

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 1975

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This is a joint progress report of cooperative investigations underway 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.

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NORTH CENTRAL REGION

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By

V. A. Johnson¹

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COOPERATING AGENCIES, STATIONS, AND PERSONNEL
(The asterisk denotes U.S.D.A. employees)

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REGIONAL NOTES

Hard red winter wheat breeders met at Fargo, North Dakota on July 17-18 for their annual breeders' field meeting. Wheat field research was observed at Fargo and at Casselton.

Dr. L. E. Briggles was named to the ARS National Program Staff as Small Grains Specialist in 1975.

Harry Somsen, ARS Entomologist and Hessian Fly Specialist in the Department of Entomology, Kansas State University, retired on January 1, 1976. He will be replaced at Manhattan by Dr. Jimmy Hatchett, Stoneville, Mississippi in May, 1976.

NEW VARIETIES

Foundation seed of CI17384 (NE701132), Atlas 66/Comanche//Lancer, was distributed to certified producers in 1975 under the name 'Lancota'. Kansas, Texas, and South Dakota joined Nebraska and ARS in the release. For a description of Lancota, see last year's Regional Report.

North Dakota announced intention to release CI17439 (ND7121) winter wheat. CI17439 was selected from the cross NB63265/Hume/3/Yogo/ Frontana//2*Minter made at South Dakota State University in 1965. It has been tested in North Dakota since 1970 but has not been in hard winter wheat regional trials. ND7121 is equal to Froid in winterhardiness and has outyielded Froid by 11% in North Dakota trials. The volume weight of its seed is better than Froid, it heads 2 days earlier, and is 3 inches shorter than Froid. CI17439 is more resistant to lodging than either Froid or Winoka and it has field resistance to stem rust but is susceptible to leaf rust. Its milling and baking quality is satisfactory.

Colorado distributed foundation seed of Lindon, CI17440 (C0725055), to producers in 1975. It was selected from the cross II21183/CO652363//Lancer/KS62136 made in 1967. II21183 is a semi-dwarf spring wheat from the CIMMYT program. It has been in the SRPN since 1974. Lindon has medium short height (10 inches shorter than Scout 66) and moderately stiff straw. Its maturity is similar to Centurk and it has moderate field resistance to stem rust but is susceptible to leaf rust. It has been equal to Centurk in yield but 5% more productive than Scout 66 in Colorado. Lindon possesses excellent milling and baking properties. The winterhardiness of Lindon is questionable based on results from the Uniform Winterhardiness Nursery.

Kansas announced intention to multiply seed of KS70H210 in anticipation of naming and release to producers in 1976. It is a selection from the cross Scout *5/Ottawa and possesses the H₃ gene from Ottawa for hessian fly resistance. It has been tested in the SRPN since 1974. Its yield performance at Kansas test sites of the SRPN, KIN,

and Kansas plot tests has been excellent, ie/ comparable to Sage and more productive than Scout 66. KS70H210 was equal to Eagle in streak mosaic tolerance in 1974 and 1975 tests and is equal to Scout 66 in winterhardiness. It is resistant to stem rust but susceptible to leaf rust and soil-borne mosaic. Its quality appears to be intermediate to Scout and Eagle.

Oklahoma and South Dakota are increasing seed of OK66V2629 in 1976 for possible joint release to producers after the 1976 harvest. OK66V2629 is a selection from Scout possessing tolerance to wheat streak mosaic. It has been in the SRPN since 1973. Its performance has been somewhat better than Scout 66 in most tests and it appears to have a decided advantage over Scout 66 in the high plains part of the region. OK66V2629 is similar to Scout 66 in agronomic traits, quality, and disease reactions.

Nebraska is continuing foundation seed increase of CI17463 (NE69442) for release to growers in 1976. It is from the cross Pnc/3*Cnn/3/Ky58/Nth/2/2*Cnn/Tm/Mi/Hope/4/Sut. It has been tested in the NRPN since 1972. It combines excellent winterhardiness with tolerance to wheat streak mosaic, hessian fly, and resistance to stem rust. Its yield in the NRPN has been similar to Warrior. Its maturity is similar or slightly later than Warrior.

THE 1975 CROP YEAR

Winter wheat production in 1975 reached the record high of 1,651 million bushels; 19% above 1974 and 30% above 1973. Winter wheat in the U. S. in 1975 was harvested from 51.5 million acres -- the largest acreage since 1949. Western parts of Kansas, Colorado, and Nebraska were affected by dry weather and localized disease problems but overall conditions in these and other winter wheat states were favorable. There were general rains across the Great Plains in May and cool temperatures into June that assured a good wheat crop. Wheat tended to be later than normal in most areas.

Winter wheat production statistics for 10 states in 1975 are summarized below.

<u>State</u>	<u>Acres seeded 1,000</u>	<u>Acres harvested 1,000</u>	<u>Aban- donment %</u>	<u>Yield per harvested acre bu.</u>	<u>Production (bu.) 1,000</u>
New Mexico	463	387	16	26.0	10,062
Texas	6,500	5,700	12	23.0	131,100
Oklahoma	7,400	6,700	9	24.0	160,800
Colorado	2,750	2,240	18	22.5	50,400
Kansas	12,800	12,100	5	29.0	350,900
Nebraska	3,200	3,070	4	32.0	98,240
Montana	3,100	3,000	3	35.0	105,000
Wyoming	270	250	7	25.0	6,250
South Dakota	950	770	19	30.0	23,100
North Dakota	147	123	16	25.5	3,137

Data from Crop Production, 1975 Annual Summary. Crop Reporting Board, Statistical Reporting Service, U. S. D. A., Washington, D. C.

SOUTHERN REGIONAL PERFORMANCE NURSERY

Twenty-three varieties were evaluated in 1975 of which 7 were new in the nursery. Yield data were reported from 25 nurseries grown at 23 sites in 10 states. Nurseries were abandoned at Springfield, Colorado; North Platte, Nebraska; and Presho, South Dakota due to inadequate fall stand establishment.

Pedigrees, C. I. or State Selection numbers, and the source of nursery entries appear in the listing that follows. Data from the reporting nursery sites are contained in table 1. Stem rust seedling reactions to isolates of Puccinia graminis tritici and field adult plant reactions to stem and leaf rust at St. Paul, Minnesota provided by D. V. McVey are summarized in tables 2 and 3.

Entry no.	Variety or pedigree	C. I. or Sel. No.	Source
1	Kharkof	1442	Check
2	Scout 66	13996	Check
3	Composite Cross	7173	Funk Seeds
4	" "	7174	" "
5	II21183/2643//Lcr/3/KS62 (Lindon)	CO725055	Colorado
6	" " " "	CO725052	"
7*	" " " "	CO725049	"
8*	" " " "	CO725082	"
9*	At166/Cmn//Cnn/Pnc/Tk/Cnn	NE70577	Nebraska
10	Sage	17277	Check
11*	MS Sturdy/4/Ms Sturdy// 3*Sturdy Sib/Triumph/3/ R-line (BA130)	TX Hybrid	Texas
12	Short Wheat/Scout Composite	TX69A330-1	"
13	" "	TX69A460-1	"
14	" "	TX69A509-1	"
15	" "	TX69A450-1	"
16	62A2712-7/Centurk	TX71A801	"
17	Scout Selection	OK66V2621	Oklahoma
18	" "	OK66V2629	"
19*	Triumph 64/OK66C3174//Sturdy	OK711092	"
20*	Tascosa/OK66C2026//Sturdy	OK711252	"
21	Ottawa/5*Scout	KS70H210	Kansas
22*	Scout/Tascosa	KS73H441	"
23	Nrn 16/CI12500//Bison	NM62-124	New Mexico

* New entry in 1975

Test Site Information

Dallas -- The nursery was seeded on October 3. One hundred pounds of 18-46-0 was applied prior to seeding and the nursery was top-dressed with 100 pounds of NH_4NO_3 on March 1. There was excellent fall emergence and growth. Moisture was excessive in the winter and spring and mildew and leaf rust became heavy. The Septoria diseases became prevalent in the nursery. Several wind and rain storms caused lodging of some entries.

Chillicothe -- Seeding was done on October 3 on fallow land with excellent moisture. Fertilizer at the rate of 40-40-0 was applied prior to seeding. Good stands were obtained. No winterkilling occurred although the winter and spring months were somewhat colder than normal and some leaf injury resulted from freezes in late November and early December and again in March and early April. Traces of sterility resulted from the spring freezes but it is not believed to have significantly affected performance of the varieties. The nursery was sprayed in February to control greenbugs. Leaf rust developed after heading. Traces of Septoria tritici were noted and symptoms of barley yellow dwarf were found. Moisture stress at heading time caused some reduction in test weight.

Bushland -- Planting conditions were excellent and good stands were obtained both in the dryland and irrigated trials. The former was seeded on October 1 in 6-row plots with 12-inch row spacing and the latter test on October 21 in 6-row plots with 8-inch row spacing. The irrigated trial received no fall irrigations because of sufficient fall precipitation but was fertilized with 150 lbs. N per acre prior to planting. The test received four 4-inch irrigations during the spring when precipitation, particularly in May, was much below normal. Below-normal temperatures during May were beneficial to the crop. Insects and diseases were of no consequence during the season although late leaf and stem infections occurred in the irrigated trial.

Clovis -- Both dryland and irrigated trials were grown. The dryland trial was seeded on September 30 on summer fallow ground with excellent moisture. The fall was wet with 7.24 inches of precipitation in September and October and a total of 10.28 inches. Some freeze damage occurred in late March. Nitrogen in the amount of 190 lbs. was applied on the irrigated trial. Freeze damage to culms about 2 inches above the soil surface was noted in the trial with resulting subsequent lodging even in the short-statured entries.

Stillwater -- Good growing conditions prevailed throughout the season until mid-May when the nursery was damaged by hail, rainstorms and high winds. Leaf rust, Septoria leaf blotch and bacterial leaf blotch were present in the nursery. Barley yellow dwarf symptoms were observed in some nursery entries.

Altus -- Good stands were established and conditions were favorable during fall and winter. Drought stress was evident at heading time. Storms in late May caused some lodging.

Lahoma -- Conditions were favorable throughout fall, winter and spring with above-average precipitation for the site. Excellent yield prospects at heading time were reduced by rainstorms, leaf rust, Septoria leaf blotch and army worms.

Goodwell -- Conditions were good throughout the season. The nursery was sprayed for greenbug control in the spring. Hail in mid-May caused some damage.

Hutchinson -- The SRPN was moved from Manhattan to the South Central Experiment Field at Hutchinson in 1975. Excellent seed and moisture permitted rapid uniform emergence and full fall stands. No winter damage or killing were noted. Conditions were favorable in March and April, dry in May, and too wet in June. Pests were not serious although moderate leaf rust occurred late. There was no stem rust but some hessian fly.

Hays -- The nursery was seeded October 17 on fallow land. Precipitation was normal during the fall growing season but growth was sparse due to low temperatures. Spring tillering and growth appeared

normal. Development was excellent in May and June during which precipitation was over-abundant. Harvest was late but dry. Leaf rust appeared relatively early and became sufficiently heavy to have affected yields.

Garden City -- Lack of surface moisture delayed seeding until October 2 after rain was received. Although fall growth was minimal, no serious wind erosion was encountered during the winter and early spring. There was little winter snow cover during the coldest periods but the wheat survived well. Spring growth was slow and resulted in a one week later-than-normal harvest. Spring precipitation was timely and grain filling and ripening were favored by moderate temperatures in June.

Colby -- Fall was moderately dry and was followed by a mild dry winter in which there was no winterkill. The late spring was cool and dry but moisture stress was not observed. Precipitation was well above normal from late May through June. Some leaf rust was present but notes were not recorded. The harvest was late.

Colorado Stations -- Information was not reported.

Nebraska Stations -- Fall soil moisture was inadequate throughout eastern Nebraska although full stand establishment of SRPN entries was achieved on fallow ground at Mead and Clay Center. Lack of surface moisture at seeding time and during the fall at North Platte resulted in uneven stands of the nursery entries and its eventual abandonment. The nursery stands at Alliance were thin but were satisfactory at Sidney. Despite the problems during fall, winter snows and spring rains resulted in near-normal yield of the Nebraska wheat crop. Precipitation during grain filling in western Nebraska reduced yields from their earlier potential. Diseases were not major factors. Stem rust was light. Leaf rust and Septoria leaf blotch were less severe than in 1974. Mildew was present in lodged fields. Soil-borne mosaic occurred in eastern Nebraska and caused some loss. Wheat streak mosaic occurred in some localities but caused only minor damage. Hessian fly became heavy in the Alliance area.

Highmore -- Very dry soil in the fall resulted in no emergence of the SRPN. By spring, emergence was only 5% and the nursery was abandoned.

Presho -- The soil surface was dry during the fall and emergence very poor. The test was not good enough to report data.

Columbia -- Soil moisture was adequate until late in the wheat growing season. The winter was mild with some heaving damage to the wheat and the spring was cooler than normal. Septoria and scab were the most prevalent diseases. Leaf and stem rust developed too late to cause significant damage or provide differential readings. Hessian fly was much worse than normal.

Ames -- The nursery was seeded on September 19 in moist soil and the wheat emerged to good stands. All entries survived the winter with full stands. Growth was vigorous during a cool spring. Leaf rust became prevalent and there was some Septoria development on leaves. Stem rust remained light.

Urbana -- The fall and winter conditions were highly favorable for the wheat. None of the varieties was injured measurably during the winter. Spring continued favorable with powdery mildew becoming heavy on susceptible varieties. Septoria tritici and scab caused some damage.

Lind -- Conditions for seeding in the fall were near-normal. The spring was late and cool with good soil moisture. Cool, favorable weather prevailed in June but summer rains interfered with harvest and bleached the seed.

Table 1.--Yield and other data for varieties evaluated in the Southern Regional Performance Nursery in 25 trials in the hard red winter wheat region in 1975.

Dallas, Texas									
Three replications									
C. I. or	:	Volume:	Days to:	Plant :	Lodg-:	Leaf Rust :		:	
Sel. No.	:	Yield:	Weight:	Head :	Height:	ing :	Sev.:	Resp.:	Septoria: BYMV
		kg/ha	kg/hl	From 1/1	cm	0-9	%	0-9	0-9 0-9
TX71A801		3104	74.2	199	92	1	20	3	7 0
CO725049		3032	74.2	194	97	0	47	-	6 0
CO725052		3017	76.1	194	101	1	40	-	6 0
TX Hybrid		2959	73.5	193	100	0	33	6	4 0
CO725055		2947	72.9	196	100	1	73	-	5 0
OK711092		2913	74.2	201	92	1	20	6	4 0
TX69A450-1		2773	72.2	204	91	0	20	4	4 0
TX69A509-1		2661	76.1	202	96	1	40	7	6 0
CO725082		2613	74.2	196	103	0	73	-	6 1
OK711252		2521	74.8	195	86	1	40	-	3 1
17277		2420	76.1	208	105	1	22	6	3 1
13996		2293	76.1	205	107	0	63	-	6 2
OK66V2621		2241	74.8	206	104	2	53	-	3 1
KS73H441		2163	76.1	203	111	3	50	-	5 3
TX69A330-1		2075	74.8	207	86	1	67	-	4 1
KS70H210		2075	75.5	205	104	1	60	-	4 0
OK66V2629		2035	74.8	205	100	2	47	-	4 1
TX69A460-1		2006	69.7	206	92	2	17	4	4 1
NM62-124		1909	74.8	203	91	3	60	-	4 3
7173		1775	74.8	208	93	0	50	-	3 1
NE70577		1643	74.2	205	103	1	43	-	5 3
1442		974	72.2	211	105	1	53	8	4 3
7174		795	66.4	206	83	6	80	-	6 2

LSD = 505, C.V. = 13.3%

Chillicothe, Texas
Three replications

C. I. or Sel. No.	: Yield	: Volume Weight	: Days to Head	: Plant Height
	kg/ha	kg/hl	From 1/1	cm
TX71A801	3556	77.4	109	66
CO725049	3204	76.9	109	69
CO725052	3164	77.9	111	71
TX69A509-1	3081	76.9	110	74
CO725055	3078	78.8	115	71
TX Hybrid	3053	76.4	110	74
KS73H441	2973	79.3	110	86
CO725082	2892	78.3	111	74
OK66V2629	2892	78.7	112	84
NE70577	2829	76.9	113	76
OK711092	2771	75.3	115	66
KS70H210	2749	75.6	113	76
OK66V2621	2724	77.1	112	81
17277	2713	77.1	115	81
NM62-124	2693	76.5	110	66
7174	2650	73.4	114	69
TX69A450-1	2639	74.8	113	71
7173	2621	78.5	117	69
13996	2610	76.0	113	81
TX69A330-1	2558	74.2	115	61
OK711252	2466	78.0	116	66
1442	2363	77.9	118	84
TX69A460-1	2256	75.6	115	66

LSD = 531, C.V. = 11.5%

Bushland, Texas
Three replications
(Dryland)

C. I. or	:	:	Volume	:	Days to	:	Plant	
Sel. No.	:	Yield	:	Weight	:	Head	:	Height
		kg/ha		kg/hl		From 1/1		cm
OK66V2629		2479		77.4		124		57
OK66V2621		2407		78.1		123		57
KS70H210		2282		77.4		124		53
17277		2277		78.1		125		54
CO725049		2273		78.8		124		45
CO725052		2192		79.2		126		45
TX69A330-1		2176		79.0		126		46
13996		2169		77.4		124		58
KS73H441		2158		79.3		119		54
CO725055		2118		79.9		126		47
CO725082		2107		79.9		128		46
TX71A801		2087		70.7		123		44
7174		2078		76.5		125		52
TX Hybrid		2062		75.3		125		52
TX69A509-1		2058		76.5		121		47
NM62-124		2051		77.8		124		50
TX69A450-1		1995		74.4		126		50
OK711252		1959		79.0		126		45
NE70577		1956		75.8		122		51
TX69A460-1		1889		78.8		125		48
7173		1833		79.7		128		51
1442		1804		77.5		133		53
OK711092		1746		77.8		128		47

LSD = 363, C.V. = 10.5%

Bushland, Texas
Three replications
(Irrigated)

C. I. or Sel. No.	: Yield	: Volume Weight	: Days to Head	: Plant Height	: Lodging	: Shat- tering
	kg/ha	kg/hl	From 1/1	cm	0-9	0-9
TX69A330-1	6598	79.9	129	68	0	0
CO725049	6334	81.8	128	75	0	0
TX69A450-1	6293	79.7	131	75	0	0
TX71A801	6141	80.9	127	68	0	0
OK66V2629	6082	80.6	129	85	1	0
KS70H210	6080	80.2	129	86	1	0
TX69A509-1	5984	80.6	127	70	0	0
17277	5950	80.2	130	86	0	0
TX69A460-1	5937	79.9	131	71	0	0
71174	5912	78.8	131	72	0	0
KS73H441	5847	80.6	126	80	0	0
CO725052	5775	81.4	129	76	0	0
NE70577	5730	80.5	128	81	0	0
13996	5708	80.2	129	87	1	0
NM62-124	5656	80.2	129	73	0	0
OK711092	5650	79.0	132	75	0	0
OK66V2621	5625	79.7	128	83	0	0
OK711252	5463	80.1	130	67	0	0
CO725055	5407	80.6	131	78	0	0
CO725082	5396	80.5	130	79	0	0
71173	5351	79.9	134	76	0	0
TX Hybrid	4956	77.9	128	81	0	1
1442	3280	79.0	142	99	2	0

LSD = 742, C.V. = 7.9%

Clovis, New Mexico
Three replications
(Dryland)

C. I. or Sel. No.	: Yield	: Volume : Weight :	Days to Head	: Plant Height
	kg/ha	kg/hl	From 1/1	cm
7174	3823	75.7	127	72
17277	3794	77.7	126	76
OK66V2621	3761	78.4	125	82
TX69A330-1	3724	79.5	125	63
CO725082	3708	78.2	128	68
CO725049	3605	78.9	125	66
TX69A460-1	3465	78.4	128	70
KS73H441	3370	78.6	122	69
7173	3360	77.1	130	72
13996	3337	78.0	125	77
KS70H210	3273	77.9	125	76
OK711252	3236	77.7	127	65
OK66V2629	3175	78.8	125	80
TX71A801	3113	76.1	122	61
CO725052	3008	78.3	128	67
TX Hybrid	2970	74.6	125	67
NE70577	2878	77.9	123	70
1442	2733	75.6	132	90
TX69A450-1	2733	77.0	127	70
NM62-124	2588	74.7	124	63
OK711092	2531	73.8	129	68
CO725055	2490	79.6	129	62
TX69A509-1	2473	77.8	121	62

LSD = 935, C.V. = 17.9%

Clovis, New Mexico
Three replications
(Irrigated)

C. I. or	:	:	Volume	:	Days to	:	Plant	:		
Sel. No.	:	Yield	:	Weight	:	Head	:	Height	:	Lodging
		kg/ha		kg/hl		From 1/1		cm		0-9
CO725049		7573		79.8		131		95		0
TX69A330-1		7533		79.5		130		91		0
TX69A450-1		7223		78.7		131		93		0
OK66V2621		7223		79.6		129		107		2
KS70H210		7096		79.3		130		101		2
TX69A460-1		7056		77.5		131		95		2
OK66V2629		7021		79.5		128		103		3
TX69A509-1		6845		77.1		127		90		2
NM62-124		6744		78.4		128		90		1
NE70577		6670		79.3		128		98		5
CO725082		6652		79.3		133		102		0
7174		6622		74.7		133		93		0
CO725055		6584		80.4		133		101		0
OK711252		6552		78.0		130		87		0
7173		6506		78.4		134		96		0
CO725052		6355		78.9		133		101		0
17277		6329		79.5		132		106		2
OK711092		6227		74.9		133		98		0
TX71A801		6225		79.5		127		81		0
13996		6107		79.3		130		106		3
KS73H441		5837		80.0		126		101		3
TX Hybrid		5815		75.5		129		96		2
1442		4965		77.9		138		115		1

LSD = 755, C.V. = 6.9%

Stillwater, Oklahoma
Three replications

C. I. or Sel. No.	:Yield: :kg/ha:	Volume: kg/hl:	Days to Head from 1/1:	: Plant: :Height: cm	:Lodg- :ing : 0-9	Tiller per sq ft:	:Kernels/ :spike	:Kernel: :weight:	Leaf Rust: Sev.:	Sep-: Resp.:	Mil-: toria:	Bacterial: dew :	Forage Blight ^{1/} :	Rating ^{2/} 1-9
									%	0-9	0-9	0-9		
TX69A450-1	2919	73.1	124	87	3	70	25	26	1	7	2	2	40	5.3
CO725049	2650	74.5	119	79	2	82	30	21	30	3	3	2	40	4.8
CO725055	2547	76.8	120	86	1	73	29	20	60	8	5	2	20	5.3
CO725052	2543	74.5	119	83	1	79	29	22	40	7	5	2	20	5.0
TX69A460-1	2543	73.8	124	85	2	93	28	21	30	4	5	2	40	4.0
TX71A801	2529	72.7	119	76	2	85	30	20	0	0	5	8	40	3.5
CO725082	2426	72.7	119	88	2	63	31	22	40	8	1	2	30	5.0
OK711252	2363	75.3	119	78	0	68	26	24	40	6	6	8	50	5.5
TX69A330-1	2354	75.6	123	84	1	88	23	25	40	8	4	2	10	5.8
OK711092	2305	72.5	121	84	1	64	27	25	1	3	4	8	50	5.0
KS73H441	2175	72.0	120	95	3	66	23	24	40	8	5	8	10	4.5
17277	2157	72.1	125	100	2	75	23	28	30	7	2	8	10	6.0
7174	2134	72.9	123	80	1	56	29	23	40	4	5	8	20	4.3
KS70H210	2125	74.0	123	95	2	77	21	26	50	8	5	2	10	5.5
TX69A509-1	2112	72.9	120	85	5	78	26	23	5	7	2	8	40	3.8
TX Hybrid	2094	66.3	119	84	1	58	29	27	30	7	5	8	60	3.8
7173	1995	75.3	126	87	0	68	22	22	40	4	7	8	40	5.0
NE70577	1977	72.7	122	93	1	76	21	24	40	8	1	2	10	5.8
13996	1955	74.0	123	95	1	70	21	23	40	8	6	-	20	5.3
OK66V2629	1915	72.1	123	94	3	75	21	25	40	8	4	2	40	5.5
OK66V2621	1641	71.1	123	95	4	78	21	24	50	8	4	2	30	5.3
NM62-124	1466	69.5	121	82	4	70	20	21	40	8	5	8	30	4.0
1442	838	73.6	129	92	6	77	18	20	40	8	5	0	30	4.8

LSD = 536, C.V. = 15.1%

^{1/} % Flag leaf chlorotic or necrotic due to infection by Xanthomonas translucens and Pseudomonas atrofaciens.
^{2/} 1, Best; 9, Poorest.

Altus, Oklahoma
Three replications

C. I. or Sel. No.	: Yield	: Volume	: Plant	: Lodging
	kg/ha	kg/hl	cm	0-9
TX71A801	3466	75.8	80	0
OK711252	3031	75.8	69	0
CO725049	2978	73.0	76	0
TX69A509-1	2803	72.6	79	4
7173	2619	77.1	70	0
OK711092	2552	73.9	76	0
CO725055	2542	72.3	75	0
17277	2515	75.8	79	0
TX69A460-1	2507	72.3	79	4
CO725052	2493	74.3	80	1
NM62-124	2417	73.0	85	0
CO725082	2377	72.0	77	0
TX69A450-1	2313	72.2	73	2
13996	2296	73.6	85	1
7174	2228	72.5	74	0
TX69A330-1	2157	73.1	71	0
TX Hybrid	2067	70.4	74	2
KS70H210	2022	71.6	80	1
NE70577	1968	72.5	85	4
KS73H441	1924	73.4	84	5
OK66V2629	1565	72.1	91	6
OK66V2621	1542	71.2	79	4
1442	1210	73.6	79	8

LSD = 522, C.V. = 13.6%

Lahoma, Oklahoma
Three replications

C. I. or	:	:	Volume	:	Plant	:		
Sel. No.	:	Yield	:	Weight	:	Height	:	Lodging
		kg/ha		kg/hl		cm		0-9
CO725049		4561		75.9		91		1
CO725052		4085		77.6		95		0
TX71A801		3870		71.6		84		5
CQ725082		3762		76.2		93		1
TX69A450-1		3677		73.4		98		1
OK711252		3646		76.2		89		1
CO725055		3516		77.0		93		0
TX69A330-1		3502		73.2		87		1
OK711092		3359		75.2		98		0
TX Hybrid		3282		72.5		99		1
TX69A509-1		3265		71.8		85		5
TX69A460-1		3238		71.3		93		1
KS73H441		3193		76.5		113		4
13996		3179		75.0		104		3
NE70577		3161		74.5		103		1
17277		3121		77.9		105		1
7173		3089		78.0		92		0
NM62-124		3085		73.1		101		4
OK66V2621		3076		73.9		107		2
7174		3031		72.2		94		0
KS70H210		2843		75.0		108		2
OK66V2629		2408		74.7		105		4
1442		1408		74.9		104		5

LSD = 629, C.V. = 11.7%

Goodwell, Oklahoma
Three replications
(Irrigated)

C. I. or Sel. No.	: Yield	: Volume Weight	: Days to Head	: Plant Height
	kg/ha	kg/hl	From 1/1	cm
TX71A801	5079	80.2	135	84
CO725049	4538	79.3	135	89
TX69A330-1	4507	78.5	137	85
OK711252	4289	79.4	136	84
NE70577	4265	79.8	136	91
7173	4233	77.4	138	97
CO725052	4216	79.2	137	92
NM62-124	4177	77.2	137	88
TX69A460-1	4177	77.7	138	84
TX69A509-1	4126	79.5	135	88
TX69A450-1	4027	76.7	138	87
7174	3951	72.6	139	87
OK711092	3949	77.9	138	87
KS73H441	3937	82.4	134	88
CO725055	3910	79.8	138	88
KS70H210	3848	79.3	137	94
CO725082	3798	80.8	136	90
17277	3796	80.3	137	89
13996	3708	80.1	137	93
TX Hybrid	3590	77.9	136	87
OK66V2629	3556	79.8	137	88
OK66V2621	3318	79.3	138	87
1442	2590	77.4	143	95

LSD = 807, C.V. = 12.3%

Hutchinson, Kansas
Three replications

C. I. or	:	Volume	:	Days to	:	Plant	:	Leaf Rust					
Sel. No.	:	Yield	:	Weight	:	Head	:	Height	:	Lodging	:	Sev.:Resp.	
		kg/ha		kg/hl		From 1/1		cm		0-9		%	0-9
CO725052		3656		80.4		132		89		4		0	2
CO725049		3357		78.9		132		90		4		0	2
CO725082		3339		77.8		134		92		4		70	8
TX Hybrid		3279		77.8		133		92		4		0	2
TX69A509-1		3189		78.7		132		87		5		0	2
OK711092		3055		76.9		136		87		2		0	2
CO725055		3021		78.4		135		92		3		53	7
OK66W2621		2954		76.6		135		110		5		33	7
7173		2945		79.1		137		88		2		2	2
KS73H441		2914		79.1		134		108		7		23	7
NE70577		2838		77.1		135		109		5		43	8
KS70H210		2824		77.4		136		109		5		33	6
17277		2761		79.7		136		111		5		0	2
OK66V2629		2750		77.7		135		109		5		23	7
TX71A801		2746		77.9		133		85		4		0	2
OK711252		2680		77.7		136		80		3		2	2
TX69A450-1		2656		74.6		136		91		4		0	2
13996		2627		79.2		135		109		6		27	7
TX69A330-1		2582		75.1		136		82		5		67	8
7174		2544		76.9		136		85		5		0	2
TX69A460-1		2508		75.3		137		87		4		0	2
NM62-124		2421		75.2		136		85		4		25	8
1442		2174		73.3		142		114		6		17	7

LSD = 308, C.V. = 6.5%

Hays, Kansas
Three replications

C. I. or	:	Volume	:	Days to	:	Plant	:	Straw	:	Shat-	:	1000-Kernel	:	Leaf Rust	:	Av. Coleoptile				
Sel. No.	:	Yield	:	Weight	:	Head	:	Height	:	Rating	:	Weight	:	Sev.:	:	Resp.:	:	Length at 65°F		
		kg/ha		kg/hl		From 1/1		cm		1-91/		1-9		gms		%		0-9		mm
TX71A801		3452		79.4		143		60		3		5		22		5		2		76.1
CO725049		3286		79.0		141		69		3		4		23		20		3		65.5
OK711252		3165		80.6		145		62		2		3		30		5		2		82.1
OK711092		3084		79.0		144		66		3		3		27		5		2		76.3
TX Hybrid		3076		78.0		142		71		2		3		34		5		2		88.0
OK66V2621		3008		79.7		145		76		4		3		29		50		8		109.4
7173		2988		80.9		146		67		2		3		27		10		2		78.7
CO725052		2988		81.5		143		71		2		3		25		20		3		74.7
OK66V2629		2937		81.2		145		75		5		3		29		60		8		108.0
CO725055		2932		80.3		144		70		3		2		23		50		8		72.0
TX69A460-1		2867		80.1		146		67		3		2		25		5		2		76.7
CO725082		2854		78.5		142		74		4		4		25		70		8		69.1
17277		2833		79.8		146		78		3		3		31		5		2		104.2
7174		2827		78.5		145		60		3		2		25		30		3		69.0
13996		2827		81.0		146		75		5		3		30		60		8		102.8
NM62-124		2804		78.6		144		62		3		3		29		40		8		65.6
TX69A509-1		2775		79.1		142		67		5		3		26		10		3		83.3
KS73H441		2721		80.0		141		76		4		3		28		40		8		99.0
NE70577		2710		79.7		143		76		5		3		28		60		8		102.6
TX69A330-1		2699		78.1		145		62		3		2		25		90		8		78.0
TX69A450-1		2698		78.9		146		66		3		3		30		5		2		80.8
KS70H210		2543		81.3		144		78		4		2		30		60		8		107.6
1442		2244		80.0		152		91		8		4		28		50		8		94.3

LSD = 461, C.V. = 9.7%

1/1, Best; 9, Poorest

Garden City, Kansas
Three replications

C. I. or Sel. No.	: Yield	: Volume Weight	: Days to Head	: Plant Height
	kg/ha	kg/hl	From 1/1	cm
17277	3817	79.1	138	76
TX69A460-1	3806	80.0	138	66
OK66V2621	3790	79.1	137	78
TX69A450-1	3700	79.6	139	67
TX69A509-1	3696	79.6	135	67
KS70H210	3674	79.1	137	74
TX69A330-1	3589	79.1	137	63
NE70577	3508	79.6	136	77
OK66V2629	3496	79.1	136	74
KS73H441	3427	80.4	135	77
13996	3418	80.0	137	76
TX71A801	3409	80.0	137	62
7174	3389	78.7	137	70
CO725049	3387	80.0	137	64
CO725082	3358	80.9	137	66
OK711252	3333	80.4	139	62
NM62-124	3254	79.1	138	65
TX Hybrid	3176	77.8	136	74
CO725052	3127	80.0	137	68
7173	3066	80.0	138	70
CO725055	3053	80.4	137	73
OK711092	3028	79.1	138	66
1442	2705	79.1	141	76

LSD = 397, C.V. = 7.1%

Colby, Kansas
Three replications

C. I. or Sel. No.	: Yield	: Volume Weight	: Days to Head	: Plant Height	: Winter: Survival	: Lodg- ing	: Shat- tering
	kg/ha	kg/hl	From 1/1	cm	0-9	0-9	0-9
TX69A330-1	3410	80.4	139	61	9	1	1
OK66V2629	3285	78.9	139	73	9	1	1
TX69A450-1	3265	78.5	140	68	9	1	0
OK66V2621	3204	78.9	139	70	9	3	0
CO725049	3162	80.2	138	62	9	1	0
13996	3152	80.0	138	73	9	2	1
CO725082	3094	81.1	139	67	9	1	4
KS70H210	3090	80.2	138	74	9	1	1
CO725052	3083	81.1	139	65	9	1	1
KS73H441	3081	80.0	138	70	9	1	1
7174	3063	78.9	140	68	9	0	1
OK711252	2988	81.0	139	63	9	1	0
TX69A509-1	2988	80.0	138	62	9	1	1
TX69A460-1	2977	79.8	141	65	9	1	0
CO725055	2913	80.0	140	66	9	1	2
7173	2902	80.3	141	70	9	1	1
OK711092	2890	78.7	139	64	9	1	1
NE70577	2851	79.3	137	73	9	1	2
NM62-124	2775	79.5	139	66	9	1	0
17277	2686	78.7	140	73	9	1	1
TX Hybrid	2665	77.7	138	69	9	2	1
TX71A801	2572	80.7	138	57	9	1	1
1442	2549	79.0	145	88	9	5	0

LSD = 467, C.V. = 9.5%

Fort Collins, Colorado
Three replications

C. I. or Sel. No.	: Yield	: Volume Weight	: Days to Head	: Plant Height	: Lodging
	kg/ha	kg/hl	From 1/1	cm	0-9
TX69A450-1	6949	78.0	161	99	1
CO725049	6895	79.1	156	99	2
NM62-124	6550	77.5	159	106	2
7174	6534	75.5	160	93	1
OK711252	6481	79.7	161	88	1
TX71A801	6362	78.9	155	81	0
TX69A330-1	6335	79.2	155	88	0
CO725082	6319	80.0	157	101	4
TX69A460-1	6319	77.8	157	91	3
CO725052	6292	80.0	159	101	2
TX69A509-1	6200	78.4	153	88	3
OK711092	6173	76.4	160	96	0
CO725055	6146	79.3	159	101	1
KS70H210	6023	78.8	157	111	3
OK66V2621	6022	78.6	156	114	6
7173	5759	79.9	161	109	3
TX Hybrid	5662	76.1	158	109	0
OK66V2629	5521	79.1	154	111	6
NE70577	5462	77.9	152	111	5
17277	5457	77.9	158	114	3
13996	5328	77.7	156	114	8
KS73H441	5241	78.8	154	101	1
1442	4950	75.6	165	129	9

LSD = 656, C.V. = 6.6%

Nunn, Colorado
Three replications

C. I. or Sel. No.	: Yield	: Volume Weight	: Plant Height
	kg/ha	kg/hl	cm
OK66V2629	3519	78.4	83
CO725049	3489	75.3	76
CO725052	3472	76.5	76
NM62-124	3335	73.4	81
KS73H441	3288	77.7	83
CO725082	3271	74.4	81
KS70H210	3259	78.0	83
TX69A509-1	3254	76.0	68
13996	3250	78.6	88
TX69A330-1	3224	78.2	71
OK66V2621	3152	76.0	81
TX71A801	3147	75.7	68
NE70577	3143	77.4	83
CO725055	3139	76.6	76
1442	3109	75.7	101
17277	3092	77.3	88
7174	3058	70.7	73
7173	3011	78.4	73
TX69A460-1	2977	74.4	76
OK711092	2874	71.5	78
OK711252	2866	85.3	68
TX69A450-1	2844	72.2	76
TX Hybrid	2810	71.7	76

LSD = 315, C.V. = 6.1%

Akron, Colorado
Three replications

C. I. or Sel. No.	: Yield	: Volume Weight	: Days to Head	: Plant Height
	kg/ha	kg/hl	From 1/1	cm
CO725055	4341	81.0	155	81
7173	4120	79.9	156	86
13996	4009	78.4	152	101
TX69A509-1	3973	78.7	152	66
TX71A801	3961	78.3	153	66
7174	3952	78.3	156	81
OK711092	3869	78.7	156	76
CO725052	3862	80.0	153	76
OK711252	3833	80.8	156	71
TX69A450-1	3785	78.8	156	76
CO725049	3668	78.8	154	76
OK66V2629	3623	78.2	152	86
NE70577	3552	78.2	151	81
TX Hybrid	3522	76.8	154	81
OK66V2621	3513	77.9	152	81
1442	3492	79.7	156	116
TX69A330-1	3348	78.2	152	66
CO725082	3342	79.7	155	76
KS73H441	3271	78.6	152	76
KS70H210	3259	78.7	154	86
TX69A460-1	3161	80.4	155	76
17277	3148	77.8	154	86
NM62-124	3136	78.7	156	76

LSD = 825, C.V. = 13.8%

Mead, Nebraska
Three replications

C. I. or	:	Days to	Plant	Lodg-	Leaf Rust	Stem Rust		
Sel. No.	: Yield :	Head	Height :	ing	Sev.: Resp.:	Sev.:Resp.		
	kg/ha	From 1/1	cm	0-9	%	0-9	%	0-9
CO725052	4980	146	89	0	1	2	1	2
CO725049	4561	146	86	0	1	2	1	2
17277	4148	149	104	1	1	2	1	2
TX69A509-1 ^{1/}	4067	147	81	1	1	2	1	2
TX69A450-1	4038	150	97	1	-	2	1	2
TX Hybrid	4029	147	88	0	40	8	25	8
CO725055	4025	147	92	0	60	8	1	2
CO725082	3962	146	89	0	90	8	5	2
TX69A460-1	3951	148	91	3	1	2	1	2
7173	3885	149	93	0	1	2	25	8
NE70577	3859	149	101	3	65	8	1	2
OK66V2629	3825	149	102	3	65	8	1	2
KS70H210	3785	149	104	3	50	8	1	2
KS73H441	3637	147	95	1	65	8	-	2
13996	3574	149	103	4	25	8	1	2
OK66V2621	3560	149	103	4	75	2	1	2
OK711092	3527	147	89	1	1	2	80	8
TX69A330-1	3466	146	85	0	90	8	25	8
OK711252	3455	148	85	0	-	2	1	2
TX71A801 ^{1/}	3442	146	76	0	-	2	1	2
7174 ^{1/}	2998	148	86	0	5	3	1	2
NM62-124	2977	148	90	1	65	8	80	8
1442	2713	153	110	8	10	3	25	8

LSD = 469, C.V. = 7.6%

^{1/}Highly susceptible to Septoria

Clay Center, Nebraska
Three replications

C. I. or	:	Days to	Plant	Winter	:	Stem Rust			
Sel. No.	:	Yield	Head	Height	:	Survival	Lodging	Sev.	Resp.
		kg/ha	From 1/1	cm		0-9	0-9	%	0-9
CO725052		4078	148	87		9	1	0	2
TX69A450-1		4041	153	91		6	1	0	2
KS70H210		3980	151	99		5	1	0	2
OK711252		3910	150	81		6	0	20	3
NE70577		3890	150	96		5	2	40	8
TX69A460-1		3785	153	89		4	2	0	2
CO725055		3695	150	85		8	1	0	2
CO725049		3686	148	78		6	1	0	2
13996		3583	151	101		6	2	0	2
OK711092		3581	151	88		8	0	60	8
CO725082		3542	149	80		6	1	0	2
TX69A330-1		3502	150	83		6	0	40	7
TX69A509-1		3502	147	80		6	3	0	2
OK66V2629		3444	151	98		6	2	0	2
TX71A801		3408	147	74		6	0	40	8
TX Hybrid		3348	150	88		5	1	30	8
17277		3329	152	98		6	1	0	2
7174		3314	151	83		8	0	30	8
OK66V2621		3229	151	100		6	2	0	2
KS73H441		3085	149	92		5	2	0	2
NM62-124		2996	152	88		3	1	60	8
7173		2899	152	88		7	0	60	8
1442		2565	155	112		3	5	40	8

LSD = 427, C.V. = 7.4%

Sidney, Nebraska
Three replications

C. I. or Sel. No.	: Yield kg/ha	: Plant Height cm
TX71A801	4931	82
CO725049	4897	90
CO725082	4759	92
TX69A330-1	4638	84
CO725052	4586	95
OK711092	4341	94
TX69A450-1	4326	92
CO725055	4325	94
TX Hybrid	4297	99
7174	4274	89
TX69A509-1	4245	87
OK711252	4215	88
TX69A460-1	4076	87
NM62-124	3990	90
KS70H210	3893	107
OK66V2629	3881	107
17277	3817	106
OK66V2621	3609	104
KS73H441	3556	100
7173	3375	93
1442	3251	118
NE70577	3239	104
13996	3150	108

LSD = 585, C.V. = 8.7%

Alliance, Nebraska
Three replications

C. I. or	:	:	Plant	:
Sel. No.	:	Yield	Height	Lodging
		kg/ha	cm	0-9
C0725082		2669	74	2
C0725049		2653	68	1
C0725055		2441	73	2
C0725052		2402	74	1
TX71A801		2400	66	3
TX Hybrid		2371	76	3
NE70577		2228	78	5
TX69A509-1		2221	68	4
13996		2215	79	4
KS70H210		2169	79	3
OK711092		2159	72	3
7174		2126	73	3
KS73H441		2123	81	4
TX69A330-1		1967	67	4
NM62-124		1946	71	4
17277		1934	81	5
OK66V2629		1927	78	5
7173		1903	74	2
TX69A450-1		1850	72	5
OK66V2621		1785	78	4
1442		1647	86	4
OK711252		1635	61	3
TX69A460-1		1524	68	4

LSD = 487, C.V. = 14.1%

Columbia, Missouri
Three replications

C. I. or Sel. No.	: Yield kg/ha	: Volume kg/hl	: Days to From 1/1	: Plant cm	: Winter 0-9	: 0-9	: 0-9	:Pearling: %	: Seed Scab ^{1/}	: Size ^{2/}
CO725052	3368	78.7	136	93	9	0	2	28	1	69
NE70577	3166	80.0	136	106	9	0	3	29	1	86
KS70H210	3139	80.0	136	96	9	0	2	28	0	83
TX69A330-1	3130	80.0	139	79	9	0	2	35	0	89
TX Hybrid	3120	77.4	135	92	9	0	2	28	1	84
TX69A509-1	3059	79.3	135	85	9	0	4	30	0	80
CO725055	3058	80.0	138	86	9	0	2	24	1	55
CO725049	3011	77.4	136	84	9	0	4	21	4	53
OK66V2621	2984	80.0	137	107	9	0	2	28	1	84
OK711092	2979	80.0	140	89	9	0	2	24	0	72
OK66V2629	2931	80.0	137	107	9	1	2	28	0	79
17277	2893	80.6	140	106	9	0	2	28	0	88
OK711252	2884	80.0	136	80	9	0	2	25	2	78
KS73H441	2868	81.3	135	111	9	0	4	26	0	76
13996	2855	80.6	138	107	9	1	3	29	1	84
TX69A450-1	2824	80.0	138	77	9	0	4	42	0	83
CO725082	2793	79.3	136	91	9	0	3	24	2	52
NM62-124	2542	77.4	140	89	9	0	5	27	0	77
TX71A801	2527	80.6	137	75	8	0	7	22	0	35
7174	2489	78.0	139	93	9	0	5	27	0	66
TX69A460-1	2406	78.7	141	87	9	0	6	23	2	56
7173	2289	80.0	141	86	9	0	4	22	2	85
1442	2193	74.2	144	108	9	1	2	29	0	78

LSD = 338, C.V. = 7.2%

^{1/} Number of infected heads/10 foot row

^{2/} % remaining on 6/64 screen

Ames, Iowa
Three replications

C. I. or Sel. No.	: Yield ^{1/} kg/ha	: Volume kg/hl	: Days to Head From 1/1	: Days to Ripening From 1/1	: Plant Height cm	: Winter Survival 0-9	: Lodging 0-9	: Shat- tering ^{2/} 0-9	: Leaf Rust Sev.:Resp. % 0-9
OK711092	4038	76.0	150	187	87	9	0	0	1 1
TX69A460-1	4029	74.8	151	186	85	9	0	0	1 1
NE70577	3895	74.3	150	187	92	9	1	0	45 2
17277	3868	75.3	151	187	99	9	0	0	1 1
KS70H210	3863	73.7	151	187	96	9	0	0	45 3
CO725055	3832	77.7	153	188	82	9	0	0	25 2
OK66V2621	3760	72.2	150	186	96	9	1	0	30 2
KS73H441	3756	75.3	149	185	91	9	0	3	40 2
OK66V2629	3753	72.5	150	187	95	9	1	0	40 2
CO725082	3731	74.8	151	186	84	9	0	0	55 2
CO725052	3717	77.9	150	187	84	9	0	1	15 1
CO725049	3691	75.1	150	186	79	9	0	0	1 1
7173	3679	77.0	152	188	88	9	0	0	20 3
OK711252	3558	74.9	151	188	82	9	0	0	1 1
TX69A509-1	3547	73.5	149	185	82	9	0	0	15 2
TX Hybrid	3532	72.9	149	186	87	9	0	0	10 1
TX69A450-1	3448	73.4	153	188	82	9	0	0	1 1
13996	3406	74.3	150	186	99	9	1	0	35 2
TX71A801	3314	74.0	150	186	72	9	0	2	1 1
NM62-124	3197	71.6	151	189	83	9	0	0	25 2
7174	3179	71.9	152	186	83	9	0	0	15 3
1442	2682	72.8	156	191	106	9	1	0	40 2
TX69A330-1	2645	70.8	153	187	75	9	0	0	65 2

LSD = 507, C.V. = 8.6%

^{1/}Adjusted for rodent damage

^{2/}Due to rodents and birds

Urbana, Illinois
Three replications

C. I. or Sel. No.	: Yield kg/ha	: Volume kg/hl	: Days to: Head From 1/1	: Plant : Height cm	: Winter : Survival 0-9	: Lodging : 0-9	: Mildew : 0-9
TX69A330-1	5637	75.1	147	78	9	9	7
CO725052	5233	75.1	145	89	9	3	7
TX69A450-1	5159	73.1	146	85	9	1	5
CO725055	5144	74.5	146	87	9	1	7
CO725049	4715	71.9	147	86	9	2	7
TX71A801	4706	72.4	144	76	9	1	9
CO725082	4623	72.7	145	90	9	4	6
OK711252	4560	74.1	145	75	9	1	8
KS70H210	4487	75.2	145	95	9	7	6
NE70577	4433	74.8	145	96	9	6	7
TX69A460-1	4335	71.9	146	79	9	5	5
OK711092	4313	71.5	146	80	9	1	8
7173	4311	75.3	147	79	9	9	9
7174	4248	71.7	147	77	9	5	9
17277	4243	74.3	147	94	9	5	7
NM62-124	4123	72.6	145	79	9	4	9
13996	4049	74.0	145	96	9	8	6
TX Hybrid	3870	71.6	146	85	9	5	9
KS73H441	3721	74.7	143	93	9	7	7
OK66V2621	3708	73.4	145	94	9	8	6
TX69A509-1	3549	71.4	145	84	9	8	9
OK66V2629	3473	73.6	144	94	9	8	6
1442	3470	71.5	147	96	9	8	9

LSD = 703, C.V. = 9.8%

Lind, Washington
Three replications

C. I. or Sel. No.	: Yield	: Volume Weight	: Days to Head	: Plant Height
	kg/ha	kg/hl	From 1/1	cm
CO725049	3002	79.2	154	91
CO725082	2930	79.6	154	95
TX69A450-1	2885	78.6	154	97
NM62-124	2845	78.8	153	93
TX71A801	2600	80.0	151	91
OK711092	2588	77.1	155	89
TX69A330-1	2563	80.0	153	85
OK711252	2391	79.9	154	84
17277	2341	78.9	154	100
7174	2337	75.5	154	93
TX69A460-1	2300	78.4	154	93
CO725055	2265	79.7	154	94
CO725052	2085	78.8	154	95
7173	2081	78.9	154	96
1442	2057	76.2	136	109
TX Hybrid	1912	76.4	153	99
TX69A509-1	1877	79.3	152	92
KS73H441	1852	79.6	152	102
OK66V2621	1845	79.2	154	105
13996	1749	79.1	152	105
KS70H210	1716	78.9	153	103
NE70577	1472	79.5	152	102
OK66V2629	1367	79.5	152	103

LSD = 752, C.V. = 20.6%

Table 2. Seedling reactions of entries in the 1975 Southern Regional Hard Red Winter Wheat Performance Nursery to Puccinia graminis F. sp. tritici.

Ent. No.	Variety	C. I. or Sel. No.	Isolates												
			72-41-140-A	65-39-2	72-4-1-A	72-00-53-A	71-21-584-B	72-25-639-C	72-00-1370-C	69-21-399	59-14-19	68-14-73-A	70-44-64-C	72-21-1276-C	70-8451
			TMRT	TLMH	TNMH	RTQQ	RHRS	RKQS	QFBS	QSHS	MBCS	HNLQ	HJCS	GJCS	LCLQ
1	Kharkof	1442	S	S	S	23	2	S,2	2,S	2	S	2,S	2	2	23
2	Scout 66	13996	S	11	11	I	S	S,	S	S	S	11N	S	S	I
3	Composite Cross	7173	S	S	S	S	S	2	S	S	2-	S	2	2	2-
4	"	7174	S	S	S	S	S	2	2	2	2	S	2	23	2=
5	II21183/2643//Lcr/3/KS62136	CO725055	S	I	I	I	2=	2,S	2-	2	S,2	I	2	2	I
6	"	CO725052	S	11	I	I	I	2	2	2	2,S	I	2=	2-	0
7	"	CO725049	S	11	I	I	I	11	11	2	2=,S	I	I	11	0
8	"	CO725082	S	I	I	11	2-	S	2=	2	S	I	2	2	0
9	At166/Cmn//Cnn/Pnc/Tk/Cnn	NE70577	S	11	X-	I	23	2	2	2	S	I	2	23	I
10	Sage	17277	2-	I	I	I	2=	2	2	2	2-	0,2	2=	2=	I
11	MS Sturdy/4/Ms Sturdy//3*Sturdy Sib/Triumph/3/R-line (BA130)	TXHybrid	S	S	S	S	S	S	S	S	2-	S	23	S	2
12	Short Wheat/Scout Composite	TX69A330-1	S	S	S	S	S	S	2	S	S	S	S	S	2
13	"	TX69A460-1	S	11	11	I	S	2	2	S	S	11	S	S	I
14	"	TX69A509-1	S	S	S	S	S	2	2	S	S	23	S	S	2
15	"	TX69A450-1	S	11	X	11	S	23	2	S	S	X	S	S	I

Table 2 Concluded.

Ent. No.	Variety	C. I. or Sel. No.	Isolates												
			72-41-140-A TMRT	65-39-2 TLMH	72-4-1-A TNMH	72-00-53-A RTQQ	71-21-584-B RHRS	72-25-639-C RKQS	72-00-1370-C QFBS	69-21-399 QSHS	59-14-19 MBCS	68-14-73-A HNLQ	70-44-64-C HJCS	72-21-1276-C GJCS	70-8451 LCLQ
16	62A2712-7/Centurk	TX71A801	2	I,S	II,S	S	2=	23	2-	2	2	I	I	I	2-
17	Scout Selection	OK66V2621	S	II	II	II	2	S	2	S	S	2=	S	S	2-
18	" "	OK66V2629	S	II	II	I	2	S	2	S	S	I	S	S	I
19	Triumph 64/OK66C3174//Sturdy	OK711092	2	2	23	2	2	2	2	2	2	2=	2-	2	2-
20	Tascosa/OK66C2026//Sturdy	OK711252	2-	2	2	2-	2=	2	2	2	2	2=	2=	2=	2=
21	Ottawa/5*Scout	KS70H210	S	II	I	I	S	S,2	2-	2	S	I	S	S	I
22	Scout/Tascosa	KS73H441	S	II	II	I	2=	2	2	2	S	I	2	S	I
23	Nrn 16/CI12500//Bison	NM62-124	S	S	S	S	S	S	2	2	2=	2	23	2=	2=

Data provided by D. V. McVey, Cereal Rust Laboratory, ARS, University of Minnesota, St. Paul, Minn.

Table 3. Adult plant reactions of entries in the 1975 Southern Regional Hard Red Winter Wheat Performance Nursery to leaf and stem rust at St. Paul, Minn.

Entry No.	C. I. or Sel. No.	Stem Rust		Leaf Rust
		7/2	7/8	7/2
1	1442	40S	60S	40S
2	13996	20S	40S	40S
3	7173	40S	60S	20S
4	7174	40S	60S	40S
5	CO725055	5MS	60S	40S
6	CO725052	TMS	40S	10S
7	CO725049	TMS	20MR	20S
8	CO725082	20S	40S	60S
9	NE70577	5S	40S	40S
10	17277	0	5R	TMS
11	TX Hybrid	40S	60S	5S
12	TX69A330-1	40S	60S	60S
13	TX69A460-1	TS	40S	TS
14	TX69A509-1	40S	40S	10S
15	TX69A450-1	TMS	40S	TS
16	TX71A801	20S	60S	TS
17	OK66V2621	0	5MS-S	40S
18	OK66V2629	0	5R-MR	40S
19	OK711092	20S	40S	TS
20	OK711252	0	40S	10S
21	KS70H210	5MS	40S	60S
22	KS73H441	0	40S	40S
23	NM62-124	40S	60S	40S

Data provided by D. V. McVey.

Summary of SRPN Yields

Yields from 25 reporting stations in 1975 are summarized in table 4. Varieties are listed according to their 25-station average yields. The 4 sister lines from Colorado -- 725049, 725052, 725082, and 725055 (Lindon) -- were outstanding as a group, ranking first, second, fifth and seventh in average regional performance. C0725049 ranked no lower than second in any state except Illinois and Missouri where its rank was fifth and eighth. The Texas semi-dwarfs, 71A801 and 69A450-1, with third and fourth ranks regionally also were outstanding in 1975. Sage ranked thirteenth and Scout twentieth in the nursery. Regional average yields ranged from 3928 down to only 2559 kg/ha.

Two-year average yields for varieties grown in the SRPN in 1974 and 1975 are summarized in table 5. C0725052 with 3484 kg/ha made the highest 2-year average in the SRPN. Its 2-year state yield rank was no lower than third in any state except Iowa. TX69A450-1 and C0705055 (Lindon), in that order, rank second and third.

The 1975 yield parameters by $\bar{x}$, r , and r^2 are reported for 23 SRPN varieties in table 6. C0725049 exhibited slightly above normal response to changes in environment whereas C0725052 and TX71A801 were somewhat below normal in response to environmental change. TX69A330-1 with 1.20 exhibited strongest response to changes in environment whereas Kharkof was least responsive in 1975. The performance of KS70H210 was slightly the most highly correlated with nursery mean performance ($r=.96$) and its performance was most predictable among nursery entries ($r^2=.92$). Kharkof and TX Hybrid performances were least correlated with nursery mean performance and were least predictable.

Two-year yield parameters are recorded in table 7. Second-ranked TX69A450-1 and 14th-ranked 7174 responded most strongly to environmental changes on a 2-year basis while Scout 66 was least responsive. TX69A450-1 and KS70H210 had 2-year yields that correlated most highly with nursery mean yield and were most predictable.

Summary of Agronomic Data

Agronomic data for SRPN entries are summarized in table 8. C0725052 and C0725082 produced slightly the heaviest grain. 7174 and TX Hybrid produced the lightest grain. Two Texas varieties, 71A801 and 69A509-1, and KS73H441 were earliest heading at 20 reporting stations and 71A801 also was shortest in height. Four varieties were resistant to leaf rust at 6 reporting stations and 13 were resistant to stem rust at 2 stations. Septoria ratings at 3 stations ranged from 3 to 6 on a 0-9 scale. Mildew at 2 stations ranged from 4 to 9.

Table 4.--Summary of mean yields (kg/ha) of the 23 varieties grown in the Southern Regional Performance Nursery in 25 trials, with state averages and ranks.

Entry: no. :	Variety or pedigree	: C. I. or : Sel. No.	Nebraska						New Mexico			
			: Mead	: Clay Center	: Sidney	: Alliance	: Mean	: Rank	: Clovis	: Clovis	: Mean	: Rank
									irr.	dryl.		
7	II21183/2643//Lcr/3/KS62	CO725049	4561	3686	4897	2653	3949	2	7573	3605	5589	2
6	" " "	CO725052	4980	4078	4586	2402	4012	1	6355	3008	4682	15
16	62A2712-7/Centurk	TX71A801	3442	3408	4931	2400	3545	6	6225	3113	4669	16
15	Short Wheat/Scout Composite	TX69A450-1	4038	4041	4326	1850	3564	5	7223	2733	4978	10
8	II21183/2643//Lcr/3/KS62	CO725082	3962	3542	4759	2669	3733	3	6652	3708	5180	7
12	Short Wheat/Scout Composite	TX69A330-1	3466	3502	4638	1967	3393	11	7533	3724	5629	1
5	II21183/2643//Lcr/3/KS62	CO725055	4025	3695	4325	2441	3622	4	6584	2490	4537	20
14	Short Wheat/Scout Composite	TX69A509-1	4067	3502	4245	2221	3509	8	6845	2473	4659	18
20	Tascosa/OK66C2026//Sturdy	OK711252	3455	3910	4215	1635	3304	15	6552	3236	4894	12
19	Triumph 64/OK66C3174//Sturdy	OK711092	3527	3581	4341	2159	3402	10	6227	2531	4379	22
21	Ottawa/5*Scout	KS70H210	3785	3980	3893	2169	3457	9	7096	3273	5185	6
13	Short Wheat/Scout Composite	TX69A460-1	3951	3785	4076	1524	2334	12	7056	3465	5261	4
10	Sage	17277	4148	3329	3817	1934	3307	13	6329	3794	5062	9
17	Scout Selection	OK66V2621	3560	3229	3609	1785	3046	21	7223	3761	5492	3
4	Composite Cross	7174	2998	3314	4274	2126	3178	17	6622	3823	5223	5
11	MS Sturdy/4/MS Sturdy//3*Sturdy Sib/Triumph/3/R-line (BA130)	TX Hybrid	4029	3348	4297	2371	3511	7	5815	2970	4393	21
9	Atl66/Cnn//Cnn/Pnc/Tk/Cnn	NE70577	3859	3890	3239	2228	3304	14	6670	2878	4774	13
18	Scout Selection	OK66V2629	3825	3444	3881	1927	3269	16	7021	3175	5098	8
3	Composite Cross	7173	3885	2899	3375	1903	3016	19	6506	3360	4933	11
2	Scout 66	13996	3574	3583	3150	2215	3131	18	6107	3337	4722	14
22	Scout/Tascosa	KS73H441	3637	3085	3556	2123	3100	20	5837	3370	4604	19
23	Nrn 16/CI12500//Bison	NM62-124	2977	2996	3990	1946	2977	22	6744	2588	4666	17
1	Kharkof	1442	2713	2565	3251	1647	2544	23	4965	2733	3849	23
	Mean		3759	3495	4073	2100	3356		6598	3180	4889	
	LSD		469	427	585	487	479		755	935	924	
	C.V.		7.6%	7.4%	8.7%	14.1%	9.0%		6.9%	17.9%	10.6%	

Table 4. (continued)

Entry:	C.I. or	Texas						Kansas				Illinois		Missouri			
no. :	Sel. No.	Bush-	Bush-	Chilli-	Dallas:	Mean:	Rank:	Hays :	Colby:	Garden:	Hutchin--:	Mean :	Rank:	Urbana:	Rank:	Columbia:	Rank:
:	:	land	land	cothe :	:	:	:	:	City :	son :	:	:	:	:	:	:	:
		irr.	dryl.														
7	CO725049	6334	2273	3204	3032	3711	2	3286	3162	3387	3357	3298	1	4715	5	3011	8
6	CO725052	5775	2192	3164	3017	3537	3	2988	3083	3127	3656	3214	3	5233	2	3368	1
16	TX71A801	6141	2087	3556	3104	3722	1	3452	2572	3409	2746	3045	10	4706	6	2527	19
15	TX69A450-1	6293	1995	2639	2773	3425	5	2698	3265	3700	2656	3080	7	5159	3	2824	16
8	CO725082	5396	2107	2892	2613	3252	14	2854	3094	3358	3339	3161	5	4623	7	2793	17
12	TX69A330-1	6598	2176	2558	2075	3352	8	2699	3410	3589	2582	3070	8	5637	1	3130	4
5	CO725055	5407	2118	3078	2947	3388	6	2932	2913	3053	3021	2980	18	5144	4	3058	7
14	TX69A509-1	5984	2058	3081	2661	3446	4	2775	2988	3696	3189	3162	4	3549	21	3059	6
20	OK711252	5463	1959	2466	2521	3102	17	3165	2988	3333	2680	3042	11	4560	8	2884	13
19	OK711092	5650	1746	2771	2913	3270	12	3084	2890	3028	3055	3014	16	4313	12	2979	10
21	KS70H210	6080	2282	2749	2075	3297	10	2543	3090	3674	2824	3033	14	4487	9	3139	3
13	TX69A460-1	5937	1889	2256	2006	3022	20	2867	2977	3806	2508	3040	12	4335	11	2406	21
10	17277	5950	2277	2713	2420	3340	9	2833	2686	3817	2761	3024	15	4243	15	2893	12
17	OK66V2621	5625	2407	2724	2241	3249	15	3008	3204	3790	2954	3239	2	3708	20	2984	9
4	7174	5912	2078	2650	795	2859	22	2827	3063	3389	2544	2956	21	4248	14	2489	20
11	TX Hybrid	4956	2062	3053	2959	3258	13	3076	2665	3176	3279	3049	9	3870	18	3120	5
9	NE70577	5730	1956	2829	1643	3040	19	2710	2851	3508	2838	2977	19	4433	10	3166	2
18	OK66V2629	6082	2479	2892	2035	3372	7	2937	3285	3496	2750	3117	6	3473	22	2931	11
3	7173	5351	1833	2621	1775	2895	21	2988	2902	3066	2945	2975	20	4311	13	2289	22
2	13996	5708	2169	2610	2293	3195	16	2827	3152	3418	2627	3006	17	4049	17	2855	15
22	KS73H441	5847	2158	2973	2163	3285	11	2721	3081	3427	2914	3036	13	3721	19	2868	14
23	NM62-124	5656	2051	2693	1909	3077	18	2804	2775	3254	2421	2814	22	4123	16	2542	18
1	1442	3280	1804	2363	974	2105	23	2244	2549	2705	2174	2418	23	3470	23	2193	23
Mean		5702	2094	2806	2302	3226		2883	2984	3400	2862	3032		4353		2848	
LSD		742	363	531	505	574		461	467	397	308	364		703		338	
C.V.		7.9%	10.5%	11.5%	13.3%	10.4%		9.7%	9.5%	7.1%	6.5%	8.3%		9.8%		7.2%	

Table 4. (concluded)

Entry:	C.I. or	Oklahoma						Colorado						Iowa	Washington:		25-
no. :	Sel. No.	:Still-:	Good-:	Lahoma:	Altus :	Mean :	Rank:	Fort :	Akron :	Nunn :	Mean :	Rank:	Ames :	Rank:	Lind :	Rank:	site
:	:	:water :	well :	:	:	:	:	:Collins:	:	:	:	:	:	:	:	:	:Average
7	CO725049	2650	4538	4561	2978	3682	2	6895	3668	3489	4684	1	3691	12	3002	1	3928
6	CO725052	2543	4216	4085	2493	3334	3	6292	3862	3472	4542	2-3	3717	11	2085	13	3751
16	TX71A801	2529	5079	3870	3466	3736	1	6362	3961	3147	4490	6	3314	19	2600	5	3686
15	TX69A450-1	2919	4027	3677	2313	3234	5	6949	3785	2844	4526	4	3448	17	2885	3	3643
8	CO725082	2426	3798	3762	2377	3091	9	6319	3342	3271	4311	10	3731	10	2930	2	3613
12	TX69A330-1	2354	4507	3502	2157	3130	6	6335	3348	3224	4302	12	2645	23	2563	7	3597
5	CO725055	2547	3910	3516	2542	3129	7	6146	4341	3139	4542	2-3	3832	6	2265	12	3579
14	TX69A509-1	2112	4126	3265	2803	3077	10	6200	3973	3254	4476	7	3547	15	1877	17	3502
20	OK711252	2363	4289	3646	3031	3332	4	6481	3833	2866	4393	8	3558	14	2391	8	3499
19	OK711092	2305	3949	3359	2552	3041	11	6173	3869	2874	4305	11	4038	1	2588	6	3460
21	KS70H210	2125	3848	2843	2022	2710	20	6023	3259	3259	4180	17	3863	5	1716	21	3444
13	TX69A460-1	2543	4177	3238	2507	3116	8	6319	3161	2977	4152	18	4029	2	2300	11	3444
10	17277	2157	3796	3121	2515	2897	13	5457	3148	3092	3899	22	3868	4	2341	9	3418
17	OK66V2621	1641	3318	3076	1542	2394	21	6022	3513	3152	4229	14	3760	7	1845	19	3347
4	7174	2134	3951	3031	2228	2836	15	6534	3952	3058	4515	5	3179	21	2337	10	3342
11	TX Hybrid	2094	3590	3282	2067	2758	19	5662	3522	2810	3998	20	3532	16	1912	16	3341
9	NE70577	1977	4265	3161	1968	2843	14	5462	3552	3143	4052	19	3895	3	1472	22	3333
18	OK66V2629	1915	3556	2408	1565	2361	22	5521	3623	3519	4221	15	3753	9	1367	23	3314
3	7173	1995	4233	3089	2619	2984	12	5759	4120	3011	4297	13	3679	13	2081	14	3304
2	13996	1955	3708	3179	2296	2785	18	5328	4009	3250	4196	16	3406	18	1749	20	3302
22	KS73H441	2175	3937	3193	1924	2807	16	5241	3271	3288	3933	21	3756	8	1852	18	3285
23	NM62-124	1466	4177	3085	2417	2786	17	6550	3136	3335	4340	9	3197	20	2845	4	3267
1	1442	838	2590	1408	1210	1512	23	4950	3492	3109	3850	23	2682	22	2057	15	2559
Mean		2164	3982	3276	2330	2938		6043	3641	3156	4280		3570		2220		3433
LSD		536	807	629	522	373		656	825	315	621		507		752		203
C.V.		15.1%	12.3%	11.7%	13.6%	13.1%		6.6%	13.8%	6.1%	9.0%		8.6%		20.6%		10.4%

Table 5.--Summary of mean yields (kg/ha) for 16 lines grown in the Southern Regional Performance Nursery at 19 sites in 1974 and 1975, with state means and ranks.

Entry: no. :	Variety or Pedigree	: C. I. or : : Sel. No. :	Kansas					Texas			
			Hays	Colby	Garden City	Mean	Rank	Dallas	Chillicothe	Mean	Rank
6	II21183/2643//Lcr/3/KS62	CO725052	2906	3292	3419	3206	3	3201	2577	2889	2
15	Short Wheat/Scout Composite	TX69A450-1	2689	3212	3702	3201	4	2677	2305	2491	5
5	II21183/2643//Lcr/3/KS62	CO725055	2818	3232	3241	3097	9	2984	2475	2730	3
16	62A2712-7/Centurk	TX71A801	2960	2955	3254	3057	11	3144	2697	2920	1
14	Short Wheat/Scout Composite	TX69A509-1	2644	3151	3775	3190	5	2722	2531	2627	4
10	Sage	17277	2844	2804	3752	3133	8	2424	2455	2439	7
21	Ottawa/5*Scout	KS70H210	2669	3184	3677	3177	6	2139	2459	2299	9
13	Short Wheat/Scout Composite	TX69A460-1	2576	2818	3684	3026	12	2291	2041	2166	10
12	Short Wheat/Scout Composite	TX69A330-1	2386	3312	3829	3175	7	1844	2381	2112	11
3	Composite Cross	7173	2722	2920	3193	2945	13	1494	<u>2/</u>	<u>2/</u>	
18	Scout Selection	OK66V2629	2861	3145	3643	3217	2	<u>1/</u>	<u>1/</u>	<u>1/</u>	
17	Scout Selection	OK66V2621	2832	3133	3775	3246	1	2391	2568	2480	6
2	Scout 66	13996	2688	3064	3481	3077	10	2420	2422	2421	8
4	Composite Cross	7174	2410	3096	3271	2926	14	1035	2223	1629	13
23	Nrn 16/CI12500//Bison	NM62-124	2350	2811	3378	2846	15	1954	2187	2071	12
1	Kharkof	1442	2043	2561	2647	2417	16	1116	<u>2/</u>	<u>2/</u>	
Mean			2650	3043	3482	3058		2256	2409	2406	
LSD			524	478	403	481		477	657	895	
C.V.			8.5%	6.6%	11.6%	9.5%		13.3%	11.3%	12.1%	

1/ Mislabeled entry in 1974.

2/ Late maturity entry lost to hail in 1974.

Table 5. (continued)

Entry: C. I. or		Nebraska						Colorado				Missouri	
no. :	Sel. No. :	Mead	Clay Center	Sidney	Alliance	Mean	Rank	Akron	Ft. Collins	Mean	Rank	Columbia	Rank
6	CO725052	4343	4122	4156	2705	3832	1	3423	6353	4888	3	2968	1
15	TX69A450-1	4002	3616	4056	2353	3507	3	3080	6683	4882	5	2263	12
5	CO725055	3727	3610	4059	2707	3525	2	3703	6219	4961	2	2684	2
16	TX71A801	3559	3401	4498	2465	3481	5	3342	6699	5021	1	2279	11
14	TX69A509-1	4065	3526	3912	2438	3485	4	3229	6541	4885	4	2518	5
10	17277	4158	3576	3236	2067	3259	9	2864	5772	4318	14	2555	4
21	KS70H210	3788	3689	3488	2220	3296	7	2906	5914	4410	11	2609	3
13	TX69A460-1	3923	3680	3742	2108	3363	6	2757	6062	4409	12	1947	15
12	TX69A330-1	3169	2794	3956	2372	3073	14	3012	6105	4559	9	2416	9
3	7173	3858	3037	3262	2176	3083	13	3100	6121	4610	8	2376	10
18	OK66V2629	3852	3626	3436	2140	3264	8	3057	5682	4369	13	2459	6
17	OK66V2621	3815	3370	3355	2040	3145	11	3099	5947	4523	10	2419	8
2	13996	3754	3418	3259	2301	3183	10	3330	5022	4176	15	2443	7
4	7174	3304	2917	3833	2391	3111	12	3310	6056	4683	6	2144	13
23	NM62-124	2957	2637	3500	2139	2808	15	2817	6488	4652	7	2052	14
1	1442	2450	1931	2988	1958	2332	16	2921	4572	3746	16	1716	16
Mean		3670	3309	3671	2286	3234		3122	6015	4568		2366	
LSD		709	879	558	444	615		593	836	1076		532	
C.V.		7.7%	7.6%	8.9%	12.7%	8.9%		11.8%	8.0%	9.3%		9.9%	

Table 5. (concluded)

Entry: C. I. or		Iowa		Illinois		Oklahoma				Washington		Overall ^{3/}		
no.	Sel. No.	Ames	Rank	Urbana	Rank	Stillwater	Goodwell	Lahoma	Altus	Mean	Rank	Lind	Rank	2-year mean
irrig.														
6	CO725052	3436	6	3828	2	2339	3646	3242	2599	2956	3	2456	3	3484
15	TX69A450-1	3241	10	3570	3	2500	3893	2945	2737	3019	2	2779	1	3372
5	CO725055	3396	8	3529	4	2372	3545	2875	2572	2841	6	2406	5	3335
16	TX71A801	2790	11	3316	5	2393	3793	3153	3262	3150	1	2147	11	3310
14	TX69A509-1	3296	9	2453	14	1846	3711	2765	3179	2875	4	1887	16	3231
10	17277	4091	1	3055	8	1917	3524	2821	2951	2803	7	2439	4	3201
21	KS70H210	3796	3	3180	6	1872	3330	2483	2668	2588	11	1963	15	3143
13	TX69A460-1	3987	2	2828	11	2172	3250	2733	2751	2726	8	2357	6	3140
12	TX69A330-1	2113	16	4179	1	2020	3578	2596	2695	2722	9	2208	9	3102
3	7173	2775	12	3177	7	1822	4200	2751	2642	2854	5	2251	8	3081
18	OK66V2629	3635	4	2399	15	1806	3260	2336	2563	2491	14	1970	14	3051
17	OK66V2621	3399	7	2510	13	1659	3126	2588	2509	2470	15	2017	13	3035
2	13996	3470	5	2855	10	1719	2937	2555	2795	2501	13	2153	10	3014
4	7174	2233	14	2705	12	1730	3942	2490	2690	2713	10	2296	7	2989
23	NM62-124	2388	13	2916	9	1452	3595	2524	2632	2551	12	2606	2	2897
1	1442	2195	15	2277	16	726	2066	1491	1704	1497	16	2021	12	2251
Mean		3140		3049		1896	3462	2647	2684	2672		2247		3102
LSD		1023		549		387	1065	791	975	710		835		369
C.V.		11.7%		12.1%		15.2%	13.2%	11.2%	10.4%	12.7%		16.2%		10.7%

^{3/}Mean of 17 locations. Excludes Dallas, Texas and Chillicothe, Texas.

Table 6.--Mean yield, regression coefficient, correlation coefficient, and coefficient of determination from linear regression analyses of variety yield on nursery mean yield for the 23 entries in the Southern Regional Performance Nursery in 1975.

Entry: no. :	C. I. or : Sel. No. :	Mean yield :over 25 locations: (kg/ha)	:Regression coefficient: (by·x)	:Correlation: coefficient: (r)	:Coefficient of determination (r ²)
7	CO725049	3928	1.08	.94	.89
6	CO725052	3751	.96	.92	.85
16	TX71A801	3686	.95	.90	.80
15	TX69A450-1	3643	1.15	.95	.91
8	CO725082	3613	.94	.95	.90
12	TX69A330-1	3597	1.20	.94	.89
5	CO725055	3579	.96	.92	.86
14	TX69A509-1	3502	1.02	.93	.86
20	OK711252	3499	1.01	.94	.89
19	OK711092	3460	.94	.95	.89
21	KS70H210	3444	1.09	.96	.92
13	TX69A460-1	3444	1.12	.95	.90
10	17277	3418	.93	.95	.90
17	OK66V2621	3347	1.06	.94	.88
4	7174	3342	1.11	.94	.88
11	TX Hybrid	3341	.82	.89	.79
9	NE70577	3333	1.03	.94	.89
18	OK66V2629	3314	1.05	.93	.87
3	7173	3304	.99	.94	.89
2	13996	3302	.89	.93	.87
22	KS73H441	3285	.87	.93	.87
23	NM62-124	3267	1.08	.95	.90
1	1442	2559	.75	.83	.68

Table 7.--Mean yield, regression coefficient, correlation coefficient and coefficient of determination from linear regression analyses of variety yield on nursery mean yield for 16 entries in the Southern Regional Performance Nursery in 1974 and 1975.

Entry: no. :	C. I. or Sel. No. :	Mean yield over: 17 locations (kg/ha)	Regression coefficient: (by·x)	Correlation coefficient: (r)	Coefficient of determination (r ²)
6	CO725052	3484	.99	.90	.82
15	TX69A450-1	3372	1.09	.93	.87
5	CO725055	3335	.97	.92	.84
16	TX71A801	3310	1.06	.89	.79
14	TX69A509-1	3231	1.08	.92	.85
10	17277	3201	.90	.88	.78
21	KS70H210	3143	.98	.93	.86
13	TX69A460-1	3140	1.04	.90	.80
12	TX69A330-1	3102	1.06	.87	.76
3	7173	3081	1.02	.90	.80
18	OK66V2629	3051	.95	.89	.79
17	OK66V2621	3035	.97	.91	.83
2	13996	3014	.79	.87	.76
4	7174	2989	1.09	.89	.79
23	NM62-124	2897	1.08	.92	.85
1	1442	2251	.83	.83	.68

Table 8.--Summary of agronomic and yield data for varieties grown in the Southern Regional Performance Nursery in 1975.

Entry:		: C. I. or	: Days	: Days	: Plant	: Winter	: Lodg-	: Shat-	: No.	: Kernels/
no. :	Variety or Pedigree	: Sel. No.	: to	: to	: height:	: survival:	: ing	: tering:	: tillers:	: spike
:	:	:	: head	: ripe	:	:	:	:	:	:
			:from 1/1:	:from 1/1:	cm. :	0-9	: 0-9 :	0-9 :		
Number of trials			20	1	25	5	16	4	1	1
7	II21183/2643//Lcr/3/KS62136	CO725049	140	186	78	9	1	0	82	30
6	" "	CO725052	140	187	82	9	1	0	79	29
16	62A2712-7/Centurk	TX71A801	139	186	72	9	1	1	85	30
15	Short Wheat/Scout Composite	TX69A450-1	143	188	80	9	1	0	70	25
8	II21183/2643//Lcr/3/KS62136	CO725082	141	186	82	9	1	1	63	31
12	Short Wheat/Scout Composite	TX69A330-1	142	187	75	9	1	0	88	23
5	II21183/2643//Lcr/3/KS136	CO725055	142	188	81	9	1	1	73	29
14	Short Wheat/Scout Composite	TX69A509-1	139	185	77	9	2	0	78	26
20	Tascosa/OK66C2026//Sturdy	OK711252	141	188	74	9	1	0	68	26
19	Triumph 64/OK66C3174//Sturdy	OK711092	142	187	80	9	1	0	64	27
21	Ottawa/5*Scout	KS70H210	141	187	90	9	2	0	77	21
13	Short Wheat/Scout Composite	TX69A460-1	143	186	79	8	2	0	93	28
10	Sage	17277	143	187	91	9	2	0	75	23
17	Scout Selection	OK66V2621	141	186	91	9	3	0	78	21
4	Composite Cross	7174	143	186	79	9	1	0	56	29
11	MS Sturdy/4/Ms Sturdy//3*Sturdy Sib/ Triumph/3/R-line (BA130)	TX Hybrid	140	186	83	9	1	1	58	29
9	Atl66/Cmn//Cmn/Pnc/Tk/Cnn	NE70577	140	187	89	9	2	1	76	21
18	Scout Selection	OK66V2629	141	187	91	9	3	0	75	21
3	Composite Cross	7173	144	188	82	9	1	0	68	22
2	Scout 66	13996	141	186	92	9	2	0	70	21
22	Scout/Tascosa	KS73H441	139	185	89	9	3	1	66	23
23	Nrn 16/CI12500//Bison	NM62-124	141	189	79	8	2	0	70	20
1	Kharkof	1442	148	191	98	8	4	0	77	18

Table 8. (concluded)

Entry:		C. I. or	no. :	Sel. No.	:1000- :Kernel: :weight:	:Leaf rust: :Sev.: : :	:Stem rust: :Sev.: : :	:Sep- :Resp: : :	:Mil- :Resp: : :	:BYMV: :Sev.: : :	:Scab: :Resp: : :	:Bacte- :Sev.: : :	:Seed: :size: : :	:Pearl- :off : :	:Av.Cole- :optile :at 65° F:	:Volume: :length :	:Yield :weight: :
					%	%		0-9	0-9	0-9			%	1-9	mm	kg/hl	kg/ha
Number of trials		2	6	6	2	2	3	2	1	1	1	1	1	1	1	21	25
7	CO725049	23	19	R	1	R	4	5	0	4	40	53	21	4.8	65.5	78.2	3928
6	CO725052	25	20	MR	1	R	4	5	0	1	20	69	28	5.0	74.7	78.9	3751
16	TX71A801	22	7	R	21	M	6	9	0	0	40	35	22	3.5	76.1	77.6	3686
15	TX69A450-1	30	7	MR	1	R	4	4	0	0	40	83	42	5.3	80.8	76.9	3643
8	CO725082	25	69	MS	3	R	4	4	1	2	30	52	24	5.0	69.1	78.3	3613
12	TX69A330-1	25	69	M	33	S	3	5	1	0	10	89	35	5.8	78.0	77.9	3597
5	CO725055	23	58	M	1	R	4	5	0	1	20	55	24	5.3	72.0	78.9	3579
14	TX69A509-1	26	15	MR	1	R	4	9	0	0	40	80	30	3.8	83.3	77.5	3502
20	OK711252	30	19	R	11	MR	3	8	1	2	50	78	25	5.5	82.1	78.8	3499
19	OK711092	27	7	MR	70	S	3	8	0	0	50	72	24	5.0	76.3	76.4	3460
21	KS70H210	30	49	M	1	R	3	4	0	0	10	83	28	5.5	107.6	78.2	3444
13	TX69A460-1	25	9	MR	1	R	5	4	1	2	40	56	23	4.0	76.7	77.4	3444
10	17277	31	10	M	1	R	2	8	1	1	10	88	28	6.0	104.2	78.2	3418
17	OK66V2621	29	47	M	1	R	3	4	1	1	30	84	28	5.3	109.4	77.6	3347
4	7174	25	33	MR	16	M	5	9	2	0	20	66	27	4.3	69.0	75.6	3342
11	TX Hybrid	34	19	M	28	S	3	9	0	1	60	84	28	3.8	88.0	75.5	3341
9	NE70577	28	47	MS	21	M	3	5	3	0	10	86	29	5.8	102.6	77.8	3333
18	OK66V2629	29	42	MS	1	R	3	4	1	0	40	79	28	5.5	108.0	78.1	3314
3	7173	27	23	R	43	S	4	9	1	2	40	85	22	5.0	78.7	78.6	3304
2	13996	30	43	MS	1	R	4	6	2	1	20	84	29	5.3	102.8	78.4	3302
22	KS73H441	28	41	MS	0	R	5	8	3	0	10	76	26	4.5	99.0	78.7	3285
23	NM62-124	29	43	MS	70	S	5	9	3	0	30	77	27	4.0	65.6	76.7	3267
1	1442	28	35	M	33	S	3	5	3	0	30	78	29	4.8	94.3	76.7	2559

1/ Number of infected heads/10-foot row.

2/ % Flag leaf chlorotic or necrotic due to infection by Xanthomonas translucens and Pseudomonas atrofaciens.

3/ % Remaining on 6/64 screen.

4/ 1, Best; 9, Poorest.

NORTHERN REGIONAL PERFORMANCE NURSERY

Only 16 varieties were tested in 1975 of which 4 were new and one was entered from the SRPN. Their pedigrees, numbers and sources appear in the listing that follows. Yield data were reported from 14 tests in 7 states and 1 test at Lethbridge, Alberta in Canada. Poor emergence and fall stands forced abandonment of the nurseries at North Platte, Nebraska and Highmore and Prescho, South Dakota. Damage from grasshoppers and sheep necessitated abandonment of the Hettinger, North Dakota nursery. Data were not reported from Teton, Idaho.

Data from reporting stations appear in table 9. Seedling reactions to stem rust isolates provided by D. V. McVey are summarized in table 10 and field adult reactions of NRPN entries to leaf and stem rust at St. Paul, Minnesota are reported in table 11.

<u>Entry no.</u>	<u>Variety or pedigree</u>	<u>C. I. or Sel. No.</u>	<u>Source</u>
1	Kharkof	1442	Check
2	Warrior	13190	Check
3*	Atl66/Cmn//Cnn/Pnc/Tk/Cnn	NE70577	Nebraska
4**	Atl66/Cmn//Lancer	NE701132	"
5*	Cnn//Pnc/3/Tk/Cnn/4/Scout	NE68521	"
6	Pnc/3*Cnn/3/Ky58/Nth/2/2*Cnn/ Tm/Mi/Hope/4/Sut	NE69442	"
7	Warrior/Scout	NE70711	"
8	" "	NE70712	"
9	SS/D8/Wmt/4/Hume/3/SS/12500/ RCh/Pn//Cnn	SD72134	South Dakota
10	" " " "	SD72172	" "
11	" " " "	SD72175	" "
12	" " " "	SD72193	" "
13*	Winoka//Jaral 66/Minter	SD7143	" "
14*	II21031/Trapper//C0652363	C0701733	" "
15	Yg*3/Cnn Sel. 2-3-13-6	MT6715	Montana
16	Nb176/Y18181//YTO 117, Sel. 1-1-4-3	MT6930	"

* New entry in 1975

** Entered from SRPN

Test Site Information

Nebraska Stations -- See information for the SRPN.

Archer -- Entries emerged satisfactorily in the fall and survived the winter well. There was good moisture in early spring but May and June were very dry. There were no diseases or insects of consequence.

Sheridan -- Conditions during the growing season were similar to those at Archer and the wheat did not finish normally.

Brookings -- The nursery was seeded on fallow ground with 16-20-0 fertilizer applied in the amount of 75 grams per plot. Good fall stands were obtained. Although winter snow cover was sparse little or no winter injury occurred. Severe heat late in the growing season probably reduced yields. Traces of stripe rust occurred and leaf rust was abundant. Stem rust came in late and was of minor importance.

Highmore -- The soil was dry and there was no fall emergence. The nursery was abandoned.

Presho -- Fall emergence was spotty. Data were not reported due to poor stands.

Minnesota Stations -- Soil moisture in the fall and spring was ample for normal fall emergence and spring development. The winter was mild in December and early January but turned very cold in late January. There was good snow cover during most of the winter. Leaf rust became abundant but stem rust remained light. Yields were reduced by hot humid weather in late June and early July.

Casselton -- Excessive fall moisture caused seeding problems that resulted in irregular stands. Very little winterkilling occurred during a milder-than-normal winter. Spring and summer moisture was adequate but heat and humidity at flowering time caused considerable sterility.

Williston -- Fall emergence and stands were excellent but the weather was dry. Grasshoppers had to be sprayed for control. Snow cover during the December-March period was minimal but temperatures were above-average. A cool late spring delayed regrowth until early May and heading was one week later than normal. There was average precipitation in April, May and June but July was hot and dry and hastened grain maturation. Septoria, Pyronophora, bacterial blight, leaf rust, and light stem rust were present in the nursery.

Hettinger -- Grasshoppers and sheep destroyed portions of the nursery and data were not reported.

Sidney, Montana -- Fall stand establishment was excellent. No winterkilling occurred. A late cool spring retarded spring growth and delayed heading by approximately one week after normal. Moisture was above normal in June and leaf spotting and bacterial diseases caused extensive damage to the wheat. Ascochyta tritici, Helminthosporium tritici-repentis, Helminthosporium sativum, Septoria nodorum, Erysiphe graminis tritici, Pseudomonas syringae, Xanthomonas translucens, Puccinia recondita and

Puccinia graminis tritici were isolated from varieties in the nursery. Heaviest damage to lower leaves was caused by Helminthosporium and Septoria nodorum. Powdery mildew and the rusts occurred in trace amounts only. There were no insect problems.

Moccasin -- Fall stand establishment was good and no winterkilling occurred. Precipitation in the amount of 16.37 inches was received from January 1 to July 31. The average for this period is 10.12 inches. No lodging, shattering, or insect damage occurred. Leaf spotting was observed in some entries.

Clovis -- See information for the SRPN.

Lethbridge -- Sufficient precipitation was received at seeding time for good fall stand establishment. Timely rains in May and June resulted in much higher yields than earlier anticipated.

Table 9.--Yield and other data for varieties evaluated in the Northern Regional Performance Nursery in the hard red winter wheat region in 1975.

Mead, Nebraska
Three replications

C. I. or	:	:	Days to	:	Plant: Lodg-	:	Leaf Rust	:	Stem Rust							
Sel. No.	:	Yield	:	Head	:	Height	:	ing	:	Sev.: Resp	:	Sev.:Resp.				
		kg/ha		From 1/1		cm		0-9		%		0-9	%		0-9	
NE701132		4085		151		103		2		1		2		1		2
SD7143		3906		149		95		0		1		2		1		2
CO701733		3648		150		92		4		1		2		1		2
NE69442		3547		154		113		4		50		8		1		2
NE68521		3514		147		101		5		65		8		1		2
NE70577		3509		148		98		6		65		8		1		2
MT6715		3356		152		110		2		75		8		1		2
SD72172		3255		150		96		2		1		2		1		2
NE70712		3240		150		108		5		65		8		1		2
SD72134		3161		150		99		2		5		2		1		2
NE70711		3123		150		102		5		65		8		5		2
SD72175		3074		154		100		4		10		2		1		2
SD72193		3069		154		102		2		65		8		5		2
1442		2688		155		112		8		65		8		25		8
13190		2645		153		110		4		90		8		25		8
MT6930		2233		155		113		6		60		8		5		2

LSD = 425, C.V. = 7.8%

Sidney, Nebraska
Three replications

C. I. or Sel. No.	Yield kg/ha	Plant Height cm
NE70577	4289	102
13190	4162	111
NE70712	4153	114
SD72172	4135	97
CO701733	4088	95
NE701132	4052	109
SD7143	4038	96
NE68521	3746	110
SD72193	3731	105
NE70711	3662	108
SD72175	3573	109
NE69442	3571	113
SD72134	3523	105
1442	3271	122
MT6715	3248	115
MT6930	3131	118

Alliance, Nebraska
Three replications

C. I. or	:	:	Plant	:
Sel. No.	:	Yield	Height	Lodging
		kg/ha	cm	0-9
CO701733		2301	76	2
NE70711		2078	83	3
NE69442		2059	83	2
NE701132		2057	82	4
13190		2005	80	4
SD72134		1951	77	2
SD72172		1892	72	4
MT6715		1858	83	3
SD72193		1787	74	3
NE68521		1759	79	4
NE70577		1682	79	4
MT6930		1678	86	4
SD7143		1587	74	3
1442		1584	86	5
SD72175		1511	72	4
NE70712		1489	81	3

Archer, Wyoming
Three replications

C. I. or Sel. No.	: Yield	: Volume Weight	: Days to Head	: Plant Height
	kg/ha	kg/hl	from 1/1	cm
13190	1818	79.9	169	48
MT6930	1510	78.6	173	53
NE70711	1481	80.5	168	55
NE70712	1445	81.8	168	53
1442	1420	79.2	172	53
NE70577	1412	80.5	168	50
SD72134	1387	77.1	167	48
NE69442	1328	78.6	169	45
SD72193	1287	79.9	172	45
SD7143	1270	76.0	169	50
NE68521	1262	78.6	168	53
MT6715	1249	79.2	173	54
SD72172	1201	77.3	167	44
CO701733	1166	75.4	167	49
NE701132	1147	79.9	168	51
SD72175	1091	76.7	169	48

LSD = 390, C.V. = 17.4%

Sheridan, Wyoming
Three replications

C. I. or Sel. No.	: Yield	: Volume Weight	: Days to Head	: Plant Height
	kg/ha	kg/hl	from 1/1	cm
13190	1935	78.5	168	63
NE69442	1729	78.8	169	60
CO701733	1552	80.1	168	51
SD72175	1533	81.3	168	56
NE70711	1477	79.5	167	66
1442	1473	79.9	172	70
NE70712	1421	79.0	168	61
NE701132	1339	79.9	169	75
MT6715	1333	80.6	172	74
NE70577	1262	79.2	168	64
MT6930	1216	81.2	171	73
SD72193	1200		171	54
SD72172	1156	81.3	169	54
NE68521	1130	79.2	165	70
SD7143	1030	79.4	168	63
SD72134	932	81.2	169	55

LSD = 379, C.V.=16.8%

Brookings, South Dakota
Three replications

C. I. or Sel. No.	: Yield	: Volume: Weight:	: Days to Head	: Plant Height	: Winter Survival	: Shat- Lodging	: Shat- tering	: Leaf Rust Sev.	: Stem Rust Resp.	: Stem Rust Sev.	: Stem Rust Resp.
	kg/ha	kg/hl	from 1/1	cm	0-9	0-9	0-9	%	0-9	%	0-9
CO701733	4376	78.7	162	93	9	0	0	65	5	0	0
NE70711	4313	77.1	161	107	9	0	0	99	8	0	0
SD7143	4219	75.4	163	100	9	0	0	0	0	0	0
SD72134	4194	80.0	164	107	9	0	0	45	5	0	0
SD72175	4133	77.4	163	101	9	0	0	25	5	0	0
NE70712	4129	77.4	163	111	9	0	0	99	8	0	0
NE69442	4055	77.7	164	108	9	0	0	99	8	0	0
SD72193	3984	79.9	164	106	9	0	0	65	5	0	0
13190	3927	75.5	164	103	9	0	0	99	8	1	8
SD72172	3820	76.4	164	95	9	0	0	65	5	0	0
NE68521	3805	77.2	159	108	9	0	0	99	8	0	0
NE70577	3729	77.8	161	103	9	0	0	99	8	0	0
NE701132	3687	77.8	163	108	9	0	0	1	3	0	0
MT6715	2966	75.5	166	108	9	0	0	99	8	65	8
1442	2912	73.1	167	105	9	0	0	99	8	65	8
MT6930	2889	75.0	168	110	9	0	0	99	8	65	8

LSD = 460, C.V. = 7.2%

St. Paul, Minnesota
Three replications

C. I. or Sel. No.	: Yield ^{1/}	: Volume Weight	: Days to Head	: Plant Height	: Lodg- ing	: Leaf Rust :Sev. :Resp.	: Stem Rust :Sev. :Resp.
	kg/ha	kg/hl	From 1/1	cm	0-9	% 0-9	% 0-9
SD7143	2966	75.9	159	105	5	10	8 0
NE68521	2870	77.2	155	112	6	60	8 0
NE701132	2818	79.8	160	112	6	5	8 1 8
13190	2576	78.5	157	118	9	10	8 1 2
SD72175	2576	74.4	162	104	6	40	8 0
SD72193	2421	77.2	163	102	1	60	8 0
NE70577	2293	74.7	157	111	6	60	8 1 2
SD72134	2266	77.6	162	105	1	20	8 0
CO701733	2118	69.5	161	102	9	40	8 0
SD72172	2058	72.1	162	105	7	60	8 0
NE69442	2011	79.8	161	114	9	20	8 0
NE70712	1701	76.6	160	112	7	40	8 0
MT6930	1627	73.4	167	123	9		
MT6715	1567	73.1	161	118	9	60	8 0
1442	1498	72.1	166	117	8	60	8 5 8
NE70711	1426	67.6	158	111	8	40	8 0

^{1/} Grain from individual replications inadvertently composited before weighing. Recorded values are 3-rep mean values.

Waseca, Minnesota
Three replications

C. I. or Sel. No.	: Yield kg/ha	: Volume Weight kg/hl
NE701132	3468	79.2
13190	3378	80.4
NE69442	3246	80.4
CO701733	3199	72.1
SD7143	3010	77.9
SD72193	2773	75.9
SD72172	2731	73.4
SD72175	2702	74.7
NE70577	2637	73.4
SD72134	2578	75.9
NE70712	2497	74.0
NE68521	2157	75.3
1442	1930	68.9
NE70711	1852	70.8
MT6715	1715	69.5
MT6930	1670	67.6

LSD = 631, C.V. = 14.6%

Casselton, North Dakota
Three replications

C. I. or	:	Volume	:	Days to	:	Plant	:	Leaf Rust	:	Stem Rust
Sel. No.	:	Yield	:	Weight	:	Head	:	Height	:	Sev.:Resp.: Sev.:Resp.
		kg/ha		kg/hl		from 1/1		cm		% 0-9 % 0-9
CO701733		2539		78.5		174		77		10 8 0
NE701132		2405		71.4		176		82		0 0
SD72172		2320		77.6		174		77		5 3 0
13190		2248		76.6		175		90		40 8 20 8
SD7143		2119		74.4		174		77		1 2 0
NE69442		2040		69.0		177		85		20 8 0
SD72193		2006		75.9		174		80		1 2 0
SD72175		1990		74.2		176		80		1 2 0
1442		1805		74.2		177		100		40 8 20 8
SD72134		1715		76.8		173		77		1 2 0
NE68521		1698		75.5		172		87		20 8 0
MT6930		1687		73.7		178		97		60 8 20 8
MT6715		1648		72.3		176		98		60 8 30 8
NE70712		1631		70.5		176		88		30 8 0
NE70577		1581		69.7		174		82		60 8 0
NE70711		1272		69.5		175		82		40 8 0

LSD = 454, C.V. = 14.2%

Williston, North Dakota
Three replications

C. I. or Sel. No.	: Yield	: Volume Weight	: Days to Head	: Plant Height	: Winter Survival	: Leaf Rust Sev.	: Leaf Disease Complex
	kg/ha	kg/hl	from 1/1	cm	0-9	%	0-9
SD72193	3326	80.2	172	85	9	5	7
13190	3221	79.3	172	94	9	20	8
SD72172	3057	81.3	170	87	9	1	8
CO701733	3010	81.6	171	75	9	10	8
MT6930	3006	80.0	175	100	9	10	8
MT6715	2977	80.2	175	102	9	30	9
NE70712	2974	81.0	169	85	9	20	9
NE69442	2958	80.2	172	90	9	30	8
SD72134	2956	82.8	170	85	9	5	8
NE70711	2889	81.4	169	86	9	40	9
1442	2880	78.2	175	96	9	20	8
SD7143	2862	80.6	171	82	9	0	8
NE701132	2813	79.3	171	94	8	1	8
NE70577	2786	82.7	168	84	9	20	9
SD72175	2764	80.1	171	78	9	5	8
NE68521	2425	81.1	166	83	9	20	9

LSD = 354, C.V. = 7.2%

Sidney, Montana
Three replications

C. I. or Sel. No.	: Yield	: Volume Weight	: Days to Head	: Plant Height	: Winter Survival	: Leaf Disease Complex ^{1/}	: Leaf Spot ^{2/}	: Bacteria ^{3/}	: Spring vigor ^{4/}	
	: kg/ha	: kg/hl	: from 1/1	: cm	: 0-9	: % 0-9	: Sev. : Resp. :	: :	: :	
SD72172	3313	79.3	172	72	9	15	7	5	2	2.83
MT6715	3223	79.3	175	96	9	40	8	7	20	3.00
13190	3179	78.0	173	86	9	20	6	8	T	2.67
1442	3170	77.4	175	97	9	25	7	6	T	3.17
CO701733	3118	78.7	172	67	9	40	8	7	5	2.67
NE70577	3096	78.0	170	82	9	40	8	8	50	3.00
SD72134	3055	80.0	172	82	9	55	8	5	10	3.17
NE69442	3044	78.0	173	86	9	20	7	7	5	2.67
NE70712	3031	77.4	172	83	9	75	9	6	40	2.67
SD72193	2950	80.6	173	75	9	30	7	5	2	2.33
NE70711	2932	78.0	171	81	9	70	9	6	50	2.67
MT6930	2885	78.7	175	91	9	35	8	6	30	3.33
SD7143	2782	76.8	173	71	9	45	8	6	10	2.33
NE701132	2782	78.7	173	86	9	35	8	7	5	2.00
NE68521	2764	77.4	168	84	9	40	8	8	10	2.83
SD72175	2688	78.0	172	76	9	40	8	6	5	2.67

LSD = 418, C.V. = 8.4%.

^{1/} Rating for bacteria and leaf spot fungi followed by numerical value for % flag leaf affected. Diseases involved include: Ascochyta tritici, Helminthosporium sativum, Helminthosporium tritici-repentis, Septoria nodorum, Pseudomonas syringae and Xanthomonas translucens. (Note: This disease complex was erroneously reported in last year's report as Septoria tritici.)

^{2/} 9 = Most susceptible.

^{3/} % flag leaf affected presumably by Pseudomonas syringae and Xanthomonas translucens.

^{4/} 1 = poor; 2 = fair; 3 = good; 4 = excellent.

Moccasin, Montana
Three replications

C. I. or Sel. No.	: Yield	: Volume Weight	: Days to Head	: Plant Height	: Leaf Spot ₁ /
	kg/ha	kg/hl	from 1/1	cm	
SD72193	2852	79.5	181	86	1
CO701733	2818	81.4	180	83	0
NE69442	2697	81.1	180	103	0
13190	2556	81.3	181	94	0
NE70712	2556	80.7	179	99	9
SD72175	2468	80.0	180	88	8
MT6715	2438	80.6	181	97	0
1442	2420	80.4	183	113	0
NE70577	2342	81.4	180	90	0
NE70711	2319	80.8	179	94	3
SD72172	2303	80.3	180	81	1
SD72134	2232	82.3	180	84	1
MT6930	2198	79.7	184	109	0
SD7143	2112	78.9	181	84	8
NE701132	1805	80.5	181	98	0
NE68521	1726	79.8	178	95	0

LSD = 534, C.V. = 13.5%

1/ 9 = Severe

Clovis, New Mexico
Three replications
(Dryland)

C. I. or Sel. No.	: Yield	: Volume Weight	: Days to Head	: Plant Height
	kg/ha	kg/hl	from 1/1	cm
NE70712	3707	76.0	127	82
NE70711	3694	78.0	125	78
13190	3555	77.1	130	76
NE69442	3230	78.6	131	79
CO701733	3184	77.0	128	70
NE701132	3127	76.8	125	83
NE68521	3065	76.4	121	76
SD72175	2949	76.4	131	76
MT6715	2904	78.0	129	75
NE70577	2878	77.9	123	70
MT6930	2813	76.9	132	77
1442	2733	75.6	132	90
SD7143	2618	72.6	130	69
SD72134	2590	78.7	130	80
SD72172	2427	76.5	129	66
SD72193	2197	76.9	132	72

LSD = 973, C.V. = 19.6%

Clovis, New Mexico
Three replications
(Irrigated)

C. I. Or	:	:	Volume	:	Days to	:	Plant	:		
Sel. No.	:	Yield	:	Weight	:	Head	:	Height	:	Lodging
		kg/ha		kg/hl		from 1/1		cm		0-9
NE70711		7041		78.3		130		106		2
CO701733		6999		77.9		133		103		0
SD72172		6704		77.9		133		100		0
NE70577		6670		79.3		128		98		5
NE70712		6668		78.2		132		110		0
NE69442		6500		77.8		135		116		1
SD72175		6346		77.4		133		104		0
13190		6201		78.0		134		108		1
SD72134		6191		79.2		133		100		0
NE701132		5985		77.3		129		108		1
NE68521		5981		77.8		127		106		2
SD72193		5828		78.9		134		100		0
SD7143		5518		75.3		134		94		0
MT6930		5413		77.0		137		115		0
MT6715		5409		79.2		133		110		0
1442		4965		77.9		138		115		1

LSD = 779, C.V. = 7.6%

Lethbridge, Alberta
Three replications

C. I.	:	:	:	Days	:	Days	:	:	:	1000 -				
or	:	:	:	Volume	:	to	:	Plant	:	Lodg-: kernel				
Sel. No.	:	Yield	:	Weight	:	Head	:	Ripe	:	Height	:	ing	:	Weight
		kg/ha		kg/hl		from 1/1		from 1/1		cm		0-9		gms
NE70711		2267		81.3		168		204		84		1		38
CO701733		2191		81.9		170		207		78		1		34
NE69442		2123		81.3		172		204		88		1		44
MT6715		2096		81.3		174		207		93		2		31
SD72172		2079		81.3		170		208		82		1		31
NE70577		2047		81.3		168		204		83		1		42
SD72175		2023		80.0		174		209		80		1		32
13190		2005		80.6		175		205		98		3		34
NE70712		1993		81.3		170		204		91		1		40
SD7143		1986		79.3		174		208		72		1		33
1442		1961		80.6		175		205		95		4		35
SD72193		1940		81.3		174		209		78		1		32
SD72134		1889		80.6		170		204		76		1		32
MT6930		1812		81.3		174		207		100		2		33
NE701132		1747		80.0		170		206		80		1		36
NE68521		1700		80.6		168		204		78		2		41

LSD = 390, C.V. = 11.8%

Table 10. Seedling reaction of entries in the 1975 Northern Regional Hard Red Winter Wheat Performance Nursery to isolates of Puccinia graminis F. sp. tritici.

Ent. No.	Variety	C. I. or Sel. No.	Source	Isolates												
				72-41-140A	65-39-2	72-4-1-A	72-00-53-A	71-21-584-B	72-25-639-C	72-00-1370-C	69-21-399	59-14-19	68-14-68-A	70-44-64-C	72-21-1276-C	70-8451
				TMRT	TLMH	TNMH	RTQQ	RHRS	RKQS	QFBS	QSHS	MBCT	HNLQ	HJCS	GJCS	LCIQ
1	Kharkof	1442	Check	S	S	S	2	23	2	2	2	S	23	2	2	23
2	Warrior	13190	Check	S	S	SS	S	S	S	S	2	S	S	2	S	23
3	Atl66/Cnn//Cnn/Pnc/Tk/Cnn	NE70577	Neb.	S	I	II	II N	S	23	S	S	S	II N	2-	S	II
4	Atl66/Cnn//Lancer	NE701132	Neb.	23	II	I	II	S	II	2	S	2	I	0	0	I
5	Cnn//Pnc/3/Tk/Cnn/4/Scout	NE68521	Neb.	S	S	II	II	S	S	2	S	S	II	2	2	I
6	Pnc/3*Cnn/3/Ky58/Nth/2/ 2*Cnn/Tm/Mi/Hope/4/Sut	NE69442	Neb.	I	I	I	I	2-	2	I	2	I	I	2-	2-	0
7	Warrior/Scout	NE70711	Neb.	S	S	S	S	S	S	2	2	2	S	2	23	23
8	" "	NE70712	Neb.	S	S	S	S	S	S	2	2	S	S	23	23	2
9	SS/D8/Wmt/4/Hume/3/SS/ 12500/Rch/Pn//Cnn	SD72134	S.Dak.	S	II	I	I	2-	2	2-	2	S	I	2	2-	I
10	" "	SD72172	S.Dak.	S	II	II	II	2	2	2	2	2-	II	2	2	I
11	" "	SD72175	S.Dak.	S	I	I	I	2	2	II	2	2-	I	0	0	I
12	" "	SD72193	S.Dak.	S	II	II	I	2	2	2	I	2	I	2	2	I
13	Winoka//Jaral 66/Minter	SD7143	S.Dak.	S	I	I	II	S	S	S	S	S	I	2	0	I
14	II21031/Trapper//CO652363	CO701733	S.Dak.	I	I	I	2	2	2	I	2	I	I	2	2	I
15	Yg*3/Cnn Sel. 2-3-13-6	MT6715	Mont.	S	S	S	S	S	S	S	S	S	2	2	2	23
16	Nb176/Y18181//YTO 117, Sel. 1-1-4-3	MT6930	Mont.	S	S	S	S	S	S	2	2	S	2	2	2-	2

Data provided by D. V. McVey, Cereal Rust Laboratory, ARS, University of Minnesota, St. Paul, Minn.

Table 11. Adult plant reactions of entries in the 1975 Northern Regional Hard Red Winter Wheat Performance Nursery to leaf and stem rust at St. Paul, Minn.

Entry No.	: C. I. or : Sel No.	Stem Rust		Leaf Rust
		7/2	7/8	7/2
1	1442	40S	60S	20S
2	13190	40S	60S	40S
3	NE70577	5MS	10S	20S
4	NE701132	5S	40S	5S
5	NE68521	5S	20S	20S
6	NE69442	0	30S	20S
7	NE70711	5S	10S	20S
8	NE70712	TS	10S	20S
9	SD72134	TMR	30S	20S
10	SD72172	TMS	40S	20S
11	SD72175	0	20S	TS
12	SD72193	5MS	40S	20S
13	SD7143	5MS-S	20S	TS
14	CO701733	TMS	40S	10S
15	MT6715	40S	40S	60S
16	MT6930	10S	60S	40S

Data provided by D. V. McVey.

Summary of NRPN Yields

Average yields from 15 reporting test sites are summarized in table 12. C0701733 with excellent performance in all states except Wyoming produced the highest regional average yield of 2910 kg/ha. It was followed by Warrior, NE69442 and NE70712 in that order. On a 2-year basis, Warrior has the highest average yield among 11 varieties evaluated in 1974 and 1975 (table 13).

Yield parameters by $\bar{x}$, r , and r^2 are reported for 1975 in table 14 and for 1974-75 in table 15. NE70711 responded most strongly to changes in the 1975 production environment and Kharkof was least responsive. For two years SD72193 produced the highest $\bar{x}$ for yield and again Kharkof was lowest. In 1975 the performances of NE70712, SD72172, NE70577, SD72175 and SD72134 correlated most highly with nursery mean yield ($r=.97$). NE70577 and SD72175 had the most predictable performances ($r^2=.95$).

Summary of Agronomic Data

Agronomic data for entries in the NRPN are summarized in table 16. NE68521 was earliest heading and C0701733 had the shortest straw. SD7143, SD72193 and SD72134 lodged the least at 6 reporting stations. SD7143 and NE701132 (Lancota) were most resistant to leaf rust and many varieties were resistant to stem rust. SD72134 produced grain with the highest volume weight.

Table 12.--Summary of mean yields (kg/ha) for 16 lines grown in the Northern Regional Performance Nursery at 15 sites in 1975, with state means and ranks.

Entry: no. :	Variety or Pedigree	:C. I. or:		Montana		: South Dakota		
		:Sel. No.:	Moccasin:	Sidney:	Mean	:Rank:	Brookings:	Rank
14	II21031/Trapper//C0652363	C0701733	2818	3118	2968	1	4376	1
2	Warrior	13190	2556	3179	2868	4	3927	9
6	Pnc/3*Cnn/3/Ky58/Nth/2/2*Cnn/Tm/Mi/Hope/4/Sut	NE69442	2697	3044	2871	3	4055	7
8	Warrior/Scout	NE70712	2556	3031	2794	8	4129	6
4	At166/Cnn//Lancer	NE701132	1805	2782	2294	15	3687	13
10	SS/D8/Wmt/4/Hume/3/SS/12500/RCh/Pn//Cnn	SD72172	2303	3313	2808	6	3820	10
7	Warrior/Scout	NE70711	2319	2932	2626	11	4313	2
3	At166/Cnn//Cnn/Pnc/Tk/Cnn	NE70577	2342	3096	2719	9	3729	12
13	Winoka//Jaral 66/Minter	SD7143	2112	2782	2447	14	4219	3
11	SS/D8/Wmt/4/Hume/3/SS/12500/RCh/Pn//Cnn	SD72175	2468	2688	2578	12	4133	5
12	" " " " "	SD72193	2852	2950	2901	2	3984	8
9	" " " " "	SD72134	2232	3055	2644	10	4194	4
5	Cnn//Pnc/3/Tk/Cnn/4/Scout	NE68521	1726	2764	2245	16	3805	11
15	Yg*3/Cnn Sel. 2-3-13-6	MT6715	2438	3223	2831	5	2966	14
1	Kharkof	1442	2420	3170	2795	7	2912	15
16	Nb176/Y18181//YTO 117, Sel. 1-1-4-3	MT6930	2198	2885	2542	13	2889	16
		Mean	2365	3001	2683		3821	
		LSD	534	418	425		460	
		C.V.	13.5%	8.4%	10.7%		7.2%	

Table 12. (continued)

Entry:C. I. or:		Nebraska					North Dakota				Wyoming			
no.:	Sel. No.:	Mead	Sidney:	Alliance:	Mean	Rank:	Casselton:	Williston:	Mean	Rank:	Archer:	Sheridan:	Mean	Rank:
14	CO701733	3648	4088	2301	3346	2	2539	3010	2775	1	1166	1552	1359	7
2	13190	2645	4162	2005	2937	10	2248	3221	2735	2	1818	1935	1877	1
6	NE69442	3547	3571	2059	3059	6	2040	2958	2499	6	1328	1729	1529	2
8	NE70712	3240	4153	1489	2961	8	1631	2974	2303	13	1445	1421	1433	5
4	NE701132	4085	4052	2057	3398	1	2405	2813	2609	5	1147	1339	1243	12
10	SD72172	3255	4135	1892	3094	5	2320	3057	2689	3	1201	1156	1179	14
7	NE70711	3123	3662	2078	2954	9	1272	2889	2081	15	1481	1477	1479	3
3	NE70577	3509	4289	1682	3160	4	1581	2786	2184	14	1412	1262	1337	8
13	SD7143	3906	4038	1587	3177	3	2119	2862	2491	7	1270	1030	1150	16
11	SD72175	3074	3573	1511	2719	14	1990	2764	2377	8	1091	1533	1312	9
12	SD72193	3069	3731	1787	2862	12	2006	3326	2666	4	1287	1200	1244	11
9	SD72134	3161	3523	1951	2878	11	1715	2956	2336	11	1387	932	1160	15
5	NE68521	3514	3746	1759	3006	7	1698	2425	2062	16	1262	1130	1196	13
15	MT6715	3356	3248	1858	2821	13	1648	2977	2313	12	1249	1333	1291	10
1	1442	2688	3271	1584	2514	15	1805	2880	2343	10	1420	1473	1447	4
16	MT6930	2233	3171	1678	2361	16	1687	3006	2347	9	1510	1216	1363	6
Mean		3253	3776	1830	2953		1919	2931	2425		1342	1357	1350	
LSD		425	567	365	511		454	354	524		390	379	382	
C.V.		7.8%	9.0%	12.0%	9.3%		14.2%	7.2%	10.1%		17.4%	16.8%	17.1%	

Table 12. (concluded)

Entry: C. I. or: <u>Minnesota</u> : <u>New Mexico</u> : <u>Alberta</u> : 14-site												
no. : Sel. No. : St. Paul : Waseca : Mean : Rank : Clovis : Clovis : Mean : Rank : Lethbridge : Rank : mean												
irrig. dryl.												
14	CO701733	2118	3199	2659	4	6999	3184	5092	3	2191	2	2910
2	I3190	2576	3378	2977	3	6201	3555	4878	4	2005	8	2833
6	NE69442	2011	3246	2629	6	6500	3230	4865	5	2123	3	2790
8	NE70712	1701	2497	2099	12	6668	3707	5188	2	1993	9	2699
4	NE701132	2818	3468	3143	1	5985	3127	4556	9	1747	15	2674
10	SD72172	2058	2731	2395	11	6704	2427	4566	8	2079	5	2656
7	NE70711	1426	1852	1639	16	7041	3694	5368	1	2267	1	2652
3	NE70577	2293	2637	2465	9	6670	2878	4774	6	2047	6	2630
13	SD7143	2966	3010	2988	2	5518	2618	4068	14	1986	10	2598
11	SD72175	2576	2702	2639	5	6346	2949	4648	7	2023	7	2593
12	SD72193	2421	2773	2597	7	5828	2197	4013	15	1940	12	2580
9	SD72134	2266	2578	2422	10	6191	2590	4391	11	1889	13	2538
5	NE68521	2870	2157	2514	8	5981	3065	4523	10	1700	16	2437
15	MT6715	1567	1715	1641	15	5409	2904	4157	12	2096	4	2399
1	1442	1498	1930	1714	13	4965	2733	3849	16	1961	11	2326
16	MT6930	1627	1670	1649	14	5413	2813	4113	13	1812	14	2253
Mean		2175	2596	2385		6151	2978	4565		1991		2808
LSD			631			779	973	845		390		249
C.V.			14.6%			7.6%	19.6%	11.6%		11.8%		11.5%

Table 13.--Summary of mean yields (kg/ha) for 11 varieties grown in the Northern Regional Performance Nursery at 9 sites in 1974 and 1975 with state means, ranks, coefficients of variation, and least significant differences at the .05 level.

Entry: no. :	Variety or Pedigree	:C. I. or : :Sel. No.	Nebraska :Sidney:	Alliance: Mean	:Rank:	Montana :Sidney:	Rank:	South Dakota :Brookings:	Rank	
2	Warrior	13190	3738	2543	3140	1	3240	5	3149	6
6	Pnc/3*Cnn/3/Ky58/Nth/2/2*Cnn/Tm/Mi/Hope/4/Sut	NE69442	3135	2519	2827	4	3221	6	3352	2
12	SS/D8/Wmt/4/Hume/3/SS/12500/RCh/Pn//Cnn	SD72193	3262	2309	2785	5	3454	1	3309	4
10	" " " " " "	SD72172	3256	2296	2776	6	3408	3	2915	8
8	Warrior/Scout	NE70712	3748	2025	2886	2	3105	10	3316	3
7	" "	NE70711	3267	2432	2849	3	3216	7	3364	1
11	SS/D8/Wmt/4/Hume/3/SS/12500/RCh/Pn//Cnn	SD72175	3203	2185	2694	7	3150	8	3276	5
9	" " " " " "	SD72134	2950	2234	2592	8	3378	4	2986	7
15	Yg*3/Cnn Sel. 2-3-13-6	MT6715	2755	2025	2390	11	3431	2	2712	9
1	Kharkof	1442	2946	1877	2411	10	3113	9	2653	10
16	Nb176/Y18181//YTO 117, Sel. 1-1-4-3	MT6930	2948	1962	2455	9	3063	11	2639	11
		Mean	3201	2219	2710		3253		3061	
		LSD	528	473	632		542		998	
		C.V.	10.0%	11.1%	10.5%		7.7%		14.5%	

Table 13. (concluded)

Entry: C. I. or :		Wyoming				: North Dakota :		Minnesota :		Alberta		: 9-trial
no. :	Sel. No. :	Archer:	Sheridan:	Mean	: Rank:	Williston:	Rank:	Waseca:	Rank:	Lethbridge:	Rank:	mean
2	13190	1805	2206	2005	1	2499	2	2772	4	2017	6	2663
6	NE69442	1530	2133	1832	2	2335	8	3118	1	2072	3	2602
12	SD72193	1128	1711	1420	10	2696	1	3016	2	1914	9	2533
10	SD72172	1275	1914	1595	5	2458	3	2788	3	2046	5	2484
8	NE70712	1590	1809	1699	3	2350	7	2309	7	2002	7	2472
7	NE70711	1498	1864	1681	4	2277	11	1978	8	2244	1	2460
11	SD72175	1183	1897	1540	6	2300	10	2486	6	2047	4	2414
9	SD72134	1310	1458	1384	11	2362	6	2680	5	1851	10	2356
15	MT6715	1250	1627	1438	9	2428	4	1515	10	2001	8	2194
1	1442	1494	1559	1526	7	2304	9	1435	11	2094	2	2164
16	MT6930	1410	1602	1506	8	2403	5	1590	9	1678	11	2144
Mean		1407	1798	1602		2401		2335		1997		2408
LSD		341	532	518		196		816		217		314
C.V.		17.5%	17.2%	17.5%		5.3%		15.4%		14.8%		12.5%

Table 14.--Mean yield, regression coefficient, correlation coefficient and coefficient of determination from linear regression analyses of variety yield on nursery mean yield for the 16 entries in the Northern Regional Performance Nursery in 1975.

Entry:	C. I. or	Mean yield	Regression	Correlation	Coefficient of
no. :	Sel. No. :	over 15 locations:	coefficient:	coefficient:	determination
:	:	(kg/ha)	(by·x)	(r)	(r ²)
14	CO701733	2910	1.12	.96	.92
2	13190	2833	.91	.94	.89
6	NE69442	2790	1.01	.96	.92
8	NE70712	2699	1.14	.97	.94
4	NE701132	2674	.99	.93	.86
10	SD72172	2656	1.11	.97	.93
7	NE70711	2652	1.17	.94	.89
3	NE70577	2630	1.13	.97	.95
13	SD7143	2598	.96	.93	.87
11	SD72175	2593	1.04	.97	.95
12	SD72193	2580	.94	.94	.89
9	SD72134	2538	1.04	.97	.94
5	NE68521	2437	1.03	.96	.92
15	MT6715	2399	.84	.91	.83
1	1442	2326	.74	.91	.83
16	MT6930	2253	.82	.92	.85

Table 15.-- Mean yield, regression coefficient, correlation coefficient and coefficient of determination from linear regression analyses of variety mean on nursery mean yield for 11 entries in the Northern Regional Performance Nursery in 1974 and 1975.

Entry: no. :	C. I. or Sel. No. :	Mean yield : over 9 locations : (kg/ha)	:Regression coefficient: (by·x)	:Correlation: coefficient: (r)	:Coefficient of determination (r ²)
2	13190	2663	.92	.87	.76
6	NE69442	2602	.90	.90	.82
12	SD72193	2533	1.13	.91	.84
10	SD72172	2484	1.05	.92	.84
8	NE70712	2472	1.03	.91	.83
7	NE70711	2460	.96	.88	.78
11	SD72175	2414	1.02	.92	.85
9	SD72134	2356	1.07	.92	.84
15	MT6715	2194	.83	.83	.69
1	1442	2164	.73	.74	.54
16	MT6930	2144	.78	.85	.72

Table 16.--Summary of agronomic data for the 16 lines grown in the Northern Regional Performance Nursery in 1975.

Entry: no. :	Variety or Pedigree	: C. I. or : Sel. No. :	: Days to : head	: Days to : ripe	: Plant : : Height:	: Winter : : Survival:	: Lodging
			:from 1/1	: from 1/1	: cm. :	: 0-9	: 0-9
Number of trials			12	1	14	3	6
14	II21031/Trapper//C0652363	C0701733	159	207	79	9	2
2	Warrior	13190	160	205	91	9	3
6	Pnc/3*Cnn/3/Ky58/Nth/2/2*Cnn/Tm/Mi/Hope/4/Sut	NE69442	161	204	92	9	3
8	Warrior/Scout	NE70712	159	204	92	9	3
4	At166/Cnn//Lancer	NE701132	159	206	91	9	2
10	SS/D8/Wmt/4/Hume/3/SS/12500/RCh/Pn//Cnn	SD72172	159	208	80	9	2
7	Warrior/Scout	NE70711	157	204	89	9	3
3	At166/Cnn//Cnn/Pnc/Tk/Cnn	NE70577	157	204	85	9	4
13	Winoka//Jaral 66/Minter	SD7143	159	208	81	9	1
11	SS/D8/Wmt/4/Hume/3/SS/12500/RCh/Pn//Cnn	SD72175	160	209	84	9	3
12	" " " "	SD72193	161	209	83	9	1
9	" " " "	SD72134	159	204	85	9	1
5	Cnn//Pnc/3/Tk/Cnn/4/Scout	NE68521	155	204	89	9	3
15	Yg*3/Cnn Sel. 2-3-13-6	MT6715	161	207	95	9	2
1	Kharkof	1442	163	205	99	9	4
16	Nb176/Y18181//YTO 117, Sel. 1-1-4-3	MT6930	163	207	97	9	3

Table 16. (concluded)

Entry:	C. I. or	:	:Leaf Rust:		Stem Rust:	Leaf Disease:	:	:Spring:1000-		:Volume:				
no. :	Sel. No.	:	:Shattering:	Sev.:	Resp.:	Sev.:	Resp.:	:Complex	:Leaf Spot:	Bacteria:	Vigor	:Kernel:	Weight:	Yield
:	:	:	:	:	:	:	:	:Sev. :	Resp:	:	:	:Weight:	:	:
			0-9	%		%		%	0-9	0-9	%		gms.	kg/hl kg/ha
Number of trials			1	5	4	4	3		2	2	1	1	1	12 15
14	CO701733		0	25	M	0	VR	40	8	7	5	2.67	34	78.1 2910
2	13190		0	52	S	12	MS	20	7	8	T	2.67	34	78.5 2833
6	NE69442		0	44	S	0	VR	20	8	7	5	2.67	44	77.7 2790
8	NE70712		0	51	S	0	VR	75	9	6	40	2.67	40	77.2 2699
4	NE701132		0	2	M	1	MR	35	8	7	5	2.00	36	77.6 2674
10	SD72172		0	26	M	0	VR	15	8	5	2	2.83	31	78.0 2656
7	NE70711		0	57	S	1	VR	70	9	6	50	2.67	38	76.8 2652
3	NE70577		0	61	S	1	VR	40	9	8	50	3.00	42	77.6 2630
13	SD7143		0	2	MR	0	VR	45	8	6	10	2.33	33	76.2 2598
11	SD72175		0	16	M	0	VR	40	8	6	5	2.67	32	77.3 2593
12	SD72193		0	39	M	1	VR	30	7	5	2	2.33	32	78.3 2580
9	SD72134		0	15	M	0	VR	55	8	5	10	3.17	32	79.3 2538
5	NE68521		0	53	S	0	VR	40	9	8	10	2.83	41	77.8 2437
15	MT6715		0	65	S	24	M	40	9	7	20	3.00	31	77.5 2399
1	1442		0	57	S	29	S	25	8	6	T	3.17	35	76.7 2326
16	MT6930		0	57	S	30	M	35	8	6	30	3.33	33	76.9 2253

QUALITY DATA

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

UNIFORM WINTERHARDINESS NURSERY

The nursery is comprised of Southern and Northern Materials Sections. In 1975, the Southern Section contained 341 entries for which survival data were reported from Brookings, South Dakota and St. Paul, Minnesota (see nursery listing and survival data in tabulations that follow).

In the Northern Materials Section 186 experimental lines and varieties were evaluated. These appear in the tabulation that follows. Survival data from two sites at which differential killing occurred also are given.

SOIL-BORNE MOSAIC NURSERY

Two hundred experimental wheats from Kansas, Oklahoma, and Nebraska were tested at two sites in Kansas and at Urbana, Illinois. Listing of entries and field infection data follow.

1975

UNIFORM WINTERHARDINESS NURSERY

Southern Materials Section

<u>Entry no.</u>	<u>Variety or Pedigree</u>	<u>C. I. or Sel. No.</u>	<u>Source</u>
1	Warrior	13190	Check
2	CIMMYT/Scout	KS73104	Kansas
3	" "	KS73112	"
4	" "	KS73114	"
5	" "	KS73118	"
6	Parker (check)	13285	"
7	CIMMYT/Scout	KS73127	"
8	" "	KS73133	"
9	" "	KS73138	"
10	Scout 66	13996	Check
11	CIMMYT/Scout	KS73141	Kansas
12	" "	KS73146	"
13	" "	KS73147	"
14	" "	KS73148	"
15	" "	KS73159	"
16	" "	KS73164	"
17	Sturdy (check)	13684	"
18	CIMMYT/Scout	KS73165	"
19	" "	KS73167	"
20	Tascosa	13023	Check
21	CIMMYT/Scout	KS73168	Kansas
22	" "	KS73171	"
23	" "	KS73175	"
24	" "	KS73198	"
25	" "	KS73199	"
26	" "	KS73203	"
27	" "	KS73225	"
28	" "	KS73229	"
29	" "	KS73244	"
30	Warrior	13190	Check
31	CIMMYT/Scout	KS73248	Kansas
32	" "	KS73253	"
33	" "	KS73256	"
34	Tam W-10 (check)	15324	"
35	CIMMYT/Scout	KS73258	"
36	" "	KS73261	"
37	" "	KS73263	"
38	" "	KS73277	"
39	Cch/2*Tmp//Scout	KS71315	"
40	Scout 66	13996	Check
41	Cch/Tmp//Kaw	KS7459	Kansas
42	Cch/Tmp//Bison/Pkr	KS7469	"
43	" "	KS7470	"
44	Cch/2*Tmp//Sut	KS7483	"
45	Eagle (check)	15068	"

1975 Uniform Winterhardiness Nursery (Southern Materials Section) continued:

Entry no.	Variety or Pedigree	C. I. or Sel. No.	Source
46	Scout *5/Agent//Sw	KS73334	Kansas
47	" " "	KS73349	"
48	" " "	KS73353	"
49	" " "	KS73355	"
50	Tascosa	13023	Check
51	Scout *5/Agent//Sw	KS73364	Kansas
52	Parker *5/Agent	KS74120	"
53	" " "	KS74122	"
54	" " "	KS74124	"
55	" " "	KS72943	"
56	" " "	KS74127	"
57	" " "	KS74128	"
58	Composite Cross	Funk 7173	SRPN
59	" " "	Funk 7174	"
60	Warrior	13190	Check
61	II21183/2643//Lcr/3/KS62	CO725055	SRPN
62	" " " "	CO725052	"
63	" " " "	CO725049	"
64	" " " "	CO725082	"
65	Atl66/Cnn//Cnn/Pnc/Tk/Cnn	NE70577	"
66	ms Sturdy/4/ms Sturdy//3*Sturdy Sib/Tmp/3/ R-line (BA130)	TX Hybrid	"
67	Short wheat/Scout composite	TX69A330-1	"
68	" " " "	TX69A460-1	"
69	" " " "	TX69A509-1	"
70	Scout 66	13996	Check
71	Short wheat/Scout composite	TX69A450-1	SRPN
72	62A2712-7/Centurk	TX71A801	"
73	Scout selection	OK66V2621	"
74	" " "	OK66V2629	"
75	Tmp 64/OK66C3174//Sturdy	OK711092	"
76	Tascosa/OK66C2026//Sturdy	OK711252	"
77	Ottawa/5*Scout	KS70H210	"
78	Scout/Tascosa	KS73H441	"
79	Atlas 66/Cnn//Lcr	NE701132	NRPN
80	Tascosa	13023	Check
81	Cnn//Pnc/3/Tk/Cnn/4/Scout	NE68521	NRPN
82	Pnc/3*Cnn/3/Ky58/Nth/2/2*Cnn/Tm/M1/Hope/4/Scout	NE69442	"
83	Warrior/Scout	NE70711	"
84	" " "	NE70712	"
85	SS/D8/Wmt/4/Hume/3/SS/12500/RCh/Pn//Cnn	SD72134	"
86	" " " "	SD72172	"
87	" " " "	SD72175	"
88	" " " "	SD72193	"
89	Winoka//Jaral 66/Minter	SD7143	"
90	Warrior	13190	Check
91		CO701733	NRPN
92	Yg*3/Cnn, Sel. 2-3-13-6	MT6715	"
93	Nb176/Y18181//YTO 117, Sel. 1-1-4-3	MT6930	"
94	Bezostaya/Eagle	KS74H1	Kansas
95	" " "	KS74H2	"

1975 Uniform Winterhardiness Nursery (Southern Materials Section) continued:

<u>Entry no.</u>	<u>Variety or Pedigree</u>	<u>C. I. or Sel. No.</u>	<u>Source</u>
96	Bezostaya/Eagle	KS74H3	Kansas
97	" "	KS74H4	"
98	" "	KS74H5	"
99	" "	KS74H6	"
100	Scout 66	13996	Check
101	Bezostaya/Eagle	KS74H7	Kansas
102	" "	KS74H8	"
103	" "	KS74H9	"
104	" "	KS74H10	"
105	" "	KS74H11	"
106	" "	KS74H12	"
107	" "	KS74H13	"
108	" "	KS74H14	"
109	" "	KS74H15	"
110	Tascosa	13023	Check
111	Bezostaya/Eagle	KS74H16	Kansas
112	" "	KS74H17	"
113	" "	KS74H18	"
114	" "	KS74H19	"
115	" "	KS74H20	"
116	" "	KS74H21	"
117	" "	KS74H22	"
118	" "	KS74H23	"
119	" "	KS74H24	"
120	Warrior	13190	Check
121	Bezostaya/Eagle	KS74H25	Kansas
122	" "	KS74H26	"
123	" "	KS74H27	"
124	" "	KS74H28	"
125	" "	KS74H29	"
126	" "	KS74H30	"
127	" "	KS74H31	"
128	" "	KS74H32	"
129	" "	KS74H33	"
130	Scout 66	13996	Check
131	Bezostaya/Eagle	KS74H34	Kansas
132	" "	KS74H35	"
133	" "	KS74H36	"
134	" "	KS74H37	"
135	" "	KS74H38	"
136	" "	KS74H39	"
137	" "	KS74H40	"
138	" "	KS74H41	"
139	" "	KS74H42	"
140	Tascosa	13023	Check
141	Bezostaya/Eagle	KS74H43	Kansas
142	" "	KS74H44	"
143	" "	KS74H45	"
144	" "	KS74H46	"
145	" "	KS74H47	"

1975 Uniform Winterhardiness Nursery (Southern Materials Section) continued;

Entry no.	Variety or Pedigree	C. I. or Sel. No.	Source
146	Bezostaya/Eagle	KS74H48	Kansas
147	" "	KS74H49	"
148	" "	KS74H50	"
149	CIMMYT II-23584-75M/Scout	KS73H530	"
150	Warrior	13190	Check
151	CIMMYT II-23584-75M/Scout	KS73H590	Kansas
152	" " "	KS73H593	"
153	Crc/Danne F ₆	OK737115	Oklahoma
154	" "	OK737117	"
155	Sdy/C.I.13875 F ₆	OK737160	"
156	" "	OK737171	"
157	Sdy/Fertodi 293 F ₆	OK737432	"
158	" "	OK737454	"
159	Pkr/Sdy F ₆	OK737029	"
160	Scout 66	13996	Check
161	Plr/Sdy F ₆	OK737030	Oklahoma
162	Sdy/Ctk F ₆	OK737269	"
163	" "	OK737292	"
164	" "	OK737267	"
165	" "	OK737290	"
166	Crc//Sks/Kaw 61 F ₆	OK737837	"
167	Crc//Sks/Swn F ₆	OK737852	"
168	Tcx/Tl//Tmp 64 F ₂	OK738124	"
169	K.R./Scout 66 F ₇	OK738354	"
170	Tascosa	13023	Check
171	K.R./Danne F ₇	OK738360	Oklahoma
172	" "	OK738368	"
173	" "	OK738370	"
174	Sks/Sdy F ₇	OK738377	"
175	Tcs/Tl//Sdy F ₈	OK738427	"
176	Sdy/Ctk F ₅	OK741902	"
177	" "	OK741903	"
178	" "	OK741904	"
179	" "	OK741914	"
180	Warrior	13190	Check
181	Sks/Sdy F ₇	OK722364	Oklahoma
182	" "	OK722368	"
183	K.R./Scout 66 F ₇	OK722054	"
184	Sdy/Tmp 64 F ₈	OK722970	"
185	Tcs/Tl//Pkr F ₈	OK722692	"
186	" "	OK722721	"
187	Tmp 64/Tl//Sdy F ₈	OK723075	"
188	Ndd/CO662549 F ₉	OK731509	"
189	Tcs/Tl//Sdy	OK711252	"
190	Scout 66	13996	Check
191	Tcs/Tl//Sdy	OK711248	Oklahoma
192	Tmp 64/Tl//Sdy	OK711092	"
193	" "	OK711094	"
194	Sut/4/Qv/2/Tm/3/Mq1/Oro/5/Homestead	NE73481	Nebraska
195	" " " "	NE73487	"

1975 Uniform Winterhardiness Nursery (Southern Materials Section) continued:

<u>Entry no.</u>	<u>Variety or Pedigree</u>	<u>C. I. or Sel. No.</u>	<u>Source</u>
196	Sut/4/Qv/2/Tm/3/Mql/Oro/5/Homestead	NE73491	Nebraska
197	" " "	NE73493	"
198	Sentinel/Centurk	NE73510	"
199	Red Coat/5/Pn/Cnn/3/Pn/2/Ky58/4/Cnn	NE73564	"
200	Tascosa	13023	Check
201	Polk/2*Gage	NE73582	Nebraska
202	Homestead/2/Gage/Lcr	NE73591	"
203	Gage/Lcr//Homestead	NE73624	"
204	" " "	NE73634	"
205	Sut/4/Qv/2/Tm/3/Mql/Oro/5/Homestead	NE73640	"
206	" " " "	NE73641	"
207	" " " "	NE73644	"
208	" " " "	NE73645	"
209	" " " "	NE73647	"
210	Warrior	13190	Check
211	Sut/4/Qv/2/Tm/3/Mql/Oro/5/Homestead	NE73649	Nebraska
212	" " " "	NE73656	"
213	Homestead	17264	"
214	Produttore/Scoutland//Scout	NE73757	"
215	Wrr*2/Minn III-54-12//Gage/3/Homestead	NE73821	"
216	(Complex cross)	NE73828	"
217	(Complex cross)	NE73833	"
218	(Complex cross)	NE73835	"
219	(Complex cross)	NE73836	"
220	Scout 66	13996	Check
221	(Complex cross)	NE73843	Nebraska
222	Atlas 66/2/Cnn/3/Nbr/RCh/4/Homestead	NE73849	"
223	" " " "	NE73851	"
224	Gage/CI13995	NE73875	"
225	Centurk	15075	"
226	Sage	17277	"
227	Scout 66	13996	"
228	Atl/Cnn//Lcr	NE701132	"
229	II21183/2643/Lcr/Ks62	C0725055	"
230	Tascosa	13023	Check
231	NB66403/Heine VII/Ctk	NE74502	Nebraska
232	NB66403//391-56-D1-8/Tmp	NE74513	"
233	" " "	NE74514	"
234	NB66403//391-56-D1-8/-Tcs	NE74515	"
235	" " "	NE74516	"
236	Ctk/Gage Sel.	NE74531	"
237	" "	NE74532	"
238	(Complex cross)	NE74535	"
239	391-56-D1-8/Tcs//Sentinel	NE74543	"
240	Warrior	13190	Check
241	391-56-D1-8/Tcs//Sentinel	NE74544	Nebraska
242	" " "	NE74545	"
243	" " "	NE74546	"
244	391-56-D1-8/Tcs//Homestead	NE74547	"
245	" " "	NE74549	"

1975 Uniform Winterhardness Nursery (Southern Materials Section) continued:

Entry no.	Variety or Pedigree	C. I. or Sel. No.	Source
246	(Complex cross)	NE74551	Nebraska
247	(Complex cross)	NE74552	"
248	(Complex cross)	NE74553	"
249	(Complex cross)	NE74554	"
250	Warrior	13996	Check
251	(Complex cross)	NE74555	Nebraska
252	(Complex cross)	NE74557	"
253	Homestead//MM/Ech/Rm/2*(Hope/Tk/Cnn)// Pnc/2*Cnn	NE74562	"
254	" " " "	NE74563	"
255	" " " "	NE74564	"
256	SS/CI12500/3/Pn/2/Cnn/5/Cnn//Pnc/4/Tk/Cnn	NE74586	"
257	Mara/2*Scout//Homestead	NE74602	"
258	" " "	NE74603	"
259	" " "	NE74604	"
260	Tascosa	13023	Check
261	Mara/2*Scout//Homestead	NE74606	Nebraska
262	" " "	NE74607	"
263	" " "	NE74611	"
264	Mara/2*Scout//MM/Ech/Rm/2*(Hope/Tk/Cnn)//Lcr	NE74614	"
265	" " " "	NE74629	"
266	Mara/2*Scout//Sentinel	NE74641	"
267	" " "	NE74642	"
268	" " "	NE74643	"
269	" " "	NE74646	"
270	Warrior	13190	Check
271	Mara/2*Scout//Sentinel	NE74649	Nebraska
272	Mara/2*Scout/3/Trader/2/391-56-D1-8/Tcs	NE74653	"
273	(Complex cross)	NE74657	"
274	(Complex cross)	NE74659	"
275	(Complex cross)	NE74662	"
276	MM/Ech/Rm/2*(Hope/Tk/Cnn)/3/Pnc/2*Cnn/4/ Homestead	NE74664	"
277	" " " "	NE74666	"
278	" " " "	NE74667	"
279	Tascosa	13023	Check
280	Scout 66	13996	Check
281	Wrr*2/Minn III-54-12/2/Gage/3/Sentinel	NE74687	Nebraska
282	Sentinel/HiPlains	NE74713	"
283	" "	NE74716	"
284	" "	NE74718	"
285	" "	NE74726	"
286	" "	NE74729	"
287	(Complex cross)	NE74733	"
288	(Complex cross)	NE74734	"
289	(Complex cross)	NE74736	"
290	Tascosa	13023	Check
291	(Complex cross)	NE74745	Nebraska

1975 Uniform Winterhardiness Nursery (Southern Materials Section) (continued)

Entry no.	Variety or Pedigree	C.I. or Sel. No.	Source
292	(Complex cross)	NE74765	Nebraska
293	Atr/3/Lcr/2/Pnc/Cnn	NE74773	"
294	Mara/Scout//Lcr/3/HiPlains	NE74791	"
295	Aiv/Cil3857//HiPlains	NE74795	"
296	" " "	NE74796	"
297	Aiv/Cil3857//Homestead	NE74797	"
298	" " "	NE74799	"
299	HiPlains/Homestead	NE74804	"
300	Warrior	13190	Check
301	HiPlains/Homestead	NE74805	Nebraska
302	" " "	NE74813	"
303	Pnc/2*Cnn/5/I1#1/2*Cns//T.Tim/3/Cnn/Tm/Mi/ Hope/4/Sando 60/6/Homestead	NE74818	"
304	" " " "	NE74825	"
305	" " " "	NE74826	"
306	Pnc/2*Cnn/4/I1#1/2*Cns//T.tim/3/Cnn/Tm/Mi/ Hope/7/Ftn/5/Cnn/6/Lcr	NE74841	"
307	" " " "	NE74844	"
308	" " " "	NE74848	"
309	(Complex cross)	NE74853	"
310	Scout*5/Agent//Centurk	NE74865	"
311	Scout 66	13996	Check
312	Scout*5/Agent//Centurk	NE74866	Nebraska
313	Wrr*2/(Wrr/Minn III-54-12//Scout)	NE74874	"
314	" " " "	NE74875	"
315	Wrr*2/(Wrr/Minn III-54-12//Scout)//NB66403	NE74879	"
316	Wrr*2/(Wrr/Minn III-54-12//Scout)//Homestead	NE74886	"
317	" " " "	NE74894	"
318	Pnc/2*Cnn/5/I1#1/2*Cns//T.tim/3/Cnn/Tm/Mi/ Hope/4/Sando 60/6/Sentinel	NE74902	"
319	" " " "	NE74904	"
320	Pnc/2*Cnn/5/I1#1/2*Cns//T.tim/3/Cnn/Tm/Mi/ Hope/4/Sando 60/6/Homestead	NE74906	"
321	Tascosa	13023	Check
322	Pnc/2*Cnn/5/I1#1/2*Cns//T.tim/3/Cnn/Tm/Mi/ Hope/4/Sando 60/6/Homestead	NE74907	Nebraska
323	Wrr*2/Minn III-54-12//Gage/3/Homestead	NE74912	"
324	" " " "	NE74913	"
325	Olesen/NB66403//Homestead	NE74918	"
326	(Complex cross)	NE74922	"
327	Tobari 66//Slo/2*Cnn/3/Homestead	NE74925	"
328	Tobari 66//2*(Wrr/Minn III-54-12)	NE74926	"
329	" " " "	NE74928	"
330	Wrr*2/Minn III-54-12/3/Lancer/2/Winalla	NE74932	"
331	Warrior	13190	Check
332	Atl 66/Wi//Bezostaya 1	NE74964	Nebraska
333	Scout*5/Agent/6/Scout/5/Ky58/Nth/4th/4/ Cnn/Tm/Mi/Hope/3/Pn//Cnn	NE74967	"

1975 Uniform Winterhardiness Nursery (Southern Materials Section) (concluded)

<u>Entry no.</u>	<u>Variety or Pedigree</u>	<u>C.I. or Sel.No.</u>	<u>Source</u>
334	Scout*5/Agent/6/Scout/5/Ky58/Nth/4th/4/ Cnn/Tm/Mi/Hope/3/Pn//Cnn	NE74969	Nebraska
335	" " " "	NE74971	"
336	" " " "	NE74972	"
337	" " " "	NE74973	"
338	" " " "	NE74974	"
339	Scout *5/Agent//Pn/Cnn	NE74977	"
340	" " "	NE74978	"
341	NE69559 Selection	NE74981	"

Uniform Winterhardiness Nursery (Southern Materials Section) survival data.

Entry No.	Brookings, South Dakota				St. Paul, Minnesota			Two Station Average
	Rep 1	Rep 2	$\bar{x}$		Rep 1	Rep 2	$\bar{x}$	
1	95	100	98		95	100	98	98
2	80	20	50		90	95	93	71
3	80	40	60		95	95	95	78
4	10	40	25		100	95	98	61
5	20	60	40		95	100	98	69
6	70	80	75		100	95	98	86
7	50	50	50		100	95	98	74
8	30	40	35		100	95	98	66
9	30	40	35		100	95	98	66
10	80	80	80		97	100	99	89
11	60	30	45		97	100	99	72
12	70	10	40		100	100	100	70
13	30	70	50		90	100	95	73
14	20	1	11		90	95	93	52
15	30	10	20		90	100	95	58
16	30	20	25		100	90	95	60
17	-	30	30		90	100	95	73
18	-	30	30		90	100	95	73
19	-	50	50		95	95	95	80
20	-	50	50		100	75	88	75
21	10	70	40		100	100	100	70
22	40	10	25		95	100	98	61
23	40	40	40		95	100	98	69
24	20	40	30		90	90	90	60
25	30	60	45		85	100	93	69
26	40	30	35		97	95	96	66
27	50	30	40		100	90	95	68
28	70	30	50		75	90	83	66
29	40	50	45		95	95	95	70
30	80	90	85		85	90	88	86
31	70	0	35		70	90	80	58
32	70	10	40		80	90	85	63
33	50	20	35		100	95	98	66
34	60	20	40		95	95	95	68
35	20	5	13		90	95	93	53
36	70	10	40		75	95	85	63
37	10	10	10		90	95	93	51
38	30	-	30		100	95	98	75
39	80	-	80		75	95	85	83
40	90	-	90		60	95	78	82
41	90	-	90		80	100	90	90
42	60	10	35		80	95	88	61
43	50	5	28		100	95	98	63
44	90	20	55		100	90	95	75
45	-	40	40		97	75	86	71

Uniform Winterhardiness Nursery (Southern Materials Section) continued

Entry No.	Brookings, South Dakota ¹				St. Paul, Minnesota			Two Station Average
	Rep 1	Rep 2	$\bar{x}$		Rep 1	Rep 2	$\bar{x}$	
46	-	70	70		90	95	93	85
47	-	20	20		90	90	90	67
48	-	80	80		100	95	98	92
49	20	70	45		100	90	95	70
50	20	50	35		100	90	95	65
51	90	90	90		95	95	95	93
52	90	60	75		100	95	98	86
53	90	70	80		95	95	95	88
54	80	70	75		95	100	98	86
55	90	30	60		100	95	98	79
56	80	30	55		100	95	98	76
57	40	40	40		95	95	95	68
58	50	80	65		85	100	93	79
59	30	20	25		95	100	98	61
60	70	80	75		95	50	73	74
61	70	5	38		90	90	90	64
62	30	10	20		100	70	85	53
63	30	5	18		90	80	85	51
64	40	10	25		95	100	98	61
65	-	80	80		100	85	93	88
66	-	80	80		95	95	95	90
67	-	50	50		85	95	90	77
68	-	40	40		60	95	78	65
69	80	5	43		60	90	75	59
70	80	80	80		90	80	85	83
71	30	50	40		90	90	90	65
72	70	60	65		85	100	93	79
73	90	70	80		85	85	85	83
74	90	80	85		100	85	93	89
75	40	70	55		95	85	90	73
76	10	60	35		85	80	83	61
77	20	50	35		85	60	73	54
78	30	60	45		100	70	85	65
79	30	50	40		95	90	93	66
80	10	20	15		90	90	90	53
81	80	70	75		85	50	68	71
82	90	100	95		75	100	88	91
83	70	90	80		75	95	85	83
84	40	90	65		100	95	98	81
85	90	100	95		95	100	98	96
86	90	-	90		90	100	95	93
87	90	-	90		95	100	98	95
88	90	-	90		95	95	95	93
89	90	-	90		100	95	98	95
90	90	90	90		90	95	93	91

Uniform Winterhardness Nursery (Southern Materials Section) continued

Entry No.	Brookings, South Dakota				St. Paul, Minnesota			Two Station Average
	Rep 1	Rep 2	$\bar{x}$		Rep 1	Rep 2	$\bar{x}$	
91	30	30	30		95	95	95	63
92	40	80	60		90	100	95	78
93	-	100	100		90	95	93	95
94	-	70	70		85	95	90	83
95	-	50	50		85	85	85	73
96	-	70	70		90	90	90	83
97	90	70	80		85	95	90	85
98	80	70	75		90	90	90	83
99	70	60	65		100	90	95	80
100	80	70	75		95	85	90	83
101	70	5	38		95	100	98	68
102	40	50	45		95	95	95	70
103	80	50	65		100	90	95	80
104	50	60	55		95	90	93	74
105	70	30	50		85	100	93	71
106	80	30	55		85	95	90	73
107	90	40	65		97	90	94	79
108	70	20	45		85	90	88	66
109	80	30	55		85	95	90	73
110	70	30	50		97	90	94	72
111	70	70	70		85	100	93	81
112	70	70	70		85	85	85	78
113	10	90	50		90	90	90	70
114	20	70	45		95	70	83	64
115	20	70	45		70	85	78	61
116	30	40	35		95	90	93	64
117	20	50	35		95	100	98	66
118	30	50	40		90	100	95	68
119	40	80	60		70	90	80	70
120	90	100	95		85	95	90	93
121	10	90	50		95	50	73	61
122	20	80	50		95	90	93	71
123	20	80	50		75	95	85	68
124	10	60	35		85	95	90	63
125	20	80	50		90	75	83	66
126	20	10	15		85	90	88	51
127	20	10	15		85	100	93	54
128	70	30	50		95	100	98	74
129	-	70	70		90	90	90	83
130	-	60	60		95	90	93	82
131	-	20	20		90	85	88	65
132	-	10	10		95	100	98	68
133	10	40	25		90	90	90	58
134	5	10	8		80	90	85	46
135	20	20	20		97	80	89	54

Uniform Winterhardiness Nursery (Southern Materials Section) continued

Entry No.	Brookings, South Dakota				St. Paul, Minnesota			Two Station Average
	Rep 1	Rep 2	$\bar{x}$		Rep 1	Rep 2	$\bar{x}$	
136	30	10	20		90	80	85	53
137	1	30	16		90	85	88	52
138	1	10	6		75	85	80	43
139	5	10	8		75	80	78	43
140	20	10	15		90	50	70	43
141	5	20	13		75	80	78	45
142	10	60	35		95	60	78	56
143	30	70	50		95	70	83	66
144	20	40	30		95	85	90	60
145	5	60	33		85	90	88	60
146	5	10	8		95	95	95	51
147	10	10	10		95	75	85	48
148	50	30	40		80	80	80	60
149	20	10	15		90	90	90	53
150	70	60	65		95	85	90	78
151	40	5	23		95	80	88	55
152	50	10	30		75	90	83	56
153	80	30	55		100	95	98	76
154	10	40	25		100	95	98	61
155	10	20	15		100	95	98	56
156	10	10	10		85	95	90	50
157	-	20	20		100	95	98	72
158	-	20	20		100	95	98	72
159	-	10	10		100	90	95	67
160	-	70	70		85	95	90	83
161	20	50	35		100	100	100	68
162	20	100	60		95	100	98	79
163	20	60	40		95	100	98	69
164	70	60	65		100	95	98	81
165	60	60	60		95	100	98	79
166	5	60	33		100	90	95	64
167	20	40	30		100	100	100	65
168	90	70	80		100	90	95	88
169	70	70	70		95	80	88	79
170	40	90	65		90	90	90	78
171	20	70	45		95	95	95	70
172	20	70	45		95	100	98	71
173	70	60	65		95	100	98	81
174	1	80	41		100	90	95	68
175	10	60	35		100	90	95	65
176	10	30	20		100	95	98	59
177	-	70	70		95	95	95	87
178	-	70	70		100	95	98	88
179	-	60	60		100	100	100	87
180	-	90	90		95	80	88	88

Uniform Winterhardness Nursery (Southern Materials Section) continued

Entry No.	Brookings, South Dakota ¹				St. Paul, Minnesota			Two Station Average
	Rep 1	Rep 2	$\bar{x}$		Rep 1	Rep 2	$\bar{x}$	
181	60	20	40		100	100	100	70
182	1	20	11		100	95	98	54
183	1	30	16		100	95	98	57
184	5	20	13		90	100	95	54
185	20	20	20		90	95	93	56
186	20	60	40		100	90	95	68
187	20	10	15		100	90	95	55
188	10	10	10		95	90	93	51
189	0	20	10		100	100	100	55
190	60	80	70		95	90	93	81
191	70	60	65		95	100	98	81
192	20	60	40		95	90	93	66
193	50	30	40		95	90	93	66
194	80	90	85		95	70	83	84
195	90	90	90		80	70	75	83
196	100	90	95		85	70	78	86
197	80	90	85		85	70	78	81
198	90	-	90		97	95	96	94
199	100	-	100		95	95	95	97
200	90	70	80		95	90	93	86
201	60	90	75		100	85	93	84
202	5	90	48		85	85	85	66
203	80	90	85		90	85	88	86
204	80	90	85		95	85	90	88
205	90	90	90		95	100	98	94
206	80	90	85		95	100	98	91
207	-	100	100		95	95	95	97
208	-	100	100		100	95	98	98
209	90	80	85		95	50	73	79
210	90	100	95		100	85	93	94
211	90	90	90		100	90	95	93
212	70	90	80		100	90	95	88
213	70	60	65		95	100	98	81
214	60	90	75		95	95	95	85
215	50	70	60		100	80	90	75
216	80	60	70		95	85	90	80
217	1	60	31		95	95	95	63
218	10	60	35		97	95	96	66
219	5	70	38		95	70	83	60
220	60	70	65		100	85	93	79
221	60	90	75		90	90	90	83
222	30	80	65		95	85	90	73
223	70	90	80		100	85	93	86
224	80	60	70		85	85	85	78
225	80	70	75		95	90	93	84

Uniform Winterhardiness Nursery (Southern Materials Section) continued

Entry No.	Brookings, South Dakota				St. Paul, Minnesota			Two Station Average
	Rep 1	Rep 2	$\bar{x}$		Rep 1	Rep 2	$\bar{x}$	
226	80	30	55		95	80	88	71
227	50	40	45		95	90	93	69
228	60	40	50		90	90	90	70
229	20	30	25		95	90	93	59
230	20	10	15		90	85	88	51
231	90	80	85		90	90	90	88
232	90	70	80		75	90	83	81
233	80	70	75		75	95	85	80
234	80	-	80		95	75	85	83
235	80	-	80		95	95	95	90
236	70	-	70		100	100	100	90
237	80	-	80		100	95	98	92
238	80	80	80		95	90	93	86
239	60	80	70		95	90	93	81
240	90	100	95		95	90	93	94
241	-	90	90		100	85	93	92
242	-	70	70		100	90	95	87
243	10	70	40		95	85	90	65
244	20	90	55		95	90	93	74
245	20	80	50		97	90	94	72
246	60	90	75		95	90	93	84
247	70	100	85		95	95	95	90
248	50	70	60		95	95	95	78
249	50	80	65		95	85	90	78
250	70	30	50		95	95	95	73
251	90	70	80		100	100	100	90
252	80	70	75		100	75	88	81
253	90	60	75		90	80	85	80
254	-	70	70		95	100	98	88
255	90	30	60		97	95	96	78
256	90	90	90		95	70	83	86
257	70	80	75		95	90	93	84
258	100	80	90		95	90	93	91
259	50	70	60		95	100	98	79
260	20	30	25		95	85	90	58
261	60	90	75		100	90	95	85
262	50	40	45		90	95	93	69
263	20	80	50		100	95	98	74
264	50	80	65		95	100	98	81
265	80	80	80		95	95	95	88
266	70	30	50		95	85	90	70
267	20	60	40		95	85	90	65
268	30	70	50		90	85	88	69
269	20	90	55		97	90	94	74
270	50	90	70		95	80	88	79

Uniform Winterhardness Nursery (Southern Materials Section) continued

Entry No.	Brookings, South Dakota ¹				St. Paul, Minnesota			Two Station Average
	Rep 1	Rep 2	$\bar{x}$		Rep 1	Rep 2	$\bar{x}$	
271	50	90	70		90	100	95	83
272	70	70	70		95	90	93	81
273	60	90	75		95	75	85	80
274	80	90	85		95	90	93	89
275	90	80	85		95	100	98	91
276	50	80	65		95	100	98	81
277	50	70	60		90	75	83	71
278	80	90	85		100	100	100	93
279	-	10	10		90	100	95	67
280	-	70	70		90	100	95	87
281	90	60	75		100	95	98	86
282	80	80	80		100	95	98	89
283	70	90	80		90	95	93	86
284	70	90	80		90	70	80	80
285	90	90	90		95	80	88	89
286	70	80	75		95	90	93	84
287	20	40	30		90	80	85	58
288	5	20	13		95	90	93	53
289	-	5	5		100	95	98	67
290	-	50	50		90	90	90	77
291	-	90	90		95	85	90	90
292	-	90	90		95	95	95	93
293	90	80	85		90	90	90	88
294	70	80	75		95	85	90	83
295	70	70	70		100	85	93	81
296	90	70	80		95	85	90	85
297	70	20	45		100	90	95	70
298	70	80	75		100	90	95	85
299	80	50	65		100	75	88	76
300	80	60	70		95	95	95	83
301	70	60	65		95	95	95	80
302	40	70	55		90	90	90	73
303	30	50	40		90	90	90	65
304	20	60	40		90	85	88	64
305	70	60	65		90	85	88	76
306	80	80	80		95	90	93	86
307	80	90	85		100	75	83	86
308	10	70	40		90	90	90	65
309	30	70	50		95	85	90	70
310	90	-	90		100	85	93	92
311	70	70	70		95	90	93	81
312	60	80	70		90	90	90	80
313	100	90	95		95	90	93	94
314	100	90	95		100	85	93	94
315	90	100	95		97	95	96	96

Uniform Winterhardiness Nursery (Southern Materials Section) concluded

Entry No.	Brookings, South Dakota ¹				St. Paul, Minnesota			Two Station Average
	Rep 1	Rep 2	$\bar{x}$		Rep 1	Rep 2	$\bar{x}$	
316	90	100	95		95	85	90	93
317	90	80	85		95	85	90	88
318	90	-	90		90	70	80	83
319	100	-	100		85	85	85	90
320	100	70	85		90	95	93	89
321	70	70	70		95	95	95	83
322	100	90	95		95	95	95	95
323	100	80	90		85	85	85	88
324	100	90	95		95	95	95	95
325	80	60	70		95	100	98	84
326	70	70	70		95	95	95	83
327	90	80	85		95	95	95	90
328	80	80	80		100	100	100	90
329	80	30	65		100	95	98	76
330	90	80	85		95	100	98	91
331	100	80	90		95	90	93	91
332	100	90	95		95	90	93	94
333	100	100	100		95	90	93	96
334	90	20	55		100	90	95	75
335	90	20	55		100	75	83	71
336	70	50	60		95	90	93	76
337	70	70	70		95	95	95	83
338	70	80	75		95	95	95	85
339	70	90	80		95	75	85	83
340	80	90	85		95	70	83	84
341	20	-	20		100	95	98	72

1/ A (-) indicates a planting problem, and consequently, only 1 replication is available.

The two station average is thus based on 3 replications where missing data occurs.

1975

UNIFORM WINTERHARDINESS NURSERY

Northern Materials Section

Entry no.	Variety or Pedigree	C. I. or Sel. No.	Source
1	Froid	14486	Check
2	51-1802/513625//Fkn/4/TX65A1304/5/Pj62/3/ Nbr*6//ARs/7*TC	SD7225	South Dakota
3	SD66173/7 pollen sources	SD7254	" "
4	Lcr/NE68919/3/SS/D8//Wmt	SD7267	" "
5	" "	SD7268	" "
6	" "	SD7270	" "
7	SS/D8//Wmt/4/Hume/3/SS-12500-RCh-Pn//Cnn	SD7279	" "
8	SS/D8//Wmt/3/Hume/NE Semidwarf	SD7288	" "
9	" "	SD7295	" "
10	Winoka	14000	Check
11	SS/D8//Wmt/3/Hume/NE Semidwarf	SD72126	South Dakota
12	" "	SD72177	" "
13	" "	SD72193	" "
14	SS/D8//Wmt/3/Wrr/III54-12	SD72214	" "
15	" "	SD72230	" "
16	SS/D8//Wmt/4/Wisc 245/Fkn//3*II44-65/3/Mtr	SD72237	" "
17	SS/D8//Wmt/4/51-1802/51-3625//Fkn/3/Tdr	SD72260	" "
18	SS/D8//Wmt/4/CIMMYT Sel. SDI681/3/Series I Cycle II Rec. Sel. 160	SD72271	" "
19	SD56-497//Roque 66/TX65A1304	SD72298	" "
20	Warrior	13190	Check
21	SD56-497//Roque 66/TX65A1304	SD72299	South Dakota
22	" " "	SD72308	" "
23	" " "	SD72309	" "
24	Winoka//Roque 66/TX65A1304	SD72311	" "
25	" " "	SD72313	" "
26	Roque 66/TX65A1304//Minter/CI11490	SD72343	" "
27	SD56-497//Roque 66/TX65A1304	SD72351	" "
28	" " "	SD72353	" "
29	Hokuriko/Fortunata//Lcr Sel.	SD71145	" "
30	Froid	14486	Check
31	Winoka//Jaral 66/Mtr	SD7116-6	South Dakota
32	" " "	SD7163-6	" "
33	Hume/several NE semidwarfs	SD73102	" "
34	Lcr/NE61919 (SD66141)/3/2*SS/D8//Wmt	SD73106	" "
35	" " "	SD73108	" "
36	" " "	SD73109	" "
37	" " "	SD73111	" "
38	" " "	SD73112	" "
39	" " "	SD73114	" "
40	Winoka	14000	Check
41	Lcr/NE61919 (SD66141)/3/2*SS/D8//Wmt	SD73115	South Dakota
42	" " "	SD73116	" "

1975 Uniform Winterhardiness Nursery (Northern Materials Section) continued:

Entry no.	Variety or Pedigree	C. I. or Sel. No.	Source
43	SS/D8//Wmt/3/SD6689	SD73153	South Dakota
44	" "	SD73154	" "
45	" "	SD73160	" "
46	" "	SD73161	" "
47	Centurk/NE66490	SD73165	" "
48	Scout Sel./NE66403	SD73176	" "
49	" "	SD73177	" "
50	Warrior	13190	Check
51	Scout Sel./NE66403	SD73178	South Dakota
52	Scout Sel.//Soviet 431/Ctk	SD73179	" "
53	Sut-Ky58-Nth-Pn-Tm-Mi-Hope-Cnn/NE66403	SD73182	" "
54	" " " /Centurk	SD73193	" "
55	Gage/Lcr//NE68437	SD73211	" "
56	" "	SD73212	" "
57	NE68432/NE68437	SD73214	" "
58	" "	SD73217	" "
59	" "	SD73219	" "
60	Froid	14486	Check
61	NE68432/NE68437	SD73220	South Dakota
62	Sel. 5 of HiPlains	SD73230	" "
63	Sel. 15 of HiPlains	SD73233	" "
64	Sel. 24 of HiPlains	SD73237	" "
65	Sel. 46 of HiPlains	SD73241	" "
66	Sel. 6 of CO692413	SD73249	" "
67	Sel. 7 of CO692413	SD73250	" "
68	Sel. 3 of CO701733	SD73258	" "
69	Sel. 5 of CO701733	SD73260	" "
70	Winoka	14000	Check
71	Sel. 2 of CO701888	SD73265	South Dakota
72	Sel. 3 of NE69412	SD73268	" "
73	Sel. 6 of NE69412	SD73271	" "
74	Sel. 7 of NE69412	SD73272	" "
75	Sel. 8 of NE69412	SD73273	" "
76	Composite of NE crosses in F ₄	SD7137-1	" "
77	Tpr/Sn64//Tzp/3/Y54/Scout	CO692413	" "
78	NE Semidwarf/3/Kaw/Sk//2*Cnn	SD713-11	" "
79	Hokuriko/Fortunata//Lcr	SD7114	" "
80	Warrior	13190	Check
81	NE Semidwarf/3/Kaw/Sk//2*Cnn	SD7119	South Dakota
82	Composite of NE crosses in F ₄	SD7173	" "
83	SS/D8//Wmt*2/SD66141	SD74113	" "
84	" "	SD74114	" "
85	Winoka//Roque 66/TX65A1304	SD74115	" "
86	" " "	SD74116	" "
87	" " "	SD74117	" "
88	" " "	SD74118	" "
89	Minter/CI9294	SD74119	" "
90	Froid	14486	Check
91	Minter/CI9294	SD74120	South Dakota
92	" "	SD74122	" "
93	" "	SD74123	" "
94	Roque 66/TX65A1304//Minter/CI11490	SD74124	" "

1975 Uniform Winterhardness Nursery (Northern Materials Section) continued:

Entry no.	Variety or Pedigree	C. I. or Sel. No.	Source
95	Wisc 245/Fki//TX65A1304/4/Pj62/3/Nbr*6// Ars/7*Tc	SD74125	South Dakota
96	" " "	SD74126	" "
97	P162/Mtr//Roque 66/TX65A1304	SD74127	" "
98	Composite of crosses involving TX65A1304	SD74128	" "
99	Composite of hailed-out crosses	SD74129	" "
100	Winoka	14000	Check
101	Composite of hailed-out crosses	SD74130	South Dakota
102	YTO-117/3/SS/D8//Wmt/4/Winoka	SD74131	" "
103	SS/D8//Wmt/3/CIMMYT sel. SDI681/SD66181	SD74132	" "
104	" " "	SD74133	" "
105	YTO-117//Wka/P162	SD74135	" "
106	Hume/NE semidwarf	SD74136	" "
107	" "	SD74137	" "
108	NE semidwarf/3/Kaw/Sk//2*Cnn	SD74138	" "
109	" " "	SD74140	" "
110	Warrior	13190	Check
111	Norin 10/12500//Hume	SD74142	South Dakota
112	Hokuriko/Fortunata//Lcr	SD74143	" "
113	" " "	SD74144	" "
114	" " "	SD74145	" "
115	NE semidwarf/3/Kaw/Sk//2*Cnn	SD74146	" "
116	" " "	SD74147	" "
117	" " "	SD74148	" "
118	" " "	SD74149	" "
119	" " "	SD74150	" "
120	Froid	14486	Check
121	NE semidwarf/3/Kaw/Sk//2*Cnn	SD74151	South Dakota
122	" " "	SD74152	" "
123	Ky58-Nth/C-T-M-H//Pn-Cnn/Wrr/3/SS-12500/Pn//Cnn	SD74153	" "
124	" " " " " "	SD74154	" "
125	Wka//Jaral 66/Mtr	SD74155	" "
126	" " "	SD74156	" "
127	" " "	SD74157	" "
128	" " "	SD74158	" "
129	" " "	SD74159	" "
130	Winoka	14000	Check
131	SD66141/3/2*SS/D8//Wmt	SD74101	South Dakota
132	" " "	SD74102	" "
133	" " "	SD74103	" "
134	" " "	SD74104	" "
135	" " "	SD74105	" "
136	" " "	SD74106	" "
137	" " "	SD74107	" "
138	" " "	SD74108	" "
139	Froid	14486	Check
140	Warrior	13190	Check
141	SD66141/3/2*SS/D8//Wmt	SD74110	South Dakota
142	" " "	SD74111	" "
143	" " "	SD74112	" "
144	Wlt/YgSS2458	MT7501	Montana
145	YgSS2458/Wlt	MT7502	"
146	Smt/Td//YgSS	MT7503	"
147	B7212B-6	MT7504	"

1975 Uniform Winterhardness Nursery (Northern Materials Section) concluded:

<u>Entry no.</u>	<u>Variety or Pedigree</u>	<u>C. I. or Sel. No.</u>	<u>Source</u>
148	B7212B-11	MT7505	Montana
149	B7212B-12	MT7506	"
150	Froid	14486	Check
151	B7212B-16	MT7507	Montana
152	B7212B-23	MT7508	"
153	B7212B-24	MT7509	"
154	B7212B-46	MT7510	"
155	B7212B-55	MT7511	"
156	B7212B-69	MT7512	"
157	B7212B-72	MT7513	"
158	B7212B-98	MT7514	"
159	B7212B-133	MT7515	"
160	Winoka	14000	Check
161	B7212B-139	MT7516	Montana
162	Froid	14486	Check
163	B7212B-162	MT7518	Montana
164	B7212B-164	MT7519	"
165	B7212B-166	MT7520	"
166	B7212B-167	MT7521	"
167	B7212B-172	MT7522	"
168	B7212B-175	MT7523	"
169	B7212B-176	MT7524	"
170	Warrior	13190	Check
171	B7212B-183	MT7525	Montana
172	B7212B-186	MT7526	"
173	B7212B-190	MT7527	"
174	B7212B-192	MT7530	"
175	B7212B-201	MT7531	"
176	B7212B-213	MT7532	"
177	B7212B-216	MT7533	"
178	B7212B-219	MT7534	"
179	B7212B-220	MT7535	"
180	Froid	14486	Check
181	B7212B-222	MT7536	Montana
182	B7212B-228	MT7537	"
183	B7212B-232	MT7538	"
184	B7212B-233	MT7539	"
185	B7212B-235	MT7540	"
186	Cheyenne Sel.	MT7434	"

Uniform Winterhardness Nursery (Northern Materials Section) survival data.

Brookings, South Dakota				St. Paul, Minnesota				Two Station Average
Entry No.	Rep 1	Rep 2	$\bar{x}$	Rep 1	Rep 2	$\bar{x}$		
1	90	100	95	90	80	85		90
2	90	90	90	95	95	95		93
3	50	60	55	95	90	93		74
4	70	70	70	85	100	93		81
5	50	70	60	80	90	85		73
6	90	20	80	95	90	93		74
7	90	70	80	98	100	99		90
8	100	80	90	85	95	90		90
9	90	90	90	90	100	95		93
10	100	100	100	95	95	95		98
11	100	100	100	85	75	80		90
12	100	100	100	85	95	90		95
13	100	100	100	90	90	90		95
14	90	90	90	98	95	97		93
15	90	90	90	85	75	80		85
16	90	80	85	95	85	90		88
17	30	70	50	100	100	100		75
18	30	70	50	100	75	88		69
19	90	90	90	90	80	85		88
20	60	90	75	90	80	85		80
21	80	90	85	100	95	98		91
22	90	100	95	98	100	99		97
23	90	100	95	90	100	95		95
24	90	100	95	95	90	98		94
25	60	90	75	95	95	95		85
26	80	100	90	85	50	68		79
27	90	100	95	85	80	83		89
28	100	100	100	95	95	95		98
29	70	80	75	95	95	95		85
30	100	100	100	85	90	88		94
31	90	100	95	100	90	95		95
32	100	100	100	95	90	93		96
33	100	100	100	75	90	83		91
34	90	90	90	95	95	95		92
35	90	80	85	100	100	100		93
36	30	50	40	98	100	99		70
37	30	60	45	80	100	90		68
38	30	60	45	90	100	95		70
39	20	50	35	85	100	93		64
40	50	70	60	95	95	95		78
41	70	80	75	95	95	95		85
42	20	90	55	98	90	94		75
43	10	40	25	100	90	95		60
44	10	70	40	65	70	68		54
45	30	90	60	65	90	78		69

Uniform Winterhardness Nursery (Northern Materials Section) continued

Entry No.	Brookings, South Dakota				St. Paul, Minnesota			Two Station Average
	Rep 1	Rep 2	$\bar{X}$		Rep 1	Rep 2	$\bar{X}$	
46	30	80	55		95	90	93	74
47	70	80	75		85	90	88	81
48	90	90	90		90	80	85	88
49	90	90	90		85	95	90	90
50	90	80	85		85	95	90	88
51	90	100	95		80	80	80	88
52	50	90	70		90	95	93	81
53	90	90	90		90	95	93	91
54	80	90	85		90	95	93	89
55	90	100	95		80	95	88	91
56	60	100	80		60	70	65	73
57	70	90	80		70	85	78	79
58	60	90	75		90	80	85	80
59	50	100	75		60	80	70	73
60	90	100	95		85	95	90	93
61	70	90	80		85	95	90	85
62	70	80	75		85	100	93	84
63	80	100	90		100	95	98	94
64	90	90	90		95	100	98	94
65	50	90	70		95	95	95	83
66	60	90	75		75	100	88	81
67	70	90	80		75	90	83	81
68	80	70	75		100	90	95	85
69	20	80	50		90	100	95	73
70	90	100	95		90	95	93	94
71	60	60	60		90	100	95	78
72	80	80	80		90	98	94	87
73	60	80	70		90	95	93	81
74	70	90	80		85	95	90	85
75	80	70	75		95	100	98	86
76	70	70	70		100	98	99	85
77	70	80	75		75	70	73	74
78	80	80	80		80	60	70	75
79	60	90	75		90	85	88	81
80	100	100	100		90	85	88	94
81	80	90	85		60	95	78	81
82	60	60	60		85	100	93	76
83	70	50	60		90	100	95	78
84	80	50	65		90	95	93	79
85	90	60	75		75	50	63	69
86	90	90	90		95	80	88	89
87	70	90	80		100	100	100	90
88	70	90	80		80	80	80	80
89	70	70	70		90	75	83	76
90	100	100	100		95	100	98	99
91	100	100	100		95	100	98	99
92	90	100	95		100	100	100	98

Uniform Winterhardiness Nursery (Northern Materials Section) continued

Entry No.	Brookings, South Dakota			St. Paul, Minnesota			Two Station Average
	Rep 1	Rep 2	$\bar{x}$	Rep 1	Rep 2	$\bar{x}$	
93	80	90	85	100	100	100	93
94	20	60	40	85	100	93	66
95	40	70	55	95	95	95	75
96	60	70	65	90	100	95	80
97	80	80	80	90	100	95	88
98	70	80	75	95	100	98	86
99	20	60	40	85	85	85	63
100	80	90	85	95	80	88	86
101	80	90	85	90	80	85	85
102	90	80	85	90	65	78	81
103	80	70	75	95	85	90	83
104	50	70	60	100	95	98	79
105	100	80	90	70	80	75	83
106	100	100	100	60	60	60	80
107	100	100	100	85	75	80	90
108	90	100	95	95	95	95	95
109	100	100	100	95	95	95	98
110	100	80	90	85	85	85	88
111	90	90	90	85	90	88	89
112	70	60	65	85	95	90	78
113	20	20	20	80	95	88	54
114	30	20	25	85	95	90	58
115	40	20	30	95	95	95	63
116	80	50	65	95	95	95	80
117	80	100	90	50	70	60	75
118	80	90	85	80	95	88	86
119	70	90	80	80	95	88	84
120	100	100	100	90	98	94	97
121	70	90	80	85	100	93	86
122	70	100	85	70	100	85	85
123	20	100	60	70	100	85	73
124	40	90	65	60	75	68	66
125	80	100	90	75	90	83	86
126	90	90	90	90	100	95	93
127	90	100	95	85	100	93	94
128	90	100	95	85	85	85	90
129	100	100	100	80	95	88	94
130	100	100	100	85	95	90	95
131	70	100	85	75	80	78	81
132	100	100	100	85	80	83	91
133	90	100	95	95	100	98	96
134	90	90	90	95	100	98	94
135	80	90	85	95	90	93	89
136	60	60	60	95	85	90	75
137	40	60	50	95	90	93	71
138	40	70	55	100	90	95	75
139	90	90	90	100	90	95	93
140	90	60	75	85	90	88	81

Uniform Winterhardness Nursery (Northern Materials Section) concluded

Entry No.	Brookings, South Dakota				St. Paul, Minnesota			Two Station Average
	Rep 1	Rep 2	$\bar{x}$		Rep 1	Rep 2	$\bar{x}$	
141	90	30	60		100	95	98	79
142	60	60	60		85	100	93	76
143	70	30	50		95	95	95	73
144	70	80	75		90	100	95	85
145	60	60	60		85	100	93	76
146	80	100	90		100	100	100	95
147	100	100	100		95	90	93	96
148	100	100	100		100	80	90	95
149	80	90	85		75	100	88	86
150	90	100	95		80	100	90	93
151	90	90	90		95	100	98	94
152	70	80	75		100	100	100	88
153	90	90	90		90	95	93	91
154	90	90	90		85	90	88	89
155	90	90	90		90	90	90	90
156	80	90	85		90	95	93	89
157	40	80	60		95	90	93	76
158	50	90	70		97	90	94	82
159	70	50	60		95	100	98	79
160	80	80	80		95	95	95	88
161	80	60	70		95	90	93	81
162	80	80	80		100	100	100	90
163	90	90	90		95	90	93	91
164	100	90	95		90	95	93	94
165	100	90	95		97	100	99	97
166	90	90	90		95	95	95	93
167	100	100	100		100	95	98	99
168	70	50	60		95	90	93	76
169	60	80	70		100	90	95	83
170	80	90	85		97	100	99	92
171	80	60	70		90	90	90	80
172	100	80	90		95	100	98	94
173	90	80	85		100	90	95	90
174	90	100	95		100	100	100	98
175	90	100	95		90	90	90	93
176	100	100	100		95	90	93	96
177	90	100	95		100	90	95	95
178	70	100	85		100	75	88	86
179	90	100	95		95	100	98	96
180	100	100	100		100	90	95	98
181	90	90	90		95	95	95	93
182	90	100	95		70	90	80	88
183	90	100	95		85	100	93	94
184	100	100	100		100	85	93	96
185	90	100	95		95	100	98	96
186	70	90	80		95	95	95	88

1975
SOIL-BORNE MOSAIC NURSERY

<u>Entry no.</u>	<u>Variety or Pedigree</u>	<u>C. I. or Sel.No.</u>	<u>Source</u>
1	Pawnee	11669	Check
2	Concho	12517	Check
3	Bison	12518	Check
4	CIMMYT/Scout	KS73104	Kansas
5	" "	KS73112	"
6	" "	KS73114	"
7	" "	KS73118	"
8	" "	KS73127	"
9	" "	KS73133	"
10	Pawnee	11669	Check
11	CIMMYT/Scout	KS73138	Kansas
12	" "	KS73141	"
13	" "	KS73146	"
14	" "	KS73147	"
15	" "	KS73148	"
16	" "	KS73159	"
17	" "	KS73164	"
18	" "	KS73165	"
19	" "	KS73167	"
20	Concho	12517	Check
21	CIMMYT/Scout	KS73168	Kansas
22	" "	KS73171	"
23	" "	KS73175	"
24	" "	KS73198	"
25	" "	KS73199	"
26	" "	KS73203	"
27	" "	KS73225	"
28	" "	KS73229	"
29	" "	KS73244	"
30	Bison	12518	Check
31	CIMMYT/Scout	KS73248	Kansas
32	" "	KS73253	"
33	" "	KS73256	"
34	" "	KS73258	"
35	" "	KS73261	"
36	" "	KS73263	"
37	" "	KS73277	"
38	" "	KS73H530	"
39	" "	KS73H590	"
40	Pawnee	11669	Check
41	CIMMYT/Scout	KS73H593	Kansas
42	Crc/Danne F ₆	OK737115	Oklahoma
43	" "	OK737117	"
44	Sdy/CI13875 F ₆	OK737160	"
45	" "	OK737171	"
46	Sdy/Fertodi 293 F ₆	OK737432	"
47	" "	OK737454	"

1975 Soil-borne Mosaic Nursery (continued)

Entry no.	Variety or Pedigree	C. I. or Sel. No.	Source
48	Pkr/Sdy F ₆	OK737029	Oklahoma
49	" "	OK737030	"
50	Concho	12517	Check
51	Sdy/Ctk F ₆	OK737269	Oklahoma
52	" "	OK737292	"
53	" "	OK737267	"
54	" "	OK737290	"
55	Crc//Sks/Kaw 61 F ₆	OK737837	"
56	Crc//Sks/Swn F ₆	OK737852	"
57	Tcs/Tl//Tmp 64 F ₈	OK738124	"
58	K.R./Scout 66 F ₇	OK738354	"
59	K.R./Danne F ₇	OK738360	"
60	Bison	12518	Check
61	K.R./Danne F ₇	OK738368	Oklahoma
62	" "	OK738370	"
63	Sks/Sdy F ₇	OK738377	"
64	Tcs/Tl//Sdy F ₈	OK738427	"
65	Sdy/Ctk F ₅	OK741902	"
66	" "	OK741903	"
67	" "	OK741904	"
68	" "	OK741914	"
69	Sks/Sdy F ₇	OK722364	"
70	Pawnee	11669	Check
71	Sks/Sdy F ₇	OK722368	Oklahoma
72	K.R./Scout 66 F ₇	OK722054	"
73	Sdy/Tmp 64 F ₈	OK722970	"
74	Tcs/Tl//Pkr F ₈	OK722692	"
75	" "	OK722721	"
76	Tmp 64/Tl//Sdy F ₈	OK723075	"
77	Ndd/C0662549 F ₉	OK731509	"
78	Tcs/Tl//Sdy	OK711252	"
79	" "	OK711248	"
80	Concho	12517	Check
81	Tmp 64/Tl//Sdy	OK711092	Oklahoma
82	" "	OK711094	"
83	Sdy/Ctk//Sdy/C.I.13875 F ₅	OK748075	"
84	" " "	OK748076	"
85	" " "	OK748077	"
86	" " "	OK748079	"
87	" " "	OK748080	"
88	" " "	OK748084	"
89	" " "	OK748086	"
90	Bison	12518	Check
91	Sdy/Ctk//Sdy/C.I.13875 F ₅	OK748087	Oklahoma
92	" " "	OK748090	"
93	" " "	OK748091	"
94	" " "	OK748094	"
95	" " "	OK748099	"

1975 Soil-borne Mosaic Nursery (continued)

Entry no.	Variety or Pedigree	C.I. or Sel. No.	Source
96	Sdy/Ctk//Sdy/C.I.13875 F ₅	OK748100	Oklahoma
97	" " "	OK748101	"
98	" " "	OK748105	"
99	" " "	OK748109	"
100	Pawnee	11669	Check
101	Sdy/Ctk//Sdy/C.I.13875 F ₅	OK748110	Oklahoma
102	" " "	OK748112	"
103	" " "	OK748125	"
104	" " "	OK748128	"
105	" " "	OK748129	"
106	" " "	OK748132	"
107	" " "	OK748134	"
108	" " "	OK748136	"
109	" " "	OK748137	"
110	Concho	12517	Check
111	Yk/Crc F ₅	OK747009	Oklahoma
112	" " "	OK747012	"
113	" " "	OK747015	"
114	" " "	OK747017	"
115	" " "	OK747019	"
116	Ctk/Bhr F ₅	OK747427	"
117	" " "	OK747434	"
118	Ctk/Bb F ₅	OK747447	"
119	" " "	OK747451	"
120	Bison	12518	Check
121	Ctk/Bb F ₅	OK747456	Oklahoma
122	Sdy/Pkr//OK695033 F ₅	OK747421	"
123	" " "	OK747639	"
124	" " "	OK747646	"
125	" " "	OK747651	"
126	" " "	OK747656	"
127	" " "	OK747660	"
128	Sdy/OK66C3003//Ctk F ₅	OK747715	"
129	" " "	OK747740	"
130	Pawnee	11669	Check
131	Sdy/OK66C3003//Ctk F ₅	OK747745	Oklahoma
132	" " "	OK747747	"
133	Sdy/Ctk//D145B4 F ₅	OK747797	"
134	" " "	OK747798	"
135	Sdy/Fertodi 293//Ncm F ₅	OK747835	"
136	" " "	OK747838	"
137	Sdy/R1Y67//Ncm F ₅	OK747857	"
138	" " "	OK747858	"
139	Crc/Bhr//Ncm F ₅	OK747871	"
140	Concho	12517	Check
141	Crc/Bhr//Ncm F ₅	OK747877	Oklahoma
142	" " "	OK747878	"
143	Sut/4/Ov/2/Tm/3/Mq1/Oro/5/Homestead	NE73481	Nebraska
144	" " " " "	NE73487	"
145	" " " " "	NE73491	"
146	" " " " "	NE73493	"

1975 Soil-borne Mosaic Nursery (concluded)

Entry no.	Variety or Pedigree	C. I. or Sel. No.	Source
147	Sentinel/Centurk	NE73510	Nebraska
148	Red Coat/5/Pn/Cnn/3/Pn/2/Ky58/4/Cnn	NE73564	"
149	Polk/2*Gage	NE73582	"
150	Bison	12518	Check
151	Homestead/2/Gage/Lcr	NE73591	Nebraska
152	Gage/Lcr//Homestead	NE73624	"
153	" " "	NE73634	"
154	Sut/4/Qv/2/Tm/3/Mq1/Oro/5/Homestead	NE73640	"
155	" " " " " "	NE73641	"
156	" " " " " "	NE73644	"
157	" " " " " "	NE73645	"
158	" " " " " "	NE73647	"
159	" " " " " "	NE73649	"
160	Pawnee	11669	Check
161	Sut/4/Qv/2/Tm/3/Mq1/Oro/5/Homestead	NE73656	Nebraska
162	Homestead	17264	"
163	Produttore/Scoutland//Scout	NE73757	"
164	Wrr*2/Minn III-54-12//Gage/3/Homestead	NE73821	"
165	(Complex cross)	NE73828	"
166	(Complex cross)	NE73833	"
167	(Complex cross)	NE73835	"
168	(Complex cross)	NE73836	"
169	(Complex cross)	NE73843	"
170	Concho	12517	Check
171	Atlas 66/2/Cnn/3/Nbr/RCh/4/Homestead	NE73849	Nebraska
172	" " " " " "	NE73851	"
173	Gage/C.I.12995	NE73875	"
174	OK627426/TX62A2607-6 F ₅	OK747078	Oklahoma
175	" "	OK747079	"
176	" "	OK747086	"
177	" "	OK747087	"
178	" "	OK747095	"
179	" "	OK747096	"
180	Bison	12518	Check
181	OK627426/TX62A2607-6 F ₅	OK747098	Oklahoma
182	" "	OK747104	"
183	" "	OK747108	"
184	" "	OK747110	"
185	Tam W 102/OK695033 F ₅	OK747055	"
186	" "	OK747056	"
187	OK649033/Sdy F ₅	OK747237	"
188	" "	OK747239	"
189	" "	OK747242	"
190	Pawnee	11669	Check
191	Ctk/Bezostaya F ₅	OK747149	Oklahoma
192	" "	OK747154	"
193	" "	OK747171	"
194	" "	OK747177	"
195	OK66C2108/Sdy F ₅	OK747258	"
196	OK66C2012/Tam W 101 F ₅	OK747289	"
197	" "	OK747290	"
198	" "	OK747292	"
199	Crc/NE67730 F ₅	OK747348	"
200	Concho	12517	Check

Field Infection Data
1975 Winter Wheat Regional Soil-borne Mosaic Nursery

: Kansas :				Urbana, Illinois			
Entry :		Newton : Powhattan :		Rep 1 :		Rep 2 :	
No. :	Response ¹	Response ¹	Incidence :	Response ²	Incidence :	Response ²	
			%		%		
1	S	S	90	MS-S	90	MS-S	
2	R	R	Tr	MR	Tr	MR	
3	S	S	80	MS-MR; Tr. R	80	MS-MR	
4	R	MR	100	MS-MR	100	MS-MR	
5	R	R	80	MR	80	MR	
6	MR	MS	100	MS (Y)	100	MS (Y)	
7	R	R	Tr	R	Tr	R	
8	MR	MR	100	MS	100	MS	
9	MR	MR	100	MS-R	100	MS-MR	
10	S	S	100	S-MS (G)	100	S-MS (G)	
11	R	R	80	MR	80	MR	
12	R	R	100	MS-MR	100	MS-MR	
13	R	R	Tr	MR-R	Tr	MR-R	
14	MR	MR	Tr	MR	Tr	MR	
15	R	R	Tr	R	Tr	R	
16	R	R	Tr	R	Tr	R	
17	MR	MS	100	MS-MR	100	MS-MR	
18	R	R	Tr	VR	Tr	VR	
19	R	R	Tr	R	Tr	R	
20	R	R	Tr	VR	Tr	VR	
21	R	R	Tr	R	Tr	R	
22	S	S	100	S (Y)	100	S (Y)	
23	S	S	100	S (Y)	100	S (Y)	
24	R	R	0	-	0	-	
25	R	R	Tr	R	Tr	R	
26	S	S	100	VS (Y)	100	VS (Y)	
27	MR	MR	20	MS-MR	20	MS-MR	
28	R	R	Tr	R	Tr	R	
29	S	S	100	S (Y)	100	S (Y)	
30	S	S	20	MS-MR	20	MS-MR	
31	MS	MS	100	MS	100	MS	
32	MR	MR	50	MS-MR	50	MS-MR	
33	R	R	Tr	R	Tr	R	
34	MR	MS	100	MS-MR (G)	100	MS-MR (G)	
35	R	R	Tr	MR	Tr	MR	
36	R	R	Tr	MS-MR	Tr	MS-MR	
37	R	R	50	MS-MR	50	MS-MR	
38	R	R	100	MS-MR	100	MS-MR	
39	R	R	Tr	MR	Tr	MR	
40	S	S	100	MS (G)	100	MS (G)	
41	R	R	100	R	100	R	
42	S	S	100	MS (G)	100	MS (G)	
43	S	S	100	S (Y)	100	S (Y)	
44	S	S	100	S (Y)	100	S (Y)	
45	S	S	100	VS (Y)	100	VS (Y)	

1975 Winter Wheat Regional Soil-borne Mosaic Nursery (continued)

		Kansas		Urbana, Illinois	
Entry		Newton	Powhattan	Rep. 1	Rep. 2
No.		Response ¹	Response ¹	Incidence : Response ²	Incidence : Response ²
				%	%
46	MS	MS		100	MS-MR
47	MS	MS		100	MS-MR
48	S	S		100	S (Y)
49	S	S		100	S (Y)
50	R	R		Tr	R
51	S	S		100	S (Y)
52	S	S		100	S (Y)
53	S	S		100	S (Y)
54	S	S		100	S (Y)
55	S	S		100	S (Y)
56	S	S		100	S (Y)
57	R	R		0	-
58	S	S		100	MR-R
59	S	S		100	MR-R
60	S	S		100-10	S-(Ros)
61	S	MS		Tr	R
62	S	S		100	MS-MR
63	S	S		100	S (Y)
64	S	S		100	VS (Y)
65	S	S		100	S (Y)
66	S	S		100	S (Y)
67	S	S		100	S (Y)
68	S	S		100	VS (Y)
69	S	S		100	MS (Y)
70	S	S		70	S (G)
71	S	S		100	MS (Y)
72	S	S		70	MS-MR
73	S	S		100	S (Y)
74	S	S		100	VS (Y)
75	S	S		100	S (Y)
76	S	S		100	S (Y)
77	S	S		100	VS (Y)
78	MS	MS		100	MS (G)
79	S	S		100	S (Y)
80	R	R		Tr	R
81	S	S		100	S (Y)
82	S	S		100	S (Y)
83	S	S		100	S (Y)
84	S	S		100	MS (Y)
85	S	S		100	MS (Y)
86	S	S		100	MS (Y)
87	S	S		100	S (Y)
88	S	S		100	S (Y)
89	S	S		100	S (Y)
90	S	S		40	MR-MS

1975 Winter Wheat Regional Soil-borne Mosaic Nursery (continued)

		Kansas		Urbana, Illinois			
Entry		Newton	Powhattan	Rep 1		Rep 2	
No.		Response ¹	Response ¹	Incidence	Response ²	Incidence	Response ²
				%		%	
91	S	S		100	S (Y)	100	S (Y)
92	S	S		100	S (Y)	100	S (Y)
93	S	S		100	S (Y)	100	S (Y)
94	S	S		100	MS (Y)	100	MS (Y)
95	S	S		100	VS (Y)	100	VS (Y)
96	S	S		100	S (Y)	100	S (Y)
97	S	S		100	S (Y)	100	S (Y)
98	S	S		100	S (Y)	100	VS (Y)
99	S	S		100	S (Y)	100	S (Y)
100	S	S		100	MS (G)	100	MS (G)
101	S	S		100	VS (Y)	100	VS (Y)
102	S	S		100	S (Y)	100	S (Y)
103	S	S		100	S (Y)	100	S (Y)
104	S	S		100	S (Y)	100	S (Y)
105	S	S		100	S (Y)	100	S (Y)
106	S	S		100	S (Y)	100	S (Y)
107	S	S		100	MS (Y)	100	S (Y)
108	S	S		100	S-MS-MR	100	S-MS-MR
109	S	S		100	S (Y)	100	S (Y)
110	R	R		Tr	MR	Tr	MR
111	MR	MR		100	MS-MR	100	MS-MR
112	MR	MR		100	MR-R	100	MR-R
113	MR	MR		100	MS-MR	100	MS-MR
114	S	S		100	MS-S	100	MS-S
115	MR	MR		100	MR-R	100	MR-R
116	MR	MR		100	MS (Y)	100	MS (Y)
117	R	R		100	MS-MR (Y)	100	MS-MR (Y)
118	MR	MS		100	S-MS (G)	100	S-MS (G)
119	S	S		100	MS (Y)	100	MS (Y)
120	S	S		100	MR-R	100	MR-R
121	MR	MS		20	MS-MR	20	MS-MR
122	S	S		100	VS (Y)	100	VS (Y)
123	S	S		100	VS (Y)	100	VS (Y)
124	S	S		100	VS (Y)	100	VS (Y)
125	S	S		100	VS (Y)	100	VS (Y)
126	S	S		100	S (Y)	100	S (Y)
127	S	S		100	VS (Y)	100	VS (Y)
128	MR	MR		50	MR-R	50	MR-R
129	R	R		50	MR-R	50	MR-R
130	S	S		60	S-MS (G)	60	S-MS (G)
131	S	S		100	S (Y)	100	S (Y)
132	S	S		100	MS (Y)	100	MS (Y)
133	S	S		100	MS-MR	100	MS-MR
134	S	S		100	MS	100	MS
135	S	S		100	MS	100	MS

1975 Winter Wheat Regional Soil-borne Mosaic Nursery (continued)

		Kansas		Urbana, Illinois	
Entry		Newton	Powhattan	Rep 1	Rep 2
No.		Response ¹	Response ¹	Incidence : Response ²	Incidence : Response ²
				%	%
136	S	S		Tr	MR-R
137	S	S		100	VS (Y)
138	S	S		100	VS (Y)
139	S	S		100	VS (Y)
140	R	R		Tr	MR-R
141	S	S		100-Tr	VS-(Ros)
142	S	S		100	S (Y)
143	MS	MS		60	MS-S
144	S	S		100	MS-S
145	S	S		100	MS-S
146	MR	MS		100	MS-S
147	S	S		100	VS (Y)
148	MR	S		100	MS
149	R	MR		Tr	MR-MS
150	S	S		Tr	MR-MS
151	R	R		100	MR
152	MS	MS		100	MS
153	MR	MS		100	MS-MR
154	R	MR		100	R-MR
155	MS	MS		100	MR-R
156	MS	MS		100	MS-R
157	MS	MS		100	MR
158	S	S		100	MR-MS
159	R	R		100	R
160	S	S		40	MS-MR
161	MS	MS		Tr	R
162	MR	MR		100	MR-R
163	S	S		100	MS-MR
164	S	S		Tr	R
165	S	S		Tr	R
166	MR	MS		Tr	R
167	MR	MS		50	MS-MR
168	MS	MS		Tr	MR
169	R	R		Tr	R
170	R	R		Tr	R
171	R	R		Tr	MR
172	S	S		Tr	R
173	S	S		100	MS-MR
174	S	S		100	MS
175	S	S		100	MS
176	S	S		50	MS
177	S	S		100	S-MS
178	S	S		20	MS-MR
179	S	S		100	S-MS (Y)
180	S	S		Tr	VR

1975 Winter Wheat Regional Soil-borne Mosaic Nursery (Concluded)

Entry No.	Kansas		Urbana, Illinois			
	Newton	Powhattan	Rep 1		Rep 2	
	Response ¹	Response ¹	Incidence %	Response ²	Incidence %	Response ²
181	S	S	100	MS-MR	100	MS-MR
182	S	S	100	MR	100	MS-MR
183	S	S	100	S-MS (Y)	100	S-MS (Y)
184	S	S	100	S-MS (Y)	100	S-MS (Y)
185	S	S	100	S-MS (Y)	100	S-MS (Y)
186	MR	MS	50	MR-R	50	MR-R
187	S	S	100	S-MS (Y)	100	S-MS (Y)
188	S	S	100	S-MS (Y)	100	S-MS (Y)
189	S	S	100	S (Y)	100	S (Y)
190	S	S	60	MS-MR (G)	100	MS-MR (G)
191	S	S	Tr	VR	Tr	VR
192	S	S	Tr	VR	Tr	R
193	S	S	20	MS-MR	20	MS-MR
194	S	S	40	R-MR	40	R-MR
195	S	S	100	S-MS (Y)	100	S-MS (Y)
196	R	R	Tr	R	Tr	R
197	S	S	100	MR	100	MR
198	S	S	Tr	R	Tr	R-MR
199	S	S	100	S (Y)	100	S-MS (Y)
200	R	R	0	-	0	-

Notes at Newton were taken on April 16, 1975; notes at Pawhattan on April 18, 1975

- 1/ R = no symptoms; no stunting; green.
 MR = symptoms readily apparent; no stunting; green.
 MS = typical symptoms; little or no stunting; yellow.
 S = typical symptoms; stunting; yellow.

Notes at Urbana were taken on April 22, 1975.

- 2/ Tr = trace; VR = very resistant; R = resistant; MR = moderately resistant;
 MS = moderately susceptible; S = susceptible; VS = very susceptible.

(Y) = yellow mosaic symptoms (very distinct yellow with shades of light green).

(G) = green mosaic symptoms (very distinct dark green with shades of light green).

(Ros) = rosetting.

