

HRSW ND808 for release

M. Mergoum et al., 2011

Adaptation:

- Adapted to the Eastern ND and Western MN same as Faller
- **Overall, Very high grain yield** (similar to Faller) with improved yield potential under normal weather conditions.
- Semi dwarf-Conventional height; medium early (similar to Steele-ND and Barlow)
- Medium to good straw strength similar or slightly better than Faller

Quality:

- Protein: Average similar or slightly better than Faller
- Milling: Excellent with very high flour extraction
- Baking: Good baking properties similar to Faller
- Test weight: Average similar to Faller

Diseases resistance:

- Overall good leaf diseases package better than Faller: Resistant/Medium resistant to leaf and stem rusts; resistant to septoria and medium resistant to bacterial leaf streak.
- Medium resistant to scab similar to Alsen and Faller

ND808 is intended to provide growers in Eastern ND and Western MN in the future a good alternative (such as Faller) to high yielding cultivars with relatively low quality.

Table 1

Performance of HRSW ND808 and checks Statewide during the 2006-08 period (up 80 Sites)

Variety	DH	HT	18 0-9	Lodge	4 %	9 %	38 grams	80 lbs/ibu	80 bu/ac	78 %	1 seeds/ft ²
	51	75 inches	0-9		Tbstone	Leaf Dis	KWT	TW	Yield	Protein	Shatter
Alsen	59	31.1	1.1	1.1	8.0	19.1	28.5	59.9	49.8	15.4	40
Briggs	57	31.5	1.9	1.9	8.5	23.6	29.7	59.8	53.5	15.2	0
Dapps	59	35.4	1.7	1.7	16.7	20.9	28.8	58.3	50.8	16.3	14
Faller	61	30.8	1.1	1.1	8.4	9.1	30.0	58.4	56.3	14.7	0
Fryer	59	31.5	1.3	1.3	7.5	13.8	28.3	59.3	52.5	14.8	58
Glenn	57	33.1	1.2	1.2	7.5	21.0	28.9	61.9	52.1	15.4	2
Granger	59	33.3	1.7	1.7	16.7	18.5	33.2	59.6	52.9	14.9	96
Granite	62	29.9	0.3	0.3	3.3	16.7	26.5	60.6	52.1	16.2	26
Howard	59	32.1	1.3	1.3	9.5	15.9	28.9	59.8	54.4	14.9	0
Kelby	58	27.8	1.2	1.2	7.7	27.1	28.2	60.1	52.2	15.4	6
Knudson	60	29.5	1.0	1.0	8.5	11.2	30.4	59.7	54.1	14.8	14
ND808	62	32.4	1.2	1.2	0.2	22.6	29.9	58.6	59.9	14.8	4
Barlow	58	32.7	1.5	1.5	16.2	24.2	28.6	60.2	54.3	15.2	8
Parshall	60	35.3	0.9	0.9	2.5	24.5	27.6	59.8	53.0	15.2	2
Reeder	60	31.6	1.2	1.2	4.8	25.0	28.6	59.0	53.0	15.0	2
Rush	58	30.6	0.4	0.4	0.5	33.3	28.4	60.9	52.3	15.6	52
Steele-NI	59	32.2	1.6	1.6	9.4	18.0	29.0	59.7	53.7	15.2	8
Traverse	58	33.2	1.3	1.3	7.8	26.2	28.1	57.5	57.7	14.3	102

Table 2

Performance of HRSW ND808 and checks during the 2006-08 period across the Eastern region of ND (up 30 Sites)
 Sites reported: >

Variety	DH	HT	inches	0-9	Lodge	Tbstone	%	Leaf Dis	%	KWT	grams	TW	lbs/bu	Yield	bu/ac	Protein	%	seeds/ft ²	Shatter
Alsen	57	33.5	1.5	8.0	24.7	31.6	60.9	61.2	15.0	40									
Briggs	56	33.2	2.3	8.5	31.3	34.4	60.7	65.6	14.9	0									
Dapps	58	37.5	1.8	16.7	28.9	33.3	59.9	61.3	15.9	14									
Faller	59	33.4	1.5	8.4	12.1	34.7	60.4	74.1	14.2	0									
Flyer	58	33.6	1.7	7.5	19.2	31.0	60.0	64.2	14.5	58									
Glenn	56	35.5	1.1	7.5	24.9	32.3	63.0	64.7	15.2	2									
Granger	58	35.9	2.1	16.7	25.2	37.8	60.7	65.2	14.5	96									
Granite	62	32.3	0.2	3.3	25.0	30.0	61.7	64.9	15.5	26									
Howard	58	34.7	1.7	9.5	17.3	32.6	61.4	68.7	14.6	0									
Kelby	56	29.4	1.3	7.7	34.1	32.1	60.7	63.7	15.0	6									
Knudson	59	31.9	1.4	8.5	14.3	32.8	60.4	67.4	14.2	14									
ND808	60	34.7	1.6	0.2	22.6	34.2	60.5	76.3	14.3	4									
Barlow	57	34.6	1.8	16.2	24.2	32.2	61.3	66.9	14.9	8									
Parshall	59	38.1	0.8	2.5	34.3	31.4	61.2	64.8	14.7	2									
Reeder	59	35.0	1.5	4.8	35.9	31.3	59.8	64.5	14.5	2									
Rush	57	32.7	0.5	0.5	34.9	31.6	61.3	65.8	15.0	52									
Steele-ND	58	34.6	2.0	9.4	23.0	32.5	61.1	66.6	14.9	8									
Traverse	56	35.1	1.7	7.8	27.7	32.3	58.8	71.8	13.9	102									
Trooper	57	29.8	0.8	2.0	33.6	34.7	61.3	67.6	13.9	0									

Table 3

Performance of HRSW ND808 and checks Statewide during the 2009-10 period (> 30 Sites)

Sites reported: >		33	38	10	1	8	20	38	38	38	38
Variety	Occur	DH	HT	Lodge	Tbstone	Leaf Dis	KWT	TW	Yield	Protein	
Alsen	25	59.4	32.0	0.9	0.5	7.9	33.4	60.9	61.5	15.0	
Barlow	38	58.1	34.0	1.5	1.3	5.7	34.0	61.4	67.7	14.4	
Dapps	13	57.8	36.5	1.8	0.3	7.8	34.1	60.1	63.2	15.6	
Faller	38	61.0	33.3	1.9	0.0	8.9	35.8	59.8	71.7	13.7	
Glenn	38	57.7	34.8	1.4	0.0	11.7	33.6	63.0	63.3	14.7	
Howard	38	59.5	33.7	2.3	0.8	8.5	34.3	61.1	67.4	14.2	
ND 808	38	61.3	33.1	1.9	0.3	5.1	36.3	60.0	71.1	13.8	
Parshall	12	58.2	35.9	2.5		5.7	31.7	61.7	60.0	14.9	
Reeder	26	61.1	32.0	0.4	1.8	7.1	33.7	60.7	62.8	14.5	
Steele-ND	38	59.1	33.8	2.3	1.3	11.2	34.6	61.2	65.1	14.5	

Table 4

Performance of HRSW ND808 and checks in Eastern ND during the 2009-10 period (> 13 Sites)

Sites reported: >		13	13	4	1	5	13	13	13
Variety	Occur	DH	HT	Lodge	Tbstone	Leaf Dis	TW	Yield	Protein
Barlow	13	56.3	36.7	1.6	1.3	6.6	60.6	76.0	14.2
Dapps	6	55.8	39.7	1.1	0.3	11.6	59.1	68.9	15.2
Faller	13	58.8	36.7	2.7	0.0	11.6	59.4	83.2	13.4
Glenn	13	55.6	38.0	1.7	0.0	16.3	62.4	70.4	14.3
Howard	13	57.7	37.1	3.3	0.8	9.9	60.2	77.0	13.9
Mott	6	58.5	37.6	0.3	0.8	8.2	60.0	71.5	14.1
ND 808	13	59.4	36.2	2.8	0.3	5.7	59.5	82.9	13.5
Parshall	5	53.9	39.0			5.0	61.0	68.9	14.2
Reeder	6	56.1	35.0	0.8	1.8	11.8	59.1	71.7	14.4
Steele-ND	13	57.2	36.9	2.7	1.3	14.4	60.2	73.4	14.2

Table 5

Performance of HRSW ND808 and checks Statewide during the 2006-10 period (>98 Sites)

Variety	DH	HT	Lodge	Tbstone	Leaf Dis	KWT	TW	Yield	Protein	Shatter
Alsen	59.8	31.9	1.3	0.3	8.4	30.5	60.2	56.5	15.2	40.0
Barlow	58.4	33.6	1.5	1.8	6.1	31.6	60.8	63.0	14.8	8.0
Dapps	58.2	35.8	1.9	1.2	7.7	29.7	58.9	57.3	16.1	14.0
Faller	61.3	32.5	1.6	0.1	8.0	32.9	58.9	65.6	14.1	0.0
Glenn	57.9	34.3	1.3	0.1	10.5	31.5	62.3	59.6	15.0	2.0
Howard	59.7	33.3	2.0	1.4	8.3	31.7	60.4	62.7	14.5	0.0
ND 808	61.6	32.7	1.6	0.2	5.3	33.5	59.2	65.7	14.2	4.0
Parshall	59.4	35.3	1.1	1.5	8.4	27.3	60.2	54.1	15.2	2.0
Reeder	60.9	32.0	0.8	2.5	8.4	30.9	59.6	57.6	14.9	2.0
Steele-ND	59.5	33.5	2.2	1.5	10.0	32.2	60.4	61.2	14.8	8.0

Table 6

Performance of HRSW ND808 and checks in Eastern ND during the 2006-10 period (>38 Sites)

Sites reported: >		22	22	7	3	6	22	22	22	20	1
Variety	Occur	DH	HT	Lodge	Tbstone	Leaf Dis	TW	Yield	Protein	Shatter	
Alsen	15	57.2	34.1	0.9	0.3	9.0	60.4	64.3	14.7	40.0	
Barlow	22	56.3	35.9	1.7	1.8	5.7	60.9	73.5	14.4	8.0	
Dapps	15	56.9	38.2	1.9	1.2	8.2	59.5	66.5	15.5	14.0	
Faller	22	59.0	35.2	2.5	0.1	9.8	59.7	79.0	13.6	0.0	
Glenn	22	55.7	37.0	1.3	0.1	13.9	62.6	68.9	14.5	2.0	
Howard	22	57.8	36.1	2.8	1.4	8.5	60.8	74.8	14.0	0.0	
ND 808	22	59.6	35.2	2.3	0.2	5.0	59.9	80.2	13.7	4.0	
Parshall	14	56.4	38.1	0.6	1.5	5.5	61.2	66.1	14.4	2.0	
Reeder	15	57.4	34.5	1.2	2.5	9.5	59.6	66.7	14.4	2.0	
Steele-ND	22	57.5	36.1	2.4	1.5	12.2	60.6	71.5	14.4	8.0	

Table: 8

Performance of ND808 HRSW in Spring Wheat Uniform Regional Nursery
2-Year Means Summary, 2009-2010 (28 location-year).

Line	Yield Bu/Ac	Test Wt. Lb/Bu	Heading d from 6-1	Height cm	Lodging 0-9	Protein %
ND808	71.0	59.9	30.5	86.8	1.0	14.2
Verde	63.8	59.4	28.8	82.6	0.7	14.0
2375	62.2	60.0	26.9	85.3	2.2	14.0
Rollag (MN05214-3)	61.5	61.0	27.2	78.8	0.8	14.8
Keene	59.3	60.3	27.5	98.3	2.1	14.3
Chris	46.2	58.5	29.5	102.2	5.1	15.0
Marquis	45.4	58.9	30.3	104.5	3.9	14.4
Mean	62.3	59.7	27.5	87.3	1.5	14.5

Table 15a

Quality traits of ND808 and common hard red spring wheat varieties grown in ND in 2005-2010 (35 locations).

Variety	Ck	Wheat		Flour		Wet		Flour		Peak		Mix		Farino		Bake		Mix		Dough		Loaf		Crumb		
		no	%	prot	%	Ext	Gluten	ash	%	min	tol	BU	1-8	abs	time	min	hand	vol	GT	color	1-10	1-10	1-10	1-10	1-10	1-10
ND808		71	414	14.2	13.3	70.9	35.4	0.53	8.3	14.5	30	5.3	64.4	3.02	10	1000	8.6	9.1	9.9	9.0						
Alsén	x	81	414	15.2	14.3	68.8	37.2	0.55	10.1	17.0	27	6.0	65.3	3.21	10	1018	8.3	8.2	10.0	9.0						
Faller	x	69	411	14.1	13.3	71.2	35.1	0.53	9.3	15.7	29	5.6	63.9	3.21	10	1014	8.6	9.3	10.0	8.9						
Glenn	x	88	394	15.2	14.3	68.0	36.9	0.51	10.0	20.4	25	6.5	65.3	3.54	10	1056	8.3	8.7	9.9	8.9						
Howard	x	75	422	14.8	14.0	69.6	37.7	0.51	8.2	15.0	31	5.5	66.1	3.17	10	1006	8.5	8.3	10.0	9.4						
Reeder	x	77	430	14.9	13.9	68.4	38.7	0.50	6.9	12.1	32	5.2	64.3	2.62	10	979	8.4	7.8	10.0	9.3						
Steele-ND	x	73	432	15.1	14.2	69.2	38.4	0.51	8.1	14.1	32	5.4	66.4	3.18	10	1015	8.5	8.2	10.0	9.3						
Avg of Checks		77	417	14.9	14.0	69.2	37.3	0.52	8.8	15.7	29	5.7	65.2	3.16	10	1015	8.4	8.4	10.0	9.1						

Number of locations/years = 35

Quality traits of ND808 and common hard red spring wheat varieties grown in ND in 2005-2008 (28 locations)

Variety	Ck	Wheat		Flour		Wet		Flour		Peak		Mix		Farino		Bake		Mix		Dough		Loaf		Crumb	
		no	%	prot	%	Ext	Gluten	ash	%	min	tol	BU	1-8	abs	time	min	hand	vol	GT	color	1-10	1-10	1-10	1-10	1-10
ND808		73	426	14.5	13.6	71.0	35.6	0.53	8.0	16.7	26	5.7	64.2	3.11	10	1017	8.6	8.9	9.9	9.2					
Alsén	x	81	431	15.5	14.4	68.7	37.5	0.54	10.4	18.8	23	6.5	64.9	3.25	10	1019	8.3	8.3	10.0	9.3					
Faller	x	70	423	14.4	13.6	71.3	35.2	0.53	9.5	18.2	26	6.1	63.8	3.30	10	1026	8.6	9.2	9.9	9.2					
Glenn	x	85	411	15.4	14.4	68.0	37.1	0.51	9.9	23.1	20	7.0	65.1	3.52	10	1062	8.4	8.7	10.0	9.3					
Howard	x	75	437	15.1	14.2	70.0	38.0	0.51	7.6	16.2	28	5.9	66.3	3.21	10	1008	8.6	8.2	10.0	9.5					
Reeder	x	78	442	15.1	14.0	68.4	38.7	0.50	7.3	13.9	29	5.6	64.1	2.63	10	990	8.4	7.8	10.0	9.5					
Steele-ND	x	74	452	15.3	14.4	69.3	38.7	0.51	7.5	15.0	28	5.8	66.4	3.24	10	1010	8.5	8.3	9.9	9.3					
Avg of Checks		77	433	15.1	14.2	69.3	37.5	0.52	8.7	17.5	26	6.1	65.1	3.19	10	1019	8.5	8.4	10.0	9.3					

Number of locations/years = 28

Table 16a

Quality traits of ND808 and common hard red spring wheat varieties grown in Eastern ND in 2005-2010 (18 locations).

Variety	Ck	Vit	Fall	Wheat		Flour	Wet	Flour Peak		Mix	Farino Bake		Mix	Dough		Loaf	CrumbCrust			
				no	sec			prot	%		Ext	Gluten		ash	time		min	BU	class	abs
	lb/bu	%		%	prot	%	%	min	min	tol	1-8	%	min	1-10	cc	1-10	1-10	1-10		
ND808	59.9	59	413	13.3	12.3	71.2	32.5	0.56	5.3	10.0	36	4.4	64.1	2.93	10	952	8.5	9.1	9.9	8.8
Alsen	x	60.4	73	14.4	13.5	69.3	34.6	0.57	7.5	13.0	32	5.6	64.9	3.18	10	993	8.3	8.1	9.9	8.9
Faller	x	59.6	55	412	13.2	12.4	71.7	0.54	6.2	11.4	36	4.8	63.6	3.26	10	958	8.6	9.2	9.9	8.6
Glenn	x	63.0	82	400	14.6	13.6	67.9	0.53	7.8	16.8	29	5.9	65.6	3.71	10	1023	8.3	8.7	10.0	9.0
Howard	x	60.9	58	410	14.0	13.1	70.1	0.53	6.4	11.1	37	4.9	65.6	3.22	10	966	8.3	8.3	10.0	9.2
Reeder	x	59.5	69	418	14.0	12.9	68.9	0.51	5.8	9.2	40	4.4	63.4	2.69	9	961	8.4	7.8	9.9	9.3
Steele-ND	x	60.6	56	426	14.3	13.3	69.5	0.52	5.9	10.0	36	4.7	66.0	3.13	10	994	8.3	8.0	10.0	9.2
Avg of Checks		60.7	65	412	14.1	13.1	69.6	0.53	6.6	11.9	35	5.1	64.8	3.20	10	983	8.4	8.4	10.0	9.0

Number of locations/years = 18

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Quality traits of ND808 and common hard red spring wheat varieties grown in Eastern ND in 2005-2008 (12 locations).

Variety	Ck	Vit	Fall	Wheat		Flour	Wet	Flour Peak		Mix	Farino Bake		Mix	Dough		Loaf	CrumbCrust			
				no	sec			prot	%		Ext	Gluten		ash	time		min	BU	class	abs
	lb/bu	%		%	prot	%	%	min	min	tol	1-8	%	min	1-10	cc	1-10	1-10	1-10		
ND808	59.7	56	427	13.4	12.5	71.4	32.4	0.55	5.3	11.1	33	4.8	64.0	3.06	10	963	8.5	9.0	10.0	9.0
Alsen	x	60.5	68	424	14.5	13.4	69.4	0.55	8.0	14.6	28	6.1	64.7	3.17	10	978	8.3	8.3	9.9	9.3
Faller	x	59.6	48	421	13.3	12.4	71.9	0.54	6.5	12.8	33	5.3	63.4	3.33	10	954	8.6	9.2	9.9	8.8
Glenn	x	63.0	75	409	14.6	13.6	67.9	0.52	7.8	19.3	25	6.4	65.4	3.69	10	1018	8.4	8.7	10.0	9.3
Howard	x	60.9	56	420	14.1	13.1	70.8	0.52	6.6	12.2	34	5.2	65.8	3.25	9	955	8.5	8.4	10.0	9.3
Reeder	x	59.2	63	430	14.0	12.9	69.2	0.51	6.1	10.1	38	4.6	63.3	2.67	9	955	8.4	7.8	10.0	9.4
Steele-ND	x	60.8	51	439	14.4	13.3	69.9	0.51	6.0	10.5	34	4.8	66.1	3.19	10	967	8.2	8.1	10.0	9.2
Avg of Checks		60.7	60	424	14.1	13.1	69.9	0.52	6.8	13.2	32	5.4	64.8	3.22	10	971	8.4	8.4	10.0	9.2

Number of locations/years = 12