

UNIFORM REGIONAL SPRING WHEAT NURSERY

Eighteen varieties or selections were entered in the 1967 uniform regional hard red spring wheat nursery. Data are reported from 22 stations. The 18 entries are listed below.

Entry No.	Cross or variety	Sel. No.	C.I. No.	New or old	Developing station
1	Marquis		3641	Old	Canada
2	Thatcher		10003	"	Minnesota
3	Selkirk		13100	"	Canada
4	Justin		13462	"	N. Dak.
5	Chris		13751	"	Minnesota
6	Manitou		13775	"	Canada
7	M2824 ² x II-50-72	II-55-11	13773	"	Minnesota
8	M2824 ² x II-50-72	II-55-16	-	"	"
9	Tc x Ftn-Hry	II-56-40	-	"	"
10	Crim x II-53-521	II-59-91	-	"	"
11	(II-50-17 x 51-2688)ND4-Rsc	61-107	13937	"	N. Dakota
12	[Penjamo 62 x (Hry ⁷ xP54)x(K184xWis250 ⁷)]Wis 261 x(K184xWis250 ⁴)		-	"	Wisconsin
13	"	Wis 270	-	New	"
14	"	Wis 271	-	"	"
15	RL4125 x RL4008*	RL 4200	-	"	Canada
16	Justin x ND81	ND 363-1	-	"	N. Dak.
17	Justin x Conley-ND122	ND 478	-	"	"
18	Justin x ND333	ND 479	-	"	"

* RL4125 is Tc⁷-Ftn x Tc⁶-KF; RL4008 is Tc² x Ftn-Tc.

Yield data from the 1967 nurseries are summarized in Tables 5, 6, and 7. Growing conditions ranged from poor at Havre and stations in western North Dakota to excellent at Laramie, Wyoming, and Carrington, North Dakota where nurseries were irrigated. Over 22 stations, RL 4200, from Canada, ranked first in yield (41.1 bushels per acre). Wis 261, Wis 270, and Wis 271 are semidwarfs which showed good promise, with yields around 40 bushels per acre. ND 363-1 from North Dakota and II-55-11 from Minnesota are lines with good yield potential. The check varieties, Manitou, Chris, and Justin yielded 38.6, 37.5, and 35.7 bushels per acre, respectively.

Data in Table 7 from 3 years of test show ND 363-1, Minn. II-55-11 to be similar to Manitou and Chris in yielding ability. Generally, the recent selections yielded relatively more than varieties such as Justin and Selkirk at eastern stations. Differences among old and new varieties were less marked under less productive situations (non-irrigated) at the western stations.

Bushel weight data are summarized in Tables 8 and 9. As in the past, Minn. II-55-11 and Minn. II-55-16 were high in test weight, weighing more than 60 pounds per bushel (22-station average). Average test weights were unusually high for all entries, despite drouthy conditions at several stations.

Miscellaneous agronomic data are presented in Table 10. The crop was generally short-stemmed because of dry conditions. The Wisconsin selections 261, 270 and 271 are semidwarfs which averaged about 6 to 9 inches shorter than check varieties.

Stem and leaf rust infection levels are summarized in Tables 11 and 12. All entries, except Marquis and Thatcher, generally were resistant to stem rust; however, Wis 270 showed a 40% infection at Madison. Leaf rust was more prevalent than stem rust, as indicated by reactions of check varieties. All of the new selections had satisfactory resistance to leaf rust. Seedling reactions of entries in the uniform regional tests to 4 stem rust cultures are summarized in Table 13. Except for Marquis and Thatcher, entries were resistant to an isolate from Wells durum - probably a race 15, race 56, and a composite of 15B cultures. Manitou, II-56-40, Wis 270, and ND 479 were susceptible to race 32. Minn. II-55-11 seemed the most resistant to race 32, while other recent selections were moderately susceptible or moderately resistant.

Table 5. Average acre yields (bushels) of entries in the 1967 uniform regional hard red spring wheat nursery.

Variety or Sel. No.	C.I. No.	Madison Wisc.	Minnesota		South Dakota		North Dakota		Average 11 east stations				
			St. Paul	Morris	Waseca	Watertown	Highmore	Fargo		Carrington	Langdon		
RL 4200		40.2	33.0	47.9	49.3	44.9	45.1	49.0	43.4	61.1	35.3	67.8	47.0
Wis 270		40.6	49.3	43.6	38.9	49.2	42.9	52.8	42.9	69.9	33.7	52.7	47.0
Wis 271		31.9	49.3	40.3	52.2	47.7	34.8	48.8	41.3	74.9	35.8	53.7	46.4
Wis 261		36.8	43.3	40.2	41.6	45.9	35.3	45.1	44.9	72.0	31.1	59.5	45.1
61-107	13937	37.7	36.2	42.7	50.5	38.3	43.2	49.2	42.5	60.0	36.8	58.6	45.1
ND 363-1	13958	35.4	32.7	38.4	51.9	38.7	45.0	50.9	45.8	66.6	35.0	58.0	45.3
Manitou	13755	35.3	32.2	38.4	47.3	41.5	38.6	50.8	33.7	59.2	34.6	56.6	42.6
II-59-91		37.6	35.0	36.2	37.5	44.4	34.7	34.3	43.4	57.6	34.7	54.2	40.9
II-56-40		34.3	34.9	37.9	46.9	46.5	36.2	44.1	42.2	54.3	29.2	56.3	42.1
Chris	13751	36.0	34.1	38.9	48.4	40.8	37.7	48.4	29.1	60.0	28.5	55.2	41.6
II-55-16		37.0	25.9	38.9	50.8	41.4	25.6	40.4	37.4	61.1	37.9	56.2	41.1
II-55-11	13773	37.7	32.7	38.7	46.3	40.6	38.1	41.4	45.0	60.2	32.0	56.2	42.6
Justin	13462	34.1	29.7	38.5	41.2	32.7	40.4	43.4	36.1	58.5	36.3	56.3	40.7
ND 479		35.7	35.7	36.2	48.2	43.4	34.3	42.0	39.2	60.5	28.2	51.8	41.4
ND 478		36.0	38.3	38.5	45.5	41.0	39.3	41.6	36.7	56.4	33.7	49.0	41.4
Thatcher	10003	23.0	28.9	33.4	44.0	22.5	34.5	38.5	39.3	50.3	34.0	51.6	36.4
Selkirk	13100	32.1	26.0	41.2	43.2	34.4	37.0	40.7	36.6	54.9	29.3	57.3	39.3
Marquis	3641	13.1	20.4	22.9	38.9	20.8	20.1	29.7	33.0	51.2	34.8	43.4	29.8
Average		34.1	33.4	38.5	46.2	39.7	36.8	44.0	39.6	60.5	33.4	55.2	
L.S.D. (5%)			N.S.	6.3	9.2	6.5	7.1	6.2	7.6	4.7	5.1	6.4	

Table 5. (continued)

Variety or Sel. No.	North Dakota			Montana			Wyoming			Idaho		Average 11 western Saskatoon stations	22-station ¹ average
	Williston	Minot	Dickinson	Bozeman	Havre	Sidney	Laramie	Sheridan	Tetonia	Boundary Co.			
RL 4200	19.9	28.1	21.4	39.5	15.0	37.6	62.3	45.3	43.2	34.9	39.5	35.2	41.1
Wis 270	18.9	26.7	26.3	35.0	14.8	33.6	69.8	45.7	41.0	29.8	37.7	34.4	40.7
Wis 271	18.8	26.9	25.4	34.4	12.1	34.6	74.5	44.5	40.8	34.4	36.2	34.8	40.6
Wis 261	17.8	27.4	20.9	35.8	13.1	32.9	76.5	43.7	42.5	35.6	35.5	34.7	39.9
61-107	17.8	26.0	23.1	39.6	13.5	34.4	63.0	46.3	42.6	-	36.0	34.2	39.9
ND 363-1	18.7	22.7	22.4	25.7	13.8	32.3	60.5	43.2	40.0	45.8	39.3	33.1	39.2
Manitou	18.0	25.0	24.7	36.6	15.0	35.2	56.1	42.0	41.3	49.1	37.8	34.6	38.6
II-59-91	18.0	27.1	25.0	37.6	14.3	35.7	52.7	47.4	37.6	48.2	35.2	34.4	37.7
II-56-40	17.2	26.0	25.7	36.8	14.0	32.4	52.9	41.9	38.0	39.2	38.2	32.9	37.5
Chris	17.8	24.3	21.1	35.5	12.1	29.8	63.7	40.7	41.3	44.6	38.0	33.3	37.5
II-55-16	20.2	29.8	23.8	37.1	12.9	34.5	48.5	46.0	40.6	38.0	39.8	33.7	37.4
II-55-11	19.5	28.0	22.4	34.8	15.1	37.7	26.8	38.7	38.8	37.8	34.5	30.4	36.5
Justin	17.9	25.8	18.6	32.6	13.6	31.5	43.4	37.2	39.4	42.8	34.2	30.6	35.7
ND 479	17.3	27.8	21.5	29.8	13.2	32.6	34.7	41.4	41.6	25.8	37.0	29.3	35.4
ND 478	16.7	20.2	16.9	35.3	12.6	29.8	42.4	40.1	36.1	37.4	34.7	29.2	35.3
Thatcher	17.5	26.3	26.0	37.6	13.8	34.4	56.0	40.0	39.2	44.6	38.0	33.9	35.2
Selkirk	17.2	25.1	23.5	30.9	12.4	32.7	43.4	36.2	37.7	38.0	35.9	30.3	34.8
Marquis	15.0	30.4	23.5	31.7	10.6	29.4	50.8	38.5	41.2	-	34.8	30.6	30.1
Average	18.0	26.3	22.9	34.8	13.4	33.3	54.3	42.1	40.2	40.9	36.9		

¹/ Note exceptions for Boundary Co., Idaho.

Table 6. Average yields (bushels per acre) and rank by states for entries in the 1967 uniform regional hard red spring wheat nursery.

Variety or Sel. No.	Wisconsin		Minnesota		South Dakota		North Dakota		Wyoming		Montana		Idaho		Canada		22-station average
	1 station	Yield Rank	4 stations	Yield Rank	2 stations	Yield Rank	6 stations	Yield Rank	2 stations	Yield Rank	3 stations	Yield Rank	2 stations	Yield Rank	2 stations	Yield Rank	
RL 4200	40.2	2	43.8	2	47.1	3	34.9	6	53.8	5	30.7	1	39.1	11	53.7	1	41.1
Wis 270	40.6	1	41.4	6	47.9	2	36.5	3	57.8	3	27.8	8	35.4	17	45.2	12	40.7
Wis 271	31.9	16	47.4	1	41.8	8	37.3	1	59.5	2	27.0	11	37.6	14	45.0	13	40.6
Wis 261	36.8	7	42.8	3	40.2	10	35.8	4	60.1	1	27.2	10	39.1	10	47.5	5	39.9
61-107	37.7	4	41.9	4	46.2	4	34.4	8	54.7	4	29.1	4	42.6*	4	47.3	6	39.9
ND 363-1	35.4	11	40.4	9	48.0	1	35.3	5	51.9	7	23.9	17	42.9	3	48.7	3	39.2
Manitou	35.3	12	39.9	11	44.7	5	32.6	10	32.8	18	28.9	5	45.2	1	49.6	2	38.6
II-59-91	37.6	5	38.3	14	34.5	16	34.4	9	50.1	8	29.2	3	42.9	5	44.7	15	37.7
II-56-40	34.3	13	41.6	5	40.1	11	32.5	11	47.4	10	27.7	9	38.6	12	47.3	7	37.5
Chris	36.0	8	40.3	10	43.1	6	30.2	17	52.2	6	25.8	14	43.0	2	46.6	8	37.5
II-55-16	37.0	6	39.3	13	33.0	17	36.8	2	47.3	11	28.1	7	39.3	9	48.0	4	37.4
II-55-11	37.7	3	39.6	12	39.8	12	34.6	7	32.8	17	29.2	2	38.3	13	45.4	10	36.5
Justin	34.1	14	35.5	16	42.0	7	32.3	13	40.3	14	25.9	12	41.1	8	45.3	11	35.7
ND 479	35.7	10	40.8	7	38.2	14	32.5	12	38.1	16	25.2	16	31.4	18	44.4	16	35.4
ND 478	36.0	9	40.8	8	40.4	9	30.2	18	41.3	13	25.9	13	36.1	16	41.9	17	35.3
Thatcher	23.0	17	33.2	17	36.5	15	32.3	14	48.0	9	28.6	6	41.9	6	44.8	14	36.4
Selkirk	32.1	15	36.2	15	38.9	13	31.2	16	39.8	15	25.3	15	37.9	14	46.6	9	34.8
Marquis	13.1	18	25.8	18	24.9	18	31.4	15	44.7	12	23.9	18	41.2*	7	39.1	18	29.8
Average	34.1		39.5		40.4		32.5		48.2		27.2		40.5		46.2		

* 1 station only.

Table 7. Average yields (bushels per acre) for entries in the uniform regional hard red spring wheat nursery for 2 or 3 years.

Variety or Sel. No.	C.I. No.	Eastern stations				Western stations				All stations				Grand average	
		(10) 1/		(11)	(31)	(10)		(8)	(11)	(29)	(20)	(18)	(22)	No. tests	Yield
		1965	1966	1967	Avg.	1965	1966	1967	1967	Avg.	1965	1966	1967		
61-107	13937	38.3	33.3	45.1	39.1	41.3	33.9	34.2	36.6	36.6	39.8	33.5	39.9	60	37.9
ND 363-1	13958	39.2	31.9	45.3	39.0	38.9	36.8	33.1	36.1	36.1	39.0	34.1	39.2	60	37.6
Manitou	13775	37.4	31.2	42.6	37.2	37.9	34.2	34.6	35.6	35.6	37.7	32.6	38.6	60	36.5
Chris	13751	39.5	29.7	41.6	37.1	37.4	34.7	33.3	35.1	35.1	38.5	32.0	37.5	60	36.2
II-55-11	13773	38.5	29.0	42.6	36.9	36.9	33.0	30.4	33.4	33.4	37.7	30.8	36.5	60	35.2
Selkirk	13100	30.1	27.1	39.3	32.4	35.9	30.5	30.3	32.2	32.2	33.0	28.6	34.8	60	32.3
Justin	13462	31.2	23.1	40.7	32.0	33.4	33.0	30.6	32.2	32.2	32.3	27.5	35.7	60	32.1
Thatcher	10003	24.4	25.7	36.4	29.1	33.2	31.3	33.9	32.9	32.9	28.8	28.1	35.2	60	30.9
Marquis	3641	18.9	21.2	29.8	23.5	27.9	29.0	30.6	29.2	29.2	23.4	24.7	30.1	60	26.2
		(10)	(10)	(11)	(21)	(8)	(11)	(19)	(18)	(22)					
Wis 261		32.1	45.1	38.9		37.5	34.7	35.9			34.6	33.7	39.9	40	37.5
II-55-16		30.2	41.1	35.9		37.9	33.7	35.5			33.7	32.2	37.4	40	35.7
II-56-40		29.7	42.1	36.1		35.2	32.9	33.9			32.2	32.0	37.5	40	35.1
Chris (ck)	13751	29.7	41.6	35.9		34.7	33.3	33.9			32.0	32.0	37.5	40	35.0
II-59-91		27.0	40.9	34.3		34.6	34.4	34.5			30.4	30.4	37.7	40	34.4

1/ Numbers in parentheses refer to number of tests.

Table 8. Average bushel weights (pounds) for entries in the 1967 uniform hard red spring wheat nursery.

Variety or Sel. No.	C.I. No.	Madison Wisc.	Minnesota		South Dakota		North Dakota			Average 11 eastern stations			
			St. Paul	Morris	Crookston	Waseca	Watertown	Highmore	Fargo		Carrington	Langdon	Winnipeg
II-55-16		58.5	61.5	63.0	65.0	61.0	60.0	61.3	61.5	61.8	62.5	65.9	62.0
II-55-11	13733	58.9	63.0	62.5	64.0	61.5	60.2	61.3	62.0	61.5	62.5	65.9	62.1
Chris	13751	59.5	62.0	62.5	63.0	61.0	58.7	61.1	59.0	61.0	60.5	64.4	61.2
II-56-40		57.0	61.0	61.5	63.0	60.0	59.1	60.8	60.0	60.3	61.0	64.9	60.8
Justin	13462	58.4	61.5	61.5	62.5	57.5	58.4	59.2	60.0	60.0	60.5	64.0	60.3
61-107	13937	58.0	59.5	61.5	63.0	59.5	59.5	61.1	59.0	59.0	61.0	64.0	60.5
RL 4200		58.5	60.5	63.0	62.0	58.5	59.8	60.7	59.0	59.5	61.0	63.5	60.5
Manitou	13755	58.8	61.0	62.0	62.5	58.5	58.6	61.2	59.0	59.8	60.0	63.5	60.4
II-59-91		58.0	61.0	62.5	61.5	60.0	57.2	57.7	59.0	59.0	60.0	64.0	60.0
ND 363-1	13958	58.0	59.5	61.5	62.5	57.0	58.6	60.4	58.5	60.0	60.0	63.0	59.9
ND 479		58.6	60.5	61.0	61.0	59.5	57.5	58.3	58.5	61.0	61.0	63.5	60.0
Wis 261		60.0	61.0	61.5	61.0	58.5	56.8	59.4	58.0	60.0	59.5	64.9	60.1
Thatcher	10003	57.5	59.5	59.5	62.5	55.0	55.9	58.8	59.0	58.0	60.0	63.5	59.0
Wis 270		58.4	60.0	61.5	61.0	58.0	57.3	60.6	58.5	59.8	59.0	64.0	59.8
ND 478		58.7	60.0	61.5	61.5	58.0	57.8	57.3	57.0	60.0	59.0	64.0	59.5
Wis 271		55.4	60.0	61.5	62.5	57.5	57.1	59.5	59.0	60.8	59.0	63.5	59.6
Marquis	3641	38.0	59.5	58.5	61.0	55.0	53.1	58.4	60.0	58.8	62.0	63.5	57.1
Selkirk	13100	56.0	59.0	60.0	61.5	56.0	55.4	57.2	58.0	57.0	59.0	62.0	58.3
Average		57.0	60.6	61.5	62.3	58.4	57.8	59.7	59.2	57.1	60.4	64.0	

Table 8 (continued)

Variety or Sel. No.	North Dakota			Montana			Wyoming			Idaho		Average 11 western stations ^{1/}	22-station average ^{1/}
	Williston	Minot	Dickinson	Bozeman	Havre	Sidney	Laramie	Sheridan	Tetonia	Boundary	Saskatoon		
II-55-16	61.0	62.5	60.0	60.0	57.2	62.5	61.4	63.2	62.0	63.0	63.0	61.4	61.7
II-55-11	61.0	61.0	62.5	59.6	57.8	62.5	58.8	62.3	61.8	62.5	62.5	61.1	61.6
Chris	57.1	61.0	58.8	58.5	53.2	59.5	61.7	60.6	61.0	62.0	61.0	59.5	60.4
II-56-40	57.3	61.0	60.5	57.9	55.2	60.0	61.4	61.3	61.3	61.5	60.9	59.8	60.3
Justin	56.6	61.5	60.5	56.5	54.2	60.0	61.2	60.2	61.1	61.5	60.6	59.4	59.9
61-107	58.1	59.0	59.0	58.6	54.4	60.5	60.8	62.5	61.2	-	59.3	59.3	59.9
RL 4200	56.8	61.0	57.4	57.0	54.6	60.0	61.5	60.0	60.9	61.5	60.1	59.2	59.9
Manitou	55.5	60.0	59.0	57.7	52.0	59.0	61.4	59.9	61.0	61.5	60.9	58.9	59.7
II-59-91	58.2	60.0	59.0	56.6	54.0	59.5	61.5	60.0	61.1	62.0	60.3	59.3	59.7
ND 363-1	58.3	61.5	57.7	57.6	53.2	59.0	61.5	60.3	61.1	61.5	59.9	59.2	59.6
ND 479	58.4	61.0	59.5	55.1	54.8	59.0	60.0	59.9	60.3	61.0	61.5	59.1	59.6
Wis 261	59.2	61.0	55.8	51.3	55.0	59.0	61.2	61.3	60.8	60.0	59.6	58.6	59.4
Thatcher	57.6	61.5	60.7	57.0	53.8	59.0	61.4	60.8	60.9	61.5	60.3	59.5	59.3
Wis 270	58.2	60.0	56.5	53.9	54.4	59.0	61.2	61.4	60.8	58.5	59.9	58.5	59.2
ND 478	57.1	60.0	57.8	57.4	54.2	59.0	60.9	59.7	60.0	60.5	60.9	58.9	59.2
Wis 271	58.0	61.0	57.4	51.6	53.6	59.0	61.4	61.3	60.9	60.0	60.3	58.6	59.1
Marquis	57.0	62.0	57.4	56.5	54.2	61.0	61.7	61.4	61.2	-	62.0	60.4	58.6
Selkirk	55.1	60.0	57.5	53.7	50.0	57.0	60.5	59.4	61.0	60.5	59.1	57.6	58.0
Average	57.8	60.8	58.7	56.4	54.2	59.6	58.3	60.9	61.0	61.1	60.7		

^{1/} Note exceptions for Boundary Co., Idaho.

Table 9. Average bushel weights (pounds) by states for entries in the 1967 uniform regional hard red spring wheat nursery.

Variety or Sel. No.	Wisconsin 1 station	Minnesota 4 stations	North Dakota 6 stations	South Dakota 2 stations	Montana 3 stations	Wyoming 2 stations	Idaho 2 stations	Canada 2 stations	22-station average
II-55-16	58.5	62.6	61.6	60.8	59.8	62.3	62.5*	64.4	61.7
II-55-11	58.9	62.8	61.9	60.8	59.9	60.1	62.2	64.2	61.6
Chris	59.5	62.0	59.7	59.9	57.0	61.2	61.5	62.7	60.4
II-56-40	57.0	61.4	60.1	60.0	57.6	61.4	61.4	62.9	60.3
Justin	58.4	60.8	60.0	58.8	56.8	60.7	61.3	62.3	59.9
61-107	58.0	60.9	59.3	60.3	57.8	61.7	61.2*	61.7	59.9
RL 4200	58.5	61.0	59.2	60.3	57.1	60.8	61.2	61.8	59.9
Manitou	58.8	61.0	59.0	59.9	56.2	60.7	61.3	62.2	59.7
II-59-91	58.0	61.3	59.3	57.5	56.6	60.8	61.6	62.2	59.7
ND 363-1	58.0	60.1	59.5	59.5	56.5	60.9	61.3	61.4	59.6
ND 479	58.6	60.5	59.3	57.9	56.2	60.0	60.7	60.8	59.6
Wis 261	60.0	60.5	59.0	58.1	55.0	61.3	60.4	62.3	59.4
Thatcher	57.5	59.1	59.6	57.4	56.5	61.1	61.2	61.9	59.3
Wis 270	58.4	60.1	58.8	59.0	55.7	61.3	59.7	62.0	59.2
ND 478	58.7	60.3	58.6	57.6	56.8	60.3	60.3	60.2	59.2
Wis 271	55.4	60.4	59.3	58.3	54.7	61.4	60.5	61.9	59.1
Marquis	38.0	58.5	59.6	55.8	57.2	61.6	61.2	62.8	58.6
Selkirk	56.0	59.1	57.9	56.3	53.5	60.0	60.8	60.6	58.0
Average	57.0	60.7	59.0	58.8	56.7	59.6	61.0	62.4	

* 1 station only.

Table 10. Summary of miscellaneous agronomic data for entries in the 1967 uniform regional hard red spring wheat nursery.

Variety or Sel. No.	C.I. No.	Heading date (days after June 1)		Days to		Height (inches)		Lodging score (6) ² / ₉	1000 kernel weight (g) (3)	Percent shattering (1)
		(8) ¹ / ₂	(6)	(1)	(2)	(9)	(15)			
		East	West	Head	Mature	East	West			
						Region	Region			
Marquis	3641	35.4	38.1	63	98.1	41	30	4.0	25.7	1
Thatcher	10003	33.0	35.6	60	93.7	38	29	2.9	26.2	1
Selkirk	13100	33.3	36.9	60	91.0	38	28	1.9	34.6	5
Justin	13462	34.5	37.7	62	96.8	39	30	1.9	33.0	2
Chris	13751	33.9	37.6	61	97.9	38	27	3.1	29.5	0
Manitou	13775	33.0	36.4	60	92.5	37	28	2.2	28.0	0
II-55-11	13773	33.8	37.1	61	96.4	37	29	2.1	36.8	10
II-55-16	-	34.5	37.7	63	99.6	39	29	2.6	37.1	1
II-56-40		32.1	33.4	59	96.4	41	30	2.8	33.3	5
II-59-91		33.0	36.6	61	96.8	40	30	3.5	31.9	0
61-107	13937	31.5	34.9	59	93.3	37	29	3.7	38.1	1
Wis. 261		32.4	35.4	60	94.8	30	23	1.0	31.1	0
Wis. 270		31.1	33.0	57	92.7	30	23	1.0	32.1	0
Wis. 271		32.8	34.6	60	94.2	30	24	1.0	29.8	0
RL 4200		32.6	34.8	59	93.6	38	30	1.7	30.0	0
ND 363-1	13958	31.3	34.2	59	90.8	37	29	1.3	33.6	2
ND 478		33.5	36.1	59	96.3	40	31	2.3	34.3	2
ND 479		34.8	38.9	63	99.6	41	31	2.1	35.7	25

¹/₂ Numbers in parentheses refer to numbers of tests in averages.

²/₉ 1 is erect; 9 completely lodged.

Table 11. Stem rust notes recorded (%) for entries in the 1967 uniform regional hard red spring wheat nursery. (Trace computed at 0.2%)

Variety or Sel. No.	C.I. No.	North Dakota		Minnesota		Brookings S. Dak.	Madison Wisc.	Winnipeg Canada	Average
		Fargo	Langdon	St. Paul	Crookston				
Marquis	3641	5S	70	60MS-S	50	60	77.5	70S	56.1
Thatcher	10003	5S	40	30S	5	5	35.0	30M	21.4
Selkirk	13100	TR	0	0	R	1R	17.5	1R	2.8
Justin	13462	0	0	0	R	1R	4.0	TR, 3MR	0.9
Chris	13751	0	0	0	R	5MR	T	0	0.8
Manitou	13775	0	0	0	R	0	0.5	1R	0.2
II-55-11	13773	0	0	0	R	1MR	T	1R	0.3
II-55-16		0	0	0	R	TR	T	TR	0.1
II-56-40		0	0	0	R	0	0.5	5M	0.8
II-56-91		0	0	0	R	TR	0.5	1R	0.3
61-107	13937	0	0	TR	R	0	5.5	20M	3.7
Wis 261		0	0	0	R	2R	T	TR	0.4
Wis 270		1S	0	TR	R	2R	5.0	20M	4.0
Wis 271		0	30	0	R	0	40.0	TR	10.1
RL 4200		0	0	TR	R	TR	T	TR	0.1
ND 363-1	13958	0	0	TR	R	5MR	2.0	TR	1.1
ND 478		0	0	0	R	TR	0.5	TR	0.2
ND 479		TR	0	TR	R	10MR	6.0	5M	3.1

Table 12. Leaf rust notes recorded for entries in the 1967 uniform regional hard red spring wheat nursery. (Trace computed at 0.2%).

Variety or Sel. No.	C.I. No.	North Dakota			Minnesota		Brookings S. Dak.	Madison Wisc.	Winnipeg Canada	Average
		Fargo	ton	Carrington- Langdon	St. Paul	Crookston				
Marquis	3641	5S	40	0	100S	50	100	50	70S	51.8
Thatcher	10003	20S	30	0	100S	70	100	65	80S	58.1
Selkirk	13100	10S	30	0	50MS	50	65	8	60MS	34.1
Justin	13462	5MR	10	0	60S	5	10	3	40MS	16.6
Chris	13751	TR	0	0	0	R	0	T	0	0.1
Manitou	13775	TR	5	6	40R-MS	10	5	2	TR	8.6
II-55-11	13773	TR	0	0	TR	R	0	T	TR	0.1
II-55-16		TR	0	0	0	R	0	T	TR	0.1
II-56-40		0	0	TR	TMS	R	0	T	TR	0.1
II-56-91		0	0	0	20R-MR	2R,S	0	T	2R,80S	3R,10S
61-107	13937	TR	0	0	30R-MS	15	TR	3	10MR	7.3
Wis 261		TR	0	0	TS	R	2MS	T	TR	0.3
Wis 270		TR	5	5S	TS	5	0	T	3MR,20M	4.5
Wis 271		1	0	5S	TS	R	1MS	5	3MR	1.9
RL 4200		0	10	0	30MS-S	2	25S	T	2R	8.7
ND 363-1	13958	0	0	0	0	R	0	T	TR	0.1
ND 478		0	0	0	TR	R	TR	T	2MR	0.4
ND 479		0	0	0	0	R	0	T	2MR	0.3

Table 13. Seedling reaction to stem rust of entries in the 1967 uniform regional hard red spring wheat nursery. (Data from F. J. Gough, CRD, ARS).

Variety or Sel. No.	C.I. No.	Culture of stem rust			
		Leeds isolate	R-32	56-1	15B composite
Marquis	3641	4	4	4	4-
Thatcher	10003	4	3-3	0;13-	3-3
Selkirk	13100	3-3n	13r	0;	0;13=
Justin	13462	0;	3-3	0;	0;
Chris	13751	0;1=	3-3	0;	0;
Manitou	13775	0;1=	3	0;	0;
II-55-11	13773	0	0,13	0;	0;
II-55-16		0;	3-34	0;	0;
II-56-40		0;3=	4	13=	2=3-
II-59-91		0;1-	3-3	0;3=,4-	0;,0,3-
61-107	13937	0;1-	3-3	0;1=	0;
Wis 261		0;	13-3	0;1=	0;
Wis 270		0;1-	4	0;	0;
Wis 271		0;1-	3-3	0;	0;
RL 4200		0;1-1	3-3	0;	0;
ND 363-1	13958	0;1-n+	3=3-	0;,3=	0;
ND 478		00;	3-3	0;	0;
ND 479		13=	34-	0;	0;