8215	10	3266	76.1	96	143	8
NE82438	15	3241	78.4	78	139	8
XNH1354	20	3232	75.7	78	140	8
MT8039	26	3141	76.6	86	139	8
ND8407	12	3089	78.7	96	141	5
SD791231	8	2955	80.1	84	140	2
SD78207-4	7	2930	79.2	86	141	2
ND8460	13	2878	79.6	97	143	8
ND8286	11	2867	76.6	87	142	8
CI1442	1	2573	79.5	94	141	5
CI17439	2	2486	77.3	92	144	8
WT179	23	2441	77	90	144	7
ID0180	24	2345	78.6	75	142	5
WT176	21	2291	77.8	91	144	2
ID0301	25	2262	76.1	75	141	7
ND8212	9	2235	73.8	88	142	8
WT177	22	2215	77.5	91	143	8

MEAN	3023
LSD(.05)	489
C.V.	9.9

NORTH PLATTE
NEBRASKA
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: VOLUME WEIGHT KG/HL
NE84581	17	2873	69.3
NE82656	14	2798	67
XH947	19	2675	62.7
SD76463-16	5	2496	67.1
NA-81-362-5	18	2486	67.2
SD78207-4	7	2443	70.7
SD82114	6	2428	69
MT8039	26	2369	66.4
ND8460	13	2307	69.4
NE82438	15	2255	64
SD791231	8	2232	67.6
CI17439	2	2208	68.1
ND8286	11	2184	65.3
SD82144	4	2158	68.1
ND8407	12	2118	65.4
XNH1354	20	2095	64.1
NE83432	16	2085	65.8
CI1442	1	2066	68.9
ND8212	9	2059	64
PI476975	3	1973	64
WT177	22	1961	68.9
ND8215	10	1827	60.9
WT176	21	1788	63.7
WT179	23	1723	67.1
ID0301	25	1705	63.5
ID0180	24	1671	64
MEAN		2192	
LSD(.05)		403	
C.V.		11.2	

ALLIANCE

NEBRASKA

THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: : NO. :	: YIELD : : KG/HA :	: VOLUME : : WEIGHT : : KG/HL :
NA-81-362-5	18	4364	77.4
NE83432	16	4163	75.3
XNH1354	20	4031	74.7
NE82438	15	4002	72.9
XH947	19	3982	72.6
MT8039	26	3977	.
ID0301	25	3948	72.2
CI17439	2	3827	76.2
NE84581	17	3773	74.8
SD791231	8	3707	74.2
NE82656	14	3682	74.9
ND8212	9	3600	72.6
ND8215	10	3588	71.2
WT176	21	3472	71
ID0180	24	3412	73.9
ND8286	11	3353	74.9
ND8407	12	3341	74
SD82144	4	3339	76.6
PI476975	3	3335	74.8
SD82114	6	3082	77.4
SD76463-16	5	3057	77.5
SD78207-4	7	3055	76.1
WT177	22	3026	73.5
ND8460	13	2999	77.4
CI1442	1	2961	73.5
WT179	23	2863	74.8
MEAN		3536	
LSD(.05)		650	
C.V.		11.2	

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:
NA-81-362-5	18	2836	79.5	63	150
NE82438	15	2526	78.2	65	151
SD76598-7	28	2508	77.5	69	151
SD76463-4	29	2397	78.8	74	150
NE83432	16	2307	78.2	69	152
ND8407	12	2293	73.1	71	151
SD76463-16	5	2282	77.1	78	150
NE84581	17	2275	76.4	68	151
NE82656	14	2180	77.3	68	151
WT177	22	2137	74.9	80	153
ND8215	10	2119	69.3	71	152
PI476975	3	2106	76.2	62	150
ROSE	30	2075	75.1	69	151
SD82102	27	2054	75.5	72	150
XH947	19	2044	77.5	61	150
SD82114	6	2042	74.8	72	151
SD82144	4	1951	73.1	73	151
ND8286	11	1925	76.4	69	152
CI17439	2	1865	72.9	78	152
XNH1354	20	1853	75.9	67	152
WT179	23	1750	73.9	77	154
CI1442	1	1717	71.5	80	153
ND8460	13	1679	75.1	78	154
SD78207-4	7	1678	77.9	67	152
SD791231	8	1662	77.1	63	153
ND8212	9	1657	54	77	153
MT8039	26	1617	73.3	69	151
WT176	21	1558	70	75	154
ID0180	24	1244	60.4	69	155
ID0301	25	864	62	69	155

MEAN	1973
LSD(.05)	641
C.V.	19.9

PRESHO

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:	: GENERAL : DISEASE : : 0-3 :
NE82656	14	1996	66.8	63	150	2
NE83432	16	1920	67.7	57	150	2
SD76463-4	29	1791	68	64	151	2
NE84581	17	1786	63.7	54	151	2
XNH1354	20	1755	67.8	59	151	2
NA-81-362-5	18	1730	70	53	149	2
SD82102	27	1572	64.4	62	151	2
MT8039	26	1563	61.8	64	150	2
ID0301	25	1558	65.8	62	152	2
SD76463-16	5	1539	67.7	66	150	2
NE82438	15	1539	63.1	54	151	2
XH947	19	1537	64.8	60	150	2
WT176	21	1532	66.2	67	154	2
PI476975	3	1450	66.6	58	151	2
ND8407	12	1424	64.4	64	151	2
SD76598-7	28	1377	63.7	62	151	2
SD791231	8	1332	66.8	63	151	2
CI1442	1	1316	67.5	73	154	2
ROSE	30	1295	63.3	65	152	2
SD82144	4	1253	65.7	63	150	2
SD82114	6	1239	64	60	151	3
ND8212	9	1168	61.5	61	154	3
ND8215	10	1115	56.2	68	154	2
SD78207-4	7	1037	62.8	54	151	3
ND8286	11	1006	62.4	58	154	3
WT179	23	976	63.3	58	155	2
ID0180	24	911	61.1	54	156	2
ND8460	13	878	63.8	69	154	3
WT177	22	835	63.3	62	155	2
CI17439	2	661	61.7	63	154	3

MEAN	1370
LSD(.05)	456
C.V.	20.4

HIGHMORE
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:	: GENERAL : : DISEASE : : 0-3 :
NA-81-362-5	18	2623	73.7	62	150	2
NE82656	14	2588	70.2	69	150	2
NE83432	16	2354	71.5	64	151	2
NE84581	17	2296	69.1	69	151	3
SD76463-4	29	2250	72.4	76	151	3
SD76598-7	28	2247	70.2	74	151	3
SD76463-16	5	2190	72.2	76	152	2
NE82438	15	2189	69.3	69	151	2
XH947	19	2004	69.7	64	151	3
SD82114	6	1959	70.2	74	152	2
SD82102	27	1901	67.3	69	152	3
MT8039	26	1806	65.5	73	152	3
ND8407	12	1759	68.2	83	154	2
PI476975	3	1752	69.8	64	151	3
SD82144	4	1728	69.8	72	151	3
ROSE	30	1714	67.7	64	152	3
ND8286	11	1669	66.9	71	152	3
XNH1354	20	1665	67.3	69	153	3
SD791231	8	1657	70.4	75	153	2
ND8460	13	1533	67.3	81	154	3
ND8215	10	1522	62.9	79	156	2
CI1442	1	1465	70.2	83	156	3
ND8212	9	1396	63.7	77	155	3
SD78207-4	7	1351	68.4	68	152	3
ID0301	25	1210	65.7	72	153	3
CI17439	2	1121	67.3	69	156	3
WT179	23	1105	66.8	69	156	3
ID0180	24	1090	63.8	68	155	3
WT176	21	1074	64	78	154	2
WT177	22	855	66.9	65	156	3

MEAN	1736
LSD(.05)	442
C.V.	15.6

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:	: WINTER : : SURVIVAL : : % :
NE82438	15	1806	78.3	59	156	85
ND8212	9	1740	75.2	71	158	95
WT177	22	1691	74.4	73	159	65
ND8286	11	1689	78.3	71	158	97
XNH1354	20	1675	78.4	62	157	73
CI17439	2	1622	77.8	68	158	97
ND8407	12	1563	77.5	64	158	87
PI476975	3	1507	76.6	49	156	63
SD82144	4	1502	76	68	156	90
ND8215	10	1497	74.7	69	160	68
ND8460	13	1486	78.7	66	159	77
NE83432	16	1409	77.5	59	155	80
NE82656	14	1388	77.8	65	155	80
SD82114	6	1300	78.3	60	156	73
SD78207-4	7	1295	77.5	67	157	85
NORSTAR	29	1231	77.8	86	162	92
NE84581	17	1212	75.7	53	156	60
SEWARD	28	1192	76.8	70	159	60
SD76463-16	5	1122	75.5	66	157	63
SD791231	8	1107	77.8	65	158	80
XH696	27	1106	76.4	61	157	40
WT179	23	1068	73.8	67	161	65
CI1442	1	1056	76.4	73	160	58
NA-81-362-5	18	1025	80.5	51	156	37
NORWIN	30	1022	76.6	60	159	62
WT176	21	921	76	72	161	55
ID0180	24	645	75.7	58	162	33
ID0301	25	554	73.7	55	161	30
MT8039	26	400	71.3	65	160	17
XH947	19	381	75.1	66	157	18

MEAN	1240
LSD(.05)	642
C.V.	31.7

CARRINGTON

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:	: WINTER : : SURVIVAL : : % :
NE82438	15	884	71.9	44	156	100
ID0180	24	836	71.9	44	160	98
ND8286	11	823	69.7	50	158	100
WT179	23	800	69	49	159	100
CI1442	1	794	74.4	55	157	93
NE83432	16	728	71.3	43	156	93
ND8215	10	719	67.7	45	158	100
NE82656	14	699	72.4	45	156	98
WT176	21	674	70.3	49	159	98
WT177	22	663	68	45	158	100
XH696	27	641	73.1	43	156	95
MT8039	26	632	73	48	158	93
SD76463-16	5	621	74	47	158	88
ND8212	9	598	68.6	45	158	93
NE84581	17	583	69.9	44	158	98
ND8407	12	569	71.2	46	159	100
ID0301	25	569	71.5	45	160	78
CI17439	2	513	70.2	46	158	100
NORSTAR	29	500	73.9	47	162	97
SEWARD	28	483	72.6	43	159	97
NA-81-362-5	18	467	76.5	35	156	88
XH947	19	444	72.8	44	157	98
SD78207-4	7	422	71.7	41	158	95
SD82114	6	393	73.9	40	157	88
XNH1354	20	390	75.3	43	159	87
NORWIN	30	344	73	32	161	93
PI476975	3	340	73.7	35	156	85
ND8460	13	309	74.2	41	160	72
SD82144	4	240	73.1	37	157	93
SD791231	8	211	73.8	38	160	80

MEAN	563
LSD(.05)	288
C.V.	31.4

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:
NA-81-362-5	18	778	67.9	40	147
NE84581	17	730	67.3	40	148
SD76463-16	5	718	68.6	46	147
NE83432	16	678	70.3	43	148
PI476975	3	666	69.1	42	147
ID0301	25	636	72.8	41	151
XNH1354	20	629	71.3	46	148
SD82114	6	620	68.6	45	148
NE82656	14	620	68.2	44	147
NE82438	15	619	70	37	149
SD791231	8	602	70.4	41	149
ND8286	11	602	69.7	45	151
ND8460	13	558	67.9	47	150
ID0180	24	555	69.1	43	151
XH947	19	543	67.6	45	147
SD78207-4	7	536	71	41	150
ND8215	10	536	63.5	48	151
ND8212	9	535	65	45	151
ND8407	12	530	65	47	150
CI17439	2	523	68.1	49	151
SD82144	4	518	70.7	43	148
CI1442	1	484	69.8	48	151
MT8039	26	483	68.6	43	148
AGASSIZ	28	474	68.8	46	152
WT179	23	440	68.8	42	153
WT176	21	410	72.6	46	152
WT177	22	409	68.4	44	152
NORSTAR	27	341	70	45	154
MEAN		563			
LSD(.05)		57			
C.V.		7.1			

ROSEMOUNT

MINNESOTA

THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: VOLUME KG/HL	: PLANT HEIGHT CM	: DAYS TO HEADING FROM 1/1:	: LODGING 0-9	: BYD VIRUS 0-9
MT8039	26	2661	71	88	150	0	2
SD82114	6	2130	73.5	88	150	0	2
NE84581	17	2116	74.2	85	152	0	2
PI476975	3	2087	71	73	149	0	2
CI17439	2	2065	77.4	99	153	0	1
NA-81-362-5	18	1995	72.9	74	149	0	2
NE83432	16	1977	72.9	81	151	1	4
ND8286	11	1964	74.8	94	154	0	1
SD76463-16	5	1948	76.1	97	151	0	2
NE82438	15	1948	68.4	83	153	0	2
SD78207-4	7	1946	72.9	89	152	0	3
ND8212	9	1890	68.4	95	154	0	2
XNH1354	20	1825	72.2	81	153	0	6
SD791231	8	1787	74.2	92	151	0	4
ND8215	10	1784	67.7	99	154	0	2
NE82656	14	1737	68.4	86	150	0	3
CI1442	1	1618	74.2	92	153	0	3
SD82144	4	1616	71	93	149	0	2
ID0301	25	1556	72.2	68	154	0	7
WT177	22	1515	74.8	94	154	0	2
ID0180	24	1509	71.6	83	155	0	3
ND8407	12	1417	71	93	153	4	1
XH947	19	1365	67.7	86	150	0	2
WT179	23	1309	72.2	89	155	0	2
ND8460	13	1302	72.2	97	153	0	2
WT176	21	1197	67.7	90	156	0	2

MEAN	1779
LSD(.05)	N.S.
C.V.	30.3

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:
NE83432	16	2846	80	58	154
ND8407	12	2740	78	74	155
SD82114	6	2718	79.3	64	154
ND8212	9	2604	77.4	73	155
NA-81-362-5	18	2581	80.6	64	153
ND8215	10	2568	76.1	73	155
NE84581	17	2435	78.7	63	155
WT179	23	2344	77.4	75	155
SD76463-16	5	2258	80	72	153
WT177	22	2252	79.3	71	154
NE82438	15	2231	78.7	63	154
SD78207-4	7	2179	80.6	67	154
ID0180	24	2101	76.1	63	157
CI17439	2	2060	79.3	75	154
ND8286	11	1974	78.7	69	156
MT8039	26	1939	76.1	64	155
WT176	21	1842	75.5	70	156
CI1442	1	1822	79.3	75	153
XNH1354	20	1769	78.7	53	154
SD791231	8	1751	78.7	60	153
NE82656	14	1712	77.4	62	153
ND8460	13	1704	79.3	69	154
SD82144	4	1695	78	65	153
XH947	19	1692	76.1	56	156
PI476975	3	1328	78.7	49	154
ID0301	25	1275	78.7	58	156
MEAN		2093			
LSD(.05)		574			
C.V.		16.7			

SHERIDAN
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:
NA-81-362-5	18	2009	76.3	62	150
NE83432	16	1988	75.6	69	151
SD82144	4	1932	72.5	80	151
NE82656	14	1849	74.2	69	150
PI476975	3	1818	75.4	64	150
XNH1354	20	1757	74.6	69	152
ID0180	24	1751	72.9	73	155
SD78207-4	7	1719	75.8	66	153
ID0301	25	1706	73.4	63	153
MT8039	26	1701	69.5	75	153
ND8407	12	1648	72.8	86	153
SD76463-16	5	1641	74.3	79	151
NE84581	17	1598	73.9	73	152
NE82438	15	1549	73.2	65	153
WT176	21	1473	70.6	73	152
CI17439	2	1464	73.1	77	153
ND8212	9	1448	71.3	78	154
CI1442	1	1426	75.1	77	153
ND8286	11	1336	71.8	72	153
ND8215	10	1302	70.6	75	155
SD82114	6	1251	73.7	69	151
ND8460	13	1219	74.7	79	154
WT179	23	1186	72.5	68	155
WT177	22	1103	73.4	70	155
XH947	19	1045	71.2	67	150
SD791231	8	1036	73	78	153
MEAN		1537			
LSD(.05)		566			
C.V.		22.5			

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:
XNH1354	20	1950	75.1	52	161
XH947	19	1930	73.2	54	159
PI476975	3	1861	74.6	53	159
NE84581	17	1809	75.7	53	160
SD82144	4	1775	74.9	55	160
MT8039	26	1771	73.1	54	161
SD76463-16	5	1766	76.4	56	160
CI1442	1	1704	76.4	60	163
ND8286	11	1681	74.4	57	164
SD82114	6	1605	75.4	53	161
NE82656	14	1596	74.6	64	160
NE82438	15	1578	74.9	51	163
CI17439	2	1574	74.9	61	163
NE83432	16	1565	76.2	52	161
SD791231	8	1527	74.6	58	163
NA-81-362-5	18	1527	76.8	49	160
ND8407	12	1511	72.6	58	164
ID0180	24	1491	73.4	57	164
ND8212	9	1441	72.4	52	166
ID0301	25	1428	75.5	51	164
ND8460	13	1296	75.4	58	164
SD78207-4	7	1199	75.9	56	163
WT179	23	1199	73.1	56	166
WT177	22	1175	74	56	165
WT176	21	1128	72.5	55	163
ND8215	10	1098	71.5	58	166
MEAN		1546			
LSD(.05)		422			
C.V.		16.6			

MOCCASIN

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:	: LODGING : 0-5 :
XNH1354	20	2831	76.9	74	158	0
NE82656	14	2809	74.7	76	157	1
MT8039	26	2791	71.5	82	156	0
NE84581	17	2726	76.5	79	158	1
ID0180	24	2712	76.2	76	161	1
ID0301	25	2690	76.5	70	160	0
NE82438	15	2549	76.6	83	158	0
NA-81-362-5	18	2396	76.9	75	156	1
SD76463-16	5	2392	78	79	157	3
PI476975	3	2336	74.3	63	155	1
SD82114	6	2311	74	78	156	3
ND8212	9	2293	76.2	74	161	2
ND8286	11	2291	78	78	161	1
NE83432	16	2271	77.4	70	158	1
XH947	19	2271	73.9	75	156	1
SD82144	4	2174	76	74	157	1
CI17439	2	2085	79.5	82	159	2
WT179	23	2078	78.2	86	161	1
WT177	22	2069	79.3	82	161	1
ND8215	10	2067	76.4	81	160	1
SD78207-4	7	2047	79.6	75	160	2
ND8407	12	2047	74.4	81	160	2
CI1442	1	1991	79.6	86	161	3
SD791231	8	1903	78	83	157	2
WT176	21	1849	76	85	161	4
ND8460	13	1562	79.9	84	161	1
MEAN		2290				
LSD(.05)		427				
C.V.		11.4				

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:
NA-81-362-5	18	767	77.1	33	145
NE82656	14	763	75.2	37	146
ID0301	25	748	77	37	150
NE82438	15	736	74.7	33	148
SD76463-16	5	725	75.9	41	146
PI476975	3	723	74.6	39	145
ID0180	24	711	74.4	34	152
ND8286	11	706	72.8	38	150
SD82144	4	704	75.2	40	146
XNH1354	20	704	77	36	148
CI17439	2	681	71.8	39	150
ND8215	10	681	68.4	40	151
ND8460	13	679	74.7	42	149
NE83432	16	673	76.8	35	147
ND8407	12	671	71.2	39	149
NE84581	17	671	75.9	29	147
WT177	22	666	71.5	39	152
WT179	23	666	71.5	37	152
CI1442	1	662	74.4	38	150
MT8039	26	627	73.6	37	148
ND8212	9	622	69	37	150
SD78207-4	7	607	75	34	148
WT176	21	583	67.1	40	153
SD82114	6	577	74.3	36	146
SD791231	8	575	76.1	36	147
XH947	19	562	73.9	33	147
MEAN		673			
LSD(.05)		N.S.			
C.V.		16.5			

BOZEMAN, MONTANA - FOUR REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: VOLUME KG/HL	: PLANT HEIGHT CM	: DAYS TO HEADING FROM 1/1:	: LODGING 0-5	: STEM RUST: SEV.: %	: SEEDLING RESP: 0-9:	: SEEDLING COLOR* 1-5	: SEEDLING HABIT** 1-5	: SEEDLING WIDTH*** 1-5
NE83432	16	4408	72.8	95	164	1	60	5	3	3	3
PI476975	3	4170	76.8	91	159	0	1	1	2.5	3	3
NE82438	15	4049	77	92	166	0	5	1	3.5	3	3.5
ID0180	24	3866	78.6	105	169	0	90	8	3	3	3
XNH1354	20	3778	74.6	96	166	0	90	8	3	3	3
NA-81-362-5	18	3743	77.7	94	162	0	50	5	3.5	3	3
ID0301	25	3669	72.2	91	167	1	90	8	2.5	3	3
ND8286	11	3648	80.1	112	166	0	10	3	3.5	3.5	3.5
SD76463-16	5	3614	76.9	103	166	1	50	8	3.5	3.5	3
MT8039	26	3447	72	104	162	0	10	2	3	3	3
SD82114	6	3426	79.9	98	161	0	10	3	2.7	3	3
ND8407	12	3393	79.5	110	164	1	5	1	3	3	3
NE84581	17	3380	80.2	98	161	1	5	1	3	3.5	3.5
ND8460	13	3337	80.4	109	165	0	10	2	3	3	3
NE82656	14	3321	74	100	165	0	5	2	2.5	3	3
WT179	23	3288	78.7	102	168	1	10	3	4	3.5	4
ND8215	10	3183	79.3	114	165	0	5	1	3	3.5	3
WT176	21	3151	76	101	169	0	90	8	3	3	3
ND8212	9	3135	79.3	101	166	0	1	1	3.5	3	3
SD82144	4	3131	75.9	98	160	0	1	1	3	3	3
SD78207-4	7	2864	78.4	108	164	0	20	3	3.5	3.5	3
SD791231	8	2863	78.9	103	164	0	10	3	3	3.5	3
WT177	22	2774	78.4	107	165	3	10	3	3.5	3	3.5
XH947	19	2685	71	95	160	1	50	5	3	3	3
CI17439	2	2238	80	99	167	1	10	2	4	4	4
CI1442	1	1750	77.4	94	164	4	30	8	3	3	3

MEAN 3320
LSD(.05) 625
C.V. 13.4

* 1=yellow, 5=blue; ** 1=erect, 5=prostrate; *** 1=wide, 5=narrow.

ABERDEEN

IDAHO

TWO REPLICATIONS

C.I. OR SEL. NO.	: : NO.	: YIELD : KG/HA	: PLANT : HEIGHT : CM	: DAYS TO : HEADING : FROM 1/1	: DAYS TO : RIPENING : FROM 1/1	: LODGING : 0-9	: STRAW : STRENGTH : 0-5	: FROST : DAMAGE : 0-5
BLIZZARD	29	5546	96	160	191	1	3	3
NE82438	15	5536	84	156	191	1	2	2
XNH1354	20	5050	83	157	189	0	2	3
NE83432	16	4142	76	156	188	0	3	3
ND8286	11	4128	96	161	187	1	3	2
WT176	21	4073	92	161	189	0	4	3
SD78207-4	7	3955	96	159	191	1	3	3
PI476975	3	3914	71	154	184	0	2	2
ND8215	10	3875	93	157	187	0	2	3
NEELEY	27	3864	82	163	189	0	3	3
WESTON	28	3849	96	155	190	1	3	4
NE84581	17	3837	72	153	184	0	2	3
ID0301	25	3775	74	158	188	0	3	3
SURVIVOR	30	3745	87	159	188	0	3	3
NE82656	14	3724	84	155	185	0	3	3
MT8039	26	3680	93	156	186	0	3	3
XH947	19	3650	74	152	185	0	2	3
ND8407	12	3614	110	159	188	1	3	3
SD82144	4	3558	96	154	182	1	3	3
SD791231	8	3557	89	158	187	1	3	3
SD82114	6	3541	82	156	185	0	3	3
ID0180	24	3507	73	162	188	0	3	3
NA-81-362-5	18	3437	64	152	183	0	1	3
ND8212	9	3325	87	159	186	0	2	2
SD76463-16	5	3286	86	155	185	0	3	3
ND8460	13	3208	105	158	188	1	3	3
WT177	22	2982	93	162	190	0	4	2
WT179	23	2758	81	163	189	0	3	3
CI1442	1	2743	98	161	187	1	4	3
CI17439	2	2701	87	161	185	0	3	3

MEAN	3752
LSD(.05)	1302
C.V.	17.0

LIND
WASHINGTON
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:
NE84581	17	2165	79.7	61	143
ND8215	10	2056	77.3	66	145
ND8286	11	2040	77.4	66	145
ID0301	25	1928	78.8	58	146
XNH1354	20	1910	78.7	63	145
WT176	21	1870	76	73	146
MT8039	26	1834	75.9	62	142
XH947	19	1831	76.6	58	142
ND8407	12	1796	78.6	68	143
PI476975	3	1789	77.9	52	142
ND8212	9	1784	76.8	64	145
NE82438	15	1731	77.1	59	144
CI17439	2	1726	78.3	65	145
NE82656	14	1722	76.9	60	143
ID0180	24	1706	78.6	64	146
SD76463-16	5	1679	79.5	64	142
SD82144	4	1654	77.5	60	142
CI1442	1	1650	78.8	69	146
SD82114	6	1598	79.9	59	142
WT179	23	1594	77.4	69	149
NA-81-362-5	18	1536	79.6	53	143
WT177	22	1533	78	66	146
SD791231	8	1515	77.8	65	143
ND8460	13	1329	77.7	66	144
NE83432	16	1301	79.1	61	144
SD78207-4	7	800	79.3	58	144
MEAN		1695			
LSD(.05)		289			
C.V.		10.4			

Table 14. Summary of mean yields (kg/ha) of 26 wheats grown in the 1988 Northern Regional Performance Nursery at 20 locations with state means and ranks.

VARIETY OR PEDIGREE	: : C.I. OR : SEL. NO.	: : ENTRY: : NO. :	: : LINCOLN : NEBRASKA	: : NORTH : PLATTE : NEBRASKA	: : ALLIANCE : NEBRASKA	: : NEBRASKA : STATE MEAN :
HiPlains/Wings/3/Pkr*4/Agnt//Bel.198/Lcr	NE82438	15	3241 11	2255 10	4002 4	3166 6
Complex Pedigree	NE83432	16	3728 3	2085 17	4163 2	3325 4
OK11252A/W76-1226 (Abilene)	NA-81-362-5	18	4282 1	2486 5	4364 1	3711 1
Winter Wheat Hybrid	XNH1354	20	3232 12	2095 16	4031 3	3120 8
Bez 1/Ctk78//Arthur/Ctk78/3/Bennett	NE84581	17	3596 4	2873 1	3773 9	3414 3
Brule/3/Parker*4/Agent//Belot.198/Lcr	NE82656	14	3374 5	2798 2	3682 11	3285 5
Colt	PI476975	3	3356 6	1973 20	3335 19	2888 14
Lancota/Froid//NE69559/Wnk	MT8039	26	3141 13	2369 8	3977 6	3162 7
CI15322//3*(Agent/4*Scout66)	SD76463-16	5	3297 9	2496 4	3057 21	2950 11
SD74221*2/Lathrop	SD82114	6	3347 7	2428 7	3082 20	2952 10
Winter Wheat Hybrid	XH947	19	3867 2	2675 3	3982 5	3508 2
Rrr*2/1809	ND8286	11	2867 18	2184 13	3353 16	2801 18
Ctk/3/Froid*2//ND363/ND269	ND8407	12	3089 14	2118 15	3341 17	2849 15
Rrr/3/Froid//Winoka/WW8	ND8215	10	3266 10	1827 22	3588 13	2894 13
CI15322//Aga/4*Sut 66/3/Ctk 78/4/SD74221	SD82144	4	3302 8	2158 14	3339 18	2933 12
Rrr//Yogo/Trapper	ND8212	9	2235 25	2059 19	3600 12	2631 21
Complex Pedigree	ID0301	25	2262 24	1705 25	3948 7	2638 20
Turkey/Burt//Bezostaya 1	ID0180	24	2345 22	1671 26	3412 15	2476 24
SD76669*2/KS71591	SD791231	8	2955 15	2232 11	3707 10	2965 9
SD76109/Rose	SD78207-4	7	2930 16	2443 6	3055 22	2809 17
Kharkov 22 MC/Bezostaya 1	WT176	21	2291 23	1788 23	3472 14	2517 23
Roughrider	CI17439	2	2486 20	2208 12	3827 8	2840 16
Rrr/F0.1527	ND8460	13	2878 17	2307 9	2999 24	2728 19
Norstar/Rrr	WT179	23	2441 21	1723 24	2863 26	2342 26
Kharkof	CI1442	1	2573 19	2066 18	2961 25	2533 22
Norstar/Rrr	WT177	22	2215 26	1961 21	3026 23	2400 25
MEAN			3023	2192	3536	2917
LSD(.05)			489	403	650	545
C.V.			9.9	11.2	11.2	10.9

Table 14. Continued.

C.I. OR SEL. NO.	: : NO.	: : S. DAKOTA	: : S. DAKOTA	: : S. DAKOTA	: : S. DAKOTA	: : S. DAKOTA	: : STATE MEAN	: : WYOMING	: : WYOMING	: : WYOMING	: : STATE MEAN	: :
		ENTRY: BROOKINGS	HIGHMORE	PRESHO	SOUTH DAKOTA	ARCHER	SHERIDAN	WYOMING				
NE82438	15	2526 2	2189 6	1539 8	2085 5	1578 12	1549 14	1564 14				
NE83432	16	2307 3	2354 3	1920 2	2194 3	1565 14	1988 2	1777 4				
NA-81-362-5	18	2836 1	2623 1	1730 5	2396 1	1527 15	2009 1	1768 5				
XNH1354	20	1853 16	1665 14	1755 4	1758 10	1950 1	1757 6	1854 2				
NE84581	17	2275 6	2296 4	1786 3	2119 4	1809 4	1598 13	1704 8				
NE82656	14	2180 7	2588 2	1996 1	2255 2	1596 11	1849 4	1723 7				
PI476975	3	2106 10	1752 11	1450 12	1769 9	1861 3	1818 5	1839 3				
MT8039	26	1617 23	1806 9	1563 6	1662 12	1771 6	1701 10	1736 6				
SD76463-16	5	2282 5	2190 5	1539 8	2004 6	1766 7	1641 12	1704 8				
SD82114	6	2042 12	1959 8	1239 17	1747 11	1605 10	1251 21	1428 20				
XH947	19	2044 11	2004 7	1537 10	1862 7	1930 2	1045 25	1487 17				
ND8286	11	1925 14	1669 13	1006 21	1534 16	1681 9	1336 19	1509 16				
ND8407	12	2293 4	1759 10	1424 13	1825 8	1511 17	1648 11	1579 11				
ND8215	10	2119 9	1522 17	1115 19	1585 14	1098 26	1302 20	1200 24				
SD82144	4	1951 13	1728 12	1253 16	1644 13	1775 5	1932 3	1854 1				
ND8212	9	1657 22	1396 19	1168 18	1407 18	1441 19	1448 17	1445 19				
ID0301	25	864 26	1210 21	1558 7	1210 25	1428 20	1706 9	1567 12				
ID0180	24	1244 25	1090 24	911 23	1082 26	1491 18	1751 7	1621 10				
SD791231	8	1662 21	1657 15	1332 14	1551 15	1527 15	1036 26	1281 22				
SD78207-4	7	1678 20	1351 20	1037 20	1355 21	1199 22	1719 8	1459 18				
WT176	21	1558 24	1074 25	1532 11	1388 19	1128 25	1473 15	1300 21				
CI17439	2	1865 15	1121 22	661 26	1216 24	1574 13	1464 16	1519 15				
ND8460	13	1679 19	1533 16	878 24	1363 20	1296 21	1219 22	1258 23				
WT179	23	1750 17	1105 23	976 22	1277 22	1199 22	1186 23	1193 25				
CI1442	1	1717 18	1465 18	1316 15	1499 17	1704 8	1426 18	1565 13				
WT177	22	2137 8	855 26	835 25	1275 23	1175 24	1103 24	1139 26				
MEAN		1930	1691	1348	1656	1546	1537	1541				
LSD(.05)		651	428	479	430	422	566	N.S.				
C.V.		20.6	15.4	21.7	19.4	16.6	22.5	19.7				

Table 14. Continued.

C.I. OR SEL. NO.	: :	: :	: :	: :	: :	: :	: :	: :	: :	: :	: :	: :
	ENTRY:	WILLISTON	CASSELTON	CARRINGTON	NORTH DAKOTA	ROSEMOUNT*	WASECA	LIND				
	NO.	N. DAKOTA	N. DAKOTA	N. DAKOTA	STATE MEAN	MINNESOTA	MINNESOTA	WASHINGTON				
NE82438	15	619 10	1806 1	884 1	1103 1	1948 9	2231 11	1731 12				
NE83432	16	678 4	1409 12	728 6	938 4	1977 7	2846 1	1301 25				
NA-81-362-5	18	778 1	1025 21	467 18	757 18	1995 6	2581 5	1536 21				
XNH1354	20	629 7	1675 5	390 22	898 8	1825 13	1769 19	1910 5				
NE84581	17	730 2	1212 16	583 14	842 11	2116 3	2435 7	2165 1				
NE82656	14	620 8	1388 13	699 8	902 7	1737 16	1712 21	1722 14				
PI476975	3	666 5	1507 8	340 23	838 12	2087 4	1328 25	1789 10				
MT8039	26	483 23	400 25	632 11	505 25	2661 1	1939 16	1834 7				
SD76463-16	5	718 3	1122 17	621 12	820 13	1948 10	2258 9	1679 16				
SD82114	6	620 9	1300 14	393 21	771 16	2130 2	2718 3	1598 19				
XH947	19	543 15	381 26	444 19	456 26	1365 23	1692 24	1831 8				
ND8286	11	602 11	1689 4	823 3	1038 2	1964 8	1974 15	2040 3				
ND8407	12	530 19	1563 7	569 16	887 9	1417 22	2740 2	1796 9				
ND8215	10	536 16	1497 10	719 7	918 6	1784 15	2568 6	2056 2				
SD82144	4	518 21	1502 9	240 25	753 19	1616 18	1695 23	1654 17				
ND8212	9	535 18	1740 2	598 13	958 3	1890 12	2604 4	1784 11				
ID0301	25	636 6	554 24	569 15	586 24	1556 19	1275 26	1928 4				
ID0180	24	555 14	645 23	836 2	679 21	1509 21	2101 13	1706 15				
SD791231	8	602 11	1107 18	211 26	640 23	1787 14	1751 20	1515 23				
SD78207-4	7	536 17	1295 15	422 20	751 20	1946 11	2179 12	800 26				
WT176	21	410 25	921 22	674 9	668 22	1197 26	1842 17	1870 6				
CI17439	2	523 20	1622 6	513 17	886 10	2065 5	2060 14	1726 13				
ND8460	13	558 13	1486 11	309 24	784 14	1302 25	1704 22	1329 24				
WT179	23	440 24	1068 19	800 4	769 17	1309 24	2344 8	1594 20				
CI1442	1	484 22	1056 20	794 5	778 15	1618 17	1822 18	1650 18				
WT177	22	409 26	1691 3	663 10	921 5	1515 20	2252 10	1533 22				
MEAN		575	1256	574	802	1779	2093	1695				
LSD(.05)		57	682	297	N.S.	N.S.	574	289				
C.V.		7.1	33.1	31.6	31.3	30.3	16.7	10.4				

* Not included in state or regional means.

Table 14. Concluded.

C.I. OR SEL. NO.	: ENTRY: NO.	: SIDNEY* MONTANA	: MOCCASIN MONTANA	: BOZEMAN MONTANA	: MONTANA STATE MEAN	: CLOVIS (IRR.) NEW MEXICO	: CLOVIS (DRYL.)* NEW MEXICO	: ABERDEEN IDAHO	: REGIONAL AVERAGE
NE82438	15	736 4	2549 7	4049 3	3299 3	3784 10	1300 23	5536 1	2475 1
NE83432	16	673 14	2271 15	4408 1	3340 1	4125 6	1621 15	4142 3	2472 2
NA-81-362-5	18	767 1	2396 8	3743 6	3070 8	4114 7	1735 11	3437 19	2467 3
XNH1354	20	704 9	2831 1	3778 5	3304 2	4641 2	2088 4	5050 2	2412 4
NE84581	17	671 15	2726 4	3380 13	3053 10	3393 14	2276 1	3837 9	2380 5
NE82656	14	763 2	2809 2	3321 15	3065 9	3990 8	1874 8	3724 11	2356 6
PI476975	3	723 6	2336 10	4170 2	3253 5	4439 5	1745 10	3914 7	2243 7
MT8039	26	627 20	2791 3	3447 10	3119 7	4643 1	1446 19	3680 12	2223 8
SD76463-16	5	725 5	2392 9	3614 9	3003 11	3480 12	1893 7	3286 21	2202 9
SD82114	6	577 24	2311 11	3426 11	2869 13	4510 4	2121 3	3541 17	2198 10
XH947	19	562 26	2271 14	2685 24	2478 20	4528 3	2060 5	3650 13	2183 11
ND8286	11	706 8	2291 13	3648 8	2970 12	3447 13	1709 12	4128 4	2157 12
ND8407	12	671 15	2047 21	3393 12	2720 14	3207 16	1465 18	3614 14	2155 13
ND8215	10	681 11	2067 20	3183 17	2625 18	3363 15	2023 6	3875 8	2100 14
SD82144	4	704 9	2174 16	3131 20	2653 17	3761 11	1548 17	3558 15	2098 15
ND8212	9	622 21	2293 12	3135 19	2714 15	3127 17	1688 13	3325 20	2009 16
ID0301	25	748 3	2690 6	3669 7	3180 6	3927 9	2216 2	3775 10	1982 17
ID0180	24	711 7	2712 5	3866 4	3289 4	2653 20	1419 21	3507 18	1912 18
SD791231	8	575 25	1903 24	2863 22	2383 24	2685 19	1376 22	3557 16	1900 19
SD78207-4	7	607 22	2047 21	2864 21	2455 21	2488 21	1635 14	3955 6	1882 20
WT176	21	583 23	1849 25	3151 18	2500 19	2449 22	1426 20	4073 5	1856 21
CI17439	2	681 11	2085 17	2238 25	2161 25	2800 18	1554 16	2701 26	1851 22
ND8460	13	679 13	1562 26	3337 14	2450 22	1845 26	1298 24	3208 22	1772 23
WT179	23	666 17	2078 18	3288 16	2683 16	2386 23	1237 25	2758 24	1765 24
CI1442	1	662 19	1991 23	1750 26	1870 26	2317 24	1850 9	2743 25	1755 25
WT177	22	666 18	2069 19	2774 23	2422 23	2110 25	963 26	2982 23	1752 26
MEAN		673	2290	3320	2805	3393	1676	3675	2098
LSD(.05)		N.S.	427	625	743	930	N.S.	1296	254
C.V.		16.5	11.4	13.4	13.2	16.7	27.5	17.1	16.6

* Not included in state or regional averages.

Table 15. Summary of mean yields (kg/ha) and ranks of 26 wheats grown in the 1988 Northern Regional Performance Nursery at 11 central and northern locations from which a CV of less than 17.5 and a significant F test for entries were obtained.

C.I. OR SEL. NO.	: ENTRY: : NO. :	: LINCOLN : NEBRASKA :	: NORTH : PLATTE : NEBRASKA :	: ALLIANCE : NEBRASKA :	: ARCHER : WYOMING :	: WASECA : MINNESOTA :	: HIGHMORE : S. DAKOTA :
NE82438	15	3241 11	2255 10	4002 4	1578 12	2231 11	2189 6
NA-81-362-5	18	4282 1	2486 5	4364 1	1527 15	2581 5	2623 1
NE84581	17	3596 4	2873 1	3773 9	1809 4	2435 7	2296 4
NE83432	16	3728 3	2085 17	4163 2	1565 14	2846 1	2354 3
XNH1354	20	3232 12	2095 16	4031 3	1950 1	1769 19	1665 14
NE82656	14	3374 5	2798 2	3682 11	1596 11	1712 21	2588 2
MT8039	26	3141 13	2369 8	3977 6	1771 6	1939 16	1806 9
XH947	19	3867 2	2675 3	3982 5	1930 2	1692 24	2004 7
SD76463-16	5	3297 9	2496 4	3057 21	1766 7	2258 9	2190 5
SD82114	6	3347 7	2428 7	3082 20	1605 10	2718 3	1959 8
PI476975	3	3356 6	1973 20	3335 19	1861 3	1328 25	1752 11
ND8286	11	2867 18	2184 13	3353 16	1681 9	1974 15	1669 13
ND8407	12	3089 14	2118 15	3341 17	1511 17	2740 2	1759 10
ND8215	10	3266 10	1827 22	3588 13	1098 26	2568 6	1522 17
SD82144	4	3302 8	2158 14	3339 18	1775 5	1695 23	1728 12
ID0301	25	2262 24	1705 25	3948 7	1428 20	1275 26	1210 21
ID0180	24	2345 22	1671 26	3412 15	1491 18	2101 13	1090 24
ND8212	9	2235 25	2059 19	3600 12	1441 19	2604 4	1396 19
SD791231	8	2955 15	2232 11	3707 10	1527 15	1751 20	1657 15
SD78207-4	7	2930 16	2443 6	3055 22	1199 22	2179 12	1351 20
WT176	21	2291 23	1788 23	3472 14	1128 25	1842 17	1074 25
ND8460	13	2878 17	2307 9	2999 24	1296 21	1704 22	1533 16
CI17439	2	2486 20	2208 12	3827 8	1574 13	2060 14	1121 22
WT179	23	2441 21	1723 24	2863 26	1199 22	2344 8	1105 23
WT177	22	2215 26	1961 21	3026 23	1175 24	2252 10	855 26
CI1442	1	2573 19	2066 18	2961 25	1704 8	1822 18	1465 18
MEAN		3023	2192	3536	1546	2093	1691
LSD(.05)		489	403	650	422	574	428
C.V.		9.9	11.2	11.2	16.6	16.7	15.4

Table 15. Concluded.

C.I. OR SEL. NO.	: ENTRY: NO.	: MOCCASIN MONTANA	: BOZEMAN MONTANA	: ABERDEEN IDAHO	: LIND WASHINGTON	: WILLISTON N. DAKOTA	: REGIONAL AVERAGE	:
NE82438	15	2549 7	4049 3	5536 1	1731 12	619 10	2725 1	:
NA-81-362-5	18	2396 8	3743 6	3437 19	1536 21	778 1	2705 2	:
NE84581	17	2726 4	3380 13	3837 9	2165 1	730 2	2693 3	:
NE83432	16	2271 15	4408 1	4142 3	1301 25	678 4	2685 4	:
XNH1354	20	2831 1	3778 5	5050 2	1910 5	629 7	2631 5	:
NE82656	14	2809 2	3321 15	3724 11	1722 14	620 8	2541 6	:
MT8039	26	2791 3	3447 10	3680 12	1834 7	483 23	2476 7	:
XH947	19	2271 14	2685 24	3650 13	1831 8	543 15	2466 8	:
SD76463-16	5	2392 9	3614 9	3286 21	1679 16	718 3	2432 9	:
SD82114	6	2311 11	3426 11	3541 17	1598 19	620 9	2421 10	:
PI476975	3	2336 10	4170 2	3914 7	1789 10	666 5	2407 11	:
ND8286	11	2291 13	3648 8	4128 4	2040 3	602 11	2403 12	:
ND8407	12	2047 21	3393 12	3614 14	1796 9	530 19	2358 13	:
ND8215	10	2067 20	3183 17	3875 8	2056 2	536 16	2326 14	:
SD82144	4	2174 16	3131 20	3558 15	1654 17	518 21	2276 15	:
ID0301	25	2690 6	3669 7	3775 10	1928 4	636 6	2229 16	:
ID0180	24	2712 5	3866 4	3507 18	1706 15	555 14	2223 17	:
ND8212	9	2293 12	3135 19	3325 20	1784 11	535 18	2219 18	:
SD791231	8	1903 24	2863 22	3557 16	1515 23	602 11	2206 19	:
SD78207-4	7	2047 21	2864 21	3955 6	800 26	536 17	2124 20	:
WT176	21	1849 25	3151 18	4073 5	1870 6	410 25	2086 21	:
ND8460	13	1562 26	3337 14	3208 22	1329 24	558 13	2065 22	:
CI17439	2	2085 17	2238 25	2701 26	1726 13	523 20	2050 23	:
WT179	23	2078 18	3288 16	2758 24	1594 20	440 24	1985 24	:
WT177	22	2069 19	2774 23	2982 23	1533 22	409 26	1932 25	:
CI1442	1	1991 23	1750 26	2743 25	1650 18	484 22	1928 26	:
MEAN		2290	3320	3675	1695	575	2330	:
LSD(.05)		427	625	1296	289	57	299	:
C.V.		11.4	13.4	17.1	10.4	7.1	14.0	:

Table 16. Summary of mean yields (kg/ha) and ranks for 20 wheats grown in the Northern Regional Performance Nursery at 19 locations in 1987 and 1988 with state means and ranks.

VARIETY OR PEDIGREE	: : C.I. OR : SEL. NO.	: : ENTRY: : NO. :	: : LINCOLN : NEBRASKA	: : NORTH : PLATTE : NEBRASKA	: : ALLIANCE : NEBRASKA	: : NEBRASKA : STATE MEAN :
OK11252A/W76-1226 (Abilene)	NA-81-362-5	18	3704 1	2944 5	4789 1	3812 1
Brule/3/Parker*4/Agent//Belot.198/Lcr	NE82656	14	2549 11	3591 1	4285 3	3475 2
Lancota/Froid//NE69559/Wnk	MT8039	26	2465 12	3054 2	4456 2	3325 3
HiPlains/Wings/3/Pkr*4/Agnt//Bel.198/Lcr	NE82438	15	2584 9	2997 4	4159 4	3246 4
Colt	PI476975	3	2708 6	3008 3	3931 5	3216 5
Rrr*2/1809	ND8286	11	2563 10	2858 10	3855 6	3092 7
CI15322//3*(Agent/4*Scout66)	SD76463-16	5	2771 5	2904 7	3347 15	3007 10
CI15322//Aga/4*Sut 66/3/Ctk 78/4/SD74221	SD82144	4	2689 7	2892 8	3467 13	3016 9
SD74221*2/Lathrop	SD82114	6	2858 2	2937 6	3630 10	3142 6
Turkey/Burt//Bezostaya 1	ID0180	24	1945 20	2584 12	3822 7	2784 14
Rrr/3/Froid//Winoka/WW8	ND8215	10	2819 4	2264 19	3499 11	2860 13
Rrr//Yogo/Trapper	ND8212	9	2279 14	2451 16	3449 14	2726 17
Kharkov 22 MC/Bezostaya 1	WT176	21	2161 16	2521 13	3497 12	2727 16
SD76109/Rose	SD78207-4	7	2461 13	2863 9	3335 17	2886 11
Ctk/3/Froid*2//ND363/ND269	ND8407	12	2831 3	2455 15	3340 16	2875 12
SD76669*2/KS71591	SD791231	8	2637 8	2774 11	3754 8	3055 8
Roughrider	CI17439	2	2139 17	2509 14	3667 9	2771 15
Norstar/Rrr	WT179	23	2019 19	2363 18	3144 18	2509 19
Norstar/Rrr	WT177	22	2054 18	2256 20	2847 20	2386 20
Kharkof	CI1442	1	2251 15	2376 17	2917 19	2515 18
	MEAN		2524	2730	3660	2971
	LSD(.05)		626	637	793	438
	C.V.		11.1	11.7	11.8	11.8

Table 16. Continued.

	:	:	:	:	SOUTH	:	:	:	:	NORTH	:					
C.I. OR	:	ENTRY:	PRESHO	:	HIGHMORE	:	DAKOTA	:	WILLISTON	:	CASSELTON	:	CARRINGTON	:	DAKOTA	:
SEL. NO.	:	NO.	S. DAKOTA	:	S. DAKOTA	:	STATE MEAN	:	N. DAKOTA	:	N. DAKOTA	:	N. DAKOTA	:	STATE MEAN	:
NA-81-362-5	18	2446	3	3382	1	2914	2	1358	1	3259	2	1401	17	2006	4	
NE82656	14	2688	1	3184	2	2936	1	1351	3	2916	6	1815	2	2027	3	
MT8039	26	2540	2	2693	5	2617	4	1200	6	2405	20	1456	13	1687	19	
NE82438	15	2233	7	2780	4	2507	5	1142	12	3583	1	1492	12	2073	1	
PI476975	3	2255	6	2424	11	2339	8	1146	11	2942	5	1152	20	1747	14	
ND8286	11	2163	11	2584	7	2373	7	1193	7	3116	3	1835	1	2048	2	
SD76463-16	5	2349	5	2928	3	2639	3	1352	2	2698	11	1541	11	1864	7	
SD82144	4	2127	12	2480	9	2303	9	1140	13	3021	4	1401	18	1854	8	
SD82114	6	2191	10	2666	6	2428	6	1231	4	2640	13	1439	15	1770	12	
ID0180	24	1918	18	1995	19	1956	18	1151	8	2639	14	1659	6	1816	10	
ND8215	10	2070	15	2434	10	2252	12	1147	10	2901	8	1774	3	1940	5	
ND8212	9	2216	8	2364	12	2290	10	1111	14	2902	7	1766	4	1926	6	
WT176	21	2410	4	2080	17	2245	13	1088	17	2487	19	1596	8	1724	18	
SD78207-4	7	2087	13	2252	13	2169	15	1102	16	2671	12	1439	16	1738	15	
ND8407	12	2072	14	2492	8	2282	11	1210	5	2488	18	1575	9	1758	13	
SD791231	8	2210	9	2213	14	2211	14	1084	18	2568	16	1283	19	1645	20	
CI117439	2	1742	20	2058	18	1900	19	1150	9	2715	10	1630	7	1832	9	
WT179	23	1947	17	2087	16	2017	17	1059	19	2604	15	1545	10	1736	16	
WT177	22	1788	19	1954	20	1871	20	1028	20	2723	9	1449	14	1733	17	
CI1442	1	1975	16	2205	15	2090	16	1103	15	2500	17	1742	5	1782	11	
MEAN		2171		2463		2317		1167		2789		1550		1835		
LSD(.05)		446		454		520		N.S.		N.S.		N.S.		N.S.		
C.V.		12.2		10.1		11.1		7.2		15.9		27.6		18.9		

Table 16. Continued.

C.I. OR SEL. NO.	: ENTRY: NO.	: ARCHER WYOMING	: SHERIDAN WYOMING	: WYOMING STATE MEAN	: MOCCASIN MONTANA	: SIDNEY* MONTANA	: BOZEMAN MONTANA	: MONTANA STATE MEAN	:
NA-81-362-5	18	2140 4	2633 2	2387 2	2922 15	1918 3	3746 13	3334 12	
NE82656	14	2183 1	2247 10	2215 8	2951 14	1822 12	4026 7	3489 11	
MT8039	26	2106 6	2195 12	2151 9	3639 2	1995 2	4495 2	4067 2	
NE82438	15	1741 18	2094 13	1918 15	3623 3	1895 4	4166 5	3895 3	
PI476975	3	2181 2	2381 7	2281 4	2890 16	1879 6	4326 3	3608 7	
ND8286	11	1912 14	1868 17	1890 16	3607 4	1810 13	4112 6	3860 4	
SD76463-16	5	2096 7	2450 5	2273 5	3152 10	1867 8	4214 4	3683 5	
SD82144	4	2140 5	2747 1	2443 1	3082 12	1807 14	3521 15	3301 13	
SD82114	6	1745 16	1771 19	1758 20	2758 17	1617 19	3760 11	3259 14	
ID0180	24	2155 3	2550 3	2352 3	4125 1	1871 7	4512 1	4319 1	
ND8215	10	1785 15	2271 9	2028 11	3318 6	1859 9	3949 8	3634 6	
ND8212	9	1982 12	2526 4	2254 6	3351 5	1839 11	3749 12	3550 10	
WT176	21	1623 20	2380 8	2002 13	3269 7	2021 1	3851 10	3560 8	
SD78207-4	7	2067 8	1967 16	2017 12	3035 13	1762 15	3410 16	3222 15	
ND8407	12	2028 9	2438 6	2233 7	2647 19	1891 5	3596 14	3121 18	
SD791231	8	1945 13	1577 20	1761 19	2530 20	1478 20	3367 17	2948 19	
CI17439	2	2007 11	1849 18	1928 14	3127 11	1851 10	3275 18	3201 16	
WT179	23	1662 19	2061 14	1862 18	3190 9	1760 16	3927 9	3558 9	
WT177	22	1742 17	2032 15	1887 17	3215 8	1664 18	3145 19	3180 17	
CI1442	1	2016 10	2214 11	2115 10	2706 18	1698 17	2523 20	2614 20	
MEAN		1963	2210	2087	3157	1815	3784	3470	
LSD(.05)		N.S.	N.S.	N.S.	N.S.	N.S.	838	783	
C.V.		17.1	25.1	21.9	9.3	12.3	11.5	10.9	

* Not included in state or regional averages.

Table 16. Concluded.

C.I. OR SEL. NO.	: :ENTRY: : NO.	: CLOVIS (IRR.) : NEW MEXICO	: CLOVIS (DRYL.)* : NEW MEXICO	: : WASECA : MINNESOTA	: : ROSEMOUNT* : MINNESOTA	: : ABERDEEN : IDAHO	: : LIND* : WASHINGTON	: : REGIONAL : AVERAGE	: :
NA-81-362-5	18	5195 3	3063 3	2613 3	1991 9	5048 8	1188 19	3172 1	
NE82656	14	5273 2	2817 7	2077 16	2058 5	5091 6	1326 17	3082 2	
MT8039	26	4994 5	2832 6	2354 11	2476 1	5670 2	1486 11	3048 3	
NE82438	15	3613 16	2123 19	2602 4	2081 4	6210 1	1246 18	3001 4	
PI476975	3	4712 6	2721 10	1988 17	2131 2	5308 4	1372 16	2890 5	
ND8286	11	3964 13	2511 15	2367 10	2123 3	5120 5	1700 4	2875 6	
SD76463-16	5	4488 8	3135 2	2513 7	2048 6	3949 15	1663 5	2850 7	
SD82144	4	5135 4	2986 5	1879 19	1854 13	4935 11	1546 9	2844 8	
SD82114	6	5279 1	3162 1	2515 6	2022 7	5050 7	1379 15	2831 9	
ID0180	24	3401 17	2630 12	2328 12	1610 16	5383 3	1471 12	2811 10	
ND8215	10	4559 7	3033 4	2620 2	1937 10	4592 12	1745 2	2800 11	
ND8212	9	4115 11	2730 9	2727 1	1874 11	4428 13	1575 8	2761 12	
WT176	21	4148 10	2589 14	2228 14	1360 20	4935 10	1763 1	2685 13	
SD78207-4	7	3797 14	2188 18	2215 15	1864 12	4947 9	855 20	2643 14	
ND8407	12	4035 12	2628 13	2589 5	1661 15	3806 17	1652 6	2640 15	
SD791231	8	4156 9	2476 17	1963 18	1843 14	4248 14	1431 13	2554 16	
CI17439	2	3750 15	2770 8	2321 13	2021 8	3919 16	1727 3	2524 17	
WT179	23	3344 18	2501 16	2409 8	1402 19	3630 19	1540 10	2466 18	
WT177	22	3028 20	2092 20	2371 9	1545 17	3761 18	1382 14	2359 19	
CI1442	1	3097 19	2656 11	1828 20	1502 18	3606 20	1580 7	2337 20	
MEAN		4204	2682	2325	1870	4682	1483	2759	
LSD(.05)		1305	N.S.	N.S.	392	1889	448	310	
C.V.		11.0	18.5	12.5	22.4	13.7	13.6	13.8	

* Not included in state or regional averages.

Table 17. Mean yield, regression coefficient, correlation coefficient, and coefficient of determination from linear regression analysis of variety mean yield on nursery mean yield for the 26 entries in the 1988 Northern Regional Performance Nursery grown at 17 locations.

C.I. OR SEL. NO.	: ENTRY: NO.	: MEAN YIELD : OVER 17 : LOCATIONS : KG/HA :	: REGRESSION : COEFFICIENT : (b) :	: CORRELATION : COEFFICIENT : (r) :	: COEFFICIENT : OF : DETERMINATION : (r ²) :
NE82438	15	2475	1.24	0.96	0.92
NE83432	16	2472	1.20	0.96	0.93
NA-81-362-5	18	2467	1.16	0.94	0.88
XNH1354	20	2412	1.29	0.96	0.93
NE84581	17	2380	1.01	0.97	0.95
NE82656	14	2356	1.00	0.95	0.91
PI476975	3	2243	1.15	0.95	0.90
MT8039	26	2223	1.19	0.95	0.91
SD76463-16	5	2202	0.92	0.97	0.94
SD82114	6	2198	1.09	0.95	0.90
XH947	19	2183	1.18	0.92	0.85
ND8286	11	2157	1.01	0.97	0.95
ND8407	12	2155	0.94	0.97	0.95
ND8215	10	2100	1.03	0.97	0.94
SD82144	4	2098	1.01	0.97	0.95
ND8212	9	2009	0.89	0.95	0.91
ID0301	25	1982	1.12	0.91	0.84
ID0180	24	1912	0.96	0.92	0.84
SD791231	8	1900	0.97	0.97	0.94
SD78207-4	7	1882	0.94	0.94	0.88
WT176	21	1856	0.94	0.94	0.88
CI17439	2	1851	0.80	0.91	0.82
ND8460	13	1772	0.83	0.91	0.84
WT179	23	1765	0.78	0.94	0.89
CI1442	1	1755	0.62	0.92	0.84
WT177	22	1752	0.74	0.90	0.81

Table 18. Mean yield, regression coefficient, correlation coefficient, and coefficient of determination from linear regression analysis of variety mean yield on nursery mean yield for the 20 entries in the 1987 and 1988 Northern Regional Performance Nursery grown at 15 locations.

C.I. OR SEL. NO.	: ENTRY: NO. :	: MEAN YIELD : OVER 15 : LOCATIONS : KG/HA :	: REGRESSION : COEFFICIENT : (b) :	: CORRELATION : COEFFICIENT : (r) :	: COEFFICIENT : OF : DETERMINATION : (r ²) :
NA-81-362-5	18	3172	1.12	0.94	0.88
NE82656	14	3082	1.09	0.95	0.89
MT8039	26	3048	1.26	0.97	0.93
NE82438	15	3001	1.06	0.91	0.83
PI476975	3	2890	1.09	0.95	0.91
ND8286	11	2875	1.04	0.97	0.95
SD76463-16	5	2850	0.90	0.97	0.93
SD82144	4	2844	1.10	0.97	0.94
SD82114	6	2831	1.07	0.95	0.91
ID0180	24	2811	1.17	0.94	0.88
ND8215	10	2800	1.03	0.97	0.95
ND8212	9	2761	0.95	0.97	0.94
WT176	21	2685	1.09	0.97	0.94
SD78207-4	7	2643	0.99	0.98	0.95
ND8407	12	2640	0.75	0.94	0.89
SD791231	8	2554	0.95	0.97	0.93
CI17439	2	2524	0.91	0.96	0.92
WT179	23	2466	0.89	0.96	0.92
WT177	22	2359	0.80	0.94	0.89
CI1442	1	2337	0.71	0.95	0.90

Table 19. Summary of agronomic and yield data for 26 wheats in the 1988 Northern Regional Performance Nursery.

C.I. OR SEL. NO.	: ENTRY: NO. :	PLANT HEIGHT : CM :	LODGING : 0-5 :	STRAW : STRENGTH : 1-5 :	DAYS TO HEADING : FROM 1/1:	DAYS TO RIPENING: FROM 1/1:	WINTER SURVIVAL : %	LEAF RUST: SEVERITY : %	STEM RUST: SEVERITY : %	BYD VIRUS : 0-9 :	VOLUME WEIGHT : KG/HL :	YIELD : KG/HA :
NUMBER OF LOCATIONS	18	2	1	18	1	2	2	1	1	19	17	
NE82438	15	64	0	2	151	191	93	7	5	2	72.3	2475
NE83432	16	64	1	3	151	188	87	7	60	4	73.7	2472
NA-81-362-5	18	60	1	1	149	183	63	5	50	2	75.4	2467
XNH1354	20	65	0	2	152	189	80	23	90	6	73.3	2412
NE84581	17	65	1	2	151	184	79	1	5	2	73.3	2380
NE82656	14	67	1	3	150	185	89	5	5	3	72.7	2356
PI476975	3	59	1	2	149	184	74	16	1	2	73	2243
MT8039	26	70	0	3	151	186	55	20	10	2	70.2	2223
SD76463-16	5	72	2	3	151	185	76	5	50	2	74.2	2202
SD82114	6	68	2	3	150	185	81	6	10	2	73.8	2198
XH947	19	64	1	2	150	185	58	8	50	2	71.3	2183
ND8286	11	71	1	3	153	187	98	9	10	1	72.6	2157
ND8407	12	75	1	3	152	188	93	4	5	1	72	2155
ND8215	10	74	1	2	153	187	84	3	5	2	69.7	2100
SD82144	4	70	1	3	150	182	92	9	1	2	72.9	2098
ND8212	9	71	1	2	154	186	94	22	1	2	69.5	2009
ID0301	25	63	1	3	153	188	54	14	90	7	71.6	1982
ID0180	24	66	1	3	155	188	66	14	90	3	70.8	1912
SD791231	8	69	1	3	152	187	80	5	10	4	73.8	1900
SD78207-4	7	68	1	3	152	191	90	3	20	3	73.9	1882
WT176	21	73	2	4	155	189	77	6	90	2	70.7	1856
CI17439	2	72	1	3	153	185	98	10	10	1	73	1851
ND8460	13	75	1	3	153	188	74	2	10	2	73.6	1772
WT179	23	71	1	3	155	189	83	6	10	2	71.9	1765
CI1442	1	76	4	4	153	187	76	13	30	3	73.7	1755
WT177	22	72	2	4	154	190	83	7	10	2	72.5	1752

Table 20. Seedling reaction of entries of the 1988 Northern Regional Performance Nursery to selected isolates of *Puccinia graminis* f.sp. *tritici* (by D. V. McVey, U.S.D.A., A.R.S., Cereal Rust Laboratory, U. of MN, St. Paul, MN).

No.	Name or sel. no.	Reaction produced by isolates							Spec. sr gene
		72-00-1370C QFBS	69-21-399 QSHS	71-21-584B RHRS	72-25-639C RKQS	72-00-53A RTQQ	72-01-4A TNMH	74-21-1409A TNMK	
		151		11-32-113			15B-2		
1	Kharkof	s	s	s	s	s	s	s	none
2	Roughrider	;	0	s	s	s	x	x	36
3	Colt	;	2	2	2-	;1-n	;	;	6,17,8,9a,11
4	SD82144	23	2	23	s	;1n+,s	;;s	s	Seg.17,+
5	SD76463-16	2	2-	2=	2-	;	;	2=	17,24
6	SD82114	2,;	23	23	2	;1+n	;;s	2,;;s	10,Seg.6 +
7	SD78207-4	;	;;s	2-	--	;	;;s	s	8,17,36
8	SD791231	;1	2=	;2-	;1	;;2-	2-;;	;;2	Seg.6&17 +
9	ND8212	;	;	2	23	32	;	;	6,36,+
10	ND8215	;;s	23	23	23	32	;	;	6,+
11	ND8286	;1	0	2-	;1	23	x	x	36,+
12	ND8407	;	2	2	s	;1n	;	;	7b,8,6,17,+
13	ND8460	;	0	;	;1	2=	;;2-	;;2=	11,36,Seg.6
14	NE82656	;	1cn	2=	2-	;	;	;	6,17,24
15	NE82438	;	2=	;1-	;1-	2=	;	;	6,24
16	NE83432	;1	2=	;1-	2=	2=	2=,s	2=	24 &/or 31
17	NE84581	;	s	2	;1n	;1-n	;	;	6,8,10,17
18	NA-81-362-5	;1	2=	;1	2=	2=	2	2	+
19	XH947	;;s	2-,s	s	2,s	2,s	;1,s	x,s	Seg.6,+
20	XNH1354	s	s	s	s	s	s	s	none
21	WT176	s	s	s	s	s	s	s	none
22	WT177	1	0	23	x-	s	s	s	36
23	WT179	s,;1	0,s	s	x	x	s	s	Seg.36
24	ID0180	2	2=	2	2	2-	s	s	Tmp
25	ID0301	12n	s	s	;1n	;1n	s	s	Sr 10
26	MT8039	s	s	s	s	s	s	s	none

n = necrosis

NA-81-362-5 = Abilene

Table 21. Adult plant field reaction of entries of the 1988 Northern Regional Performance Nursery to Puccinia graminis f.sp. tritici (by D. V. McVey, U.S.D.A., A.R.S., Cereal Rust Laboratory, U. of MN, St. Paul, MN).

No.	Name or sel. no.	Stem rust	
		6/22	7/1
1	Kharkof	TS	30S
2	Roughrider	0	TS
3	Colt	0	20MS
4	SD82144	0	5MR
5	SD76463-16	0	0
6	SD82114	0	0
7	SD78207-4	0	10MR-MS
8	SD791231	0	20MS
9	ND8212	0	TMR
10	ND8215	0	10MS-S
11	ND8286	0	TMR
12	ND8407	0	10MS
13	ND8460	0	TR
14	NE82656	0	TR
15	NE82438	0	10MR
16	NE83432	0	30MR-MS
17	NE84581	0	0
18	NA-81-362-5	TR	TR
19	XH947	0	TR
20	XNH1354	30S	60S
21	WT176	30S	40S
22	WT177	TS	TS
23	WT179	0	TR
24	ID0180	TS	40S
25	ID0301	20S	60S
26	MT8039	20S	30S

Table 22. Hessian fly reaction, Great Plains biotype,
1988 Northern Regional Performance Nursery.
(Data provided by J. H. Hatchett, USDA-ARS,
Manhattan, KS.)

ENTRY NO.	C.I. OR SEL. NO.	REACTION TYPE	NO. OF PLANTS	
			R	S
1	CI1442	H	5	19
2	CI17439	H	4	21
3	PI476975	H	19	5
4	SD82144	S		
5	SD76463-16	S		
6	SD82114	H	6	17
7	SD78207-4	S		
8	SD791231	H	5	18
9	ND8212	S		
10	ND8215	S		
11	ND8286	H	15	12
12	ND8407	H	15	15
13	ND8460	S		
14	NE82656	H	25	4
15	NE82438	H	18	5
16	NE83432	S		
17	NE84581	S		
18	NA-81-362-5	S		
19	XH947	S		
20	XNH1354	S		
21	WT176	S		
22	WT177	R		
23	WT179	S		
24	ID0180	S		
25	ID0301	S		
26	MT8039	S		

Table 23. Virus reactions of entries in the 1988 Northern Regional Performance Nursery. (Data provided by A. D. Hewings and F. L. Kolb, Urbana, Illinois.)

ENTRY NO.	C.I. OR SEL. NO.	: BARLEY YELLOW : SOILBORNE : : DWARF : MOSAIC : : 0-9 : 0-9 :		
			Rep 1	Rep 2
1	CI1442	4	7	7
2	CI17439	5	7	7
3	PI476975	2	6	7
4	SD82144	2	8	8
5	SD76463-16	6	8	8
6	SD82114	4	8	9
7	SD78207-4	7	6	7
8	SD791231	7	6	7
9	ND8212	3	7	7
10	ND8215	7	8	8
11	ND8286	6	8	7
12	ND8407	4	8	7
13	ND8460	6	3	3
14	NE82656	7	6	7
15	NE82438	6	5	6
16	NE83432	6	8	8
17	NE84581	3	4	5
18	NA-81-362-5	6	3	3
19	XH947	4	7	7
20	XNH1354	7	6	7
21	WT176	3	6	5
22	WT177	5	7	8
23	WT179	7	7	7
24	ID0180	3	8	8
25	ID0301	8	7	8
26	MT8039	6	3	4

Table 24. Aluminum tolerance of lines tested in the 1988 NRPN based on hematoxylin staining of seedling roots. (Data provided by B. F. Carver, Stillwater, OK)

Entry No.	Selection No.	Stain Intensity ^a			Rating ^b
		Al Concentration (mM)			
		0.18	0.36	0.72	
1	Kharkof	C/P	C	C	VS-MS*
2	Roughrider	C	C	C	VS
3	Colt	P	C	C	MS
4	SD82144	P/C	C/P	C	VS-I*
5	SD76463-16	C/P	C	C	VS-MS*
6	SD82114	C/P/N	C/P	C/P	VS-T*
7	SD78207-A	C	C	C	VS
8	SD791231	C/P	C/P	C	VS-I*
9	ND8212	C	C	C	VS
10	ND8215	C	C	C	VS
11	ND8286	C	C	C	VS
12	ND8407	N	P	P	T
13	ND8460	C	C	C	VS
14	NE82656	P	C	C	MS
15	NE82438	C/P	C	C	VS-MS*
16	NE83432	P	C	C	MS
17	NE84581	P	P	C	I
18	NA-81-362-5	P	P/C	C	MS-I*
19	XH947	C/P	C/P	C	VS-I*
20	XNH1354	C	C	C	VS
21	WT176	N	P	P/C	I-T*
22	WT177	N	N	P	T
23	WT179	N/C	C/P	C/P	VS-T*
24	ID0180	N	P	P/C	I-T*
25	ID0301	C	C	C	VS
26	MT8039	P	P	C	I

^aC, P, and N = complete, partial, and no staining of root tips, respectively.

^bVS = 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.

QUALITY DATA

Composites of 1-lb samples of each SRPN and NRPN entry from each harvested nursery site are evaluated at the Hard Red Winter Wheat Quality Laboratory at Manhattan, Kansas. Results are reported to cooperators by the laboratory and are not included in this report.

UNIFORM WINTERHARDINESS NURSERIES

The nurseries are comprised of Southern and Northern Materials Sections. In 1988 the Southern Section contained 141 entries and the Northern Section 114 entries. Nursery lists and survival data from test sites at which differential winter survival occurred appear in the tabulations that follow.

SOIL-BORNE MOSAIC NURSERY

The nursery contained 99 entries in 1988. Infection data were reported from Urbana, IL, Lincoln, NE and Manhattan, KS. The nursery list and reaction data are included herein.

1988
Uniform Winterhardness Nursery
Southern Section

<u>Entry No.</u>	<u>Variety or Pedigree</u>	<u>Se1. No.</u>	<u>Source</u>
1	Warrior	CI13190	Check
2	HiPlains/Wings/3/Parker*4/Agent//Belot.198/Lcr	NE82438	Nebraska
3	CIMMYT/Scout//Agate/Sage Sib	NE82533	"
4	Brule/3/Parker*4/Agent//Belot.198/Lcr	NE82656	"
5	CIMMYT/Scout//Bennett Sib/4/Parker 4*/Agent// Belot.198/Lcr/3/Bez 1/Ctk 78	NE83404	"
6	" "	NE83406	"
7	" "	NE83407	"
8	Wrr*5/Agent//Kavkaz/4/Parker*4/Agent// Belot.198/Lcr/3/Vona	NE83498	"
9	Wrr/Sut//MoW6811/3/Agate Sib/4/NE68457/Ctk78	NE84557	"
10	Scout 66	CI13996	Check
11	Bez 1/Ctk78//Arthur/Ctk78/3/Bennett	NE84581	Nebraska
12	(FNT/MI/Hope)//Pnc/2*Cnn/3/Pnc/3*Cnn/4/ Pnc/2*Cnn//ILL#1-CNS-TT1/Sando60/5/Vona/6/ Wrr*5/Agent//Kavkaz	NE83432	"
13	78GH1051 x Mara/2*Sut//Sentinel (NE74649)	NE85556	"
14	84MC22	NE85623	"
15	Wrr*5/Agent//Kavkaz NE77637xNE63218//Ky58/ Nth/2*(CTMH) (NE61983)//Pnc/2*Cnn	NE85707	"
16	Wrr*5/Agent//NE69441 NE76667xNewton	NE86482	"
17	Colt/3/Wrr*5/Agent//Kavkaz	NE86487	"
18	" "	NE86488	"
19	" "	NE86494	"
20	Vona	CI17441	Check
21	Colt/Cody	NE86499	Nebraska
22	"	NE86501	"
23	"	NE86502	"
24	"	NE86503	"
25	"	NE86507	"
26	"	NE86509	"
27	Colt Sib NE78697/3/Wrr*5/Agent//Kavkaz	NE86527	"
28	Colt/Cody	NE86582	"
29	Colt//Bez 1/Ctk78//Arthur/Ctk78	NE86592	"
30	Warrior	CI13190	Check
31	Wrr/Sut//MoW6811//Agate Sib NE77615//Cody	NE86606	Nebraska
32	" "	NE86607	"
33	CLLF/Sturdy/3/Diba/Diga//Suwon92/CI13645 /4/NE7060	NE87U101	"
34	6TA131/Dwf Sel 6TA131//Fain Tc1 Sel/Ctk78	NE83T12	"
35	Fain Tc1/Ctk78 x Ctk78/6A35/NE69150 x TxTc1#50 //NE69150/S-339//TxTc1#50 x NE69150 x Tc1 6TA876	NE86T666	"
36	H15A13333/3/5*Larned/Eagle//Sage/4/TAM105	KS87H6	Kansas (Hays)
37	" "	KS87H15	"
38	" "	KS87H22	"
39	" "	KS87H57	"
40	Scout 66	CI13996	Check

41	H15A13333/3/5*Larned/Eagle//Sage/4/TAM105	KS87H58	Kansas (Hays)
42	GHP2 X211	KS87H63	"
43	"	KS87H64	"
44	"	KS87H65	"
45	"	KS87H66	"
46	"	KS87H67	"
47	H15A13333/3/5*Larned/Eagle//Sage/4/Dodge sib	KS87H264	"
48	Agent/Tascosa//Sturdy	TX71D4876-V5	Texas (Dallas)
49	Amigo/TX71A106-5	TX82D4751	"
50	Vona	CI17441	Check
51	TX75D3165/Amigo	TX84D1265	Texas (Dallas)
52	Victory//Payne/Len	TX86D1305	"
53	Thunderbird//Norseman/Collin	TX86D1308	"
54	Thunderbird//Payne/Collin	TX86D1310	"
55	TX71C8130-R/Veery #4	TX86D1613	"
56	Bulk Selection	Thunderbird	NAPB
57	OK11252A/W79-1226	Abilene	"
58	Experimental Line	XW163	Pioneer
59	"	HBV261B	"
60	Warrior	CI13190	Check
61	Experimental Line	HBV756A	Pioneer
62	"	HBV762A	"
63	"	HBV383A	"
64	"	HBV385D	"
65	Kharkof	CI1442	Check
66	Scout 66	CI13996	"
67	TAM-105	CI17826	"
68	Aurora/2*TAM W-101	OK84343	Oklahoma
69	Payne*2/C0725052	OK84286	"
70	Scout 66	CI13996	Check
71	" "	OK84287	Oklahoma
72	Hawk/OK80099	OK86197	"
73	OK79257/Century Sib/2/Chisholm	OK86215	"
74	TAM W-101*4/Amigo*4//Largo	TXGH10989	Texas
75	Sturdy*3/Amigo	TX81V6582-2	"
76	TAM-105*4/Amigo*4//Largo	TXGH10563B	"
77	KS73146/TX71A1039	TX84V1336	"
78	TX71A562-6*4/Amigo*4//Largo	TXGH13622	"
79	TX71A374-4/TX71A1039-V1	TX84V1317	"
80	Vona	CI17441	Check
81	TX71A1039-V1*3/Amigo	TX81V6607-2	Texas
82	TAM-106 resel./TX69D4819	TX84V1736	"
83	TAM-108/Arkan	TX86A7041	"
84	Rannaya/NE701136//CI13449/Ctk	TX86V1109	"
85	" "	TX86V1110	"
86	74F878/Wings//Vona	C082009	Colorado
87	74cb462/Trapper//Vona	C0830027	"
88	C05926//7C/Tobari 63/3/Baca	C0830034	"
89	74cb452/Vona//Baca	C0830014	"
90	Warrior	CI13190	Check

91	Bison/Sterling//3*Scout/3/Eagle/4/ Pinnacle/2*Eagle	KS84HW196	Kansas
92	Bulk Selection	KS82C2338	"
93	KS73167/Agate//Sage sib	NE82533	Nebraska
94	Wrr/Sut//Mow6811/3/Agate Sib/4/NE68457/Ctk78	NE84557	"
95	CIMMYT/Scout//Bennett Sib/4/Parker*4/Agent //Belot.198/Lcr/3/Bez 1/Ctk78	NE83407	"
96	Brule/3/Parker*4/Agent//Belot.198/Lcr	NE82656	"
97	Winter Wheat Line	RL844677	Rohm & Haas
98	Winter Wheat Line	RL845472	"
99	HRW Selection	AGC-112	Seed Research
100	Scout 66	CI13996	Check
101	" "	AGC-113	Seed Research
102	Bezostaya/TAM W-101//W558	XW141	Pioneer
103	TAM W-101/W603//W558	XW161	"
104	Winter Wheat Hybrid	XH675	HybriTech
105	" "	XH685	"
106	Bounty Hybrid Wheat	Bounty-122	Cargill
107	" "	WH180001	"
108	W79-227/Payne	NA-W84-229	NAPB
109	Payne/W78-069	NA-W83-256	"
110	Vona	CI17441	Check
111	OK11252A/W79-1226	NA-W81-162-W	NAPB
112	IL77-4259/IL76-3845	IL83-7439	Illinois
113	TX69A330/IL76-3820	IL80-1251	"
114	CHA Hybrid Mustang/3/T-105*4/Amigo*4//Largo, TXGH10289	TX87HA1	Texas
115	(7C-CNO/Cal.)/Baca//Vona	C0820026	Colorado
116	74F878/Wings//Vona	C0820009	"
117	74CB452/Vona//Baca	C0830014	"
118	74cb462/Trapper//Vona	C0830027	"
119	Mir.808/Vona	C0840015	"
120	Warrior	CI13190	Check
121	Mir.808/Vona	C0840016	Colorado
122	"	C0840032	"
123	Newton/Baca//Vona	C0840050	"
124	Newton/Baca//Newton	C0840062	"
125	(CLLF2/Pch)/Vona//Tpr	C0840111	"
126	Emy/Ctk//Sandy/3/Vona	C0840136	"
127	NS14/NS603//Nwt/3/PB835	C0850034	"
128	NS14/NS25//2*Vona	C0850060	"
129	Buck Buck "s"/NA434//Vona	C0850104	"
130	Scout 66	CI13996	Check
131	F51/F71//77F50362/3/Vona	C0850166	Colorado
132	Bez 1/Sava//Ctk/3/C0710125	C0850202	"
133	NS14/NS83//Tpr/3/Vona	C0850213	"
134	Buck Buck "s"/Ctk//Vona	C0850246	"
135	F16/F71//Nwt/3/Vona	C0850260	"
136	Kal/Bb//Cj71"s"/3/Hork "s"/4/77F50362/5/Vona	C0850267	"
137	Veery "s"/Vona//Pb835	C0850273	"
138	Siouxland Composite	TXSXL	Texas
139	Siouxland	SXL	Nebraska
140	Winter Wheat Line	RH7846	Rohm & Haas
141	Vona	CI17441	Check

1988 Uniform Winterhardiness Nursery
Southern Section

Entry	Casselton, ND		Highmore, SD		St. Paul, MN		Mead, NE	
	Rep 1	Rep 2	Rep 1	Rep 2	Rep 1	Rep 2	Rep 1	Rep 2
	----- % survival -----							
1	80	75	100	100	100	100	100	100
2	80	70	100	100	100	100	100	100
3	70	20	100	100	100	100	100	100
4	80	80	100	100	100	100	100	100
5	80	70	100	100	100	100	100	100
6	85	75	100	100	100	100	100	100
7	85	75	100	100	100	100	100	100
8	80	75	100	80	100	100	100	100
9	60	50	100	100	100	100	100	100
10	85	60	100	100	100	100	100	100
11	80	55	100	100	100	100	100	100
12	90	60	100	100	100	100	100	100
13	75	5	100	100	100	100	100	100
14	30	20	100	100	100	100	90	90
15	85	60	100	100	100	100	100	100
16	75	40	100	100	100	100	100	100
17	80	30	100	100	100	100	100	100
18	75	0	100	100	100	100	100	100
19	75	10	100	100	100	100	100	100
20	45	10	100	100	100	100	100	100
21	60	50	100	100	100	100	100	100
22	55	50	100	100	100	100	100	100
23	50	60	100	100	100	100	100	100
24	60	70	100	100	100	100	100	100
25	65	75	100	100	100	100	100	100
26	60	75	100	100	100	100	100	100
27	40	70	100	100	100	100	100	100
28	35	70	100	100	100	100	100	100
29	50	75	100	100	100	100	100	100
30	75	80	100	100	100	100	100	100
31	60	60	100	100	100	100	100	100
32	65	60	100	100	100	100	100	100
33	45	50	100	100	100	100	100	100
34	40	55	100	100	100	100	100	100
35	30	60	100	100	100	100	100	100
36	60	60	100	100	100	100	100	90
37	65	70	100	100	100	100	100	100
38	65	60	100	100	100	100	100	100
39	40	60	100	100	100	100	100	100
40	65	75	100	100	100	100	100	100
41	40	80	100	100	100	100	100	100
42	75	80	100	100	100	100	100	100
43	45	85	100	100	100	100	100	100
44	50	85	100	100	100	100	100	100
45	70	85	100	100	100	100	100	100
46	0	30	100	100	100	100	100	100
47	0	45	100	100	100	100	100	100
48	5	55	100	100	100	100	90	100
49	5	55	100	40	100	100	90	80

1988 UWHN, Southern Section

Entry	Casselton, ND		Highmore, SD		St. Paul, MN		Mead, NE	
	Rep 1	Rep 2	Rep 1	Rep 2	Rep 1	Rep 2	Rep 1	Rep 2
----- % survival -----								
50	10	60	100	100	100	100	100	100
51	5	20	100	100	100	100	50	40
52	5	90	100	100	100	100	100	100
53	0	20	100	100	0	15	20	20
54	5	85	100	60	100	100	100	100
55	0	70	100	90	0	15	70	60
56	20	90	100	100	100	100	100	100
57	15	90	100	100	100	100	100	100
58	10	90	100	100	100	100	100	100
59	15	95	100	100	100	100	100	100
60	70	95	100	100	100	100	100	100
61	75	95	100	100	100	100	100	100
62	50	90	100	100	100	100	100	100
63	30	90	100	100	100	100	100	100
64	30	90	100	100	100	100	100	100
65	45	90	100	100	100	100	100	100
66	50	90	100	100	100	100	100	100
67	30	80	100	100	100	100	100	100
68	0	60	100	100	100	100	80	80
69	20	75	100	100	100	100	100	100
70	55	90	100	100	100	100	100	100
71	50	85	100	100	100	100	100	100
72	50	75	100	100	100	100	100	100
73	60	70	100	100	100	100	100	100
74	0	20	30	100	0	50	80	80
75	5	40	30	100	100	100	90	100
76	75	80	100	100	100	100	100	100
77	60	30	100	100	100	100	80	100
78	45	60	100	100	100	100	90	100
79	0	55	100	100	100	100	100	100
80	20	55	100	100	100	100	100	100
81	0	40	100	100	100	100	70	80
82	10	70	100	100	100	100	100	100
83	10	70	100	100	100	100	100	100
84	10	75	100	100	100	100	100	100
85	10	80	100	100	100	100	100	100
86	0	80	100	100	0	7	100	100
87	0	75	100	100	100	100	100	100
88	0	80	100	100	100	100	100	100
89	0	45	100	100	100	100	70	100
90	30	90	100	100	100	100	100	100
91	5	75	100	100	100	100	100	100
92	5	75	100	100	100	100	100	100
93	30	80	100	90	100	100	100	100
94	40	85	100	90	100	100	100	100
95	80	90	100	100	100	100	100	100
96	85	95	100	100	100	100	100	100
97	50	85	100	100	100	100	100	100
98	70	90	100	100	100	100	100	100
99	75	95	100	100	100	100	100	100

1988 UWHN, Southern Section

Entry	Casselton, ND		Highmore, SD		St. Paul, MN		Mead, NE	
	Rep 1	Rep 2	Rep 1	Rep 2	Rep 1	Rep 2	Rep 1	Rep 2
----- % survival -----								
100	75	95	100	100	100	100	100	100
101	20	85	100	100	100	100	100	90
102	45	85	90	100	100	100	100	90
103	45	85	100	100	100	100	100	100
104	50	85	100	100	100	100	100	100
105	40	85	100	100	100	100	100	100
106	0	70	100	100	100	100	100	100
107	0	70	100	100	100	100	90	90
108	0	75	100	100	100	100	100	100
109	40	90	100	100	100	100	100	100
110	10	80	20	100	100	100	100	100
111	10	80	100	100	100	100	100	100
112	80	95	100	100	100	100	100	100
113	75	95	100	100	100	100	100	100
114	75	95	100	100	100	100	100	100
115	50	90	50	100	100	100	100	100
116	10	85	100	100	100	100	100	100
117	5	70	100	100	100	100	90	100
118	0	70	90	100	100	100	100	100
119	10	75	100	100	100	100	100	100
120	75	95	100	100	100	100	100	100
121	5	25	100	100	100	100	100	90
122	20	75	100	100	100	100	100	100
123	0	70	100	100	100	100	100	100
124	0	70	100	100	100	100	100	100
125	5	70	100	100	100	100	100	100
126	0	60	100	100	100	100	100	100
127	0	60	100	100	100	100	100	100
128	0	50	100	30	100	100	100	100
129	0	70	100	100	100	100	100	100
130	30	80	100	100	100	100	100	100
131	0	75	100	100	100	100	100	100
132	0	75	100	100	100	100	100	100
133	5	85	100	100	100	100	100	100
134	0	50	100	100	100	100	90	100
135	0	65	100	100	100	100	100	100
136	0	60	100	100	100	100	100	100
137	0	70	100	100	100	100	100	100
138	50	85	100	100	100	100	100	100
139	60	85	100	100	100	100	100	100
140	5	50	100	100	100	100	100	100
141	5	50	100	100	100	100	100	100

1988
Uniform Winterhardness Nursery
Northern Section

<u>Entry No.</u>	<u>Variety or Pedigree</u>	<u>Se1. No.</u>	<u>Source</u>
1	Norstar	CI17735	Check
2	NE7763//Ctk/ND7777	ND8501	No. Dakota
3	SD74221//Frd/ND7712	ND8511	"
4	Translocation C/CI8888	ND8523	"
5	ND7601//Ctk/ND7601	ND8530	"
6	ND7723//Rrr/ND7620	ND8536	"
7	Ctk/ND7637//Ctk/ND7655	ND8581	"
8	ND7735-11//Wnk/Newton	ND8585	"
9	ND7735-4//Rrr/Solar	ND8589	"
10	Warrior	CI13190	Check
11	ND7735-28/Siouxland	ND85100	No. Dakota
12	" "	ND85103	"
13	ND7735-34/KS79379	ND85105	"
14	ND7735-34/KS79346	ND85111	"
15	"	ND85114	"
16	ND7735-38/KS79379	ND85118	"
17	ND7620/Siouxland	ND85137	"
18	ND7882/Rose	ND8603	"
19	SD75314/MT7431	ND8626	"
20	Centurk 78	CI17724	Check
21	ND7714/SD75314	ND8638	No. Dakota
22	"	ND8640	"
23	"	ND8645	"
24	ND7771/SD75284	ND8651	"
25	ND7771/Rrr	ND8654	"
26	"	ND8655	"
27	ND7731/Siouxland	ND8660	"
28	Ctk/ND78103	ND8664	"
29	Rose/ND7481	ND8677	"
30	Norstar	CI17735	Check
31	Rose/ND7481	ND8679	No. Dakota
32	SD73177/ND7703	ND8683	"
33	SD75284/Siouxland	ND8692	"
34	"	ND8694	"
35	"	ND8698	"
36	ND7659/Agate	ND86105	"
37	ND7611/Rrr	ND86120	"
38	Rrr/NK76W239	ND86136	"
39	Winalta/ND7637	ND86140	"
40	Warrior	CI13190	Check
41	Winoka	SDM8127	So. Dakota
42	"	SDM16029	"
43	"	SDM16050	"
44	"	SDM16069	"
45	"	SDM16085	"

46	Winoka	SDM16091	So. Dakota
47	"	SDM16116	"
48	"	SDM16129	"
49	"	SDM16132	"
50	Centurk 78	CI17724	Check
51	Winoka	SDM16149	So. Dakota
52	"	SDM16156	"
53	"	SDM16166	"
54	"	SDM16169	"
55	"	SDM16187	"
56	"	SDM16208	"
57	"	SDM17011	"
58	"	SDM17021	"
59	"	SDM17025	"
60	Norstar	CI17735	Check
61	Winoka	SDM17032	So. Dakota
62	"	SDM17033	"
63	"	SDM17055	"
64	"	SDM17074	"
65	"	SDM17083	"
66	"	SDM17087	"
67	"	SDM17088	"
68	Winoka	Winoka	"
69	ID0033/PR04930//Mld/Lind	SD87123	"
70	Warrior	CI13190	Check
71	ID0033/PR04930//Mld/Lind	SD87124	So. Dakota
72	"	SD87125	"
73	"	SD87126	"
74	Nwt/SD56281	SD87127	"
75	"	SD87128	"
76	"	SD87131	"
77	Sage/Art//BTY309/2*Rri	SD87138	"
78	"	SD87140	"
79	Lcr/Frd//NE69559/Wnk/3/Ne11	SD87143	"
80	Centurk 78	CI17724	Check
81	Lcr/Cnn//YT0-117-20/Ctk/3/Alab	SD87145	So. Dakota
82	Sage/Art//Hp1/ND7747	SD87148	"
83	Lco/Frd//NE69559/Wnk*4/3/TX71A30	SD87155	"
84	Lcr/Cnn//YT0117-20/Ctk/3/Nwt	SD87141	"
85	Kharkof	CI1442	Check
86	Roughrider	CI17439	"
87	Colt	PI476975	"
88	CI15322//Agate/4*Scout 66/3/Ctk 78/4/SD74221	SD82144	So. Dakota
89	CI15322//3*(Agent/4*Scout66)	SD76463-16	"
90	Norstar	CI17735	Check
91	SD74221*2/Lathrop	SD82114	So. Dakota
92	SD76109/Rose	SD78207-4	"
93	SD76669*2/KS71591	SD791231	"
94	Rrr//Yogo/Trapper	ND8212	No. Dakota
95	Rrr/3/Froid//Winoka/WW8	ND8215	"
96	Rrr*2/1809	ND8286	"
97	Ctk/3/Froid*2//ND363/ND269	ND8407	"
98	Rrr/F0.1527	ND8460	"
99	Brule/3/Parker*4/Agent//Belot.198/Lcr	NE82656	Nebraska
100	Warrior	CI13190	Check

101	HiPlains/Wings/3/Pkr*4/Agent//Belot.198/Lcr	NE82438	Nebraska
102	(FTN/MI/Hope)//Pnc/2*Cnn/3/Pnc/3*Cnn/4/ Pnc/2*Cnn//ILL#1-Cns-TTi (CTMH)/ Sando60/5/Vona/6/Wrr*5/Agent//Kavkaz	NE83432	"
103	Bez 1/Ctk78//Arthur/Ctk78/3/Bennett	NE84581	"
104	OK11252A/W76-1226 (Abilene)	NA-81-362-5	NAPB.
105	Winter Wheat Hybrid	XH947	HybriTech
106	" "	XNH1354	"
107	Kharkov 22 MC/Bezostaya 1	WT176	Lethbridge
108	Norstar/Rrr	WT177	"
109	"	WT179	"
110	Centurk 78	CI17724	Check
111	Turkey/Burt//Bezostaya 1	ID0180	Lethbridge
112	Hg1/ID5006/4/II-60-156/CI14107//It/3/ 2Cnn/PI178383	ID0301	Idaho
113	Lancota/Froid//NE69559/Wnk	MT8039	Montana
114	Norstar	CI17735	Check

1988 Uniform Winterhardiness Nursery
Northern Section

Entry	Casselton, ND		Highmore, SD	
	Rep 1	Rep 2	Rep 1	Rep 2
	----- % Survival -----			
1	95	75	100	100
2	80	75	100	100
3	85	85	100	100
4	90	80	100	100
5	80	75	100	100
6	80	75	100	100
7	75	80	100	100
8	85	90	100	100
9	90	90	100	100
10	85	75	100	100
11	80	80	100	100
12	75	85	100	100
13	80	95	100	100
14	75	95	100	100
15	80	95	100	100
16	80	95	100	100
17	80	90	100	90
18	75	90	100	100
19	70	90	90	100
20	30	90	100	100
21	75	90	100	100
22	75	90	100	100
23	80	80	100	100
24	75	80	100	100
25	85	80	100	100
26	90	90	100	100
27	75	90	100	100
28	60	85	100	100
29	70	80	100	100
30	80	85	100	100
31	90	80	100	100
32	85	80	100	100
33	45	80	100	100
34	70	80	100	100
35	70	80	100	100
36	75	80	100	100
37	90	90	100	100
38	90	85	100	100
39	90	90	100	100
40	85	85	100	100
41	80	85	100	100
42	70	80	100	100
43	75	80	100	100
44	75	80	100	100
45	60	75	100	100
46	40	75	100	100
47	40	70	100	100
48	35	85	100	100
49	25	70	100	100

1988 UWHN, Northern Section

Entry	Casselton, ND		Highmore, SD	
	Rep 1	Rep 2	Rep 1	Rep 2
	----- % Survival -----			
50	20	60	100	100
51	20	60	70	100
52	25	65	100	100
53	10	60	100	100
54	10	50	100	100
55	10	60	100	90
56	15	55	100	100
57	30	50	100	100
58	10	50	100	100
59	5	15	100	100
60	95	80	100	100
61	10	30	100	100
62	10	15	40	100
63	5	20	30	100
64	10	45	80	100
65	0	35	100	100
66	0	35	100	100
67	0	25	100	100
68	10	60	100	100
69	30	45	100	100
70	25	45	100	100
71	40	45	100	100
72	40	50	100	100
73	45	40	100	100
74	30	40	100	100
75	20	40	100	100
76	10	55	100	100
77	5	80	100	100
78	15	80	100	100
79	60	80	100	100
80	45	75	100	100
81	15	75	100	100
82	30	75	100	100
83	85	80	100	100
84	75	80	100	100
85	75	85	100	100
86	80	90	100	100
87	70	60	100	100
88	70	75	100	100
89	60	80	100	100
90	85	95	100	100
91	45	85	90	100
92	60	85	100	100
93	50	80	100	100
94	60	90	100	100
95	75	90	100	100
96	80	95	100	100
97	30	95	100	100
98	10	75	80	100
99	5	80	90	100

1988 UWHN, Northern Section

Entry	Casselton, ND		Highmore, SD	
	Rep 1	Rep 2	Rep 1	Rep 2
	----- % Survival -----			
100	35	85	100	100
101	30	90	100	100
102	75	90	100	100
103	65	80	100	100
104	70	70	100	100
105	60	55	100	100
106	65	60	100	100
107	90	90	100	100
108	85	90	100	100
109	90	95	100	100
110	25	35	100	100
111	85	60	100	100
112	75	55	100	100
113	75	50	100	100
114	90	95	100	100

1988
Soilborne Mosaic Nursery

<u>Entry No.</u>	<u>Variety or Pedigree</u>	<u>Se1. No.</u>	<u>Source</u>
1	Pawnee	CI11669	Check
2	HiPlains/Wings/3/Parker*4/Agent//Belot.198/Lcr	NE82438	Nebraska
3	CIMMYT/Scout//Agate/Sage Sib	NE82533	"
4	Brule/3/Parker*4/Agent//Belot.198/Lcr	NE82656	"
5	CIMMYT/Scout//Bennett Sib/4/Parker 4*/Agent// Belot.198/Lcr/3/Bez 1/Ctk 78	NE83404	"
6	" "	NE83406	"
7	" "	NE83407	"
8	Wrr*5/Agent//Kavkaz/4/Parker*4/Agent// Belot.198/Lcr/3/Vona	NE83498	"
9	Wrr/Sut//MoW6811/3/Agate Sib/4/NE68457/Ctk78	NE84557	"
10	Concho	CI12517	Check
11	Bez 1/Ctk78//Arthur/Ctk78/3/Bennett	NE84581	Nebraska
12	(FNT/MI/Hope)//Pnc/2*Cnn/3/Pnc/3*Cnn/4/ Pnc/2*Cnn//ILL#1-CNS-TT1/Sando60/5/Vona/6/ Wrr*5/Agent//Kavkaz	NE83432	"
13	78GH1051 x Mara/2*Sut//Sentinel (NE74649)	NE85556	"
14	84MC22	NE85623	"
15	Wrr*5/Agent//Kavkaz NE77637xNE63218//Ky58/ Nth/2*(CTMH) (NE61983)//Pnc/2*Cnn	NE85707	"
16	Wrr*5/Agent//NE69441 NE76667xNewton	NE86482	"
17	Colt/3/Wrr*5/Agent//Kavkaz	NE86487	"
18	" "	NE86488	"
19	" "	NE86494	"
20	Bison	CI12518	Check
21	Colt/Cody	NE86499	Nebraska
22	"	NE86501	"
23	"	NE86502	"
24	"	NE86503	"
25	"	NE86507	"
26	"	NE86509	"
27	Colt Sib NE78697/3/Wrr*5/Agent//Kavkaz	NE86527	"
28	Colt/Cody	NE86582	"
29	Colt//Bez 1/Ctk78//Arthur/Ctk78	NE86592	"
30	Pawnee	CI11669	Check
31	Wrr/Sut//MoW6811//Agate Sib NE77615//Cody	NE86606	Nebraska
32	" "	NE86607	"
33	CLLF/Sturdy/3/Diba/Diga//Suwon92/CI13645 /4/NE7060	NE87U101	"
34	H15A13333/3/5*Larned/Eagle//Sage/4/TAM105	KS87H6	Kansas (Hays)
35	" "	KS87H15	"
36	" "	KS87H22	"
37	" "	KS87H57	"
38	" "	KS87H58	"
39	GHP2 X211	KS87H63	"
40	Concho	CI12517	Check

41	GHP2 X211	KS87H64	Kansas (Hays)
42	"	KS87H65	"
43	"	KS87H66	"
44	"	KS87H67	"
45	H15A13333/3/5*Larned/Eagle//Sage/4/Dodge sib	KS87H264	"
46	Experimental Line	XW163	Pioneer
47	"	YW171	"
48	"	HBV261B	"
49	"	HBV756A	"
50	Bison	CI12518	Check
51	Experimental Line	HBV762A	Pioneer
52	"	HBV383A	"
53	"	HBV385D	"
54	"	HBV517A	"
55	"	W2439G	"
56	"	HBV262F	"
57	W79-227/Payne	NA-W84-229	NAPB
58	OK11252A/W79-1226	NA-W81-162	"
59	Payne/W78-069	NA-W83-256-W	"
60	Pawnee	CI11669	Check
61	II18889/Tpr//C0652643/3/Baca	Hawk	NAPB
62	SN/Tpr//Wrr/3/II18889/Tpr//C0652643	Mustang	"
63	Payne*2/C0725052	OK84286	Oklahoma
64	"	OK84287	"
65	Hawk/OK80099	OK86197	"
66	OK79257/Century Sib/2/Chisholm	OK86215	"
67	TAM-106 resel./TX69D4819	TX84V1736	Texas
68	TAM-108/Arkan	TX86A7041	"
69	Rannaya/NE701136//CI13449/Ctk	TX86V1109	"
70	Concho	CI12517	Check
71	Rannaya/NE701136//CI13449/Ctk	TX86V1110	Texas
72	74cb452/Vona//Baca	C0830014	Colorado
73	Winter Wheat Line	RL844677	Rohm & Haas
74	Winter Wheat Line	RL845472	"
75	HRW Selection	AGC-112	Seed Research
76	"	AGC-113	"
77	TAM W-101/W603//W558	XW161	Pioneer
78	Winter Wheat Hybrid	XH675	HybriTech
79	"	XH685	"
80	Bison	CI12518	Check
81	"	WH180001	Cargill
82	IL77-4259/IL76-3845	IL83-7439	Illinois
83	TX69A330/IL76-3820	IL80-1251	"
84	CHA Hybrid Mustang/3/T-105*4/Amigo*4//Largo, TXGH10287	TX87HA1	Texas
85	Rrr/FO.1527	ND8460	No. Dakota
86	(FTN/MI/Hope)//Pnc/2*Cnn/3/Pnc/3*Cnn/4/ Pnc/2*Cnn//ILL#1-Cns-TTi (CTMH)/ Sando60/5/Vona/6/Wrr*5/Agent//Kavkaz	NE83432	Nebraska
87	Winter Wheat Hybrid	XH947	Hybritech
88	"	XNH1354	"
89	Hg1/ID5006/4/II-60-156/CI14107//It/3/ 2Cnn/PI178383	ID0301	Idaho
90	Pawnee	CI11669	Check

91	Winter Wheat Line	RH7846	Rohm & Haas
92	Agent/Tascosa//Sturdy	TX71D4876-V5	Texas (Dallas)
93	Amigo/TX71A106-5	TX82D4751	"
94	TX75D3165/Amigo	TX84D1265	"
95	Victory//Payne/Len	TX86D1305	"
96	Thunderbird//Norseman/Collin	TX86D1308	"
97	Thunderbird//Payne/Collin	TX86D1310	"
98	TX71C8130-R/Veery #4	TX86D1613	"
99	Concho	CI12517	Check

1988 SOILBORNE MOSAIC NURSERY
Disease Scores

Entry	Urbana, IL		Lincoln, NE		Manhattan, KS	
	Rep 1	Rep 2	Rep 1	Rep 2	Rep 1	Rep 2
	--- 0-9 ---		---- 0-5 ----		--- R-S ---	
1	7	6	3	3.5	S	S
2	6	3	3	4	S	S
3	5	4	3	2.5	R	R
4	5	5	4	4	MS	S
5	6	7	4	4	S	S
6	7	7	4	4	S	S
7	6	7	3.5	4	S	S
8	6	7	3.5	4	S	S
9	8	6	4	3.5	R	R
10	3	4	2	2.5	R	R
11	4	4	2	3	R	R
12	8	8	4	4	R	R
13	8	7	3	3.5	S	S
14	5	4	1	2	R	R
15	7	6	4	3.5	R	R
16	6	5	4	4	R	R
17	8	7	4	4	MS	S
18	7	7	4	4	S	S
19	6	6	4	4	S	S
20	6	6	3.5	3.5	S	MS
21	6	6	3	3.5	MS	MS
22	5	5	3.5	4	MS	MR
23	5	6	4	4	MS	MR
24	7	7	4	4	MR	MR
25	6	6	3.5	3.5	MR	MR
26	7	7	4	3.5	MS	MR
27	8	7	4	4	S	MS
28	6	8	4	3.5	R	R
29	7	7	3.5	3.5	R	R
30	7	7	3.5	3.5	MS	MR
31	7	7	3.5	3.5	R	R
32	7	7	3.5	3.5	R	R
33	7	7	4	4	R	MR
34	8	7	3.5	3.5	R	MR
35	8	8	3.5	3	R	MR
36	8	8	4	3.5	S	S
37	8	8	3.5	3.5	S	S
38	8	8	3.5	4	S	S
39	7	7	3.5	3.5	MR	R
40	4	2	2	1	R	R
41	6	7	3	3	MS	MS
42	6	7	3.5	3	R	R
43	4	6	3.5	3	R	R
44	5	6	3	3	R	R
45	6	4	2.5	2.5	R	R
46	4	4	3	2	R	R
47	4	3	1	2.5	R	R
48	3	2	1	2	MS	MS
49	4	2	1	2	S	S

1988 Soilborne Mosaic Nursery

Entry	Urbana, IL		Lincoln, NE		Manhattan, KS	
	Rep 1	Rep 2	Rep 1	Rep 2	Rep 1	Rep 2
	--- 0-9 ---		---- 0-5 ----		--- R-S ---	
50	7	7	4	4	S	S
51	3	3	2	2.5	MR	R
52	3	2	2	2.5	R	R
53	3	2	1	2	R	R
54	6	5	4	4	S	S
55	5	3	2	3	MR	R
56	4	3	2.5	3	R	R
57	6	8	1	3	R	R
58	3	3	2	3	R	R
59	4	6	3.5	4	R	R
60	6	7	4	4	S	S
61	2	3	1	1.5	R	R
62	6	7	3	2	MR	MR
63	7	8	4	3.5	S	S
64	7	8	4	4	S	S
65	2	3	2.5	3	R	R
66	8	9	4	3	S	S
67	9	9	4	4	S	S
68	8	7	4	3.5	S	S
69	7	3	4	3.5	S	S
70	2	7	3	2	R	R
71	7	7	4	4	S	S
72	9	8	4	4	S	S
73	5	5	3	2	R	R
74	7	7	4	4	S	S
75	7	8	4	4	MS	MS
76	2	4	3	3	R	R
77	3	3	3	3	R	R
78	7	7	3	3	R	R
79	6	5	4	3.5	R	R
80	8	8	4	4	MS	S
81	5	8	3.5	3.5	MR	MS
82	6	6	4	4	MS	S
83	7	6	3.5	4	S	S
84	6	7	3	3	R	R
85	2	6	2.5	2	R	R
86	7	3	4	4	S	S
87	6	8	4	3.5	R	R
88	6	7	4	3.5	S	S
89	7	7	4	3.5	S	S
90	7	7	3.5	3.5	MS	S
91	4	4	2	1	R	R
92	7	7	4	4	S	S
93	9	9	4	4	S	S
94	8	8	4	4.5	S	S
95	4	5	3	2.5	R	R
96	-	-	2.5	3.5	R	R
97	7	6	2.5	2.5	R	R
98	-	7	4	4	S	S
99	4	4	3	2	R	R