North Dakota State University * Dickinson Research Extension Center
1089 State Avenue, Dickinson, ND 58601-4642 Voice: (701) 483-2348 FAX: (701) 483-2005

HARD SPRING WHEAT TRIALS - 1955

Trials with hard spring wheat at the Dickinson Experiment Station this year included: field plot trials of twenty two varieties and selections; the Uniform Regional Spring Wheat Nursery of twenty six entries; the Cooperative Nursery Trial, from Dr. Glenn S. Smith, which included ten entries; the Uniform Bunt Nursery which this year contained twenty nine varieties and selections; the Dickinson F-5 nursery of sixty two selections; the F-4 nursery of thirty seven selections; the F-3 nursery of fifty selections and an F-2 nursery of one hundred forty eight selections. There were fifteen separate plantings in the 1955 F-1 nursery.

WHEAT VARIETY TRIALS

Stem rust was not a serious problem in this area in 1955, and this fact plus favorable planting weather in April and ample rainfall in June combined to produce excellent wheat yields. N. D. 8 was high yielder in the variety trials with an average of 33.4 bushels per acre. N. D. 25 and N. D. 3 ranked second and third with respective yields of 30.6 and 28.9 bushels per acre. Lee, Selkirk and Mida each produced yields of approximately 28.5 bushels per acre.

The highest yielding durum variety was Sentry which yielded 29.7 bushels per acre of good quality wheat which weighed 62.0 pounds per bushel. Lowest yielder was Ld 369 which averaged 21.4 bushels per acre.

Data from this years' wheat variety trial are summarized in table 26.

Average yields for the past ten years are summarized in table 27.

NURSERY TRIALS - 1955

Highest yielding entries in the Uniform Regional Nursery planting grown at Dickinson in 1955 included: Thatcher x Kenya Farmer, C.I. 13209; Thatcher x Kenya Farmer, C.I. 13211. Yaqui 54; Chapingo 53; and R. L. 2563 x Lee, C.I.

13157. Yields from the above listed selections were all above 29.0 bushels per acre. Thatcher in this trial averaged 25.0 bushels and Selkirk produced 27.6 bushels per acre. Test weights were good this year ranging from 55.5 pounds per bushel to 61.0 pounds per bushel with most of the entries weighing in the high fifties.

Stem rust was not a major factor affecting yields this year which helps to account for the high yields from some of the old check varieties included in these trials.

In the Cooperative Cereal Nursery planting at Dickinson this year the highest yield was from Selkirk which averaged 34.1 bushels per acre, followed by N.D. I, N.D. 12, N.D. 33, Ns 3880-227 and Lee, all yielding over 30.0 bushels per acre.

In the F-5 Wheat Nursery one selection averaged 39.0 bushels per acre which was high yield in this trial. Three selections produced over 35.0 bushels per acre and twenty seven entries yielded between 30.0 and 35.0 bushels per acre. Several of these new strains appear promising and will be continued in 1956.

Data summarizing results from these nurseries are included in tables 28, 29, and 30.

In the 1955 Uniform Bunt Nursery infections ranged from zero to 100 percent with 27 of 29 entries being infected.

Data from this years Uniform Bunt Nursery are summarized in table 31.

Table 26 - Agronomic Data from Wheat Variety Trials - 1955

Date Seeded - 4-16; Date Emerged - 5-2; Rate - 1 bpa; Plot Size - 1/66 acre

Description	C.I. or N. No.	Yield - Bu. per acre				Av.	Test Wt.	Dates		Ht. In.	Stem Rust	Rank
		1	2	3	4			1st Head	Ripe			
Rushmore	S.D.2280	24.8	26.4	24.2	28.1	25.9	60.0	6-26	8-1	29	T	13
N. D. 13	N.D.13	28.6	27.5	27.5	28.1	27.9	60.0	6-21	8-2	29	0	9

N. D. 25	N.D.25	33.6	29.2	30.3	29.2	30.6	59.5	6-22	8-2	27	0	2
Lee	M2776	32.5	29.2	27.5	24.8	28.5	60.0	6-25	8-2	29	T	7
N. D. 8	N.D.8	35.8	30.8	31.9	35.2	33.4	60.5	6-25	8-2	31	0	1
Selkirk	C.T.186	30.3	28.6	27.5	28.1	28.6	57.5	6-30	8-2	28	T	6
Lee x Mida sib	3880-227	28.6	31.4	27.0	25.9	28.2	57.5	6-30	8-4	27	T	8
Thatcher	10003	25.3	25.9	27.5	22.0	25.2	59.0	6-30	8-1	28	15	19
Mida	12008	29.7	30.3	27.0	27.5	28.6	61.5	6-30	8-4	31	15	5
Chinook	S.C.4258	28.1	27.5	26.4	26.4	27.1	61.0	6-29	8-2	29	15	10
Rescue	12436	25.3	27.5	23.1	24.2	25.0	58.0	7-1	8-2	31	15	20
N. D. 3	N.D.3	29.7	30.8	26.4	28.6	28.9	58.5	6-30	8-4	32	T	4
N. D. 1	N.D.1	24.2	27.5	24.2	25.3	25.3	57.0	7-2	8-4	33	0	17
Pilot	11945	24.2	27.0	24.8	27.5	25.9	58.5	7-2	8-2	32	T	14
Marquis	3641	24.8	25.9	24.2	27.5	25.6	59.8	7-6	8-4	35	15	16
Red Fife	3329	22.6	28.1	25.3	27.0	25.8	59.0	7-6	8-4	35	15	15
Sentry	LD356	27.5	31.9	28.6	30.8	29.7	62.0	6-30	8-3	33	T	3
Ld 357	Ld357	24.8	27.5	24.2	28.1	26.2	61.0	6-29	8-2	32	T	12
Ld 372 Langdon	Ld372	24.2	28.1	25.3	28.1	26.4	60.5	7-2	8-3	37	T	11
Ld 364 Yuma	Ld364	23.7	25.3	23.7	28.6	25.3	59.0	7-2	8-4	31	T	18

Ld 369 Ramsey	Ld369	19.3	22.6	17.6	25.9	21.4	55.0	7-6	8-7	38	T	22
Mindum	5296	23.1	20.9	23.7	25.3	23.3	59.0	7-8	8-4	40	15	21

Table 27 - Comparative Yields Wheat Varietal Trials - 1946-1955 With Averages since 1946

Variety	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	Averages								
											1954 to 1955	1953 to 1955	1952 to 1955	1951 to 1955	1950 to 1955	1949 to 1955	1948 to 1955	1947 to 1955	1946 to 1955
Common																			
Thatcher	16.3	26.2	33.0	10.8	18.2	23.8	12.5	16.6	9.9	25.2	17.6	17.2	16.1	17.6	17.7	16.7	18.8	19.6	19.3
Marquis	15.0	16.7	34.5	10.9	17.8	24.4	11.2	13.2	10.5	25.6	18.1	16.4	15.1	17.0	17.1	16.2	18.5	18.3	18.0
Red Fife	16.5	16.0	34.5	11.0	18.5	25.9	11.7	12.0	9.0	25.8	17.4	15.6	14.6	16.9	17.2	16.3	18.6	18.3	18.1
Pilot	15.7	25.6	39.8	13.6	18.5	25.4	13.7	15.9	9.4	25.9	17.7	17.1	16.2	18.1	18.1	17.5	20.3	20.9	20.4
Mida	18.1	24.3	35.9	11.9	20.5	26.1	12.9	15.1	10.5	28.6	19.6	18.1	16.8	18.6	19.0	17.9	20.2	20.6	19.4
Rescue	19.9	25.4	32.7	9.6	19.0	20.9	12.0	18.3	10.8	25.0	17.9	18.0	16.5	17.4	17.7	16.5	18.5	19.3	
Lee			32.2	9.4	19.1	22.0	11.1	22.5	11.9	28.5	20.2	21.0	18.5	19.2	19.2	17.8	19.6		
Rushmore			28.0	9.8	18.9	22.8	10.5	23.0	11.6	25.9	18.8	20.2	17.8	18.8	18.8	17.5	18.8		
Chinook							12.4	18.6	10.2	27.1	18.7	18.6	17.1						
Selkirk								28.2	12.7	28.6	20.7	23.2							
3880-227									11.9	28.2	20.1								

N. D. I									14.7	25.3	20.0								
N. D. 3										28.9									
N. D. 8										33.4									
N. D. 13										27.9									
N. D. 25										30.6									
Durum																			
Mindum	19.8	32.8	43.0	12.0	19.1	21.3	12.1	7.0	8.0	23.3	15.7	12.8	12.6	14.3	15.1	14.7	18.2	19.8	19.8
Sentry								17.5	12.1	29.7	20.9	19.8							

Table 28 - Agronomic Data from the Uniform Regional Spring Wheat Nursery - 1955

Date Seeded - 4-14; Date Emerged - 4-29; Rate - 1 bpa; Plot Size - 3' x 16'

Description	C.I. No.	Yield - Bu. Per Acre				Test Wt.	Dates		Ht. In.	Stem Rust	Leaf Rust[1]
		1	2	3	Av.		1st Head	Ripe			
Marquis	3641	23.0	20.0	23.4	22.1	58.0	6-30	8-4	35	T	25
Thatcher	10003	25.0	18.0	32.0	25.0	58.0	28	2	31	T	40
Selkirk	13100	27.0	23.4	32.4	27.6	56.0	29	2	31	0	5
Lee	12488	28.0	22.6	32.4	27.7	58.5	23	2	30	T	T
R.L. 2563 x Lee	13157	29.2	27.0	31.8	29.3	59.0	30	2	34	0	0

Do	13159	22.4	22.2	29.2	24.6	58.0	27	6	31	T	10
Thatcher x Kenya Farmer	13204	22.2	25.0	39.0	28.7	56.5	22	2	28	0	0
Do	13205	22.8	22.4	33.2	26.1	59.0	19	2	26	T	T
Do	13206	24.6	20.8	32.0	25.8	59.0	22	5	26	T	T
Do	13207	22.4	26.6	34.4	27.8	60.0	23	3	31	T	T
Do	13208	23.6	22.0	34.4	26.7	60.0	24	3	27	T	T
Do	13209	26.6	25.2	39.0	30.3	61.0	23	4	28	T	T
N.S.4021 x Kenya Farmer	13210	26.8	22.2	26.8	25.3	55.5	26	6	32	T	T
Thatcher x Kenya Farmer	13211	27.8	28.0	35.0	30.3	60.5	23	3	27	T	T
N.N. 1953 x Lee	13242	19.2	28.4	29.2	28.9	58.0	26	2	31	T	15
Lee x N.N. 1831	13243	17.6	27.8	30.4	25.3	57.0	26	4	30	T	T
Frontana x K58 New thatch	13212	21.6	24.4	25.0	23.7	58.5	26	3	36	T	T
Frontana x Mida K117A	13213	24.4	25.6	28.8	26.3	60.0	25	2	29	T	T
Do	13214	27.8	24.8	28.4	27.0	59.0	26	4	30	T	T
Do	13215	26.4	20.0	26.0	24.1	59.5	26	6	33	T	10
Frontana x K58 New thatch	13216	20.8	23.6	25.6	23.3	60.5	28	6	33	T	T
Do	13241	21.8	30.6	33.0	28.5	59.0	29	3	36	T	T
Do	13217	19.0	30.8	30.0	26.6	60.5	26	2	32	T	10
Lee x Frontana	12957	21.0	33.0	32.2	28.7	60.5	26	6	34	T	T
Yaqui 54	13218	18.0	37.0	34.4	29.8	56.5	19	2	23	T	T
Chapingo 53	13219	21.8	36.0	31.0	29.6	56.5	25	1	31	T	15

[1]Mixed stem and leaf rust pustules.

Table 29 - Agronomic Data from the Cooperative Nursery - 1955

Date Seeded - 4-14; Date Emerged - 4-29; Rate 1 bpa; Plot Size 1' x 16'

Description	Yield Bu. per acre				Av.	Test Wt.	Dates		Ht. In.	Stem Rust	Leaf Rust
	1	2	3	4			1st Head	Ripe			
N. D. 1	40.0	28.2	30.8	28.6	31.9	54.0	6-28	8-6	40	0	10
N. D. 3	25.8	27.8	28.4	30.2	28.1	57.0	6-27	8-6	40	0	10
Selkirk	33.0	35.0	36.4	32.0	34.1	56.0	6-28	8-3	38	0	10
N. D. 12	31.6	26.4	31.0	36.4	30.9	58.0	6-20	8-3	38	0	T
N. D. 15	37.6	26.2	32.6	27.6	28.5	59.5	6-22	8-6	36	0	T
N. D. 33	33.6	30.0	32.2	27.2	30.8	59.5	6-25	8-2	36	0	T
Ns 3880 227	34.0	31.0	33.0	26.4	31.1	60.0	6-27	8-6	38	T	10
Mida	32.6	29.6	25.4	28.6	29.1	59.5	6-27	8-3	40	T	40
Rushmore	25.4	29.0	29.2	27.6	27.8	58.0	6-27	8-3	37	T	20
Lee	32.6	33.0	29.4	27.6	30.7	58.0	6-23	8-1	35	T	10

Table 30 - Agronomic Data from the 1955 F - 5 Spring Wheat Nursery

Date Seeded - 4-14; Date Emerged - 4-29; Rate - 1 bpa; Plot Size - 1' x 16'

Description	Yield -BPA	Test Wt.	Date Headed
51.13 A 1-1-2-1	28.0	57.0	8-2
2	26.8	56.0	2
3	23.8	55.5	2
4	26.0	57.0	2
5	29.8	56.5	2
6	30.6	58.5	2
7	25.6	57.0	2
8	30.6	59.5	2
9	27.6	58.0	3
10	25.2	56.5	4
11	25.8	56.5	4
12	27.6	57.0	4
13	27.0	57.0	4
14	32.4	58.0	3
15	31.8	57.5	3
16	31.8	57.0	3
17	27.6	56.5	3
18	27.8	57.0	3
19	39.0	58.0	3

20	32.0	59.0	3
21	28.2	58.0	3
22	29.2	59.0	4
23	27.0	58.0	4
24	31.0	57.5	4
25	29.0	57.0	4
26	31.4	57.5	4
51.16 A 1-2-2-1	35.2	59.5	2
2	31.2	57.5	2
3	28.6	58.0	2
4	32.2	60.0	2
5	33.6	59.0	2
6	31.4	58.5	2
7	36.0	60.0	2
8	32.8	59.0	2
9	30.0	58.5	2
10	28.2	57.0	2
11	33.7	58.0	2
12	27.0	59.0	2
13	30.6	58.5	2
14	34.6	59.0	2

15	29.8	56.5	2
16	25.2	57.5	2
17	27.6	57.5	2
18	31.6	59.0	2
19	31.0	58.0	2
20	24.0	56.5	2
21	28.0	58.0	2
22	31.8	59.0	2
51.16 A 1-2-3-1	31.0	59.0	2
2	31.8	58.0	2
3	29.2	57.0	2
4	29.0	58.5	2
5	30.8	58.0	2
6	29.0	58.0	2
7	36.0	57.0	2
8	26.4	55.5	2
9	32.2	58.0	2
10	26.0	59.0	2
11	31.0	57.0	2
12	25.6	57.5	2
13	32.2	59.0	2

14	30.0	57.0	2

Table 31 - Agronomic Data from the Uniform Bunt Nursery - 1955

Date Seeded - 4-15; Date Emerged - 5-1; Plot Size - 1' x 8'

Description	State or N. No.	C.I. No	% Bunt		
			1	2	Av.
Marquis	---	3641	24	64	44
Rushmore	---	12273	24	60	42
Frontana x K58 New thatch	II-50-23	---	76	52	64
Do	II-50-72	13241	72	28	50
Do	II-50-73	---	88	24	56
Mida x Frondoso Chin - Prog.	II-48-2	---	76	8	42
Frontana x Mida - K117A	II-50-56	---	20	28	24
Lee x Frontana	II-47-10	13201	68	16	42
Frontana x Mida K117A	II-50-41	---	00	8	4
Ulka	---	11478	100	100	100
Selkirk	---	13100	00	20	10
Mida	---	12008	24	8	16
Thatcher	---	10003	20	64	42
Thatcher x W38 - Hope	W 242	12484	36	48	42

Lee	---	12488	36	60	48
1953 x Lee	B 52-91	13242	00	00	00
Lee x 1831	B 52-119	13243	16	24	20
Pilot^2 x Thatcher	N 2170	12974	72	40	56
Thatcher x Rescue	B 50-18	13244	00	12	6
R.L. 2563 x Lee	N. D. 1	13157	00	32	16
Do	N. D. 3	13159	44	44	44
Ld 372	---	13165	00	12	6
Ld 364	---	13245	00	36	18
Ld 369	---	13246	00	8	4
Ld 370	---	13247	00	00	00
R. L. 3206	---	13141	36	56	41
R. L. 3207	---	13142	16	8	12
Sentry	Ld 356	13102	44	24	34
Stew art	---	12006	32	4	18

HARD SPRING WHEAT CROSSES - 1955			
Cross No.	Female		Male
1	ND 25	x	ND 15
2	ND 25	x	ND 31

3	ND 25	x	ND 33
4	ND 25	x	ND 3
5	ND 25	x	ND 3
6	ND 25	x	ND 33
7	ND 21	x	ND 3
8	ND 4	x	ND 31
9	ND 15	x	ND 3
10	ND 15	x	ND 1
11	ND 4	x	ND 3
12	ND 4	x	ND 33
13	ND 18	x	ND 33
14	ND 25	x	ND 31
15	ND 25	x	ND15
16	ND18	x	ND 31

Back to 1955 Research Reports Table of Contents
Back to Research Reports
Back to Dickinson Research Extension Center (http://www.ag.ndsu.nodak.edu/dickinso/)
Email: drec@ndsuext.nodak.edu