

Recommended Winter Wheat Varieties

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2015 Recommended Varieties: Hard Winter Wheat for Montana by District							
Variety	Origin (Release year)	Districts					
		1	2	3	4	5	6
		Northwest	Southwest	Southeast	Central	North Central	Northeast
Bearpaw^{1/}	Montana (2011)			D	D	D	
Broadview	Alberta/Meridian Seeds (2009)					D	D
Carter	WestBred (2006)		D	D	D	D	D
CDC Falcon	Saskatchewan/WestBred (1999)		DI	DI	DI	DI	DI
Colter	Montana (2013)		D	D	D	D	
Decade	Montana/North Dakota (2010)			D	D	D	D
Jerry	North Dakota (2001)						D
Judee^{1/}	Montana (2011)			D	D	D	
Ledger	WestBred (2004)		D		D	D	
Northern	Montana (2015)		D	D	D	D	
SY Wolf	Syngenta (2010)		D	D	D	D	
Warhorse^{1/}	Montana (2015)			D	D	D	
WB-Quake	WestBred (2011)	D	D	D	D	D	D
Yellowstone	Montana (2005)	D	D	D	D	D	

D = Dryland

I = Irrigated

1/ = sawfly areas only

Table 1. Yield of Recommended Winter Wheat varieties, 2012-2015^{1/}

Variety	Districts							All Locations
	1 Kalispell	2 Bozeman	3 Huntley ^{2/}	4 Moccasin ^{3/}	5 Conrad ^{4/}	5 Have ^{5/}	6- Sidney & Williston	
location-years	4	4	3	4	4	4	4	27
Colter	132.3**	87.9*	77.8*	54.2*	94.2*	65.2	57.2*	81.4**
Yellowstone	122.4*	91.7*	78.1**	55.8**	98.1*	61.6	60.6**	81.3*
Northern	116.7*	87.6*	76.4*	54.7*	98.5**	63.2	54.2*	78.8*
SY Wolf	104.6	92.0**	77.5*	50.4	95.5*	64.7	42.7	75.3*
Warhorse	112.9	80.6	74.2*	48.9	78.6	57.5	48.2	71.4
CDC Falcon	82.4	75.4	72.3*	51.1	90.7	59.5	55.5*	69.5
WB-Quake	108.1	77.5	67.8	46.0	79.2	55.9	50.9*	69.4
Judee	107.3	79.2	67.9	42.7	83.7	60.8	34.7	68.0
Broadview	67.4	70.6	67.4	49.8	91.2*	63.4	57.9*	66.8
Ledger	93.6	74.3	62.9	44.3	83.2	59.0	42.6	65.8
Decade	58.5	77.2	73.8*	51.5*	88.4	59.7	50.9*	65.4
Jerry	59.7	73.9	64.1	49.6	82.9	54.4	59.3*	63.4
Bearpaw	61.6	73.0	67.5	49.4	81.5	59.4	49.6	63.0
LSD (0.05)	19.2	11.2	8.9	4.5	7.7	ns	10.1	6.2

** = indicates highest value within a column

* = indicates varieties with values equal to highest variety within a column based on Fisher's protected LSD (p=0.05)

1/ = 2012-2015 Intrastate tests; 'Carter' is also on the recommended list, but testing discontinued for 2015

Table 2. Agronomic characteristics of Recommended Hollow-Stemmed Varieties, 2012-2015^{1/}

Variety	Test weight lb/bu	Winter survival %	Heading date		Plant height in	Lodging %	Protein %	Sawfly cutting %	Stripe rust %	Coleoptile length in
			Julian	Calendar						
location-years	27	4	28		28	2	27	3	5	2
Bearpaw	58.2	34	162.0	11-Jun	31.6	12	13.4**	4*	68	3.0
Broadview	58.2	51*	162.8	12-Jun	32.3	10	12.9	7	64	2.8
CDC Falcon	58.8	53*	161.9	11-Jun	30.6	2	12.7	6*	55	2.9
Colter	59.7*	47*	164.2	13-Jun	34.0	2	12.9	11	25*	2.9
Decade	58.5	50*	161.1	10-Jun	32.1	2	13.3*	11	72	3.2
Jerry	57.9	59**	163.5	13-Jun	37.1	8	12.9	9	80	3.2
Judee	59.4*	17	162.5	12-Jun	32.5	15	13.4**	3*	19*	3.8
Ledger	60.1*	29	162.2	11-Jun	31.9	7	12.4	7	56	3.3
Northern	59.4*	39	164.4	13-Jun	32.9	12	13.1*	6*	22*	2.5
SY Wolf	60.3**	25	160.5	10-Jun	31.2	0	12.9	7	23*	3.0
Warhorse	59.3*	37	163.7	13-Jun	31.8	15	13.2*	2**	18**	3.3
WB-Quake	59.6*	35	164.6	14-Jun	32.8	12	13.2*	3*	34*	2.8
Yellowstone	59.4*	43	163.7	13-Jun	34.2	0	12.6	7	33*	2.7
LSD (0.05)	1.0	13	0.6		0.6	ns	0.4	4	18	0.2

^{1/} = 2012-2015 Intrastate tests

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Table 3. Mill and bake characteristics of Recommended Winter Wheat Varieties, 2012-2014

Variety	PPO ^{1/}	Kernel hardness	Flour			Mixograph			Baking		
			yield %	protein %	Ash %	tolerance (1-6)	mix time min	absorption %	mix time min	absorption %	volume cc
location-years	12	12	12	12	12	12	12	12	12	12	12
Bearpaw	0.291	84.3	68.9*	12.0	0.43	3.4	4.2	60.5	6.2	70.5	1039
Broadview	0.386	72.0	67.4	11.9	0.43	2.7	2.8	61.3	3.5	69.8	1052
Colter	0.280	82.2	68.6*	11.8	0.42*	5.1**	9.2	64.8*	17.4	75.8*	1066
Decade	0.307	79.5	68.4*	12.1	0.42*	4.8*	7.7	65.8**	17.4	75.9**	1093
Judee	0.299	81.4	68.0	12.5**	0.42*	4.1	5.2	62.7	8.5	72.6	1183**
Northern	0.110**	88.4	68.9*	12.1	0.45	3.8	4.1	62.3	6.0	72.2	1117
SY Wolf	0.295	80.1	68.8*	11.9	0.41**	2.4	4.2	59.6	6.0	69.6	1018
Warhorse	0.264	94.4	67.9	12.4*	0.44	3.4	4.7	62.6	6.8	72.9	1107
Yellowstone	0.205	82.5	69.0**	11.7	0.43	4.8*	8.5	64.3	15.1	74.8*	1092
LSD (0.05)	0.043	3.3	0.7	0.3	0.01	0.6	0.9	1.4	1.6	1.4	36

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^{1/} polyphenol oxidase, low is best for noodles