

North Dakota

Hard Red Winter Wheat

Variety Trial Results for 2006 and Selection Guide

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Table 1. Origin, year of release and agronomic traits of hard red winter wheat varieties, 2006

Variety	Agent or Origin	Year	Quality ¹	Leaf Rust	Stem Rust ²	Scab ³	Maturity	Straw Strength	Height	Winter ⁴ Hardiness
Agassiz	ND	1983	Average	S	R	NA	Med.	Med.	Med.	Good
Alice										
Alliance	NE	1997	Poor	S	NA	NA	Early	Strong	Short	Good
Arapahoe	NE	1989	Poor	MS	MR	NA	Med.	Med	Med.	Fair
CDC Buteo	Can/WB	2004	NA	MS	NA		Med	Med	Med	Good
CDC Falcon	Can/WB	2000	NA	MS	NA		Med.	M. strong	Short	Good
CDC Kestrel	Can.	1994	Poor	S	S	NA	Med.	M. strong	Med.	Good
CDC Raptor	Can.	2002	NA	MS	NA	NA	Med.	M. strong	M. short	Good
Crimson	SD	1997	Good	S	MS	NA	Med.	M. strong	Med.	Fair-Good
Culver	NE	1998	Poor	MS	MR	NA	M. early	M. strong	Med.	Good
Elkhorn	ND	1995	Average	MR	R ⁵	NA	Med.	Med.	Med.	Good
Erhardt	MT	1996	NA	S	R	NA	Med.	Strong	Med.	Good
Expedition	SD	2002	Average	MS	R		Med.	Strong	Med.	Good
Goodstreak	NE	2002	Average	S	MR		M. early	Med	Tall	Fair
Harding	SD	1999	Average	MS	NA		Med.	M. strong	Med.	Good
Harry	NE	2002	Poor	MR	MR	NA	Med.	Strong	Med.	Poor
Jagalene	Agripro	2002	NA	S	MR	VS	Early	Strong	Short	Fair
Jerry	ND	2001	Good	MR	R		Med.	Strong	Med.	Good
McClintock	Can	2003	Average	S	NA	1	Med.	Strong	Med.	Fair
Millenium	NE/SD	1999	Average	MS	MR		Med.	Strong	M. short	Fair
Morgan	WB	1996	NA	S	NA		Med.	M. strong	Med.	Good
Nekota	SD/NE	1997	Good	MS	MR	NA	Early	V. strong	V. short	Good
Norstar	Can.	1977	Average	S	S	NA	Late	Med.	Tall	Good
Nuplains ⁵	NE	2000	Average	S	MS	VS	Med.	M. strong	Short	Fair-Poor
NySky ⁵	MT	2001	Avg-Good	S	NA	NA	Med.	M. strong	Med.	Fair
Paul	MT	2003	Average	S	NA		Med.	Med.	Med.	Fair
Radiant										
Rampart ⁶	MT	1996	NA	S	R	NA	Med.	Strong	Med.	Poor
Ransom	ND	1998	Good	MR	NA		M. early	Med.	Med.	Good
Rose	SD	1981	Poor	S	MS	NA	Early	V. strong	Short	Fair
Roughrider	ND	1975	Good	S	R		Med.	M. strong	Med.	Good
Seward	ND	1987	Poor	S	R	NA	Med.	M. strong	Med.	Good
Tandem	SD	1997	Good	S	NA	NA	Early	Med.	Med.	Fair
Wahoo	NE/WY	2001	Poor	S	R		Med.	M. strong	Med.	Fair
Wendy ⁵	SD	2004	NA	MS	MR	VS	M. early	M. strong	Short	Fair-Good
Wesley	NE/SD/WY	2000	Average	MS	R	VS	M. early	M. strong	Short	Fair
Windstar	NE	1997	Average	MS	NA	NA	Early	Med.	Med.	Fair-Good
Yellowstone	MT	2005	NA	NA	S		Med	Med	Med	Good

¹NA = data not available, or data insufficient to give rating

²R = resistant; MR = moderately resistant; MS = moderately susceptible; S = susceptible

³Based on data collected in 2005 from several locations.

⁴Varieties with less than good winter hardiness should be seeded only in tall stubble.

⁵White wheat

⁶Saw fly resistant

Table 2. Yield of winter wheat varieties grown at four locations in Western North Dakota in 2006, with three year averages.

Variety	Williston		Hettinger		Minot		Mandan		Average	
	2006	3 Yr. Avg.	2006	3 Yr. Avg.	2006	3 Yr. Avg.	2006	3 Yr. Avg.	2006	3 Yr. Avg.
-----Bu/A-----										
Alice	18.9	--	14.7	--	51.8	--	43.5	--	32.2	--
CDC Buteo	31.7	--	36.9	--	78.7	--	38.3	--	46.4	--
CDC Falcon	28.3	51.1	8.7	39.0	69.3	68.3	37.4	34.1	35.9	48.1
Expedition	28.6	47.8	19.4	39.4	55.1	60.7	36.9	38.1	35.0	46.5
Goodstreak	24.3	--	17.8	--	70.0	--	34.5	--	36.6	--
Harding	27.9	50.3	27.0	52.9	70.0	73.4	36.5	47.3	40.3	56.0
Jagalene	30.0	49.2	20.9	41.5	68.3	64.2	42.0	--	40.3	--
Jerry	31.6	53.3	24.8	53.4	79.1	77.0	39.1	46.5	43.7	57.6
McClintock	31.4	52.1	8.9	42.0	72.0	68.3	35.7	--	37.0	--
Millennium	33.3	51.3	8.7	43.7	68.4	73.4	36.9	44.0	36.8	53.1
Paul	29.5	50.8	22.4	--	76.6	--	41.5	--	42.5	--
Radiant	27.6	--	41.7	--	70.7	--	36.5	--	44.1	--
Ransom	27.7	50.3	30.4	47.2	66.7	67.9	30.9	38.1	38.9	50.9
Roughrider	31.2	47.3	28.3	46.4	65.3	65.1	37.2	39.2	40.5	49.5
Wendy	32.1	52.8	18.9	--	51.4	58.9	39.5	--	35.5	--
Wesley	30.4	48.3	19.1	44.0	55.0	58.7	41.1	34.5	36.4	46.4
Yellowstone	35.4	--	20.4	48.5	94.2	--	34.5	--	46.1	--
Mean	29.4	50.5	21.7	45.3	68.4	66.9	37.7	40.2	36.7	51.0

Table 3. Yield of winter wheat varieties grown at four locations in Eastern North Dakota in 2006, with three year averages.

Variety	Carrington		Langdon		Prosper*		Lisbon		Average	
	2006	3Yr.Avg.	2006	3Yr.Avg.	2006	3Yr. Avg.	2006	3Yr. Avg.	2006	3Yr.Avg.
-----Bu/A-----										
Alice	48.6	--	75.5	--	110.3	--	68.5	--	75.7	--
CDC Buteo	46.5	--	76.2	--	112.4	--	89.0	--	81.0	--
CDC Falcon	47.2	66.8	75.3	61.1	101.2	97.3	76.2	77.7	75.0	75.7
Expedition	48.0	64.7	81.4	70.7	116.6	87.6	82.2	66.3	82.1	72.3
Goodstreak	44.1	67.7	65.4	--	110.1	--	82.4	--	75.5	--
Harding	47.5	69.0	64.1	61.2	113.1	100.9	84.1	78.9	77.2	77.5
Jagalene	53.9	61.8	67.0	54.4	102.4	76.7	75.4	69.9	55.8	65.7
Jerry	55.6	73.2	71.0	65.1	105.9	99.9	85.2	74.8	79.4	78.3
McClintock	48.1	60.1	78.4	58.0	97.1	77.3	81.7	71.5	76.3	66.7
Millennium	49.7	74.2	74.2	65.5	112.6	89.3	85.8	73.7	80.6	75.7
Paul	55.4	--	50.2	--	89.3	--	86.4	--	70.3	--
Radiant	41.1	--	64.9	--	94.7	--	85.5	--	71.6	--
Ransom	46.9	69.4	81.7	63.8	100.9	95.2	79.4	73.1	77.2	75.4
Roughrider	49.1	60.8	51.1	47.0	87.8	80.5	72.2	66.1	65.1	63.6
Wendy	44.6	62.7	73.0	60.3	112.4	89.7	70.5	59.8	75.1	68.1
Wesley	43.7	62.8	75.0	64.3	112.0	78.0	89.8	71.5	80.1	69.2
Yellowstone	45.1	55.5	50.7	41.1	111.9	--	74.1	--	70.5	--
Mean	48.0	65.3	70.0	59.4	105.3	88.4	80.5	71.2	74.6	71.7

*3 Yr Avg. for Prosper includes 2004 data from Casselton.

Table 4. Test weight of winter wheat varieties grown at eight locations in North Dakota, 2006.

Variety	Williston	Hettinger	Minot	Mandan	Carrington	Langdon	Prosper	Lisbon	Average
	------(lb/bu)-----								
Alice	62.1	59.6	60.3	57.6	62.1	59.2	57.0	59.8	59.7
CDC Buteo	62.9	60.0	62.5	58.3	62.1	61.0	59.4	60.3	60.8
CDC Falcon	60.4	56.8	61.2	55.0	60.8	59.2	56.2	56.4	58.3
Expedition	62.3	59.4	58.4	58.8	62.3	61.3	58.3	59.8	60.1
Goodstreak	60.4	57.6	59.4	55.2	60.0	53.8	55.1	56.0	57.2
Harding	60.2	56.8	60.9	56.6	59.3	58.9	58.3	58.5	58.7
Jagalene	63.8	60.2	61.9	58.6	63.3	58.9	55.4	59.2	60.2
Jerry	60.1	58.4	61.3	55.4	60.6	59.3	57.1	58.9	58.9
McClintock	61.9	56.7	62.1	57.4	60.4	62.0	58.0	59.8	59.8
Millennium	62.6	56.8	61.6	57.3	61.8	60.3	58.0	59.4	59.7
Paul	59.7	55.8	60.5	54.1	60.4	55.7	55.6	55.4	57.2
Radiant	59.2	57.3	61.0	55.8	59.7	56.6	56.3	56.4	57.8
Ransom	59.3	56.2	59.9	54.4	58.7	60.5	57.4	57.9	58.0
Roughrider	61.2	58.8	61.0	58.1	61.6	59.9	59.2	58.9	59.8
Wendy	62.8	58.8	60.0	58.5	62.5	60.3	57.2	60.0	60.0
Wesley	61.6	58.7	60.1	56.7	61.0	59.4	56.7	59.2	59.2
Yellowstone	60.8	56.4	61.0	55.6	56.2	53.7	56.2	55.7	57.0
Mean	61.3	57.9	60.8	56.7	60.7	58.8	57.1	58.3	59.0

Table 5. Grain protein content of winter wheat varieties grown at eight locations in North Dakota, 2006.

Variety	Williston	Hettinger	Minot	Mandan	Carrington	Langdon	Prosper	Lisbon	Average
	------(%)-----								
Alice		14.0	15.5	12.2	13.2	11.5			
CDC Buteo		13.9	15.2	13.1	13.3	10.7			
CDC Falcon		13.8	15.0	14.1	12.8	10.8			
Expedition		13.6	14.1	12.6	13.3	11.2			
Goodstreak		13.3	15.2	12.1	12.9	9.5			
Harding		14.5	15.2	13.3	13.7	11.5			
Jagalene		14.2	14.0	12.6	13.4	11.0			
Jerry		13.9	14.8	14.5	13.9	11.1			
McClintock		14.4	14.6	14.3	13.4	11.8			
Millennium		14.4	14.4	12.5	13.8	10.4			
Paul		14.9	13.9	13.4	14.2	11.5			
Radiant		14.1	13.5	14.4	13.6	11.1			
Ransom		13.9	14.0	13.2	12.9	11.9			
Roughrider		14.7	15.8	13.9	14.0	12.4			
Wendy		14.2	15.4	12.7	13.6	11.5			
Wesley		15.1	16.1	13.8	13.7	12.3			
Yellowstone		14.0	13.5	14.0	13.0	11.4			
Mean		14.2	14.7	12.6	13.5	11.3			