



Hard Red Winter Wheat

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Varietal Trials Results, January 2006



Winter wheat varieties are compared in trial plots at Crookston, Fosston, Lamberton, Morris, Roseau and St. Paul. The St. Paul plots suffered too much winterkill in 2005 to provide meaningful yield comparisons.

Wheat varieties are grown in replicated plots at each location. These plots are handled so that the factors

affecting yield and other characteristics are as nearly the same for all varieties at each location as is possible. These winter wheat trials are not designed for crop (species) comparisons, because the various crops are grown on different fields or with different management. The data should be used only to compare varieties within a table. Varieties are listed in order of heading.

Variety Selection Criteria

The success of a winter wheat variety depends largely on its ability to survive Minnesota winters. Research on the Canadian plains has shown that planting winter wheat in standing canola stubble using no-till methods can decrease winterkill considerably. Trapped snow provides additional protection that increases the odds that the young seedlings will survive.

While all winter wheat varieties should be considered susceptible to very susceptible to FHB, they head

earlier than spring wheat varieties and have a better chance of escaping FHB damage.

Most winter wheat varieties are also susceptible to very susceptible to the leaf diseases other than the rusts. Use of fungicides to control these diseases and/or suppress FHB may be warranted.

Wendy, Jagalene and Infinity CL were added to this trial for the 2005 crop year. Wendy is a white-seeded winter wheat released in 2004 by South Dakota State University. Jagalene was released by AgriPro in 2002. Infinity CL was released by the University of Nebraska in 2005 and may be used as a component of the BASF Clearfield® Production System with Beyond® herbicide.

Variety descriptions published in previous editions have been discontinued because all of the information they contained is now included in the tables.

Hard Red Winter Wheat Planting Rate and Date

Bushel Weight (Pounds)	60
Seeds/Pound	14,500
Pounds Rate/Acre	75+
Seeds/Square Foot	25
Planting Date	Aug. 20 – Sept. 20

Growth characteristics of winter wheat varieties.

Variety	Origin ¹	PVP Status ²	Heading,	Height, Inches ⁴	Winter- hardi- ness ⁵	Lodging Rating	Test Weight, Lb./Bu.	
			Days From Jan. 1 ³				2005	2-Year
Wendy	2004 SDSU	PVP (94)	169	30.7	—	M Strg	58.6	—
Nekota	1994 NE/SDSU	none	171	32.2	M	Med.	58.9	58.1
Expedition	2002 SDSU	PVP (94)	172	33.4	M	Med.	59.3	58.4
Arapahoe	1988 NE	PVP (94)	173	34.3	M	M Strg	60.1	58.4
Infinity CL	2005 NE	PVP (pending)	173	35.3	—	—	60.5	—
Jagalene	2002 AgriPro	PVP (94)	173	31.2	—	—	54.1	—
Millenium	1999 NE	PVP (94)	174	37.1	M	Strong	60.3	59.8
Seward	1987 NDSU	none	175	37.5	MH	Med.	60.1	59.6
CDC Buteo	2001 CAN	none	176	36.1	MH	Strong	60.6	60.5
Ransom	1998 NDSU	PVP (94)	176	37.5	MH	Med.	58.8	58.8
CDC Falcon	1998 CAN	PVP (94)	176	32.4	MH	Strong	57.0	58.0
Roughrider	1975 NDSU	none	176	38.5	VH	Med.	59.4	59.1
Jerry	2001 NDSU	none	177	39.1	MH	M Strg	59.4	58.9
CDC Raptor	1999 CAN	none	177	33.2	MH	Strong	56.2	55.8
Mean			174	34.9			58.8	58.7

¹ Abbreviations: CAN = Crop Development Centre, Saskatoon, Canada; NDSU = North Dakota State University; NE = Nebraska Agricultural Experiment Station; SDSU = South Dakota Agricultural Experiment Station.

² PVP = plant variety protection. When the letters are followed by (94), seed of that variety may not be sold by a grower to anyone without express permission of the variety's developer/owner. If the PVP designation is followed by (pnd) consider that the variety has PVP (94) protection.

³ 2004 and 2005 data.

⁴ 2005 data.

⁵ Winterhardness rating is a relative ranking that includes data from MN, ND, NE and SD: VH = very high, H = high, MH = moderately high, M = moderate.

⁶ R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible.

**Growth characteristics of winter wheat varieties
(continued).**

Variety	Protein % At 12% Moisture		Rust Resistance ⁶	
	2005	2-Year	Leaf	Stem
Wendy	12.8	—	—	—
Nekota	12.1	12.4	S	—
Expedition	12.2	12.6	S	R
Arapahoe	12.8	13.1	MR	MR
Infinity CL	12.3	—	MR	—
Jagalene	13.0	—	S	MR
Millenium	12.9	13.0	MR	R
Seward	12.0	12.0	S	MR
CDC Buteo	12.1	12.3	MS	—
Ransom	12.8	12.8	MR	MR
CDC Falcon	12.7	12.6	MS	R
Roughrider	13.2	13.2	S	R
Jerry	13.1	13.1	MR	R
CDC Raptor	12.3	12.3	MS	—
Mean	12.6	12.7		

⁶ R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible.

Yield (percent of the mean) of winter wheat varieties.

Variety	Crookston		Fosston	Lamberton			Morris		
	2005	2-Year	2005	2005	2-Year	3-Year	2005	2-Year	3-Year
Wendy	105	—	95	43	—	—	107	—	—
Nekota	109	97	100	77	61	—	79	— ¹	—
Expedition	91	94	110	59	54	—	73	— ¹	—
Arapahoe	134	125	123	156	115	113	112	101	104
Infinity CL	131	—	114	160	—	—	124	—	—
Jagalene	88	—	87	58	—	—	62	—	—
Millenium	123	114	121	145	127	122	146	125	122
Seward	104	106	94	99	107	107	112	101	89
CDC Buteo	94	104	98	76	96	—	80	95	—
Ransom	105	102	101	134	128	122	119	117	104
CDC Falcon	111	107	108	118	120	—	108	95	—
Roughrider	85	86	86	79	89	85	90	100	87
Jerry	126	121	108	161	139	134	136	112	110
CDC Raptor	92	94	84	80	92	—	86	92	—
Mean (Bu/A)	60.3	91.8	69.3	27.9	40.8	46.4	34.2	42.8	46.7
LSD	18.0	16.6	12.0	22.0	48.7	31	22.0	41.1	35.2

¹ Nekota and Expedition headed 5 to 7 days earlier than other varieties at Morris in 2004 and suffered severe damage from leaf rust and broken straw. Because yield was less than 15% of the mean, these data are not included here.

Yield (percent of the mean) of winter wheat varieties (continued).

Variety	Roseau		State		
	2005	2-Year	2005	2-Year	3-Year
Wendy	102	—	91	—	—
Nekota	115	100	96	— ¹	—
Expedition	108	95	88	— ¹	—
Arapahoe	112	97	127	109	109
Infinity CL	113	—	129	—	—
Jagalene	84	—	76	—	—
Millenium	113	113	130	119	117
Seward	99	109	102	105	100
CDC Buteo	96	105	89	101	—
Ransom	97	103	111	111	106
CDC Falcon	114	118	112	110	—
Roughrider	79	85	83	90	84
Jerry	107	109	128	118	116
CDC Raptor	75	86	83	91	—
Mean (Bu/A)	57.8	75.9	49.9	64.3	65.5
LSD	13.2	35.6	12.9	12.8	14.5

¹ Nekota and Expedition headed 5 to 7 days earlier than other varieties at Morris in 2004 and suffered severe damage from leaf rust and broken straw. Because yield was less than 15% of the mean, these data are not included here.