UNIFORM REGIONAL NURSERY, 1960

The twenty-ninth Uniform Regional Nursery was seeded in 1960 at 20 stations in 9 states - Wisconsin, Minnesota, North Dakota, South Dakota, Nebraska, Colorado, Montana, Wyoming, and Idaho - and at Winnipeg, Manitoba, and Saskatoon, Saskatchewan. One new station, Concord, Nebraska, was seeded this year.

The list of the spring wheats included in the Uniform Regional Nursery for 1960 is as follows:

Key No.	Variety or Cross	Old or New	Included by	Station developing	State or N. S. No.	C.I.No.
1	Marquis	Old				3641
2	Thatcher	"				10003
3	Selkirk	"				13100
4	Lee	"				12488
5	Conley	"				13157
6	Pembina	"	Canada	Winnipeg	C.T.229	13332
7	Henry^{7} x P. I. 94587	"	Wis.	Madison	Wis. 253	13457
8	Lee^{2} x Kenya Farmer	New	Canada	Winnipeg	RL 2938	13463
9	To^{2} x Frontana-Thatcher	"	"	"	RL 4009	13464
10	II-44-29 x Lee^{3}	Old	Minn.	St. Paul	II-53-562	13458
11	"	"	"	"	-567	13416
12	KT-To^{3} x II-44-29-To^{2}	New	"	"	-404	13465
13	Ftn-To^{3} x II-44-29-To^{2}	"	"	"	-525	13466
14	Conley x ND 40-2	Old	N.Dak.	Fargo	ND 102	13462
15	ND 81 x Lee	"	"	"	ND 137	13349
16	Lee x ND 34	"	"	"	ND 138-1	13461
17	ND 81 x Conley	"	"	"	ND 153	13452
18	(Lee x ND 81 sib) x Lee	"	"	"	ND 162	13453
19	ND 81 sib x ND 1	New	"	"	ND 208	13603
20	Conley x ND 81	"	"	"	ND 218	13604
21	ND 81 sib x Conley	"	"	"	ND 220	13605
22	ND 81 sib x Conley^{2}	"	"	"	ND 223	13606
23	N2350 x [(Rmr-KF) x Ns 3880]	"	"	"	ND 235	13607
24	ND 81 sib x Conley	"	"	"	ND 256	13608

Yields, Bushel Weights, and Disease Resistance

Data on 1960 yields at each of the stations are given in table 5. Average yields and ranks for the states are given in table 6. The average yields and ranks for the groups or areas of tests, Eastern - Western (irrigated and dry), and at all stations are given in table 7. In table 8 bushel weights are given for the individual stations, the Eastern and Western averages, with an overall average. In table 8-1 the averages for the eastern and western sections and an average for all stations are given for date of heading, height, lodging, and shattering. These averages are from stations where data are available. A summary of the data on leaf and stem rust reaction is given in table 9, and disease notes are given in table 10.

Yields were variable at the stations, depending on the amount of moisture. Rather low yields were produced at Dickinson, N. Dak., Akron, Colo., Sheridan, Wyo., and Tetonia, Idaho. Good yields were produced at many stations as shown by an average yield of 31.0 bushels. C. I. 13463, C. I. 13457, and C. I. 13603 were the highest yielding varieties over the entire area.

Bushel weights were fair to good in 1960. C. I. 13466 had the highest bushel weight.

There was considerable leaf rust infection at most of the stations in the eastern section of the area. The 3 most resistant varieties were C. I. 13466, C. I. 13464, and C. I. 13605. The heaviest epidemics developed at Concord, Nebr., and Winnipeg, Can.

Stem rust was very light over the entire region, with the heaviest infections at Concord, Nebr., and Winnipeg, Can.

The Disease Garden data given in table 10 are furnished through cooperation with the Department of Plant Pathology of the Institute of Agriculture, St. Paul, Minn. A good epidemic of both rusts was obtained in the Rust Nurseries where infection was induced by artificial inoculation.

Table 5 Station and average yield per acre (bushel) of 24 spring wheats grown in the Uniform Regional Nursery in 1960, ranked in order of their average yield at all stations*

C.I.No.	Madison, Wis.	St. Paul, Minn	Morris, Minn.	Crookston, Minn.	Concord, Nebr.	Fargo, N.D.	Casselton, N.D.	Langdon, N.D.	Dickinson, N.D.	Minot, N.D.	Brookings, S.D.	Watertown, S.D.	Highmore, S.D.**	Fort Collins, Colo.	Akron, Colo. ***	Bozeman, Mont.	Sidney, Mont.	Laramie, Wyo.	Sheridan, Wyo.	Tetonia, Ida.	Saskatoon, Sask.	Winnipeg, Man.	Average
13463	36.7	38.1	38.1	43.9	22.8	40.1	29.1	46.7	12.7	28.1	36.1	21.2	25.8	56.5	16.2	55.3	25.3	63.2	17.9	19.1	35.4	53.8	34.6
13457	36.7	43.5	38.0	39.4	32.1	47.3	28.9	43.3	13.4	32.2	36.5	22.8	19.3	54.7	9.4	48.9	24.5	57.4	17.6	18.7	29.1	56.5	34.1
13603	32.8	53.9	30.3	37.4	26.7	47.9	27.3	46.8	14.7	32.9	30.4	20.3	22.5	49.9	5.6	43.1	20.2	53.6	17.9	15.6	37.1	54.6	32.8
13465	31.6	46.2	36.6	39.3	27.0	36.6	25.2	34.0	15.4	29.6	32.0	29.3	26.6	44.7	10.0	48.1	21.5	60.0	16.8	19.0	36.0	52.6	32.6
13458	33.0	34.2	35.8	43.9	26.0	31.6	28.3	34.7	11.1	26.7	38.8	26.6	27.5	56.5	8.9	47.0	21.4	65.1	17.7	17.3	30.5	52.0	32.5
12488	29.7	38.3	36.3	36.2	23.6	40.8	22.7	42.0	15.5	27.4	33.0	24.3	25.2	52.7	7.5	50.2	20.6	61.4	18.5	20.4	33.9	52.1	32.4
13453	33.5	43.3	31.9	40.0	24.6	35.3	28.6	42.2	14.5	33.8	32.4	18.1	25.1	53.5	8.8	46.0	20.1	60.8	16.2	18.5	34.4	50.1	32.4
13416	35.1	46.1	35.1	35.4	25.3	35.4	31.9	26.7	14.5	24.8	35.9	17.6	27.7	53.6	8.0	46.0	22.0	59.3	19.2	17.6	40.8	45.7	32.0
13466	30.0	46.6	30.4	28.7	28.0	35.1	27.9	41.5	11.7	29.3	34.3	27.5	27.8	43.8	5.9	44.6	24.7	61.8	17.8	15.5	28.0	57.7	31.8
13606	33.0	34.4	31.8	39.8	27.6	34.0	24.1	43.5	13.1	27.0	32.6	29.4	21.3	51.8	9.6	44.6	19.8	59.6	19.0	16.8	30.1	53.2	31.6
13349	32.5	43.0	29.5	36.4	21.5	43.4	30.7	40.7	12.9	26.0	29.8	27.3	21.1	48.5	6.3	46.8	20.4	59.8	18.0	15.7	33.3	49.8	31.5
13605	28.9	50.4	26.5	34.7	27.4	46.4	32.5	39.0	10.6	24.0	29.7	20.9	24.0	45.0	10.7	42.1	23.3	58.6	17.8	13.6	30.1	56.3	31.4
13607	30.9	46.9	26.5	31.8	26.9	43.4	35.7	41.1	16.2	27.2	36.4	29.2	23.2	42.6	7.8	42.7	15.3	48.8	15.0	15.4	35.9	46.8	31.2
13461	26.8	52.6	24.2	35.0	11.9	37.7	28.4	42.2	12.9	25.5	26.1	21.1	28.1	56.2	14.6	49.8	20.2	51.0	15.6	15.6	40.3	49.4	31.1
13332	32.1	50.5	28.5	28.7	27.9	36.0	27.3	29.6	14.3	28.0	37.8	22.4	26.3	49.9	8.5	44.7	18.5	51.4	18.1	15.9	33.9	49.4	30.9
13464	33.1	40.9	29.7	37.0	28.8	46.2	27.0	35.4	15.7	33.3	34.0	20.2	26.5	37.5	6.1	41.8	20.1	50.4	16.5	15.6	26.7	49.7	30.6
13462	28.2	48.3	31.8	30.2	24.8	36.0	25.3	42.7	13.7	27.6	27.3	28.4	23.4	48.5	10.1	39.1	18.6	54.0	20.0	17.0	29.0	46.8	30.5
13452	26.0	45.1	29.1	37.5	26.7	42.1	24.3	36.6	14.0	30.4	28.9	16.6	19.5	48.5	12.5	37.8	20.0	58.7	18.0	16.1	32.0	40.9	30.1
13100	28.4	39.1	35.0	32.4	28.3	36.3	29.0	37.5	11.0	28.6	34.3	24.5	15.1	49.8	3.8	40.8	19.1	51.8	15.1	16.8	31.1	50.5	29.9
10003	25.9	36.0	27.9	35.3	22.3	27.8	24.3	46.6	12.9	22.9	28.9	21.7	17.9	53.7	7.8	44.9	20.8	64.6	16.8	16.9	30.3	46.8	29.7
13604	28.0	45.7	28.0	32.4	24.2	42.0	19.9	42.7	11.7	26.8	23.5	19.5	19.3	50.4	4.2	44.7	22.5	53.8	17.8	13.0	25.8	48.3	29.3
13608	26.7	37.7	27.4	38.3	23.5	33.8	26.1	35.0	14.8	31.0	28.0	23.4	18.1	48.0	5.9	33.3	18.0	54.4	15.9	15.7	30.7	44.6	28.6
13157	28.4	36.8	28.5	27.8	20.1	32.5	23.0	34.9	12.7	29.1	23.1	18.8	17.8	37.5	6.2	33.8	20.2	47.8	18.7	15.0	28.8	50.9	26.9
3641	16.1	46.9	30.3	34.8	25.3	15.2	12.7	35.4	13.7	28.7	19.0	6.7	11.3	50.5	2.6	37.9	18.8	56.4	18.8	17.2	33.8	37.2	25.9
Mean	30.2	43.5	31.1	35.7	25.1	37.4	26.6	39.3	13.5	28.5	31.7	22.8	22.3	49.3	8.2	43.9	20.7	56.8	17.5	16.6	32.4	49.8	31.0
L.S.D. (5%)	4.1	7.3	4.9	10.2	5.2	8.8	3.3	8.4	4.7	7.6	5.7	8.8	—	9.1	5.6	5.5	2.6	8.0	N.S.	3.6	N.S.	7.3	1.5

* Irrigated stations – Fort Collins, Colo., Bozeman, Mont., Laramie, Wyo.
** Not replicated.
*** C.I. 13332 (Pembina) calculated yield.

Table 6 Average yield and rank for each of the 24 spring wheats grown in the Uniform Regional Nursery in 1960*

C.I.No.	Wisconsin 1 Station Yield	Rank	Minnesota 3 Stations Yield	Rank	Nebraska 1 Station Yield	Rank	N.Dakota 5 Stations Yield	Rank	S.Dakota** 3 Stations Yield	Rank	Colorado*** 2 Stations Yield	Rank	Montana 2 Stations Yield	Rank	Wyoming 2 Stations Yield	Rank	Idaho 1 Station Yield	Rank	Canada 2 Stations Yield	Rank	Average 22 Stations Yield	Rank
13463	36.7	1	40.0	4	22.8	20	31.3	5	27.7	7	36.4	1	40.3	1	40.6	3	19.1	2	44.6	3	34.6	1
13457	36.7	2	40.3	3	32.1	1	33.0	2	26.2	12	32.0	4	36.7	2	37.5	14	18.7	4	42.8	9	34.1	2
13603	32.8	8	40.5	2	26.7	11	33.9	1	24.4	18	27.8	14	31.6	15	35.8	16	15.6	17	45.8	1	32.8	3
13465	31.6	11	40.7	1	27.0	8	28.2	17	29.3	4	27.4	16	34.8	5	38.4	11	19.0	3	44.3	4	32.6	4
13458	33.0	7	38.0	7	26.0	12	26.5	22	31.0	1	32.7	3	34.2	7	41.4	1	17.3	7	41.2	15	32.5	5
12488	29.7	14	36.9	12	23.6	18	29.7	9	27.5	8	30.1	10	35.4	3	39.5	6	20.4	1	43.0	7	32.4	6
13453	33.5	4	38.4	6	24.6	16	30.9	6	25.2	14	31.2	5	33.0	11	38.5	9	18.5	5	42.2	10	32.4	7
13416	35.1	3	38.9	5	25.3	13	26.7	21	27.1	9	30.8	6	34.0	8	39.8	4	17.6	6	43.2	5	32.0	8
13466	30.0	13	35.2	20	28.0	4	29.1	12	29.9	2	24.8	22	34.6	6	39.8	5	15.5	20	42.8	8	31.8	9
13606	33.0	6	35.3	19	27.6	6	28.3	16	27.8	6	30.7	8	32.2	14	39.3	7	16.8	12	41.6	11	31.6	10
13349	32.5	9	36.3	14	21.5	22	30.7	7	26.1	13	27.4	15	33.6	9	38.9	8	15.7	15	41.6	13	31.5	11
13605	28.9	15	37.2	11	27.4	7	30.5	8	24.9	16	27.8	13	32.7	13	38.2	12	13.6	23	43.2	6	31.4	12
13607	30.9	12	35.1	21	26.9	9	32.7	3	29.6	3	25.2	21	29.0	19	31.9	24	15.4	21	41.4	14	31.2	13
13461	26.8	20	37.3	9	11.9	24	29.3	11	25.1	15	35.4	2	35.0	4	33.3	23	15.6	18	44.8	2	31.1	14
13332	32.1	10	35.9	15	27.9	5	27.0	19	28.8	5	29.2	12	32.6	16	34.8	19	15.9	14	41.6	12	30.9	15
13464	33.1	5	35.9	16	28.8	2	31.5	4	26.9	10	21.8	24	31.0	17	33.5	21	15.6	19	38.2	19	30.6	16
13462	28.2	18	36.8	13	24.8	15	29.1	13	26.4	11	29.3	11	28.8	21	37.0	15	17.0	9	37.9	20	30.5	17
13452	26.0	22	37.2	10	26.7	10	29.5	10	21.7	21	30.5	9	28.9	20	38.4	10	16.1	13	36.4	23	30.1	18
13100	28.4	17	35.5	17	28.3	3	28.5	15	24.6	17	26.8	19	30.0	18	33.5	20	16.8	11	40.8	16	29.9	19
10003	25.9	23	33.1	23	22.3	21	26.9	20	23.8	19	30.8	7	32.8	12	40.7	2	16.9	10	38.6	18	29.7	20
13604	28.0	19	35.4	18	24.2	17	28.6	14	20.8	22	27.3	17	33.6	10	35.8	17	13.0	24	37.0	22	29.3	21
13608	26.7	21	34.5	22	23.5	19	28.1	18	23.2	20	27.0	18	25.6	24	35.2	18	15.7	16	37.6	21	28.6	22
13157	28.4	16	31.0	24	20.1	23	26.4	23	19.9	23	21.8	23	27.0	23	33.3	22	15.0	22	39.8	17	26.9	23
3641	16.1	24	37.3	8	25.3	14	21.1	24	12.3	24	26.6	20	28.4	22	37.6	13	17.2	8	35.5	24	25.9	24

* Irrigated stations – Fort Collins, Colo., Bozeman, Mont., Laramie, Wyo.
** Not replicated.
*** C.I. 13332 (Pembina) calculated yield.

Table 7 Average yield of the Uniform Regional Nursery wheats at Eastern, Western, Western Dryland, and Western Irrigated Stations in 1960

C.I.No.	12 Eastern Stations Yield	Rank	10 Western Stations Yield	Rank	3 Western Irrigated Stations Yield	Rank	7 Western Dryland Stations Yield	Rank	22 Regional Stations
13463	36.0	2	33.0	1	58.3	1	22.1	1	34.6
13457	37.0	1	30.6	4	53.7	5	20.7	5	34.1
13603	35.9	3	29.1	11	48.9	14	20.6	7	32.8
13465	34.8	5	30.1	8	50.9	11	21.2	2	32.6
13458	34.4	8	30.2	6	56.2	2	19.1	14	32.5
12488	33.7	13	30.8	2	54.8	3	20.5	8	32.4
13453	33.8	11	30.7	3	53.4	6	20.9	4	32.4
13416	33.2	14	30.6	5	53.0	7	21.0	3	32.0
13466	34.6	7	28.3	15	50.1	12	19.0	16	31.8
13606	33.7	12	29.1	10	52.0	9	19.3	11	31.6
13349	33.8	10	28.8	13	51.7	10	18.9	18	31.5
13605	34.7	6	27.5	18	48.6	16	18.5	21	31.4
13607	34.9	4	26.7	22	44.7	22	19.0	17	31.2
13461	32.0	18	30.2	7	52.3	8	20.7	6	31.1
13332	33.0	15	28.3	14	48.7	15	19.6	10	30.9
13464	34.0	9	26.4	23	43.2	23	19.1	13	30.6
13462	32.8	16	27.8	17	47.5	19	19.3	12	30.5
13452	31.1	20	28.8	12	48.3	17	20.4	9	30.1
13100	32.5	17	26.8	20	47.5	20	17.9	23	29.9
10003	30.1	22	29.2	9	54.4	4	18.3	22	29.7
13604	31.1	19	27.1	19	49.6	13	17.4	24	29.3
13608	30.2	21	26.8	21	45.2	21	18.9	19	28.6
13157	28.6	23	25.0	24	39.7	24	18.7	20	26.9
3641	24.2	24	27.8	16	48.3	18	19.1	15	25.9

Table 8 Average bushel weight for each of the 24 wheats, with averages for the Eastern and Western areas and an overall average

C.I. No.	TEST WEIGHT (Pounds)*											11 Eastern Stations	
	Madison	St. Paul	Morris	Crookston	Concord	Fargo	Casselton	Langdon	Brookings	Watertown	Highmore	Ave.	Rank
3641	51.7	56.3	56.7	59.2	56.5	49.0	53.0	60.0	52.8	40.8	52.0	53.5	24
10003	56.6	56.5	57.0	61.2	56.5	53.0	57.5	60.0	56.0	53.0	49.8	56.1	20
13100	54.6	56.5	56.8	59.5	57.0	54.5	56.0	57.0	54.4	51.0	49.0	55.1	23
12488	57.2	56.3	58.2	61.7	57.5	55.0	58.0	59.0	57.6	51.1	54.1	56.9	12
13157	56.7	56.2	57.7	60.3	57.5	54.0	56.5	58.5	54.0	51.4	51.0	55.8	22
13332	57.0	57.0	57.5	60.2	58.0	56.5	57.5	58.5	57.0	51.6	52.8	56.7	14
13457	57.6	57.7	59.5	61.3	59.6	56.0	61.0	60.0	57.0	52.6	52.5	57.7	4
13463	57.8	56.2	59.0	61.0	56.5	56.0	57.5	59.0	56.0	52.2	48.9	56.4	18
13464	57.4	57.5	59.2	61.5	59.5	57.0	59.5	58.5	57.8	55.0	55.6	58.0	2
13458	58.0	56.2	59.2	62.0	58.0	55.5	60.0	57.0	57.0	54.5	55.0	57.5	6
13416	57.8	55.3	58.0	60.0	58.0	55.0	59.0	56.0	56.0	52.2	52.8	56.4	19
13465	57.1	57.0	58.0	60.3	59.5	56.5	60.0	57.5	56.0	53.1	53.2	57.1	9
13466	58.5	59.3	59.5	61.5	59.5	54.0	57.5	59.0	59.4	55.2	55.8	58.1	1
13462	57.8	58.2	58.3	60.5	55.5	56.5	58.5	59.5	56.0	54.8	50.0	56.9	13
13349	57.2	57.3	57.2	59.7	57.0	56.5	59.0	58.5	55.0	51.8	52.9	56.6	16
13461	56.2	57.7	56.7	60.5	53.0	57.5	60.0	59.0	55.5	54.1	56.0	56.9	10
13452	57.6	56.8	58.2	60.3	56.5	56.5	59.0	59.0	54.9	51.6	50.8	56.5	17
13453	58.2	57.2	58.3	60.8	57.5	55.5	59.0	59.5	57.0	52.7	50.4	56.9	11
13603	57.8	57.8	58.5	60.2	58.0	56.5	59.5	59.0	56.9	55.8	50.1	57.3	8
13604	57.5	55.8	58.2	61.2	56.0	55.0	58.5	58.5	52.8	51.4	51.0	56.0	21
13605	57.5	57.0	57.8	60.7	58.0	56.0	58.5	58.5	55.2	53.3	50.0	56.6	15
13606	58.4	57.0	59.2	62.3	59.5	56.0	60.0	60.0	56.6	53.4	51.9	57.7	5
13607	57.8	58.5	59.3	61.8	58.5	56.5	60.5	60.0	58.6	55.0	50.0	57.9	3
13608	57.7	56.8	58.2	61.2	58.5	57.0	58.5	60.0	56.6	54.7	51.9	57.4	7

* No test weights from Winnipeg and Tetonia.
** Estimated test weight.

Table 8 cont'd.

C.I.No.	TEST WEIGHT (Pounds) Minot	Dickinson	Ft.Collins	Akron	Bozeman	Sidney	Laramie	Sheridan	Saskatoon	9 Western Stations Ave.	Rank	20 Regional Stations Ave.	Rank
3641	60.0	55.0	62.6	55.0	59.6	57.1	60.4	52.0	62.1	58.2	2	55.6	23
10003	59.0	54.0	61.8	56.5	58.0	55.5	58.9	45.0	57.1	56.2	23	56.1	22
13100	58.0	49.5	60.3	52.5	57.2	53.5	58.4	54.0	55.0	55.4	24	55.1	24
12488	59.0	52.5	62.7	57.0	58.6	55.0	55.3	59.0	59.5	57.6	7	57.2	11
13157	58.5	51.0	60.7	55.5	58.0	54.0	56.8	58.0	57.8	56.7	18	56.2	20
13332	58.0	50.5	60.9	57.9**	57.3	54.5	57.1	52.0	58.0	56.2	22	56.5	19
13457	59.5	52.0	62.7	56.5	58.0	57.0	57.6	57.0	58.7	57.7	6	57.7	2
13463	58.5	50.0	62.0	56.5	57.9	57.0	54.9	58.0	60.0	57.2	11	56.7	16
13464	58.0	50.5	59.9	54.5	57.6	56.0	56.2	57.0	59.5	56.6	19	57.4	7
13458	58.5	51.5	62.3	56.0	58.3	57.0	57.0	56.0	57.0	57.1	14	57.3	10
13416	58.0	51.5	61.4	55.5	57.7	56.5	56.9	58.0	59.1	57.2	12	56.7	17
13465	59.0	53.5	61.7	56.0	57.6	55.0	55.7	59.0	60.6	57.6	8	57.3	9
13466	59.5	51.5	61.2	57.5	58.9	57.0	58.2	45.0	60.2	56.6	20	57.4	5
13462	58.5	52.0	60.2	57.0	58.5	55.0	57.3	54.0	59.7	56.9	17	56.9	13
13349	58.5	53.0	61.1	55.0	57.7	55.0	56.0	57.0	60.6	57.1	13	56.8	14
13461	59.5	56.0	62.2	57.0	59.8	57.0	55.3	53.0	62.1	58.0	4	57.4	6
13452	59.0	52.0	61.2	54.5	58.1	56.0	55.3	57.0	59.1	56.9	16	56.7	18
13453	59.0	52.5	62.1	56.0	57.9	55.0	55.3	58.0	59.2	57.2	10	57.1	12
13603	60.0	53.0	60.8	57.0	58.9	56.0	57.5	58.0	61.7	58.1	3	57.6	4
13604	59.0	49.0	60.8	55.5	58.3	56.0	56.8	55.0	57.7	56.5	21	56.2	21
13605	58.5	48.0	62.0	57.0	58.1	56.0	56.8	57.0	59.4	57.0	15	56.8	15
13606	61.0	50.0	61.9	58.0	58.4	57.0	56.8	57.0	59.3	57.7	5	57.7	3
13607	60.0	52.5	61.8	57.5	58.7	56.0	57.4	59.0	61.5	58.3	1	58.0	1
13608	59.0	49.5	61.7	56.0	57.4	55.0	58.2	59.0	60.8	57.4	9	57.4	8

Table 8-1 Averages by sections for date of heading, height, lodging class and shattering

C.I.No.	Date of Heading			Height (inches)			Lodging Class (1-9)*			Shattering %
	11 Eastern Stations	10 Western Stations	21 Regional Stations	12 Eastern Stations	9 Western Stations	21 Regional Stations	6 Eastern Stations	3 Western Stations	9 Regional Stations	1 Station
3641	7/3	7/4	7/4	40	34	37	4.0	1.5	3.2	1
10003	6/30	7/2	7/1	38	32	35	3.3	1.4	2.7	1
13100	7/1	7/2	7/1	37	31	35	2.9	1.1	2.3	1
12488	6/29	6/29	6/29	37	32	35	4.6	1.0	3.3	2
13157	7/4	7/5	7/5	40	34	37	3.8	1.0	2.9	10
13332	6/30	7/1	6/30	37	30	34	3.2	1.8	2.7	1
13457	7/2	6/30	7/1	41	33	37	4.2	1.9	3.5	0
13463	6/29	6/29	6/29	37	32	35	3.6	1.5	2.9	2
13464	7/1	7/3	7/2	41	34	38	2.8	1.0	2.2	1
13458	6/29	6/30	6/30	40	34	37	5.6	2.7	4.7	0
13416	6/30	7/1	7/1	40	34	37	6.2	3.9	5.4	1
13465	6/30	7/1	6/30	40	33	37	4.6	1.4	3.5	1
13466	7/1	7/2	7/1	39	32	36	3.9	1.2	3.0	0
13462	7/3	7/3	7/3	40	34	37	2.0	1.0	1.7	3
13349	7/1	7/1	7/1	38	32	35	2.4	1.0	2.0	3
13461	6/29	6/29	6/29	37	30	33	1.5	1.0	1.3	0
13452	7/2	7/2	7/2	40	34	37	3.5	1.2	2.7	40
13453	7/1	7/1	7/1	38	32	35	3.7	1.2	2.9	5
13603	7/2	7/2	7/2	40	33	37	2.7	1.0	2.1	7
13604	7/3	7/5	7/4	39	31	35	2.0	1.0	1.7	1
13605	7/2	7/5	7/3	41	34	38	2.3	1.0	1.9	15
13606	7/2	7/3	7/3	39	33	37	5.1	2.0	4.0	0
13607	6/29	6/29	6/29	39	32	36	3.8	1.7	3.1	6
13608	7/1	7/2	7/2	40	33	37	3.7	1.0	2.8	30

* 1 = No lodging.
- 9 = Flat.

Table 9 Leaf and stem rust notes recorded on 24 spring wheats in the 1960 Uniform Regional Nursery at stations recording (T or trace – was computed at 0.2 percent)

	LEAF RUST													
C.I.No.	Madison	St. Paul	Morris	Crookston	Concord	Fargo	Casselton	Langdon	Brookings	Watertown	Highmore	Winnipeg	Ave.	Rank
3641	73	63	30	10	100S	40S	50	50	60	55	20	80S	53	23
10003	90	90	50	40	100S	60S	50	50	80	60	25	90S	65	24
13100	25	43	15MR	10MR	65MS	10R	20	30	35	5	0	40MR	25	15
12488	38	57	10	15	80S	10R	20	30	28	18	10	50S	31	18
13157	75	70	40	50	75S	20MS	20	30	50	35	10	70S	45	22
13332	43	40	10	5MR	50MS	5HR	20	5	25	5	0	40MR	21	11
13457	6	2	5R	5	5MR-MS	2R	10	10	25	4	T	30M	9	4
13463	20	37	15	10	75S	15MS	10	20	40	3	0	30M	23	12
13464	8	12	T	T	15MR-50S	THR	Tr	5	12	3	0	1R	6	2
13458	13	10	5	5	80S	10MR	5-10	30	18	6	0	30M	18	7
13416	1	12	5	3	80S	10MR	20	30	25	15	10	10MR	18	8
13465	58	63	15	5	80S	10MR	T-10	30	25	25	15	40S	31	19
13466	T	T	T	T	2R	THR	Tr	Tr	2	T	3	0	1	1
13462	12	25	10	T	15MR-80S	5-20MR	T-10	25	35	12	5	10MR	17	6
13349	6	3	5	5	10MR-50S	5MR	10	20	18	12	15	10MR	11	5
13461	20	40	20	5	85S	20MR	10	50	45	20	15	30S	30	17
13452	58	63	20S	10	90S	20MR	20	40	30	22	5	40MS	35	21
13453	23	32	30	3	75S	10R	5-10	40	28	0	30	30MS	23	13
13603	45	57	5	5	80S	20MR	10	20	35	5	0	30M	26	16
13604	45	50	10	0	5MR-65MS	TR	T-5	30	18	6	0	50MS	20	9
13605	2	7	T	5	5MR-25S	5MR	5	15	18	T	0	10MR	7	3
13606	8	13	50	T	65MS	20R	T-5	40	15	8	5	20MR	21	10
13607	18	38	30	0	50MS	20MS	20	40	30	4	0	30S	23	14
13608	55	53	50	T	50MS-80S	15MR	10-30	15	30	30	10	40MS	32	20

Table 9 - 1

	STEM RUST												
C.I.No.	Madison	Morris	Crookston	Concord	Fargo	Casselton	Langdon	Brookings	Watertown	Highmore	Winnipeg	Average	Rank
3641	55	50	30	75S	80	90	50	45	50	10	80S	60.5	24
10003	1	T	T	40MR-MS	0	5	5	6	10	T	50S	10.7	23
13100	0	T	0	10MR	0	0	0	T	0	0	1R 5M	1.4	14
12488	3	T	0	35MS	0	0	2	5	4	T	40S	8.1	22
13157	0	0	0	10MR	0	0	0	0	T	0	1R	1.0	9
13332	0	0	0	10MR	0	0	0	1	0	0	TR 1M	1.1	11
13457	1	5	0	5MR	0	0	0	3	9	0	60S	7.5	21
13463	T	0	0	10 MR-MS	0	0	0	2	0	0	5M	1.6	18
13464	0	T	0	5MR	0	0	0	T	0	0	TR	0.5	5
13458	0	0	0	5 MR-MS	0	0	0	0	T	0	TR	0.5	4
13416	0	0	0	5MR	0	0	0	T	0	0	1MR	0.6	7
13465	T	0	0	10MR	0	0	0	T	5	0	TR	1.4	15
13466	0	0	0	TR	0	0	0	0	T	0	TR	0.1	1
13462	0	0	0	2R	0	0	0	0	T	0	TR	0.2	2
13349	2	0	0	TR	0	0	0	0	2	0	1R	0.5	3
13461	1	0	0	10MR	0	0	0	T	2	0	1R	1.2	13
13452	T	0	0	10MR	0	0	0	T	1	0	1R	1.1	12
13453	1	0	0	5MR	0	0	0	1	2	0	1R	0.9	8
13603	4	0	0	25MS	0	0	0	0	4	0	30MS	6.3	20
13604	0	0	0	10MR	0	0	0	T	1	0	TR	1.0	10
13605	T	0	0	2R	0	0	0	T	1	0	2R	0.6	6
13606	T	0	0	15MS	0	0	0	T	T	0	TR	1.5	17
13607	1	T	0	20MS	0	0	0	9	10	0	3R	3.9	19
13608	T	0	0	10MR-MS	0	0	0	2	3	0	1R	1.5	16

Table 10 Disease notes on the 24 wheats in the Uniform Regional Nursery in 1960

	Leaf Rust		Stem Rust		St. Paul Disease Garden*					
C.I.No.	Natural, 12 Stations	Rust Nursery St. Paul	Natural, 11 Stations	Rust Nursery St. Paul	Leaf rust pct.	Stem rust pct.	Scab	Black chaff (1-5)	Bunt	Loose smut
3641	53	60	60	80	-	15	40	2	2	8
10003	65	80	11	50	0	8	30	1	10	0
13100	25	60	1	10	10	3	30	1	1	3
12488	31	30	8	40	30	T	30	1	15	40
13157	45	60	1	T	-	T	20	5	8	15
13332	21	40	1	T	20	T	20	2	5	0
13457	9	20	8	40	5	3	10	1	5	20
13463	23	20	2	5	15	0	30	1	20	
13464	6	5	1	T	15	3	10	1	5	
13458	18	10	1	T	30	T	40	1	20	50
13416	18	10	1	T	20	T	30	1	10	60
13465	31	60	1	T	20	3	30	1	25	
13466	1	T	T	T	T	0	20	4	8	
13462	17	5	T	T	15	0	30	1	8	10
13349	11	10	1	T	15	0	30	1	30	30
13461	30	40	1	T	10	3	50	1	30	T
13452	35	50	1	5	60	3	30	1	30	4
13453	23	15	1	T	30	T	30	1	10	50
13603	26	20	6	30	10	T	20	1	20	
13604	20	30	1	T	15	0	20	1	20	
13605	7	5R	1	T	15	0	20	1	25	
13606	21	5R	2	T	20	0	20	1	30	
13607	23	20	4	20	20	T	30	1	15	
13608	32	10	2	T	15	T	30	1	20	

* Data for the Disease Garden material were obtained from Dr. Fezer of the Department of Plant Pathology, Institute of Agriculture, St. Paul, Minn.