

THE UNIFORM REGIONAL HARD RED SPRING WHEAT NURSERY.

The 24 entries in the 1968 uniform regional hard red spring wheat nursery are listed below:

Entry No.	Cross or variety	Sel. No.	C.I. No.	Year entered	Source
1	Marquis		3461	1929	Canada
2	Thatcher		10003	"	Minnesota
3	Justin		13462	1959	N. Dakota
4	Chris		13751	1960	Minnesota
5	Manitou		13775	1963	Canada
6	Waldron	363-1	13958	1964	N. Dakota
7	Polk	II-55-11	13773	1963	Minnesota
8	Pj62/3/Hry*7/P54//K184/7*Wis250/4/ K184/4*Wis250	Wis.271**	-	1967	Wisconsin
9	RL4125/RL4008*	RL4200	-	"	Canada
10	Pb*2/Magnif Entererriana	RL4220	-	1968	"
11	Lake/Selkirk Sib	K48-44	-	"	"
12	Justin Sel.	M4-1	-	"	N. Dakota
13	Justin Sel.	M4-7	-	"	"
14	Justin*2//ND259/Cly/3/ND406	ND476**	-	"	"
15	Justin//ND259/Conley	ND481**	-	"	"
16	Justin*2//Cly/ND122	ND482	-	"	"
17	59-148/57-60	S659	-	"	U.S.D.A.-N.Dak.
18	Fta/3/II-50-17/51-2688//ND4/Rsc	S6579	-	"	"
19	II-50-17/Pilot//B52-91	MT6610	-	"	Montana
20	B52-91/B60-40	MT6661	-	"	"
21	II-55-10/4/Pb/II-52-329/3/II-53-38/ III-58-4//II-53-546	II-62-2**	-	"	Minnesota
22	"	II-62-61**	-	"	"
23	"	II-62-68**	-	"	"
24	Red River 68	-	14193	"	World Seeds, Inc.

*RL4125 is Tc*7/Ftn//Tc*6/KF; RL4008 is Tc*2//Ftn/Tc.

**Semidwarf types.

The list above indicates the year a variety or selection was first entered in the uniform test. Chris and Waldron resulted from reselections of entries first made in 1960 and 1964, respectively. Six of the 24 entries were semidwarf types. Agronomic and disease reaction data were reported from 20 locations. Unfavorable weather made it impractical to harvest the nurseries grown at Carrington and Winnipeg. Data from 20 stations are summarized in Tables 3-1 to 3-20. Two new nursery locations were added in 1968 at Lind, Washington and the Plains Branch Station, New Mexico. Spring wheat yields were very low at these new locations, 14.5 and 18.8 bushels per acre for Lind and the Plains Station, respectively. The highest average yields, 67.0 bushels per acre, were harvested at Saskatoon, Canada.

Average bushel weights and yields for all reporting stations in 1968 are summarized in Table 4. Included in Table 4 are average yields for entries grown for at least 2 or 3 years. The 19-station average yield data in Table 4 show that several of the new entries ranked above check varieties. Minnesota selection II-62-61, a semidwarf, ranked first among 24 entries (46.4 Bu./acre) as compared with Chris at 37.9 bushels per acre. The varieties Waldron and Red River 68 ranked above Chris. Five of the six semidwarf varieties were among the top 50% of entries in yield in 1968. Two or three year data show Waldron, Wis. 271 and RL4200 have good yielding ability.

Yield data from 1968 alone ranked varieties almost exactly the same as data from two or from three years. Data from the 19 widely different environments in a single year was strongly indicative of a selection's potential over a broader range of environments.

Bushel weights (Table 4) were relatively low. They were extremely low due to frost damage at Laramie, Wyoming (Table 3-18) and very low due to drouth at Havre (Table 3-16). Outstanding for maintaining high bushel weights were Polk and Red River 68, with weights of 59.2 and 59.0 pounds per bushel, respectively.

Miscellaneous agronomic and disease reaction data from entries in the uniform regional hard red spring wheat nursery are in Table 5. The semidwarfs were about 5 to 9 inches shorter than the "standard" types. Waldron and most of the semidwarfs resisted lodging considerably better than Chris or other tall varieties.

Stem rust was scarce in the spring wheat region in 1968. Only Marquis was infected seriously (45%). Leaf rust infections averaged as high as 70S (Marquis), but several entries had adequate resistance. Grain losses from shattering occurred in several entries. Justin, Polk, RL4220, M4-1, and ND481 were among those which shattered significantly.

Seedling reactions to stem rust of entries in the uniform nursery are presented in Table 6. A culture of R151 was moderately virulent to virulent on many of the entries.

Table 3. Agronomic data for entries in the 1968 uniform regional hard red spring wheat nurseries.

Table 3-1. Fargo, North Dakota

Variety or Sel. No.	Date headed*	Height In.	Lodg- ing Score	Rust		Shat- tering %	Bushel weight Lb.	Avg. acre yield Bu.
				Leaf %	Stem %			
II-62-61	34	33	1.0	0	0	T	61.5	75.5
ND481	30	36	1.0	20S	0	5	59.0	66.8
Red River 68	25	35	1.3	TMR	0	0	61.0	65.8
S659	30	42	4.7	0	0	15	60.5	58.4
S6579	30	39	3.0	5R	0	5	59.5	58.2
ND476	32	31	1.0	0	0	T	58.0	58.0
RL4220	30	45	4.8	5R-20S	0	40	61.0	58.0
Waldron	28	40	2.0	TMR	0	5	60.0	57.0
II-62-2	34	33	1.0	TR	0	0	59.0	56.1
Wis. 271	28	33	1.0	TMR	0	0	60.0	56.0
II-62-68	35	32	1.0	10MR	0	0	60.5	55.3
RL4200	30	42	4.3	20MR	0	T	60.0	54.2
MT6610	28	41	6.7	30S	0	15	60.0	53.4
Polk	33	41	8.0	0	0	50	62.0	52.2
ND482	32	42	3.3	10MR	0	40	61.0	51.9
Manitou	29	41	5.3	20MR-MS	0	T	60.0	51.4
K48-44	29	42	3.3	20MR	0	T	59.5	50.4
M4-7	30	42	4.7	30S	0	15	59.5	49.6
Chris	30	40	7.3	TR	0	5	60.0	47.7
M4-1	31	42	6.7	40S	0	25	60.5	45.9
Justin	32	42	3.7	40S	0	20	60.5	44.5
Thatcher	29	42	4.0	80S	TS	5	58.5	39.6
MT6661	27	41	6.0	70S	40S	5	56.0	37.7
Marquis	34	43	6.0	80S	30S	5	59.0	35.2
Average								53.3
L.S.D. (5%)								9.6

*Days after June 1.

Table 3-2.

Langdon, North Dakota

Variety or Sel. No.	Date headed*	Rust		Bushel weight Lb.	Avg. acre yield Bu.
		Leaf %	Stem %		
RL4220	43	0-10S	0	56.0	48.8
K48-44	42	10MR	0	56.0	46.4
S659	42	TR	0	57.5	45.9
Manitou	43	10MR	0	56.0	45.6
Waldron	40	0	0	55.5	45.3
RL4200	43	5MR	0	56.0	45.0
Polk	43	0	0	58.5	44.6
ND476	44	0	0	52.0	44.0
M4-1	44	10S	0	56.5	40.8
S6579	43	5MR	0	57.5	40.7
II-62-61	47	0	0	54.5	40.6
Wis. 271	41	0	0	55.0	39.8
ND481	42	TS	0	52.5	39.1
ND482	45	0	0	57.0	38.2
II-62-68	47	0	0	55.0	37.1
Red River 68	39	0	0	55.0	36.9
II-62-2	47	0	0	54.0	36.2
Justin	45	30S	0	52.5	36.1
MT6610	40	10S	0	57.5	35.7
Marquis	45	50S	20S	55.0	35.6
M4-7	43	20S	0	55.5	33.6
Chris	44	0	0	56.0	31.2
MT6661	40	40S	0	52.0	30.7
Thatcher	43	50S	10S	54.0	26.2
				Average	39.4
				L.S.D. (5%)	12.0

*Days after June 1.

Table 3-3.

Watertown, South Dakota

Variety or Sel. No.	Height In.	Leaf rust %	Bushel weight Lb.	Avg. acre yield Bu.
RL4220	40	TR	57.9	38.2
II-62-61	27	TR	57.6	36.6
S6579	30	0	57.5	36.1
Wis. 271	32	5S	57.5	35.4
ND481	30	25X	56.4	35.0
Red River 68	27	TR	61.1	34.3
Waldron	30	0	58.4	33.9
Polk	38	0	61.1	33.8
S659	32	TR	59.9	33.7
ND476	25	0	56.6	32.1
Chris	29	TR	59.4	32.0
ND482	33	TR	58.5	31.6
K48-44	38	TR	57.2	30.3
II-62-2	27	TR	58.7	29.7
RL4200	38	TR	57.7	29.2
Justin	31	10MR	56.7	27.9
Manitou	32	TR	57.0	27.6
M4-7	32	25MR	57.5	27.5
M4-1	34	45X	58.7	27.2
II-62-68	28	2R	57.1	26.5
MT6610	33	65MS	56.5	26.5
Thatcher	29	100S	54.7	22.4
MT6661	32	100S	53.6	20.0
Marquis	31	100S	56.5	16.3
Average				30.0
L.S.D. (5%)				4.0

Table 3-4.

Highmore, South Dakota

Variety or Sel. No.	Height In.	Bushel weight Lb.	Avg. acre yield Bu.
S659	35	59.4	44.8
ND481	36	54.9	44.3
S6579	37	57.8	43.3
RL4200	36	58.1	42.5
Red River 68	31	59.6	42.4
K48-44	37	57.5	41.6
Waldron	35	57.6	41.1
ND482	31	58.1	40.9
II-62-61	35	55.7	40.9
Polk	36	60.9	40.8
Wis. 271	31	56.0	39.9
Chris	37	59.2	39.4
RL4220	37	56.9	38.9
II-62-2	36	56.6	38.7
Manitou	37	58.0	38.4
ND476	36	54.9	36.9
II-62-68	30	57.1	36.5
M4-1	37	58.4	35.8
Justin	38	57.1	35.2
M4-7	39	57.8	35.0
MT6610	38	55.7	33.7
Thatcher	37	55.7	32.2
MT6661	36	51.5	29.8
Marquis	41	56.1	24.6
Average			38.2
L.S.D. (5%)			3.5

Table 3-5.

Crookston, Minnesota

Variety or Sel. No.	Date headed*	Height In.	Lodging Score	Bushel weight Lb.	Avg. acre yield Bu.
Wis. 271	32	32	2.0	58.0	56.4
II-62-61	35	34	2.0	60.5	55.0
Red River 68	30	35	2.0	59.5	53.1
S6579	32	40	2.0	58.0	52.3
RL4200	32	42	3.0	60.0	52.0
K48-44	32	43	2.0	58.0	49.2
Waldron	32	39	2.0	57.0	43.9
ND476	35	32	2.0	58.0	43.7
II-62-68	36	33	2.0	60.5	43.4
S659	33	42	3.0	58.0	43.0
Manitou	34	41	3.0	58.5	42.1
MT6610	30	40	2.0	58.0	39.4
Chris	34	41	4.0	60.0	38.5
ND482	33	40	2.0	58.0	38.1
ND481	34	36	2.0	55.5	37.8
II-62-2	35	33	2.0	59.0	37.5
MT6661	30	40	2.0	54.5	36.8
M4-7	32	43	3.0	57.0	36.7
Justin	34	41	3.0	57.5	36.2
Thatcher	34	39	3.0	58.0	36.0
Polk	34	42	4.0	58.5	34.2
M4-1	34	42	3.0	58.0	32.8
RL4220	34	43	3.0	56.5	28.6
Marquis	35	43	3.0	56.5	21.7
				Average	41.3
				L.S.D. (5%)	7.7

*Days after June 30.

Table 3-6.

Waseca, Minnesota

Variety or Sel. No.	Height In.	Lodging Score	Bushel weight Lb.	Avg. acre yield Bu.
S6579	35	3.5	59.0	45.0
Red River 68	31	3.5	59.0	45.0
S659	36	4.0	58.5	44.2
RL4220	37	3.5	57.5	41.4
K48-44	38	3.0	57.0	41.3
ND482	40	3.3	58.0	41.3
RL4200	38	3.5	57.5	41.0
Waldron	37	3.0	57.0	40.8
Chris	37	4.5	59.5	39.1
Manitou	37	4.0	58.0	37.4
M4-1	38	4.5	56.5	37.3
Wis. 271	32	3.5	57.5	37.1
MT6610	35	6.0	57.0	36.5
II-62-61	34	3.5	56.0	36.1
II-62-62	33	3.0	56.0	35.9
M4-7	39	5.0	57.5	35.8
MT6661	35	5.0	55.0	35.7
II-62-68	34	3.0	58.0	35.7
ND481	35	4.0	54.5	33.5
Polk	37	4.0	58.5	33.4
ND476	31	3.5	54.5	32.9
Thatcher	38	4.5	56.5	32.1
Justin	38	3.5	58.0	31.9
Marquis	40	4.0	57.0	28.2
Average				37.4
L.S.D. (5%)				5.3

Table 3-7.

Morris, Minnesota

Variety or Sel. No.	Date headed June	Height In.	Bushel weight Lb.	Avg. acre yield Bu.
II-62-61	23	32	62.5	39.5
S659	22	38	61.5	39.2
S6579	19	35	60.5	38.2
RL4220	22	39	61.0	36.6
Waldron	18	35	62.0	36.1
M6610	19	38	61.5	35.5
ND482	22	39	62.5	34.9
Wis. 271	19	30	61.0	34.6
ND481	22	34	60.0	34.5
Polk	22	38	62.5	34.4
Chris	18	38	63.0	34.1
Manitou	21	37	61.0	33.8
K48-44	19	37	61.0	33.5
ND476	23	30	61.5	33.1
RL4200	19	36	62.0	32.9
Red River 68	17	29	63.0	32.9
M4-7	22	38	62.0	32.3
II-62-2	23	30	62.0	31.7
MT6661	18	36	60.5	31.4
II-62-68	24	31	62.5	31.0
Justin	22	38	60.5	30.6
Thatcher	19	38	59.6	29.6
M4-1	22	38	61.0	28.2
Marquis	23	42	60.5	27.9
			Average	33.6
			L.S.D. (5%)	4.5

Table 3-9.

Madison, Wisconsin

Variety or Sel. No.	Date headed*	Height In.	Lodg- ing %	Leaf rust %	Bushel weight Lb.	Avg. acre yield Bu.
II-62-61	31	26	14.7	0.2	58.1	50.3
RL4200	30	34	11.3	0.2	57.9	49.6
S659	30	34	11.7	0.2	59.6	49.2
ND482	30	35	9.7	0.2	59.5	48.8
K48-44	30	37	7.3	0.2	58.1	48.6
Waldron	27	33	12.0	0.2	57.5	47.9
S6579	29	30	18.3	0.2	56.8	47.5
ND481	31	30	9.0	3.0	56.4	45.1
RL4220	30	36	19.7	0.2	57.5	45.0
MT6610	30	36	14.3	0.2	57.7	44.3
Manitou	30	33	20.0	0.2	58.3	44.2
Polk	31	31	27.3	0.2	60.0	43.4
II-62-2	33	28	16.0	0.2	58.8	43.3
II-62-68	33	26	9.7	0.2	59.1	42.8
Chris	29	34	29.7	0.2	59.0	42.5
Wis. 271	29	25	12.3	0.2	55.8	41.2
Justin	31	35	14.0	3.0	57.8	39.6
M4-7	30	35	15.7	0.2	57.4	39.2
M4-1	31	35	15.3	0.2	57.6	38.4
ND476	31	26	14.7	0.2	54.8	37.2
Red River 68	25	24	12.0	0.2	55.6	36.1
Thatcher	29	35	39.0	60.0	54.9	35.3
MT6661	26	31	18.0	50.0	51.1	30.1
Marquis	32	36	22.7	50.0	57.1	27.6
Average						42.4

*Days after June 1.

Table 3-10.

Winnipeg, Canada*

Variety or Sel. No.	Height In.	Lodging Score	Rust	
			Leaf %	Stem %
Marquis	39	2.5	80S	70S
Thatcher	36	1.7	90S	10MR
Justin	38	1.2	10M	TR-10M
Chris	38	2.7	TR	TR
Manitou	35	1.8	10M	10MR
Waldron	36	1.0	TR	TR
Polk	35	1.3	3R	0
Wis. 271	30	1.0	3M	1R
RL4200	35	1.3	5M	20M
RL4220	39	2.2	TR	TR-10M
K48-44	34	1.2	5M	20M
M4-1	37	1.8	15M	5MR
M4-7	38	1.5	3R	2R
ND476	31	1.5	1R	TR
ND481	33	1.3	7MR	TR
ND482	38	1.3	TR	10M
S659	35	1.8	3R	15M
S6579	34	1.0	3MR	TR, 20MR
MT6610	37	1.8	30MR	1R
MT6661	33	2.0	70S	40M
II-62-2	31	1.0	TR	TR
II-62-61	31	1.0	TR	TR
II-62-68	32	1.0	TR	TR
Red River 68	29	1.0	TR	2R

*Nursery was not harvested because of unfavorable weather.

Table 3-11.

Saskatoon, Canada

Variety or Sel. No.	Days to head	Days to mature	Height In.	1000 Kernel weight	Bushel weight*	Avg. acre yield
				G.	Lb.	Bu.
ND476	57	109	24	38.5	65.0	78.1
II-62-61	57	114	24	36.0	66.2	78.0
II-62-68	59	114	24	34.5	66.0	77.3
II-62-2	59	117	23	41.0	64.8	76.5
S6579	56	107	29	45.0	63.8	71.6
RL4220	57	109	31	37.5	64.5	70.6
MT6610	55	109	28	40.0	65.0	69.3
Chris	58	114	30	36.0	64.8	69.0
RL4200	56	107	29	38.0	64.0	66.7
Red River 68	54	110	25	38.0	65.0	66.7
ND481	56	110	27	43.0	63.8	66.4
Polk	58	117	30	43.0	65.0	65.8
Manitou	56	107	28	34.5	64.0	65.6
K48-44	55	106	29	35.0	62.8	65.4
Thatcher	56	107	29	34.5	64.0	65.2
ND482	57	110	30	38.5	64.5	65.2
Justin	57	109	30	37.0	64.5	64.0
Waldron	55	105	28	38.5	63.8	63.1
S659	57	109	29	41.0	62.2	63.1
Wis. 271	56	108	24	37.5	64.0	62.2
M4-1	57	114	29	39.0	64.0	61.6
MT6661	53	110	27	39.2	62.0	60.4
M4-7	56	110	30	42.5	64.5	59.1
Marquis	58	112	30	36.5	64.5	58.8
				Average		67.0
				L.S.D. (5%)		4.1

*Imperial bushel.

Table 3-12.

Minot, North Dakota

Variety or Sel. No.	Date headed*	Height In.	Lodg- ing Score	Leaf rust %	Bushel weight Lb.	Avg. acre yield Bu.
II-62-2	36	30	1.0	2MR	60.5	52.4
II-62-61	35	31	1.0	5MR	60.0	49.6
ND481	34	34	2.0	15S	59.0	45.4
ND476	35	30	1.0	TR	59.5	43.7
Wis. 271	31	31	1.0	TR	58.5	43.2
S6579	31	37	1.5	5MR	58.0	42.6
Red River 68	30	32	2.0	TMR	61.0	41.3
Waldron	32	37	1.0	TMR	57.5	41.0
RL4220	32	40	1.5	15S	57.5	40.5
II-62-68	38	29	1.0	5MR	59.0	40.2
S659	32	39	2.0	TR	60.0	39.2
MT6610	32	38	2.0	70S	59.5	38.8
K48-44	32	39	1.0	40MR	56.5	38.7
Polk	35	38	2.5	TR	60.0	38.7
MT6661	30	37	2.0	90S	56.5	36.3
M4-7	33	40	2.0	30S	59.0	36.3
Marquis	35	40	2.5	80S	60.0	36.3
RL4200	32	37	1.5	20MR	58.0	36.2
M4-1	34	38	2.0	40S	59.5	36.1
Chris	34	37	2.0	TR	59.0	35.5
ND482	34	39	1.0	TMR	59.0	34.8
Manitou	33	37	1.5	20MR	56.5	33.9
Justin	33	38	1.0	60S	59.0	33.5
Thatcher	32	38	1.5	85S	57.0	31.1
Average						39.4
L.S.D. (5%)						8.7

*Days after June 1.

Table 3-13.

Williston, North Dakota

Variety or Sel. No.	Date headed*	Height In.	Straw breakage %	Bushel weight Lb.	Avg. acre yield Bu.
K48-44	23	35	T	54.5	30.3
S6579	23	33	T	55.2	29.7
MT6661	21	34	O	52.1	29.7
S659	26	35	T	57.3	29.5
II-62-61	28	31	T	53.0	29.5
II-62-2	29	31	O	53.6	28.8
Red River 68	21	29	O	56.9	28.4
ND481	25	32	5	53.1	28.1
Waldron	21	34	T	55.2	28.1
RL4200	25	34	T	54.4	27.5
II-62-68	29	31	T	54.9	27.1
ND476	25	27	O	52.9	27.1
RL4220	26	35	5	55.2	26.5
Manitou	26	34	T	53.6	26.2
Polk	25	34	T	57.2	26.2
Wis. 271	21	28	O	54.9	26.2
MT6610	22	37	5	52.8	25.5
Justin	29	33	T	54.6	25.4
M4-7	26	37	20	54.6	25.1
Thatcher	26	31	T	53.9	24.4
ND482	27	37	10	54.5	24.4
Marquis	27	34	5	54.3	23.7
Chris	28	34	T	55.1	23.7
M4-1	27	37	20	54.9	22.6
Average					26.8
L.S.D. (5%)					2.3

*Days after June 1.

Table 3-14.

Dickinson, North Dakota

Variety or Sel. No.	Date headed*	Height In.	Leaf rust %	Bushel weight Lb.	Avg. acre yield Bu.
II-62-61	37	31	10	61.5	47.6
ND476	34	30	T	61.5	45.7
II-62-2	38	28	T	58.5	43.1
S659	35	37	T	57.0	40.7
S6579	30	36	0	59.5	40.3
Waldron	29	36	0	57.0	39.7
RL4200	33	38	T	60.0	39.1
MT6610	33	40	80	61.0	38.2
Chris	36	36	T-10	55.5	38.1
K48-44	30	38	T-5	59.5	37.8
RL4220	33	40	T	60.0	37.2
II-62-68	38	30	10	60.5	37.0
Wis. 271	28	31	T	60.5	36.6
Polk	36	36	T	59.0	36.3
Red River 68	27	34	T	60.5	36.3
ND481	32	32	T-5	60.0	36.0
ND482	36	38	T	57.0	35.1
Manitou	35	35	T	59.0	35.1
MT6661	26	36	60	60.0	32.9
Justin	35	36	25	60.0	32.2
M4-7	34	37	10	60.5	31.7
M4-1	34	37	30	60.0	31.7
Thatcher	33	35	25	60.5	27.5
Marquis	33	32	40	59.0	26.5
				Average	36.8
				L.S.D. (5%)	7.9

*Days after June 1.

Table 3-15.

Sidney, Montana

Variety or Sel. No.	Date*		Height In.	Shat- tering Score	Straw breakage Score	Bushel weight Lb.	Avg. acre yield
	Headed	Mature					Bu.
Red River 68	178	216	33	3.7	0.0	58.5	48.6
II-62-61	186	218	31	2.3	0.7	57.0	47.2
II-62-2	187	220	30	2.3	0.7	57.0	46.0
ND476	182	217	31	2.3	0.3	57.5	43.6
S6579	182	216	38	9.0	1.3	58.5	43.5
II-62-68	188	219	31	3.0	0.3	59.5	43.5
K48-44	182	216	42	6.7	1.7	57.0	41.7
Wis. 271	180	218	31	3.7	0.0	57.5	41.0
RL4200	182	216	41	3.7	1.0	58.0	40.9
Polk	184	218	39	10.7	1.0	61.0	39.6
MT6661	178	216	39	6.7	1.0	55.5	39.5
S659	182	217	40	9.3	1.0	59.5	39.2
ND481	181	218	35	7.3	2.7	55.0	38.9
RL4220	181	216	43	11.7	2.0	56.5	38.9
Waldron	180	216	38	6.7	1.7	56.0	37.5
Manitou	183	217	41	8.0	2.0	57.0	36.5
Thatcher	181	216	41	6.7	2.0	56.5	35.6
MT6610	180	218	41	9.0	3.3	56.0	35.6
Chris	183	217	42	7.3	1.7	58.0	34.3
M4-1	183	218	42	8.3	7.7	58.5	34.0
Justin	185	216	41	8.0	7.0	56.5	33.6
M4-7	182	217	41	5.0	8.0	57.5	33.4
ND482	184	218	41	8.0	4.7	58.0	33.1
Marquis	187	218	41	11.7	6.0	60.0	29.8
Average							39.8
L.S.D. (5%)							4.2

*Days after January 1.

Table 3-16.

Havre, Montana

Variety or Sel. No.	Date headed*	Height In.	Lodging %	Bushel weight Lb.	Avg. acre yield Bu.
Manitou	178	31	2.0	52.4	30.6
S659	178	31	0.0	56.8	27.2
II-62-61	180	25	1.3	54.4	24.9
RL4220	178	35	1.3	51.6	24.8
Red River 68	175	26	0.0	56.4	24.6
K48-44	178	32	0.7	53.6	24.4
II-62-68	182	25	1.0	53.6	23.5
Waldron	176	30	2.0	50.8	23.2
Polk	178	32	0.0	57.6	23.0
ND482	178	32	13.0	51.8	22.6
S6579	178	29	1.3	54.8	22.5
MT6661	175	30	0.0	52.0	21.8
MT6610	177	31	21.7	52.0	21.8
Thatcher	176	29	0.7	51.2	21.4
ND481	178	28	14.3	52.8	21.3
II-62-2	182	23	0.3	52.0	21.1
RL4200	177	31	0.3	54.0	21.1
Chris	179	31	0.7	52.4	20.9
Wis. 271	176	24	0.0	50.4	20.5
Justin	179	32	12.0	53.6	19.6
ND476	179	25	41.7	51.2	19.3
Marquis	181	33	7.3	54.2	18.9
M4-7	178	32	61.6	52.4	16.1
M4-1	178	31	40.0	54.0	15.3
				Average	22.1
				L.S.D. (5%)	7.8

*Days after January 1.

Table 3-17.

Bozeman, Montana

Variety or Sel. No.	Date headed*	Height In.	Stripe rust		Bushel weight Lb.	Avg. acre yield Bu.
			Severity	Type		
Red River 68	189	38	0	0	61.3	62.6
II-62-61	196	36	25	1	57.7	60.0
II-62-68	196	35	5	1	57.7	57.0
S6579	193	44	40	3	57.5	56.8
II-62-2	196	35	5	1	56.5	56.3
ND476	194	35	0	0	56.1	55.9
ND481	193	41	10	0	54.8	53.3
S659	193	47	30	1	59.2	52.7
RL4220	193	50	10	1	57.0	51.6
Waldron	191	45	0	0	56.8	51.3
MT6661	189	47	15	1	54.8	51.2
Wis. 271	191	35	60	3	55.1	50.0
MT6610	191	49	20	0	56.5	49.8
Thatcher	192	46	2	1	55.9	47.2
Manitou	192	46	5	1	56.8	46.1
Chris	192	47	1	1	57.4	46.0
Polk	195	47	10	1	59.0	42.9
ND482	193	48	5	1	56.4	42.3
M4-1	193	47	2	1	56.8	42.1
RL4200	192	47	20	3	56.8	41.4
Justin	194	47	0	0	56.6	40.1
K48-44	193	47	30	2	55.7	39.3
Marquis	196	50	15	2	57.3	37.2
M4-7	193	48	0	0	55.7	36.7
Average						50.3
L.S.D. (5%)						5.6

*Days after January 1.

Table 3-18. Sheridan and Laramie, Wyoming

Variety or Sel. No.*	Height (In.) Sheridan	Bushel weight (Lb.)		Avg. acre yield (Bu.)	
		Laramie**		Sheridan	Laramie
S6579	36	46.5		45.4	56.0
MT6661	38	47.7		44.4	47.0
S659	39	49.0		43.4	47.8
MT6610	42	46.4		41.6	34.6
RL4220	42	46.0		40.5	26.0
Waldron	38	44.3		40.4	46.0
Red River 68	32	48.0		40.1	56.0
II-62-61	30	47.9		39.5	39.2
Wis. 271	28	43.9		38.9	46.3
RL4200	41	49.5		37.8	48.7
ND476	30	42.1		36.2	46.1
ND481	33	41.1		35.6	36.4
K48-44	40	50.0		33.3	42.4
II-62-2	30	37.7		33.2	32.2
M4-7	39	43.6		32.6	33.8
ND482	40	45.7		31.7	27.4
M4-1	37	43.3		31.7	25.2
II-62-68	30	37.6		31.1	30.9
Manitou	39	47.8		30.7	39.3
Chris	37	45.5		29.0	40.1
Thatcher	36	47.4		27.9	34.2
Marquis	41	45.1		26.6	28.9
Justin	38	45.9		25.1	28.4
Polk	38	43.8		23.0	20.9
		Average		35.0	38.1
		L.S.D. (5%)		5.8	4.1

*In order of yield rank at Sheridan.

**Low test weights due to weather damage.

Table 3-19.

Tetonia, Idaho

Variety or Sel. No.	Date headed*	Bushel	Avg.
		weight	acre
		Lb.	yield
			Bu.
II-62-61	52	60.7	39.2
Wis. 271	48	58.7	35.6
S6579	49	59.1	35.1
Waldron	49	58.8	34.6
MT6661	47	57.9	34.2
ND476	52	59.3	33.3
Red River 68	46	61.4	33.1
Chris	49	59.5	30.6
MT6610	48	59.4	29.1
S659	52	59.1	28.9
II-62-68	54	60.1	27.8
RL4220	51	59.2	27.4
II-62-2	53	59.4	27.2
Thatcher	50	59.0	27.1
Manitou	51	58.9	27.0
Polk	52	59.9	26.4
M4-1	52	58.6	26.4
M4-7	52	58.9	26.3
K48-44	49	58.7	25.4
Marquis	52	59.0	25.3
Justin	52	58.5	23.2
ND481	52	58.6	23.0
ND482	50	59.0	22.9
RL4200	49	59.3	22.0
		Average	28.8
		L.S.D. (5%)	6.2

*Days after June 1.

Table 3-20.

Sandpoint, Idaho

Variety or Sel. No.	Bushel weight Lb.	Avg. acre yield Bu.
II-62-61	61.0	51.9
S6579	59.0	48.8
II-62-68	61.5	44.7
M4-1	58.0	44.5
ND481	57.5	44.1
S659	60.5	43.6
ND482	60.0	42.5
K48-44	58.5	41.7
ND476	59.0	41.3
MT6661	57.0	40.7
Wis. 271	58.0	40.5
RL4220	57.5	39.6
MT6610	60.0	39.3
Chris	59.0	38.8
Red River 68	59.5	36.7
Justin	59.0	36.7
M4-7	59.5	36.6
Waldron	58.0	36.2
II-62-2	59.5	34.3
Manitou	58.5	34.1
Thatcher	58.0	32.8
Marquis	60.5	32.7
RL4200	58.0	32.0
Polk	59.0	29.0
Average		39.3
L.S.D. (5%)		N.S.

Table 3-21.

Lind, Washington*

Variety or Sel. No.	Date headed	Height	Bushel weight	Avg. acre yield
	June	In.	Lb.	Bu.
S6579	10	28	56.0	17.7
MT6661	8	28	57.2	16.6
II-62-61	12	23	58.5	16.5
S659	9	28	57.7	15.4
ND476	13	24	57.6	15.4
Red River 68	5	25	60.0	15.3
Wis. 271	9	23	57.5	14.7
Justin	11	31	57.1	14.5
II-62-2	12	24	57.8	14.3
II-62-68	13	23	58.2	14.2
MT6610	9	29	57.3	14.2
Polk	12	29	58.6	14.1
M4-7	12	30	57.7	13.8
Marquis	16	32	55.7	13.8
ND482	11	31	57.1	13.8
Manitou	10	29	55.0	13.7
Chris	10	30	56.2	13.5
ND481	11	26	56.5	13.4
Waldron	9	28	57.1	13.4
Thatcher	11	30	55.2	13.4
M4-1	12	29	58.1	12.2
			Average	14.5
			L.S.D. (5%)	1.8

*Entries RL4200, RL4220, and K48-44 were not included.

Table 3-22.

Plains Branch Station, New Mexico*

Variety or Sel. No.	Date headed	Height	Bushel weight	Avg. acre yield
	June	In.	Lb.	Bu.
S6579	9	25	51.0	26.1
S659	9	25	54.0	25.8
Chris	7	26	54.0	25.3
Red River 68	4	23	55.0	23.4
Waldron	10	23	50.0	22.0
II-62-61	14	22	54.0	21.1
Manitou	11	25	50.0	20.4
Wis. 271	9	20	50.0	19.9
Justin	10	24	50.0	19.5
M4-7	13	24	53.0	18.4
ND481	10	20	50.0	16.9
ND476	14	21	53.0	16.8
MT6661	8	24	50.0	16.8
II-62-2	16	21	54.0	16.8
ND482	11	24	49.0	16.4
M4-1	14	24	51.0	15.7
Thatcher	13	25	48.0	15.4
Polk	15	24	54.0	15.4
MT6610	10	24	50.0	13.6
Marquis	16	24	49.0	11.1
II-62-68	16	20	48.0	10.8
Average				18.8
L.S.D. (5%)				5.6

* RL4200, RL4220, and K48-44 were not planted.

Table 4. Average bushel weights and yields of entries in the 1968 uniform regional hard red spring wheat nursery and average yields of entries grown for two- or three-year periods.

Variety or Sel. No.	Bushel weight (Lb.)	Average acre yields (Bu.)		
		1968	1967-1968	1966-1968
Number of stations	18	19	41	59
II-62-61	58.0	46.4		
S6579	57.8	45.5		
Red River 68	59.0	44.2		
S659	58.6	43.9		
Wis 271	56.8	42.4	41.4	
Waldron	57.1	42.2	40.6	38.6
ND 476	56.1	41.9		
RL 4200	57.9	41.0	41.1	
K48-44	57.4	40.8		
RL 4220	57.3	40.5		
II-62-2	56.7	40.5		
ND 481	55.7	40.3		
II-62-68	57.5	39.2		
Manitou	57.3	39.1	39.2	36.9
MT6610	57.3	39.0		
Chris	58.0	37.9	37.7	35.9
ND 482	57.7	37.2		
Polk	59.2	36.8	36.6	34.9
MT6661	55.0	36.4		
M4-7	57.1	35.0		
M4-1	57.4	34.3		
Justin	57.1	33.9	34.9	32.6
Thatcher	56.5	33.2	34.2	32.4
Marquis	57.2	29.5	29.8	28.2

Table 5. Miscellaneous agronomic and disease reaction data for entries in the 1968 uniform regional hard red spring wheat nursery.

Variety or Sel. No.	Date headed* (14)**	Height, In. (16)	Lodging score (8)	Rust, %		Shat- tering % (2)	1000-Kernel weight, g (1)
				Leaf (9)	Stem (4)		
Marquis	33	38	3.6	70S	45S	8.4	
Thatcher	30	36	3.3	69S	6MRMS	5.9	34.5
Justin	32	37	2.8	31S	TR-2M	16.0	37.0
Chris	30	37	4.0	TR	TR	6.2	36.0
Manitou	30	36	3.2	7MR	2MR	4.1	34.5
Waldron	28	35	1.9	TR	TR	5.9	38.5
Polk	32	37	3.8	TR	0	30.4	43.0
Wis 271	28	30	1.9	TR-5S	TR	1.9	37.5
RL 4200	30	37	2.8	6MR	5M	2.0	38.0
RL 4220	30	39	3.0	TR-10M	TR-2M	25.9	37.5
K48-44	29	38	2.3	6MR	5M	3.5	35.0
M4-1	31	38	3.9	22S	1MR	16.8	39.0
M4-7	31	38	3.9	3R-10S	TR	10.0	42.5
ND 476	32	29	2.5	TR	TR	1.3	38.5
ND 481	30	33	2.4	7MR-9S	TR	6.2	43.0
ND 482	31	37	2.6	2MR	2M	24.0	38.5
S659	30	37	3.1	TR	4M	12.2	41.0
S6579	29	35	2.1	2MR	TR	7.0	45.0
MT6610	29	37	3.7	30MR-43S	TR	12.0	40.0
MT6661	27	36	3.3	60S	20M,S	5.9	39.2
II-62-2	35	30	2.1	TR	TR	1.2	41.0
II-62-61	33	31	2.2	2R	TR	1.3	36.0
II-62-68	34	30	2.0	4MR	TR	1.5	34.5
Red River 68	26	31	2.3	TR	TR	2.0	38.0

* Days after June 1.

** Number of stations included.

Table 6. Seedling reaction to stem rust of entries in the uniform regional hard red spring wheat rust nursery.

Variety or Sel. No.	Stem rust culture			
	R151	R32B	15B Composite	R56-1 15WL
Marquis	3to4-	34-	34-	3-3
Thatcher	4	3-3	4	3-3+
Justin	3-3	3=(a few 0;)	0;	0 or 0;
Chris	3-3+	3	0;0;+	0;
Manitou	3-to3+	4-	0;* 0;	0;1=
Waldron	3-	12=	0;	0 or 0;
Polk	3to4-	0;* 0;	1-1	0;
Wis. 271	3-3	3-3	0;1-	0;1=
RL4200	34-	34-	1to3-	0;
RL4220	34-	4	0;12=3	0;1=
K48-44	3to4-	34-	0;13-	0;2=3=
M4-1	3-3	1+3-*	0;13-	0;1=
M4-7	3-3	1+3-*	0;+?(0;)*	0;
S659	3-3	3-	0;1=	0 or 0;
S6579	3-3+	3(a few 4-)	0;1	0;
MT6610	3-3+	3-3+	0;1-	0;
MT6661	34-	X(0;12=4-)*	3to4-	3-
II-62-2	3-	0 or esc.	0;1=4	2=3=
II-62-61	3-3	3-3*	0 or esc.	0
II-62-68	3-3+	3-3c*	0;1	0;
ND363-1	3-	0;tol+*	0;	0 or 0;
ND476	3-	0;13=	0;1-	0;
ND481	34-	34-(3-to3+)*	0;* 0;	0;
ND482	3	3-	0;1	0;
Red River 68	3-3	3+4*	0;13-	0;1=
				0;