

Experiments with Spring Wheat - 1960

Experiments with spring wheat in 1960 included field plot trials of 19 hard red spring varieties, 6 durum varieties, the Uniform Regional Nursery, the Uniform Bunt Nursery, Advanced Station and Station Nurseries, and early generation nurseries of numerous Dickinson selections.

Field Plot Trials

Production was good in the 1960 field plot trials despite unfavorable growing conditions in July. Data from the field plot trials are given in Tables 34 and through 37.

Nursery Trials

Yields in nursery trials at Dickinson in 1960 were lower than yields recorded from the field plots. One reason for this is probably because commercial fertilizer was used in all field plot trials and was not used in the nursery.

Nursery yield data are summarized in Tables 38 through 41.

In addition to the Dickinson wheats included in Tables 39 and 40, selection nurseries of Dickinson material were grown for F-1 through F-5 generations.

Table 34. Agronomic data from the Hard Red Spring Wheat Varietal Trial - 1960									
Description	Yield in Bushels Per Acre					Test Wt.	Dates		Height Inches
	1	2	3	4	Av.		Head	Ripe	
Lee	27.1	27.9	25.1	25.3	26.4	55.5	6-21	7-23	30

Rushmore	22.0	24.2	21.3	23.3	22.7	56.0	24	25	30
Selkirk	24.9	27.9	24.6	26.4	26.0	54.0	25	25	31
Minn. II-53-541	25.1	27.5	24.0	23.7	25.1	55.0	22	24	31
Minn. II-53-562	26.2	28.4	26.0	22.2	25.7	55.5	22	24	30
Minn. II-53-567	29.5	28.6	24.9	20.9	26.0	54.5	24	26	30
Minn.-II-53-404	23.1	29.0	25.5	23.8	25.4	57.0	22	25	31
Canthatch	22.2	28.2	26.4	25.3	25.5	56.5	25	25	30
Mida	21.8	29.3	25.9	23.3	25.1	58.5	27	26	30
Thatcher	20.5	26.0	26.0	22.9	23.9	56.5	25	23	30
Conley	23.5	22.7	23.1	20.0	22.3	54.5	30	27	34
Chinook	18.2	22.0	24.4	23.3	22.0	58.0	25	26	33
ND 137	19.5	25.3	25.3	23.1	23.3	56.0	25	25	32
ND 138-1	20.9	24.2	25.3	26.0	24.1	59.5	21	27	30
ND 153	20.0	25.1	27.1	24.9	24.3	56.0	22	27	32
Pembina	22.0	26.6	28.6	25.5	25.7	57.0	23	22	30
Karnvor	17.2	22.9	27.1	22.0	22.3	50.5	7-3	28	33
Marquis	22.4	25.3	27.5	22.0	24.3	57.0	6-30	26	33
Red Fife	23.5	24.4	24.8	22.9	23.9	58.0	30	26	34

Std. error % 7.8 LSD @ 5% 2.7 Bushels. Seeded April 14, 1960 on Summerfallow, Fertilized at 86 Lbs. Per Acre 11-48-0

Description	Yields in Bushels Per Acre						Averages	
	1955	1956	1957	1958	1959	1960	'55-'60	'58-'60
Lee	28.5	11.4	32.6	22.8	15.0	26.4	22.8	21.4
Rushmore	25.9	10.3	25.7	28.8	14.5	22.7	21.3	20.0
Selkirk	28.6	12.2	23.0	28.6	13.3	26.0	22.0	22.6
Mida	28.6	11.9	27.2	28.2	14.2	25.0	22.5	22.5
Thatcher	25.2	12.4	30.1	29.9	14.0	23.9	22.6	22.6
Conley	25.3	11.9	25.3	28.4	12.4	22.3	20.9	21.0
Chinook	27.1	10.9	26.4	28.6	14.0	22.0	21.5	21.5
Marquis	25.6	12.5	27.8	29.5	16.2	24.3	22.7	23.3
Canthatch				34.2	15.2	25.5		25.0
Karnvor				34.2	15.2	22.3		23.9

Description	Yields in Bushels Per Acre					Test Wt.	Dates		Height Inches
	1	2	3	4	Av.		Head	Ripe	

Sentry	30.4	27.5	26.0	27.1	27.8	60.0	6-22	7-26	32
Langdon	25.1	26.0	26.7	25.3	25.8	57.5	25	28	36
Ramsey	23.8	24.9	25.9	24.4	24.8	57.5	25	24	34
Wells	26.0	26.6	26.4	26.4	26.4	56.0	23	23	29
Lakota	26.0	29.0	27.1	26.6	27.2	54.0	22	22	30
Mindum	22.4	24.4	24.6	22.0	23.4	55.0	29	26	36

Std. error % 7.8 LSD @ 5% 2.7 Bushels, Seeded April 14, 1960 on Summerfallow, Fertilizer at 86 Lbs. Per Acre 11-48-0

Table 37. Comparative Yields - Durum Variety Trial - 1955-1960

Description	Yields in Bushels Per Acre						Averages	
	1955	1956	1957	1958	1959	1960	'55-'60	'58-'60
Mindum	23.3	10.8	31.5	29.0	14.8	23.4	22.1	22.4
Sentry	29.7	9.8	30.8	28.6	14.0	27.8	23.5	23.5
Langdon	26.4	10.7	32.8	28.1	15.4	25.8	23.4	23.1
Ramsey	21.4	7.5	36.6	30.2	15.5	24.8	22.7	23.5
Wells				34.3	17.7	26.4		26.1
Lakota				34.7	15.5	27.2		25.8
LSD @ 5%	2.6	2.0	2.7	3.7	2.3	2.7		

Table 38. Agronomic data from the Uniform Regional Spring Wheat Nursery - 1960

Description	State or N. No.	CI No.	Yield Bu. Per Acre				Test Wt.	Dates		Inches Height
			1	2	3	Av.		Head	Ripe	
Marquis		3641	19.2	10.6	11.2	13.7	55.0	6-30	7-26	28
Thatcher		10003	20.0	9.4	9.4	12.9	54.0	28	24	25
Selkirk		13100	15.0	10.0	8.0	11.0	49.5	28	24	26
Lee		12488	21.0	14.6	10.8	15.5	52.5	25	27	29
Conley		13157	13.8	13.2	11.0	12.7	51.0	7-2	29	28
Pembina	C.T. 229	13332	14.6	11.0	17.4	14.3	50.5	6-28	27	234
Henry ⁷ x P.I. 94587	Wis 253	13457	14.8	11.2	14.2	13.4	52.0	25	27	27
Lee ² x Kenya Farmer	RL 2938	13463	15.8	12.2	10.2	12.7	50.0	21	27	26
Thatcher ² x Frontana-Thatcher	RL 4009	13464	19.8	15.0	12.2	15.7	50.5	27	27	29
II-44-29 x Lee ³	II-53-262	13458	13.4	10.0	10.0	11.1	51.5	25	27	29
II-44-29 x Lee ³	567	13416	14.2	19.0	10.2	14.5	51.5	26	27	29

Klein-Titan-Tc ³ x II-44-29-Tc ²	404	13465	20.0	13.8	12.4	15.4	53.5	26	27	29
Ftn-Tc ³ x II-44-29- Tc ²	525	13466	16.6	9.4	9.2	11.7	51.5	27	27	27
Conley x N. D. 40- 2	ND 102	13462	19.8	10.0	11.4	13.7	52.0	28	27	31
N. D. 81 x Lee	137	13349	18.8	9.8	10.0	12.9	53.0	25	27	28
Lee x N. D. 34	138-1	13461	13.4	10.8	14.6	12.9	56.0	21	27	29
N. D. 81 x Conley	153	13452	21.0	8.8	12.2	14.0	52.0	25	26	31
Lee-N. D. 81 sib x Lee	162	13453	17.0	14.4	12.0	14.5	52.5	23	27	30
N. D. 81 sib x N. D. 1	208	13603	14.2	14.0	16.0	14.7	53.0	27	27	31
Conley x N. D. 81	218	13604	9.8	13.2	12.2	11.7	49.0	30	24	27
N. D. 81 sib x Conley	220	13605	10.2	9.8	11.8	10.6	48.0	30	24	26
N. D. 81 sib x Conley ²	223	13606	11.8	12.8	14.6	13.1	50.0	29	24	27
N 2350 x [Rmr-K- F) x No 3880]	235	13607	15.4	17.4	15.8	16.2	52.5	21	22	28
N. D. 81 sib x Conley	256	13608	16.8	13.4	14.2	14.8	49.5	30	27	30

Date Seeded - April 19, 1960

Table 39. Agronomic data from the Advanced Wheat Nursery - 1960

Description	Cross and Selection	Yield Bu. Per Acre				Test Wt.	Date Head	Average Yield			3 Yr. Av.
		1	2	3	Av.			1958	1959	1960	
1556-Mida x 2824	51.7A 2-1-1-1-1	18.2	13.6	20.6	17.5	56.0	6-30	21.6	9.2	17.5	16.1
1556-Mida x 2824	51.8A 2-1-1-1-1	15.0	10.8	18.0	14.6	55.0	28	26.4	9.4	14.6	16.8
1556-Mida x 2824	51.8A 4-1-1-1-1	15.2	14.6	18.4	16.1	57.0	29	28.0	11.6	16.1	18.6
1556-Mida x Pilot-Newthatch	51.9A 5-1-1-1-1	15.2	12.6	20.2	16.0	54.0	28	28.0	9.4	16.0	17.8
Pilot-Premier x 1556-Mida	51.22A 1-1-1-1-1	15.0	11.2	19.8	15.3	53.5	30	27.4	9.0	15.3	17.2
Pilot-Premier x 1556-Mida	51.22A 2-1-1-1-1	17.0	10.8	22.2	16.7	54.0	30	27.6	11.0	16.7	18.4
1556-Pilot x II-44-20	51.24A 1-1-1-1-1	16.0	10.4	21.0	15.8	54.0	29	21.0	10.6	15.8	15.8
1556-Pilot x 1552-Mida	51.26A 3-1-1-1-1	18.0	12.6	18.4	16.3	55.0	29	28.0	10.6	16.3	18.3
1556-Pilot x 1552-Mida	51.26A 4-1-1-1-1	15.6	14.6	19.8	16.7	51.5	29	21.6	9.0	16.7	15.8
Selkirk Check		17.8	21.2	20.4	19.8	48.5	29	16.8	8.6	19.8	15.1

1552-Pilot x 2824-Mercury	51.37A 4-1- 1-1-1	16.6	18.2	17.8	17.5	55.0	29	21.6	11.4	17.5	16.8
1552-Pilot x H44-1018- Mercury	51.40A 2-1- 1-1-1	9.8	13.4	14.4	12.5	51.5	29	25.0	10.4	12.5	16.0
Pilot-Newthatch x 1552-Mida	51.43A 1-1- 1-1-1	10.2	12.0	13.0	11.7	51.0	7-1	29.0	9.0	11.7	16.6
1552 x Mida ²	51.47A 1-1- 1-1-1	11.8	15.0	15.0	13.9	53.5	6-29	30.0	10.6	13.9	18.2
Conley Check		11.8	12.4	11.4	11.9	51.5	7-1			11.9	
Seeded April 20, 1960											

Table 40. Agronomic data from the Station Wheat Nursery - 1960						
Description	Cross and Selection No.	Yield in Bushels Per Acre				Date Head
		1	2	3	Av.	
ND 25 x ND 18	54.1A 1-1-1-1-1	12.0	16.6	18.4	15.5	6-30
ND 25 x ND 18	2-1-1-1-1	29.4	23.4	19.6	24.1	24
ND 25 x Lee	54.3A 1-1-1-1-1	5.6	7.0	7.6	6.7	24
ND 25 x Lee	1-1-3-1-1	24.6	14.0	19.4	19.3	23
ND 25 x Lee	54.5A 1-1-1-1-1	24.6	17.2	21.8	21.2	28
ND 25 x Lee	1-2-1-1-1	20.0	19.0	25.4	21.5	7-1

ND 25 x Lee	1-3-1-1-1	19.0	20.0	21.4	20.1	1
ND 25 x Lee	1-4-1-1-1	17.0	20.2	21.8	19.7	1
ND 25 x Lee	1-5-1-1-1	17.0	23.4	22.0	20.8	2
ND 25 x Lee	1-5-4-1-1	16.2	17.0	22.0	18.4	2
ND 25 x Lee	1-6-1-1-1	17.8	15.2	21.2	18.1	6-30
ND 18 x Selkirk	54.4A 1-2-3-1-1	17.0	19.4	20.4	18.9	25
ND 25 x Lee	54.5A 1-7-2-1-1	18.6	21.0	17.4	19.0	25
ND 27 x ND 25	54.6A 1-1-1-1-1	18.4	20.4	21.0	19.9	29
ND 27 x ND 32	54.7A 1-1-1-1-1	16.2	18.2	18.4	17.6	30
ND 27 x ND 32	1-2-1-1-1	15.2	24.4	18.4	19.3	30
ND 27 x ND 32	1-3-1-1-1	15.2	18.0	17.0	16.7	7-2
ND 27 x ND 32	1-4-1-1-1	12.6	16.2	14.0	14.3	2
ND 33 x 1552-Pilot	54.8A 1-1-1-1-1	17.8	23.4	19.0	20.1	6-30
ND 33 x 1552-Pilot	54.8A 1-1-4-1-1	17.4	23.6	20.0	20.3	30
ND 33 x ND 31	54.9A 1-1-1-1-1	18.4	22.6	31.2	24.1	27
ND 33 x ND 31	1-2-1-1-1	16.4	21.8	19.6	19.3	27
ND 33 x ND 31	1-2-5-1-1	16.6	26.8	18.8	20.7	28
ND 33 x ND 31	1-2-8-1-1	16.2	18.6	19.6	18.1	29
ND 25 x II-44-22-2010	54.11A 1-1-1-1-1	14.0	21.8	17.2	17.7	24

ND 25 x II-44-22-2010	1-1-4-1-1	16.4	21.8	18.2	18.8	25
ND 25 x II-44-22-2010	1-1-8-1-1	9.8	25.2	15.8	16.9	7-2
ND 25 x II-44-22-2010	1-2-1-1-1	16.6	17.0	17.4	17.0	6-30
ND 25 x II-44-22-2010	1-2-4-1-1	16.8	21.8	17.6	18.7	30
ND 25 x II-44-22-2010	1-3-1-1-1	19.4	21.8	23.4	21.5	25
ND 25 x II-44-22-2010	1-3-4-1-1	14.6	14.6	14.6	14.6	7-3
ND 25 x II-44-22-2010	1-4-1-1-1	15.4	20.6	16.4	17.5	6-25
ND 25 x II-44-22-2010	1-4-4-1-1	17.4	22.2	17.8	19.1	7-3
ND 25 x II-44-22-2010	1-4-7-1-1	17.2	19.2	19.4	18.6	1
ND 18 x ND 32	54.12A 1-1-1-1-1	16.0	19.4	17.8	17.7	6-30
ND 18 x ND 32	1-2-1-1-1	16.6	24.0	22.4	21.0	30
ND 18 x ND 32	1-2-2-1-1	17.0	19.4	20.8	19.1	30
ND 18 x ND 32	1-3-1-1-1	13.2	29.6	18.0	20.3	7-1
ND 18 x ND 32	1-4-1-1-1	15.6	18.2	20.6	18.1	6-28
ND 18 x ND 32	54.12A 1-4-4-1-1	13.8	19.6	24.0	19.1	7-2

ND 18 x ND 32	1-8-3-1-1	17.8	26.6	21.6	22.0	1
ND 18 x ND 32	1-9-3-1-1	14.4	22.2	16.6	17.7	3
ND 18 x ND 32	1-10-1-1-1	17.4	27.6	21.2	22.1	6-30
ND 25 x II-46-13	54.13A 1-1-1-1-1	14.4	16.8	19.0	16.7	7-1
ND 25 x II-46-13	1-1-4-1-1	21.0	23.4	17.2	20.5	6-24
ND 18 x Selkirk	54.14A 1-1-1-1-1	19.6	21.2	19.4	20.1	7-2
ND 18 x Selkirk	1-2-1-1-1	23.8	27.2	22.2	24.4	6-30
Conley Check		16.4	18.0	24.2	19.5	7-2
Selkirk Check		17.8	21.2	20.4	19.8	6-30

Date Seeded - April 22, 1960

Table 41. Uniform Spring Wheat Nursery, 1960

Entry No.	Variety or Cross	State No.	C.I. No.	Per Cent Bunt		
1	Marquis		3641	0	2	1
2	Thatcher		10003	14	4	9
3	Selkirk		13100	8	0	4
4	Lee		12488	2	0	1
5	Conley	N.D. 1	13157	4	0	2

6	Pembina	C.T.229	13332	0	2	1
7	Henry x P.I. 94587	Wis.253	13457	2	2	2
88	Lee ² x Kenya Farmer	RL 2938	13463	12	2	7
9	Thatcher ² x Frontana-Thatcher	RL 4009	13464	2	0	1
10	II-44-29 x Lee ³	II-53-562	13458	12	0	6
11	II-44-29 x Lee ³	II-53-567	13416	10	2	6
12	Klein Titan-Thatcher ³ x II-44-29 Thatcher ²	II-53-404	13465	8	2	5
13	Frontana-Thatcher ³ x II-44-29-Thatcher	II-53-525	13466	6	0	3
14	Rushmore x K338	N.D.15	13206	2	2	2
15	Rushmore x K338AC	N.D.20	13609	8	4	6
16	N.D. 4 x Ns. 3880.227	N.D.40-2	13317	12	4	8
17	N.2350 x 4021-K338AC	N.D.42	13610	0	0	0
18	K338AA x Ns.3880.191	N.D.55	13302	0	2	1
19	Rushmore x Kenya Farmer	N.D.65	13320	0	2	1
20	Lee x N.D. 34	N.D.81	13322	4	0	2
21	N.D. 4 x Lee	N.D.90-5	13324	6	0	3
22	Conley x N.D. 40-2	N.D.102	13462	4	0	2
23	Lee x N.D. 34	N.D.105	13611	20	20	20
24	N.D. 81 x Lee	N.D.137	13349	2	6	4

25	N.D. 81 x Conley	N.D.152	13451	0	0	0
26	Canthatch	C.T.233	13345	2	4	3
27	N.D. 81 sib x N.D. 1	N.D.208	13603	4	8	6
28	Conley x N.D. 81	N.D.218	13604	4	6	5
29	N.D. 81 sib x Conley	N.D.220	13605	2	2	2
30	N.D. 81 sib x Conley ²	N.D.223	13606	6	2	4
31	N.2350 x [(Rmr-KF) x Ns. 3880]	N.D.235	13607	2	2	2
32	N.D. 81 sib x Conley	N.D.256	13608	2	0	1
33	Lee x N.D. 34	N.D.138-1	13461	16	4	10
34	N.D.81 x Conley	N.D.153	13452	12	10	11
35	(Lee x N.D. 81 sib) x Lee	N.D162	13453	4	6	5
36	Ulka		11478	42	36	39

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